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LOWER CHURCHILL PROJECT

BIDDER SELECTION AND PRELIMINARY AWARD RECOMMENDATION

CT0327 - CONSTRUCTION OF 350KV HVDC TRANSMISSION LINE

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Table of Contents

1.0 PURPOSE AND BACKGROUND

The purpose of this report is two-fold:

1. Details the Bidder Selection Process and Evaluation Results undertaken by the Lower Churchill Management Company (LCMC) as part of the Package CT0327 – Construction of 350kV HVdc Transmission Line; and

2. Provides a **Preliminary** Award Recommendation recommending the award of the entire scope to Valard Construction LP, a Quanta Services company.

With the approval of this **Bidder Selection and Preliminary Award Recommendation**, LCMC will progress towards the conclusion of the final negotiations of the formal agreement; including the execution of a Limited Notice to Proceed (LNTP) by mid-April in order to mobilize the early infrastructure (i.e. camps) required to support the clearing works planned for a mid-June 2014 start.

It should be noted that the information from this process has been used to support the confirmation of the contracting strategy and packaging of the entire 1080km of 350 kV HVdc transmission line extending from Muskrat Falls to Soldier's Pond.

2.0 SCOPE OF WORK

At Decision Gate 3 the construction of the 1080 km HVdc line was broken down into two (2) sections and three (3) separate packages, namely:

- Package CT0327 is for the clearing and construction of Section 1 of the HVdc Transmission Line;
- Package CT0345 is for the clearing of Section 2 of the HVdc Transmission Line; and
- Package CT0346 is for the construction of Section 2 of the HVdc Transmission Line.

Note: PCN-0230 subsequently repackaged all the scope of these packages under CT0327. This contract packaging strategy change builds upon lessons learned from the HVac scope, wherein the interface risk for the ROW clearing is transferred to the TL contractor. Further it was clearly identified that separation of the scope leads duplication of access construction effort.

Section 1 consists of approximately 610km of 350kV HVdc transmission line, and is broken into three (3) segments, with a strategy envisioned wherein bidders will be allowed to bid on a single segment or any combination of segments. At the DG3 planning phase it was anticipated that this RFP structure would attract the most interest and competition within the marketplace by allowing participation by companies that are unable to build the entire length of Section 1.

Details of the three (3) segments within Section 1 are as follows:

- Segment 1 – From Muskrat Falls, Labrador to 250 km along the path of the proposed transmission line (i.e. the 250 km point).

- Segment 2 – From the 250 km point to the Straight of Belle Isle, Labrador, approximately 147 km. This Segment also includes an 18 km wood pole electrode line, which starts at the HVdc line near Forteau and ends at L'Anse-au-Diable in Labrador.

- Segment 3 – From the Newfoundland side of the Straight of Belle Isle to the southern end of the Long Range Mountains, approximately 227 km.

The northwest portion of Segment 1 from Muskrat Falls to the 140 km point parallels the Trans-Labrador Highway with some highway crossings. The southeastern part from the 140 km point to the 230 km point has very little access and has major river crossings. As such, clearing and access on Segment 1 will continue while construction starts. There may be an opportunity for the contractor to use the main camp at Muskrat Falls during work in the northern part of this segment.

Segment 2, the eastern Labrador segment from the 239 km point to SOBI near Forteau is approximately 145 km. This segment will require the construction of a significant access road in the ROW and additional bypass roads to reach remote accommodation site(s). Mountains for approximately 40 km may, depending on the contractor's selected work method, require the use of heavy lift helicopters for transporting personnel, equipment and towers setting.

Segment 3, the Long Range Mountains segment, starts at SOBI near Shoal Cove and is 227 km in length. The route will be subject to coastal weather conditions, large areas of bog, rolling hills of rocky terrain, and is dotted by various small communities. Roads and trails frequently intersect the route but access to individual tower sites will vary considerably. Helicopter clearing and construction is also expected in certain areas of this segment.

Slow progress can be expected in these three segments, due to the terrain, remoteness and the lack of access with schedule time allocated for the construction of major access. A sufficient time period for construction is being provided for this package and in case of a schedule issue we can count on an extra winter before the commissioning of the entire HVdc line.

Access will be the major difficulty faced by the Contractors resulting in a non-linear clearing and construction progress. Many areas will require frozen conditions for travel over wet areas and to reduce/minimize environmental impacts. As early as possible, it will be important to recognize individual problem areas and develop specific solutions such as road- work, bridges, ice bridges and/or the use of helicopters to transport men, equipment and materials.

Details of the two (2) segments within Section 2 are as follows:

- Segment 4 – From southern end of the Long-Range Mountain to Clarenville, approximate length is 291 km.
- Segment 5 – From Clarenville to Soldiers Pond, approximate length is 178 km.

In much of Segment 4, the line route is at some distance from the Trans-Canada Highway (TCH) but the area has seen considerable logging activity and some mining. There are also two areas that parallel existing NLH transmission line routes. The result is a network of existing trails that provide access to most areas.

The Segment 5 line route closely parallels the TCH and passes through several populated areas with close proximity or crossing private property. An extensive network of highways, roads and trails will provide adequate access. The entire line route in this segment is paralleled with one or two existing transmission lines. There are also six crossings of existing transmission lines of various voltages. These hazards will be mitigated through engineering and construction methods. The construction methods and sequencing of installation work will be coordinated

with the outage availability and coordinating with the owners of the existing lines. For Segments 4 and 5 it will be important to take advantage of the lead-time prior to construction to complete possible geotechnical work and to address stakeholder concerns as this area of the line is in more populated areas compared to the first three segments.

The HVdc component of the Labrador-Island Link Project is a large transmission construction project when compared to other current transmission works in North America, with a total of nearly 1080km of 350kV overhead transmission line to be constructed. The magnitude of the work to be done, combined with geographical challenges and constraints and weather restrictions, emphasizes the requirement for solid construction planning to ensure maximum availability and utilization of work fronts.

Package CT0327 follows and was designed to build upon the learnings from the initial construction package, namely Package CT0319 – Construction of HVac Transmission Lines (MF to CF). The complexity of the HVdc transmission line scope when compared to the HVac scope leads to an increased hurdle when it comes to contractor capability and capacity. Table 1.0 includes a comparative summary of the key attributes of both scopes.

Table 1: Attribute Comparison – HVac and HVdc Transmission Lines

Attribute	LTA 315 kV HVac TL	LIL 350 kV HVdc TL
Length and Location	Two 247 km lines paralleling existing 138 kV CF to HVGB line	Single 1080 km line extending from Muskrat Falls to Soldier's Pond in the interior of Labrador
Right-of-Way Clearing	Separate package – ~2500 Ha	Included in scope – ~6200 Ha
Terrain	Flat with some rolling hills Localized wet areas	Encompasses Long Range Mtns, mountains in lower Labrador, crossing 3 major rivers in Labrador, significant bog and wet terrain
Existing Access	Fair to Good	Remote and Difficult
Tower Size	12,500 MT with each tower ~ 7 MT	35,000 MT in total with towers range in size with heights of up 220ft
Tower Installation Technique	Mobile/Track Crane	Mobile/Track Crane and Air Crane
Conductor Size	Standard / typical Drake conductor 230kV lines by NLH	Extremely large – largest single conductor ever pulled in Canada
Difficulty	Fair	Extremely difficult

3.0 BIDDER SELECTION PROCESS

The Bidder Selection Process includes the assessment of the five (5) key areas.

1. Contractor Capability
2. Contractor Capacity
3. Marketplace Considerations
4. Execution Risk Considerations
5. Lessons Learned from previous Bid Events or Contracts

To assess these five (5) key areas, the Bidder Selection Process for the HVdc Transmission Line was designed to comprise of two (2) separate screening phases, specifically Phase I and Phase II. The intention of this advanced screening process was designed in order to validate the overall contracting strategy for the HVdc line as was established prior to Decision Gate 3 and documented in Project's Overarching Contracting Strategy, reference document no. LCP-PT-MD-0000-PM-ST-0002-01 Rev B1.

As such, Phase I was designed as a typical pre-qualification process and potential bidders for screening in Phase II. Phase II was timed to commence during the later stages of CT0319 contracting, thus providing an opportunity to gain insights into the both the interest and capabilities of the potential applicants as well as re-assess market trends. The general timeline for both Phases was as follows:

Phase I: 1-Oct-2012 to 31-Mar-2013

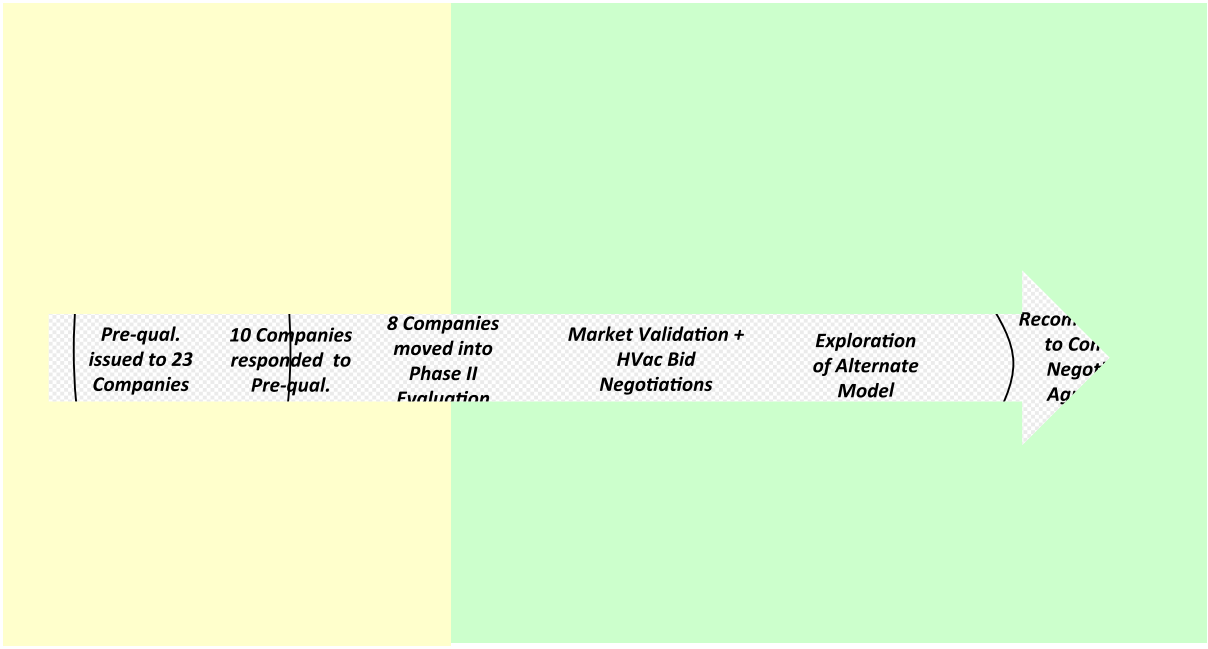
Phase II: 1-Apr-2013 to 31-Jan-2014

Phase I of the Bidder Selection Process commenced with an Application for Bidder Selection Package under the umbrella of Package CT0327 being issued to twenty-three (23) targeted companies on 06-Nov-2012 and closed on 20-Dec-2012. Ten (10) applications were received and were evaluated in accordance with the criteria and procedures established in the Bidder Selection Evaluation Plan. Applicants who were previously approved for CT0319 – Construction of 315kV HVac Transmission Line were only required to provide the technical questionnaire, but in some instances, clarification questions were issued to address missing information.

Phase II of the process commenced following the conclusion of Phase I screening and concurrence with the evaluation of bids received for CT0319 – Construction of HVac Transmission Lines (MF to CF). It was timed to conclude towards the end of 2013 in time to issue a RFP and award a contract for a mid-2014 construction start.

	Bidder Selection and Preliminary Award Recommendation	Rev. No.	Date
nalcor energy LOWER CHURCHILL PROJECT	CT0327 – CONSTRUCTION OF 350KV HVDC TRANSMISSION LINE	00	31-MAR-2014

The following figure illustrates this Two-Phase Process and its associated general timelines.



4.0 BIDDER SELECTION: PHASE I SCREENING

4.1 PHASE I SCREENING CRITERIA

In Phase I the qualifications of each Applicant were evaluated according to the following categories:

- Technical Capability
- Commercial Fitness
- Health & Safety Management Systems
- Environmental Compliance
- Quality Management Systems

The Phase I evaluation team members were as follows:

Evaluation Criteria	Representative
Commercial	Micah Sze
Technical	Keenan Healey
Health & Safety	William Bishop
Environmental	Lesley Reid
Quality	Ken Morrison

An overall score was calculated based on the following weightings for each of the five categories:

1. Commercial = 25%
2. Technical = 30%
3. Health & Safety = 15%
4. Environmental = 10%
5. Quality = 20%.

Applicants must achieve a Health & Safety score of ≥70%, an Environmental score of ≥60%, and a Quality score ≥60% in order to qualify as a potential Bidder.

4.2 PHASE I APPLICANT LIST AND RESPONSES

An Application for Bidder Selection package was issued on 06-Nov-2012 and closed on 20-Dec-2012 to the targeted companies listed in Table 2.

Table 2: Target Companies for Application for Bidder Selection Package

#	Applicant Name	Application Received	Approved For CT0319	Comments
1	Barnard Construction	Yes	No	Submitted App (New)
2	EC Source	Yes	No	Submitted App (JV)
3	Henkels & McCoy	No	No	No Response
4	International Line Builders	No	No	Declined
5	Kenney Construction	Yes	No	Submitted App (New)
6	McGregor Construction	No	No	Declined
7	Michels Construction	No	No	Declined
8	MYR Group (Sturgeon Electric)	No	No	Declined
9	Parsons Brinkerhoff	No	No	Declined
10	Pike Electric	No	No	Declined
11	United Power Contractors	No	No	Declined
12	Wilson Utility Construction	No	No	Declined
13	Abengoa T&D	Yes	Yes	Submitted App
14	Flatiron-Cobra	No	Yes	Declined
15	Innu-Kiewit Constructors	Yes	Yes	Submitted App
16	Isolux Ingerieria	Yes	Yes	Submitted App
17	RS Line Contractor Co. Ltd	Yes	Yes	Submitted App (JV)
18	Valard Construction	Yes	Yes	Submitted App
19	PowerTel Utilities Contractors	Yes	Yes	Submitted App
20	Thirau Ltd	No	Yes	No Response
21	GLR	No	Yes	No Response
22	Emera Utility Services	Yes	Yes	Submitted App
23	Transelec-Arno	Yes	Yes	Submitted App

4.3 PHASE I SCREENING RESULTS

From Phase I Screening, the following Applicants were recommended to move into Phase II screening for further exploration:

- Abengoa T&D / Inabensa
- Barnard
- Emera Utility Services
- Innu-Kiewit Constructors
- Isolux Ingerieria
- Kenny Construction
- RS Line / EC Source
- Valard Construction

The following Applicants were screened out of Phase I process:

- PowerTel Utilities Contractors
- Transelec-Arno

4.4 NON-RESPONSIVE APPLICANTS/DECLINED APPLICATIONS

Henkels & McCoy
Multiple attempts were made to contact Henkels & McCoy. Jim Dillahunty, Regional Vice President, left a voicemail indicating that he had received the Application for Bidder Selection and was looking internally for the proper point of contact. Two follow up calls were made. Jim's secretary confirmed that she followed up with Jim, but ultimately Henkels & McCoy did not submit an application.

International Line Builders Inc.
Marla Jordan acknowledged by voicemail that she received the Application. However, International Line Builders did not submit an application.

McGregor Construction
Brett Smith from McGregor Construction acknowledged that they received the Application. The company has been acquired by Quanta Services and they indicated that they would submit an application through Valard Construction.

Michels Construction
Michels initially indicated that they were interested in the project. However, they later sent an email declining the application process due to the remote location of the project.

MYR Group (Sturgeon Electric)
John Fluss confirmed by telephone that he had received the Application but would not be submitting an application, as they had a large backlog of projects and were not interested in any projects outside of the United States (at the time being).

Parsons Brinkerhoff
Beth DeAngelo declined to submit an application because they could not perform the construction, but would be interested in any engineering or program management opportunities.

Pike Electric
David McDuffie sent an email on behalf of Pike Electric of North Carolina declining to submit an application; no reason was provided in the email. However, it appeared that they had considered the Work as two other people (Matthew Fisher and Mark Jennette) were cc'd on the email.

United Power Contractors
Andy Canales left a voicemail thanking LCMC for the opportunity to submit an application; however, UPC was not looking to bid on any projects outside of the United States.

Wilson Utility Contractors
Carmen Reed acknowledged receipt of the application; however, after further review, Wilson representatives determined that CT0327 conflicted with another project. In addition, their current backlog of projects would also be a barrier for them to competitively bid.

Flatiron-Cobra
Even though Flatiron-Cobra had been approved to bid on CT0319, Flatiron indicated that they were more interested in other RFPs and wanted to be upfront with that information, and subsequently did not submit an application.

Thirau
An email and voicemail was left for Alain Gagne (with no response). Thirau did not submit an application for CT0319.

GLR
An email and voicemail was left for Martin Chagnon (with no response). GLR declined to bid on CT0319, indicating that they had just been granted a 110km 735kV line project and were unable to start another big contract.

4.5 PASSING APPLICANTS

The following Applicants have successfully passed the commercial, technical, environmental, quality, and health & safety review and were moved into Phase II of the Bidder Selection Process:

- Abengoa / Inabensa
- Barnard Canada
- Emera Utility Services
- Isolux Corsan
- Kenny Construction Company
- Kiewit
- RS Line / EC Source
- Valard Construction

The following provides a synopsis of the capabilities of each of these applicants:

Abengoa / Inabensa
Abengoa T&D is based in Arizona and Inabensa is based in Seville, Spain. Both entities are subsidiaries of the parent company Abengoa who according to ENR is globally the largest transmission line constructor.

For the purpose of the HVdc scope, it is expected that both entities would form a consortium with 50/50 participation upon an award. Abengoa T&D was an approved bidder for CT0319. Abengoa is a major player in the industry with an impressive work history, including HVac project experience with lines almost 1000 km long, and are the only Applicant to have significant HVdc experience – a 2412 km, 600 HVdc, bipole line with a 2282 AAC conductor. Abengoa has not undertaken any transmission projects in North America, rather has

concentrated their business towards concessions and EPC contracts for large renewal projects, including solar projects. Unlike some of their activities in South America and Europe where they self-perform line construction, their business model in North America is predicated upon establishing themselves in the T&D business as a large EPC or general contractor, using local firms as subcontractors to construct the line.

It should be noted that Abengoa is one of three applicants who currently owns the stringing equipment required for the large conductor planned for the HVdc line.

Barnard Canada

Barnard Canada is a major civil contractor with an impressive number of contracts including linear infrastructure projects; however have minimal transmission line experience. Barnard's business model for the HVdc line is to act as a large General Contractor and engage subcontractors to undertake the field construction scope. However, Barnard's lines subcontractor, Powertel, lacks lattice tower experience.

Barnard has a strong financial capability and is prepared to bid up to $400M alone, and up to $1B with a pre-qualified Joint Venture. They have indicated that their bonding capacity could cover that range as well.

Emera Utility Services

Emera Utility Services was an approved bidder for one (1) segment on CT0319. Historically Emera has performed many smaller projects and has strong Canadian utility experience with cold weather and some helicopter experience. Emera's application was given strong scores (≥75%) by the Technical, Health & Safety, and Environmental reviewers. Emera has not performed any projects of the scale of this project and has limited experience with lattice towers within the last ten years.

Isolux Corsan

Isolux Corsan was an approved bidder for CT0319. Isolux Corsan is based in Madrid, Spain, but has an office in Austin, Texas. Isolux Corsan have a business model that is very similar that or Abengoa, one where they are heavily engaged in both Power Concessions and the EPC business.

Isolux Corsan has undertaken some very large transmission projects; three of the four projects listed are greater than or equal to Section 1, with one project 1200 km in length. As the Isolux

pre-qualification package was very generic it is difficult to ascertain their capability to undertake the entire DC scope, however given their global EPC and TL capability and financial capacity, they should be further investigated as part of a Phase II assessment.

Kiewit

Kiewit is a major general contractor with a tremendous amount of Canadian northern construction experience. Further, they have some relevant, but limited, line construction experience. Kiewit indicated that they would like to do the complete Section 1. However, the longest similar line they constructed was 217 km, so 610 km would be pushing new boundaries, but with their vast construction capability they are considered to be capable of undertaking Section 1, from a technical evaluation perspective. Innu-Kiewit Constructors was an approved bidder for CT0319. However, they declined to bid on CT0319 due to the number of bidders invited to participate on CT0319. They have not provided a copy of their financial statements, but have indicated that they would provide them upon execution of a confidentiality agreement.

Kenny Construction

Kenny Construction Company (KCC) is a Chicago-based general contractor with decent projects experience listed. They appear to have experience building access in mountainous areas as a general contractor. However, they are a general contractor and would need to team up with a line contractor. KCC has listed Valard as a subcontractor, but it is unclear if they have had any discussions with Valard. KCC has passed the technical prequalification, based upon their past experience as a construction management firm rather than an actual line constructor, but their lines contractor would need to be evaluated carefully during Phase II screening.

RS Line / EC Source

Initially EC Source sent an email indicating that they would partner with RS Line. Their application was also received with RS Line's application in the same email. RS Line is based in Alberta and is owned by the parent company, Remcon Ltd, which is based in Saskatchewan. EC Source is based in Arizona and is owned by the parent company MasTec, which is also based in the United States. EC Source appears to have some relevant transmission line project experience and even has a small fleet of helicopters used for construction. EC Source also has experience constructing lines in mountainous terrain. RS Line is a known major Canadian lines contractor, with some 900 employees, currently engaged in Altalink's WATL transmission project. RS Line is one of three applicants who currently own the proper stringing equipment required for the large DC conductor.

Valard Construction

Valard Construction is a subsidiary of Quanta Services (acquired in October 2010). Valard was an approved bidder for CT0319. Valard is a well-known major Canadian Lines Contractor who could do the full Scope of Work. Valard is one of three applicants who currently owns the proper stringing equipment required for the large DC conductor.

4.6 APPLICANTS FAILING TO QUALIFY / NOT RECOMMENDED

Transelec-Arno

Transelec Arno is a small Quebec-based company that has relevant northern Canadian construction experience. However they lack experience or the capability for building lines exceeding 100 km, given their small ~100 person organization. Their low technical score is not necessarily a reflection on their technical abilities but a reflection of limited answers. Transelec-Arno failed to provide information in English and was non-responsive when asked for additional supporting documents. As a result, this company failed the safety evaluation. Transelec-Arno would be a better fit as a subcontractor, assuming that they would follow the prime contractor's safety procedures and systems.

PowerTel

Powertel, based in Whitefish, ON, has relevant transmission line construction experience and an impressive fleet of tracked vehicles. However, PowerTel lacks significant lattice tower experience or has not built large projects in the past. Further, they lack the financial capability to take on a single segment, as their bonding capacity appears to be maxed out at $40M. PowerTel was acceptable to the Quality and Health & Safety reviewers. However, PowerTel did not provide the supporting Environmental documentation to achieve a passing score. PowerTel would be a better fit as a subcontractor, but their environmental systems would need to be carefully evaluated beforehand.

4.7 RECOMMENDATIONS FROM PHASE I SCREENING

The following Applicants passed Phase I screening for a <u>single segment</u> and are to be further explored in the Phase II screening process.

Barnard Canada
Based on Barnard's application, it is recommended to limit their work to one (1) segment, unless they propose a more experienced line constructor. With the proper lines subcontractor Barnard could be a major asset with their excellent construction experience.

Emera Utility Services
Although Emera has performed a lot of projects and has relevant Canadian utility experience with cold weather and helicopter construction, they have not performed any projects of this scale. In addition, Emera has limited experience with lattice towers. Based on this information, it is recommended that Emera be limited to one (1) segment.

Kiewit
Although Kiewit is a major general contractor with a tremendous amount of Canadian northern construction experience, the longest line that they have completed is 217km. Kiewit indicated that the parent company would not provide a parent guarantee and did not disclose the subsidiary's financial information. Without being able to assess the financial stability of this division of Kiewit, they are only recommended for one (1) segment. However, if their proposal demonstrates an ability to finance more than one segment then it may be possible to remove this constraint.

Kenny Construction Company
KCC appears to have relevant project experience and has been very successful as a General Contractor, in particular their experience on the Trail project in Pennsylvania, that is consistent with the requirements of this Scope of Work. However, without knowing who their line contractor will be, at best they would be able to undertake is one (1) segment as a general contractor. As such we are cautious about their capability; however they should be further assessed during the Phase II screening process.

The following Applicants passed Phase I screening for <u>all of Section 1</u> and are to be further explored in the Phase II screening process.

Abengoa / Inabensa
Abengoa is a major player in the industry with an impressive work history both for AC and DC transmission lines. Their environmental score indicates that their experience with environmental compliance may be weak and should be carefully evaluated. Key uncertainties relate to their execution model in the North American market and use of subcontractors.

Isolux Corsan
Isolux Corsan has performed some large transmission projects outside of North America, larger in scope than this project and therefore could in theory perform the full Scope of Work. Key uncertainties relate to their execution model in the North American market and use of subcontractors.

RS Line / EC Source
RS Line is a known major Canadian lines contractor and EC Source is known in the United States. Based upon the Phase I screening, it is viewed that both companies should be able to take on the full Scope of Work.

Valard Construction
Valard Construction is a subsidiary of Quanta Services and is a known major Canadian Lines Contractor who could perform the full Scope of Work. Their quality score, however, was low and should be carefully evaluated prior to any award.

The following Applicants are conditionally recommended as Subcontractors:

Both Transelec-Arno and PowerTel were responsive to the Application for Bidder Selection process, but did not meet the requirements for CT0327 due to weaknesses in their procedures and systems (as described under Section 6.3). Further, given the perceived need to attract skilled labour for the Project, it is recommended that after the RFP is released, the Contract Administrator notify these two companies, directing them to the list of Approved Bidders, in hopes that they become potential subcontractors.

5.0 BIDDER SELECTION: PHASE II SCREENING

5.1 PHASE II SCREENING PROCESS

With strong consideration of the complexity of the HVdc transmission line construction program, the Project Team defined a number of key attributes that any pre-qualified contractor selected for the bid list should have. These are:

- Technical depth and breadth
- Winter construction and remote access experience and capability
- Proficient in helicopter construction techniques
- Ability to be self-reliant in remote regions
- Access to an experienced labor pool
- Stringing experience with very large conductor
- ROW clearing and access management capacity
- Financial capability to finance the work (working cash flow)
- Ability to provide an adequate level of performance security

5.2 APPLICANTS FOR PHASE II SCREENING

As indicated in Section 4.5, the following Applicants were recommended to move into Phase II screening for further exploration:

- Abengoa T&D / Inabensa
- Barnard
- Emera Utility Services
- Innu-Kiewit Constructors
- Isolux Ingerieria
- Kenny Construction
- RS Line / EC Source
- Valard Construction

5.3 OBSERVATIONS FROM CT0319 EVALUATION

The Request for Proposals (RFP) for CT0319 – Construction of 315kV HVac Transmission Line: Muskrat Falls to Churchill Falls was issued on 28-Sep-2012. Of the eleven (11) bidders invited, responses received from four (4):

- Abengoa / Inabensa
- Emera Utility Services
- Isolux Corsan
- Valard Construction

Of these four (4) bidders, Emera Uility Services bid on only 125km of line due to capacity, while both them and Isolux Corsan were rejected due to price that was twice that of the other bidders. Of the remaining two (2), Abengoa/Inabensa was evaluated as having an unacceptable execution plan.

A summary of the findings from the CT0319 evaluation is provided below, while further detail is contained in the Bid Award and Recommendation for CT0319.

Abengoa

Abengoa was shortlisted for detailed negotiations during CT0319; however their proposal gave LCMC many concerns. The following details both the Strengths and Challenges of the Abengoa proposal.

In summary, Abengoa did not present an execution plan that demonstrated that they truly appreciated the work, or were capable of organizing themselves to undertake the work. Specifically, Abengoa planned to subcontract approximately two-thirds of the scope, while they did not identify their selected subcontractors due in part to the inability to obtain reasonable pricing. This is seen as a fatal flaw for the scope of this complexity and location.

Strengths

- Bid all possible combinations
- All Agreement Article issues were resolved
- Based upon their track record outside of North America, the scope was within their general capability
- Appeared to listen to our concerns and be willing to address them (evident from our last meeting held on 1-Aug-2013)
- Agreed to make changes to the scope in an attempt to lower the price

Challenges

- Proposal was generic – i.e. it lacked site-specific considerations. Despite repeated requests to specifics on how Abengoa would undertake the work, in particular foundations where they proposed to use a local subcontractor (to be named). As a general statement Abengoa could not produce an Execution Plan that was scope or site specific. This was considered a fatal flaw.
- Execution plan was heavily reliant on subcontractors (68% of contract value was subcontracted), most of whom Abengoa had not had previous working experiences
- Showed uncertainty when asked to think outside the box when developing execution plan
- Did not convince LCMC that they could adequately transfer their global capability to achieve success in cold Canadian environment
- High number of labour hours across all activities
- Allowed for no work during peak winter months
- Foundations – complete misalignment on resources for the work – they indicated 15 crews, each with 17 workers, but yet only installing 2 foundations per day. Presentations always referenced truck cranes and rubber tire backhoes leaving us suspect of the site specificity of their proposal.
- Appeared unsure about the access plan (note what was presented was trivial)
- Bid was higher than our budgeted amount
- Came forth with minimal technical or execution options that could reduce cost
- Abengoa totally reliant on IBEW for sourcing of labor – big risk given TL activity in N. America
- Familiarization with the Canadian market was weak and were ill equipped to answer specific questions
- Achieved a low score in Health and Safety – (lowest of four bids) – see attached
- Low score in Provincial Benefits
- Labour availability was an identified risk

Emera Utility Services

Emera bid only one section (or 125km) of the MF to CF line, indicating that they did not have the capacity to take on both sections, but preferred to have the Eastern section if they were awarded. Although PowerTel did not submit a proposal, they were proposed as Emera's subcontractor for the line construction.

Emera's execution plan was predicated upon construction only during non-winter months, which in the opinion of the evaluation team was a fundamental flaw given that winter months afford much easier access to remote and normally inaccessible areas.

In addition to the concerns re Emera's execution plan, due to the fact that their normalized price was approximately 150% that of either Abengoa or Valard, Emera were not short-listed for detailed clarification discussions.

Isolux Corsan

Isolux submitted a proposal for both the Eastern and Western sections of the line. Overall, Isolux has provided a proposal that is very generic in nature. They have provided an organizational chart and resource loading that is adequate with the project's expectations, however it seems that nearly all resources are sub-contracted out. In short, technically Isolux scored the lowest out of the four (4) bidders.

Isolux Corsan's normalized price was highest of all four (4) bidders and more than double that of either of Abengoa or Valard, it was decided not to shortlist them for further clarification discussions.

Although their proposal was not competitive, Isolux were invited to St. John's on 19-Apr-2013 for LCMC to understand what was driving their proposal price. This meeting revealed that Isolux viewed the number of unknowns in the area re labor, logistics and weather as key risk areas that were driving their price proposal.

Valard Construction

Valard Construction was the successful bidder under CT0319 providing both the best price and technical execution plan for the work. In short, their proposal was substantially ahead of the other three (3).

5.4 LESSONS LEARNED FROM CT0319

From the bid and negotiation process for CT0319 a number of key lessons learned were discovered which influence the contracting strategy for the HVdc transmission line. These were:

- Few players have the capability or risk appetite to take on large-scale, remote projects
- International contractors generally tend to have a business model which includes subcontracting a greater portion of the work to local contractors, which tends to be cost prohibitive
    - Contrary to this, Valard self-performs the entire scope

- International contractors presented generic execution plans which have inherent risks
  - Limited depth presented by either of Abengoa or Isolux-Corsan
- Selected contractor offered significant cost reduction opportunities
  - Value engineering and constructability input
- Only one entity demonstrated the capability to undertake the work, planning to almost exclusively self-perform thus removing risk
- Splitting access and clearing from construction clearly inserts completion risk into execution, thus the adjustment to CT0327 contracting strategy

5.5 MARKETPLACE ISSUES AND TRENDS

From this bidder selection process that has spanned approximately 18 months, a number of marketplace issues and trends have been observed that are influencing the recommended bidder list for the construction of the HVdc transmission line. In summary, the key points are:

- All potential market players were engaged in HVac EOI
  - Extensive pre-qualification process and eventual bid list that resulted in only four (4) bids, from which two were deemed suitable for shortlisting.
- Few companies have the breadth and depth of resources to handle segments of this work, let alone the entire scope
  - 2 major line contractors in Canada – Valard and RS Line
  - Most US-based and international contractors do not have experience working in remote regions or appreciate how to construct transmission lines during winter months, rather look to seasonal programs.
- Significant contactor market consolidation in last 5 years
  - Both within Canada and US
  - Quanta has the largest electric utility contractor workforce in North America; further is the leading transmission and distribution contractor in Canada
- Difficult to attract US entrants into NL given buoyant renewables and rebuild market in US

- Canadian market is very busy, however current projects are drawing to a close in late 2014
  - BC and Alberta projects are coming to a close
  - No significant scope on radar within Quebec
- Major players will likely be consumed by pending projects
  - Manitoba Hydro's BiPole III – 1400km of 500kV HVdc
- ROW clearing largely subcontracted
  - Required scope for HVdc would consume all local capacity + more
- Required labor is not available from union hall either provincially or nationally, but the pool of required labour is largely employed by a few large contractors.
  - Working in union (IBEW, CUSW) and non-union settings
  - Significant wage pressure (Alberta 14% increase in 2013)
- Kiewit has questioned the viability of walk-to-walk IBEW agreement for Transmission line construction in Newfoundland and Labrador.
- It is proving very difficult by all utilities in Canada to find qualified contractors and qualified owner staff to manage those contractors, thereby pushing folks to larger packages in some instances.

Phase II Evaluation Conclusions (Post CT0319)**Abengoa**

LCMC met with Abengoa on 28-Jan-2014 on its request to be debriefed on the CT0319 bid. Senior executives of the Abengoa team, including Jim Corboy, Enrique Barreiro, Javier Ramirez, and Fernando Inostroza, attended this meeting.

Abengoa confirmed that the civil works (access and foundations) was a key risk area for them and that they were unable to source reasonable prices from local subcontractors, hence decided to bid on their strength only. Abengoa also confirmed that their general business strategy is to act as the General Contractor or EPC contractor and to partner with local subcontractors rather than acquire or develop specialized capability that may be required for a particular jurisdiction. This model provides great concern for LCMC in this current market where qualified Transmission contractors are very difficult to find. In the US, Abengoa's transmission activity is centered on small interties that are required as part of a larger renewable plant (e.g. solar) that they are constructing under a concession framework.
Based on the fact that Abengoa's strategy had not changed and for all of the reasons outlined in Section 5.3,the LCMC team had and still has great concerns about Abengoa's ability to execute in this jurisdiction.

MasTec (EC Source) / RS Line

On 7-Feb-2014 LCMC met with MasTec/EC Source in St. John's to review their capabilities with respect to bidding on the HVdc transmission line. RS Line / Forbes Brothers was scheduled to participate in this meeting, however MasTec officials indicated that RS Line declined to attend due to fact that they "are still discussing the structure of our relationship."

EC Source is now owned by Mastec, a company of 14,000 employees founded in the telecommunications sector in the mid-1970's. They have been transmission line business, largely using an EPC model, since 2009. They have undertaken projects up to 100 miles long in the US, but never in Canada. In the US they largely self-perform, however plans to use a subcontract model in Canada. Other key observations include:

- EC Source does not have any arrangements with an actual line contractor
- Considers themselves a "Program Management Entity" offering PM and CM services
- For HVdc line, would subcontract all of access, ROW clearing, civil works, tower erection and camps. EC Source have line stringing equipment, but it was very uncertain whether it was either suitable for our conductor or if they planned to mobilize it to Canada.
- Proposed helicopter installation strategy – no apparent appreciation of the need for access or the remoteness of the work.
- Does not have access to pool of skilled labor, rather would endeavor to secure internationally.

From the presentation it was apparent that Mastec does not have the capability to undertake this scope, and that adding them to the bid list would substantially increase the risk of non-completion of the transmission line by mid-2017.

Kenny Construction

In consideration that Kenny Construction's business model is to act as a General Contractor, LCMC does not view it has having the credentials to construct such a large complex project without the support of a major contractor such as Valard, for which they do not have a commercial arrangement.

In July 2013 LCMC engaged the services of Kenny Construction (now a part of Granite Construction) to both provide staff augmentation services and marshaling yard operational

services. As such, Kenny is considered conflicted from being a bidder on the HVdc transmission scope.

Isolux-Corsan and Kiewit

LCMC met with representations of both Isolux-Corsan and Kiewit in St. John's on 14-Nov-2013. Isolux-Corsan and Kiewit have formed a 50/50 JV in order to bid the HVdc transmission line scope, which Isolux believes will address their construction shortfalls since its business model is to act as EPC or GC and subcontract the work. This is the first time either of these entities has worked together; LCMC considers this a risk.

Since bidding CT0319, Isolux has captured a smaller transmission line project as part of a larger SaskPower $150 million project, as well winning $200 million of contracts in Brazil. Kiewit does not presently have any active transmission projects. The JV's desire is to undertake the entire 1100km of transmission work.

Kiewit has never built a transmission line under a wall-to-wall IBEW model and is skeptical of whether it will be successful since in their view it "has not been tested in Newfoundland." LCMC observed this same mindset during the bid clarifications for CD0501 – HVdc Converters.

In short, while LCMC are confident in Kiewit's capability to bid as a general contractor, their pricing proposal for labor as demonstrated for both CH0007 – Intake, Powerhouse and Spillway Construction and as the civil contractor for ABB's bid for CD0501 HVdc Converters begs the question as to whether they would be the spectrum of what it takes to be competitive.

When these concerns are added to the recent bid information on Isolux for CT319 as outlined in Section 5.3, the LCMC team does not believe this JV can execute this work, and definitely not in a competitive manner.

Barnard

Based on the fact that Barnard had not found an additional Transmission Line contractor since CT0319 where it was determined that they were not qualified the only conclusion to be reached for CT0327 is that they would not be able to execute any of the segments.

Emera Utility Services

Based on the assessment in CT0319 that Emera simply did not meet the qualifications necessary to execute a segment and the fact that there pricing was simply not competitive it was concluded that they were not able to execute any sections of CT0327.

Quanta Services Inc. / Valard Construction LP

Based on the CT0319 bid submission and further exploration of Valard's capabilities it was clear that they were capable of executing CT0327 and were competitive.

6.0 AVAILABLE OPTIONS FROM PHASE II SCREENING

With consideration of the extensive bidder selection process that occurred during Phases I and II combined with the results of CT0319 HVac Transmission Line Construction and the conclusion that only one organization is truly qualified at this point in time to execute CT0327 , LCMC believed there were practically three (3) available options to construct either CT0327 or the entire 1080km, each of which has pros and cons. They are:

- **Option 1**: Re-test Market / Bid Entire Scope to potential bidders identified out of Phase I
- **Option 2**: Pursue Open book Negotiated Agreement with Valard for Labrador, bid Island portion
- **Option 3**: Pursue Open book Negotiated Agreement with Valard for entire scope

Table 3 summarizes the primary benefits and risks of each of the three (3) procurement options.

Table 3: Procurement Option Summary

Option	Primary Benefits	Primary Risks
Option 1	• Typical process that is transparent to all • May get interest from companies who did not respond to HVac TL	• Marketplace interest in bidding – likely ends up with similar result as CT0319, but loss considerable opportunity time getting there. • Contrary to Open-Book model, LCMC does not have visibility into estimate inputs – traditional beat-down model would result take a considerable amount of effort and resources, but in the end provide limited value to influence. • Contractor contingency risk is likely higher • Risk of multiple subcontractor mark-ups in bids presented by larger EPC firms • Time to bid, which would likely loose fall 2014 start, plus LCMC would have to contract ROW and Access separately • Removes further opportunities for constructability input in final material selection and design • Could result in loss of capacity current pre-qualified contractor has available • Loss of potential synergies with AC • **If successful, requires larger LCMC Construction Team to assume larger field coordination role to oversee multiple smaller contractor, thus aren't able to spend the necessary time focus on the big picture and long term project success.** • Having multiple contractors can result in more complex disputes as contractors may try to pin blame on others (the so-called "finger pointing risk") • Breaking construction into multiple segments or scopes: o may result in multiple interface points; o may require additional internal resources to manage scope overlap and contractor coordination; and

Option	Primary Benefits	Primary Risks
		o may introduce competition among multiple contractors for the same labor resources, thus driving up labor costs.
Option 2	• Contractor-of-choice • Self-performing contractor – can avoid multiple subcontractor mark-ups • Ensures spring-2014 start for Labrador • Synergize with HVac TL • Quanta manage access and clearing in Labrador • Reduction on contractor contingency by open book discussions • Increases opportunity to reduce the size and cost of the LCMC oversight role. • Transfers interface risk for ROW clearing to the TL contractor	• Valard could not bid Island • Lack of competitive bid for Labrador • Time to bid • Uncertain of who can perform Island • Long Range Mtns could not commence in 2014 • Removes further opportunities for constructability input in final material selection and design • LCMC would have to pursue ROW clearing and access construction for Island separate from the line construction scope, thus adding an additional interface risk. • Breaking construction into multiple segments or scopes: o may result in multiple interface points; o may require additional internal resources to manage scope overlap and contractor coordination; and o may introduce competition among multiple contractors for the same labor resources, thus driving up labor costs
Option 3	• Transparent pricing structure with full disclosure and agreement on key inputs • Self-performing contractor – can avoid multiple subcontractor mark-ups • Provides the greatest opportunity for LCMC to influence the execution plan and methods upon which Contractor is using as inputs to the estimate • Provides opportunity for open-debate on risk and	• Lack of competitive bids •

Option	Primary Benefits	Primary Risks
	exposures in order to reduce contractor risk premiums • Contractor-of-choice with a solid plan – access to vast resources – some 12,000 utility workers • Ensures spring-2014 start • Most flexible construction program - i.e. spreading resources across AC and DC, synergies on indirect • Constructability input opportunities maintained • Reduction on contractor contingency by open book discussions • Presents most commercial opportunities for LCMC • Increases opportunity to reduce the size and cost of the LCMC oversight role – one contractor, with one way of doing business.	

With consideration of the above including but not limited to:

- the results of lessons learned and outcome of CT0319,
- the current marketplace trends,
- clear lack of qualified contractors,
- execution model concerns, i.e. subcontracting vs self execution,
- pending work elsewhere that would create capacity concerns if not acting upon quickly,
- challenges with splitting up the work, ie market constraints for owner management team,
- recent benchmark pricing,
- labour access concerns, and
- the desire to capture potential synergies with CT0319

it was decided to open discussions with Quanta/ Valard in an open book process to explore possibilities knowing that the three (3) options above would remain open.

Therefore, following LCMC's initiation, in October 2013 a Non-Disclosure Agreement was executed between Lower Churchill Management Company (LCMC) and Quanta Services Inc. to explore an Open-book Price Development / Closed Book Execution for the HVdc transmission line (reference Attachment 8). Key principles underpinning these exploratory negotiations included:

- Both parties believe that direct negotiations can get to a win-win endpoint for LCMC and Valard/Quanta.
- Both parties subscribe to collaboratively developing an open book price model with closed book execution
    - Will build up trust between the parties and allow for the mutual discovery of cost saving/sharing opportunities
    - Will allow Valard/Quanta to incent supervisory and workforce performance
    - The contract price structure is expected to be a combination of fixed price and unit rates for foundations – Substantially similar to the CT0319 contract.

In initiating these discussions, LCMC prudently considered the outcome of the Phase I screening process, the complexity of the HVdc transmission line, and the above referenced considerations and learning. In assessing these, it was strongly felt that the most probable success path for LCMC would be to negotiate a fair and reasonable price with Quanta Services for the entire 1080km HVdc line given their marketplace dominance, capability and capacity to undertake the work in the relatively short timeline available but knowing throughout the process that the other options would still be available if needed. The open-book model would provide LCMC with true visibility into all estimate inputs, thereby allowing LCMC to strongly influence the price estimate for the work.

These extensive open-book discussions led to a preliminary view of the potential cost and execution plan to undertake the entire HVdc scope being presented on 16-Dec-2013. In summary, Valard presented a sound execution plan with capacity demonstrated, there was good constructability and value-engineering input resulting in execution risk reduction, and they demonstrated an appreciation for the complexity of the undertaking.

7.0 RECOMMENDED CONTRACTING STRATEGY

With consideration of the pros and cons of the three (3) options reviewed in Section 6.0 and the outcome of the open book discussions, the LCMC considers that Valard Construction, as part of Quanta Services, is the only entity capable of constructing the entire HVdc transmission line or even the logistically challenging areas such as interior Labrador and Long Range Mountains.

Given the outcome of the Open Book process and the reasons outlined previously LCMC does not believe it would be in the best interests of the overall LCP to alter our execution plan for the HVdc TL to a model wherein LCMC are basically the general contractor managing several smaller entities to achieve the overall build program. LCMC does not have access to the necessary resources to implement such a model, further devoting its limited resources to achieve a successful execution of this model would distract from broader project delivery activities that LCMC must ensure a strong focus upon. The capability and capacity concerns alleviated by this model are clear and the preliminary pricing arrived at is believed to be directionally best value for the project when benchmarked against the results of CT0319, ie the team would fully expect others to bid higher.

Once reviewed this recommendation applies to the option of splitting up Newfoundland and Labrador as well. In doing so there would still be capability concerns in the market, interface and management constraints and loss of synergies with Quanta /Valard.

As such, it is recommended to aggressively pursue the satisfactory conclusion of a Negotiated Agreement using the open-book price negotiations with Quanta Services that was initiated in October 2013 under a Non-Disclosure Agreement. In short, this option presents the least total risk exposure for LCMC, plus provides the greatest opportunity to reduce the overall price.

These Negotiated Agreement discussions shall continue to consider all available options that can achieve LCMC's objective of balancing absolute cost against cost predictability.

8.0 AWARD RECOMMENDATION

8.1 ESTABLISHING THE OPEN-BOOK PRICE

As discussed in Section 5.7, Valard initially presented the results of its open book estimate and preliminary execution plan on 16-December-2013 (reference Attachment 10). In short, the estimated price was $1,178 million, inclusive of access and right-of-way clearing. This estimate was premised on the latest quantities provided by LCMC during the open book process.

In LCMC's opinion, there was a significant amount of conservatism included in this initial open-book price, in particular with respect to ROW clearing and access construction. If we were to consider moving forward this would have to be reconciled.

On 23rd & 24th January 2014, a meeting was held in Edmonton to determine whether there was opportunity to close the gap on the continuous items. In attendance on behalf of LCMC were Jason Kean, Lance Clarke, Pat Hussey and Desmond Butt; attending on behalf of Valard were Victor Budzinski (CEO – Valard), Adam Budzinski (President – Valard), BJ Ducey (VP – Quanta), Gary Murphy (Advisor – Quanta), Jody Rideout (Project Director – Valard), Joe Malaney (Estimator – Valard), and Marc Ouimet (Clearing and Access Manager).

During the period of time between the 16-December-2013 estimate and this meeting, Valard had undertaken a review of its estimate and execution parameters which resulted in a number of smaller changes increasing the total estimate to $1,182.5 million, broken down into:

- Right-of-way Clearing and Access = $273.3 million
- Transmission Line Construction = $909.2 million

From these discussions the potential of $55 million in savings for the TL construction portion, plus an additional $20 million in savings for an alternate rock foundation design were identified. Further agreements were reached on how to reduce the total cost of the Right-of-Clearing and Access. These included:

- Nalcor would direct award ROW clearing and access contracts thus remove Valard's mark-up of 15%;
- LCMC and Valard would jointly bid the scope;
- Valard would manage the ROW clearing scope post award; and
- Access would be optimized and payment would be on field actuals.

At the end of these sessions, we communicated to Quanta that although we appreciated their view of how tight the estimated price was considering the scope and inherent risk, we expected

they would reduce their margin given the volume of work we could offer them. Without this we were in a grey-zone – the expected price still exceeded our expectations and we were unsure of the way-forward.

At the end of these meetings Quanta requested the opportunity for their CEO (James O'Neill) to meet Ed Martin to understand whether they may be provided with the opportunity. This meeting was arranged and subsequently held between Nalcor Energy (Nalcor), LCMC, Quanta, and Valard on the 24-Feb-2014, in St. John's, NL at Nalcor's Hydro Place office.

Attendees with the Nalcor and LCMC teams were as follows: Ed Martin (CEO – Nalcor Energy), Gilbert Bennett (VP – LCMC), Paul Harrington (Project Director – LCMC), Lance Clarke (Business Services Manager – LCMC), and Jason Kean (Deputy General PM – LCMC).

Attendees with the Quanta – Valard team were as follows: James O'Neill (CEO – Quanta), Duke Austin (COO – Quanta), Victor Budzinski (CEO – Valard), Adam Budzinski (President – Valard), BJ Ducey (VP – Quanta), Gary Murphy (Advisor – Quanta), Jody Rideout (Project Director – Valard), and Joe Malaney (Estimator – Valard).

LCMC's objective for these meetings was to determine whether Quanta were willing to reduce their profit margin for the scope from 15% to 10% or less as well as seek all opportunities to unlock potential value from the arrangement. In short, this was achieved, wherein Valard indicated the price for the TL construction would be $820 million, reflective of a 9.0% profit margin. The parties agreed that the ROW clearing and access construction scope would continue to be pursued as per the outcomes of the 23rd & 24th January meetings. Details of the cost estimate are presented in Attachment 10.

8.2 MEMORANDUM OF UNDERSTANDING

A Memorandum of Understanding (MOU) between LCMC, Quanta Services, and Valard Construction was subsequently concluded from these CEO meetings (reference Attachment 11). In short the following was agreed during this meeting and articulated in the MOU:

- The execution plan, work schedule and management organization for the work will be generally consistent with Valard's proposal made on the 16th day of December, 2013, including the establishment of a Project Office in the City of St. John's from which control and management of the scope will be led by a full-time Project Director.

- The Agreement between Valard and LCMC will be consistent with that of CT0319 – Construction of HVac Transmission Lines (MF to CF) executed on the 17th day of December 2013.

- Valard has agreed to reduce its price for the transmission line construction, excluding right-of-way (ROW) clearing and access preparation to $820 million CDN, excluding the benefit of any savings that may be realized from alternate foundation designs (reference Attachment 1). It is understood by the Parties that this value is predicated upon a 9.0% target profit margin.

- LCMC fully believes that the estimated cost for ROW clearing and access construction can be significantly reduced from the original estimate of $273.3 million CDN. LCMC and Valard commit to work collaboratively in order to optimize access and ROW clearing requirements and execution approaches in order to reduce the estimated cost for the scope, including building upon the agreements reached during the meetings that occurred on 23rd& 24th of January, 2014, in Edmonton, Alberta as documented in the attached (reference Attachment 2). Specific agreements included:
    - LCMC and Valard will work to define the preferred execution approach for the works, including evaluating all viable options including Valard self-performing, using clearing and access contractors, or other commercial alternatives.
    - In the event of using third party contractors, these will be bid and selected by Valard using an agreed procurement model. LCMC will hold such contracts, with direct paying obligations, while Valard will manage their field activity.
    - Valard act in the capacity of the General Contractor for all ROW clearing and access construction including providing camps, fuel, catering, medical support, HSE programs for all third party contractors.
    - It is LCMC's intention to augment Valard's management of the scope by the secondment of key resources to Valard for the work.

- LCMC and Valard will continue to collaborate in order to develop materials staging and transportation plans that are in the best interest of both parties.

- Nalcor is unable to commit to other transmission works planned to be constructed before the end of 2017 in the Province by itself, affiliates or partners to Valard due to the likelihood that such works may be subject to the Public Tendering Act, however in either case Valard has agreed to maintain its targeted profit margin at 9.0% in any proposals involving such work.

- With respect to its proposal for package CD0502 – Switchyards, Valard will adjust their proposal price to reflect a 9.0% target profit margin.

- The Parties will work together to explore opportunities for commissioning support that may be required by LCMC as part of the commissioning of the LCP.

- Valard's intentions are to establish, through its involvement in the LCP, a longer-term presence in the Province of Newfoundland and Labrador to provide technical capability in support of future capital and operational investment in the Province's electrical grid.

8.3 AWARD VALUE

Based on the above it is recommended that CT0327 – Construction of 350kV HVdc Transmission Line be awarded to Valard Construction LP for a Contract Value of **$820 million** Canadian, excluding Right-of-Way Clearing and Access Works. This contract value will be confirmed as the final aspects of the MOU are concluded, including the costs of holdback, performance securities, and any adjustments resulting from final quantities (limited exposure).

It should be noted that all expenditures under this package are in Canadian funds, while the price is fixed and firm for the duration of the work, including all escalations for labor and commodities. It also includes all costs for rotational travel, which is to Valard's account.

For the transmission line construction, the agreement will essentially mirror the compensation structure of CT0319 – Construction of 315kV HVac Transmission Line, while commercial arrangements of the ROW clearing and access construction remains pending. In general LCMC and Valard will evaluate the optimal commercial structure for Valard to either self-perform and / or manage this scope, details of which are articulated in the MOU. Under any such arrangement, the value of Agreement CT0327 will increase to incorporate these scope additions.

LCMC target for ROW Clearing and Access will be set at $200 million Canadian, while the commercial model to achieve the targeted price reduction from the $273 million initially tabled by Valard will be finalized prior to the issue of a LNTP. Accordingly this Award Recommendation will be revised to reflect the final commercial agreement and award value.

This contract price is summarized in Attachment 12 **(PENDING)**.

Table 4 provides a brief variance analysis against the DG3 Baseline.

Table 4: Variance Analysis against DG3 Baseline

Parameter (millions CDN$)	HVac TL	HVdc TL
DG3 Budget	204.4	734.7
Scope Changes & Transfers	28.2	138.8
Revised Budget	**232.6**	**873.5**
Contract Value	**258.2**	**1,020.0**
Variance	25.6 11.0%	146.5 16.8%

8.4 PERFORMANCE SECURITY

The form of performance security included in this Agreement is similar to that contained in Package CT0319 while, as indicated in the MOU, the value of the letter of credit will be subject to good faith negotiations. While the details of the Performance Security remain to be concluded, it will include:

- Parent Company Guarantee from Quanta Services
- Letter of Credit of suitable value to provide liquidity in the event of contractor default and the need to mobilize an additional contractor to complete a portion or all of the remaining scope.

LCMC with Nalcor Treasury will work with Quanta to optimize a security package that considers the need to balance the cost of the security as well as Labrador-Island Link Limited Partnership's exposure. Key considerations will include:

- Opportunities to optimize the security package with consideration of the total scope of exposure between CT0319, CT0327, and other potential work that Valard may be successful in obtaining (e.g. CD0502 AC Switchyards).
- Consideration of how the total exposure to either of Labrador-Island Link Limited Partnership or Labrador Transmission Corporation may change as the schedule progresses and work is completed (i.e. sections of the transmission line are completed).

- Quanta Services is a well-established, publicly traded company with 2013 revenue of $6.5B and has no debt, and are able to offer an unlimited guarantee.
- Valard, in itself, is a financially sound (2013 revenue of $1B) and reputable company known for their reliability on the job and with a history of finishing what they start.
- Materials will be free issued to Valard, therefore not posing any risk to the project.
- Valard has approximately 10% of its work subcontracted resulting in much of their costs utilizing their own labour. Work incurred would be paid as it progresses, thus making it difficult for Valard to holdback payment to its labour force or its subcontractor.

8.5 LIQUIDATED DAMAGES – MILESTONE GUARANTEED COMPLETION DATE

Liquidated Damages negotiated under the Memorandum of Understanding are as follows:

1. The scheduled date of Substantial Completion is 30 June 2017.
2. If Contractor achieves Substantial Completion within 15 days from the scheduled date of Substantial Completion (the “Expiry of the Grace Period”), no liquidated damages will apply.
3. If Contractor achieves Substantial Completion between 16 and 45 days inclusive after the scheduled date of Substantial Completion (July 16, 2017 to August 15, 2017 inclusive), Contractor shall pay Company as liquidated damages $350,000 CDN for each day of such failure after the Expiry of the Grace Period.
4. If Contractor achieves Substantial Completion 46 days after the scheduled date of Substantial Completion (August 16, 2017), or later, Contractor shall pay Company as liquidated damages $750,000 CDN for each day of such failure.
5. Contractor’s limit of liability for liquidated damages payable by Contractor to Company will be a maximum of ten percent (10%) of the Contract Price.
6. All other terms and conditions regarding liquidated damages will be consistent, mutatis mutandis, with those of the Articles of the agreement between Labrador Transmission Corporation and Valard for the Construction of HVac Transmission Lines (MF to CF), effectively dated the 17th day of December 2013, being Agreement No. CT0319.

8.6 EXCEPTIONS TO AGREEMENT ARTICLES

Agreement CT0327 will have the same Articles as contained in Agreement CT0319, with one notable expectation, specifically a cap on liability to 100% of the contract value. The following is the agreed language contained in the MOU that will replace the Article 21.15 contained in CT0319 for CT0327:

> "Notwithstanding anything to the contrary in this Agreement, the maximum aggregate liability of Contractor to Company for all Claims arising out of or connected with the Work or performance or breach of this Agreement shall be limited to the sum of:
>
> (a) one hundred percent (100%) of the total Contract Price; and
>
> (b) the amount of actual insurance proceeds received with respect to such Claims from insurance to be maintained under this Agreement, less any applicable deductible in respect of any proceeds received by Company under Contractor's third party liability insurance;
>
> provided however that such limitation shall not apply in cases of:
>
> (i) Claims for personal injury (including death) for which Contractor is liable to Company or has a duty to indemnify Company under this Agreement;
>
> (ii) Claims for property damage or loss for which Contractor is liable to Company or has a duty to indemnify Company under this Agreement, except for damage to or loss of the Work;
>
> (iii) Contractor's fraud, willful misconduct or gross negligence;
>
> (iv) Taxes, fines and/or penalties imposed by any Authority for which Contractor is liable under this Agreement;
>
> (v) Claims for infringement of patents and/or other intellectual property rights, or breach of the confidentiality provisions of this Agreement;
>
> (vi) Claims for any environmental damage or loss for which Contractor is liable to Company or has a duty to indemnify Company under this Agreement or resulting from a breach of this Agreement by Contractor; and
>
> (vii) any other Claims by a third party, including any Authority, for which Contractor has a duty to indemnify Company under this Agreement."

Holdback

As with CT0319, LCMC have a desire to optimize the Mechanism Lien holdback costs under Agreement CT0327 so as to reduce finance carrying cost. Details of the arrangement under CT0327 remain to be concluded as part of the broader discussion on the performance security; however it is mirror the concepts agreed under CT0319. In this Agreement, it was finally agreed by both the Valard and LCMC to withhold 10% of total contract value during the last six (6) months of the contract, in lieu of holding 10% from Day 1. This scenario would further satisfy any holdback concerns and would decrease the financing costs for Valard, which in turn would result in cost reductions for Labrador Transmission Corporation.

9.0 ATTACHMENTS

Attachment 1: Phase I: Evaluation Summary

Attachment 2: Phase I: Commercial Scoring Sheet

Attachment 3: Phase I: Technical Scoring Sheet

Attachment 4: Phase I: Health and Safety Scoring Sheet

Attachment 5: Phase I: Environmental Scoring Sheet

Attachment 6: Phase I: Quality Scoring Sheet

Attachment 7: Contractor Pre-qualification Submissions (E-Files)

Attachment 8: NDA with Quanta and Open-Book Pricing Model Approach

Attachment 9: Valard's 16-December-2013 Preliminary Execution Plan

Attachment 10: Valard's 24-February-2014 Proposal

Attachment 11: MOU between LCMC, Quanta Services, and Valard Construction

Attachment 12: Estimated Contract Value and Comparison to Budget

ATTACHMENT 1

PHASE I: EVALUATION SUMMARY

Evaluation Summary

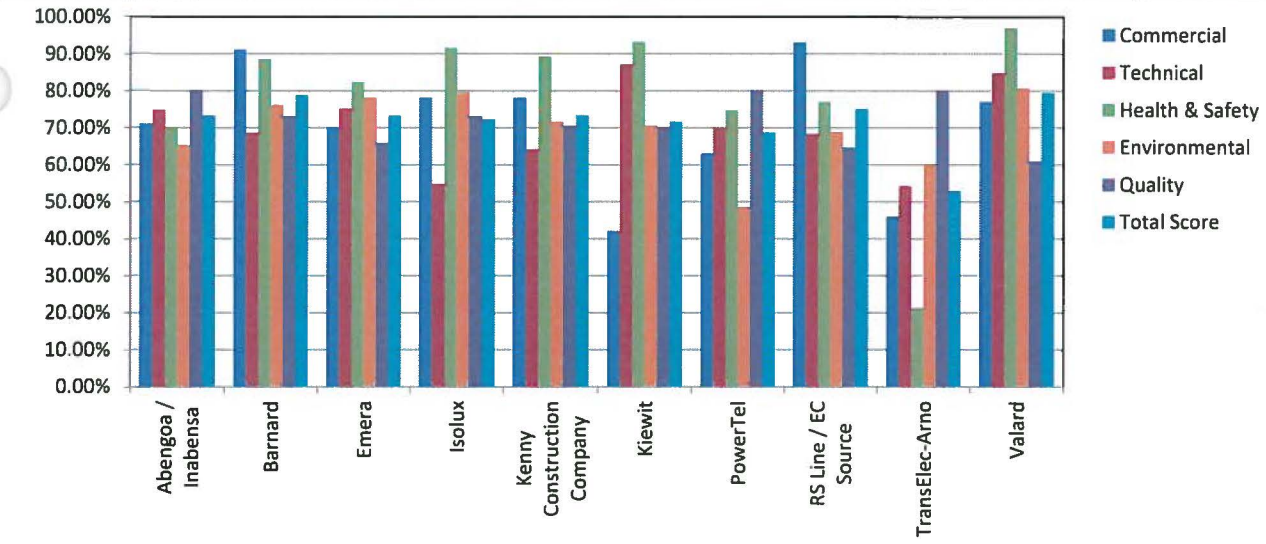
nalcor energy
LOWER CHURCHILL PROJECT

Package Name: Construction of 350kV HVdc Transmission Line - Section 1
Package No.: CT0327
Project: 505573
Date: 30-Jan-13

Overall Pass / Fail Mark >= 60.00%

	Max Score	Percentage	Pass/ Fail	Commercial	Technical	Health & Safety	Environmental	Quality
Total Possible Points	100.00%			25.00%	30.00%	15.00%	10.00%	20.00%
Abengoa / Inabensa	100.00%	73.19%	Pass	71.00%	74.71%	70.00%	65.25%	80.00%
Barnard	100.00%	78.78%	Pass	91.00%	68.53%	88.46%	76.00%	73.00%
Emera	100.00%	73.31%	Pass	70.00%	75.00%	82.31%	78.00%	65.80%
Isolux	100.00%	72.19%	Pass	78.00%	54.71%	91.54%	79.50%	73.00%
Kenny Construction Company	100.00%	73.37%	Pass	78.00%	64.12%	89.23%	71.50%	70.50%
Kiewit	100.00%	71.63%	Pass	42.00%	87.06%	93.08%	70.50%	70.00%
PowerTel	100.00%	68.70%	Fail	63.00%	69.71%	74.62%	48.50%	80.00%
RS Line / EC Source	100.00%	75.03%	Pass	93.00%	68.24%	76.92%	68.75%	64.50%
TransElec-Arno	100.00%	52.92%	Fail	46.00%	54.12%	21.23%	60.00%	80.00%
Valard	100.00%	79.41%	Pass	77.00%	84.71%	96.92%	80.50%	60.80%

Scoring Graph



Notes:

In order to advance to Bidders List an Applicant must:

1) Equal or exceed the Pass / Fail mark.

2) Receive an Environmental score greater than or equal to 60%

3) Receive a Health & Safety score greater than or equal to 70%

4) Receive a Quality score greater than or equal to 60%

Commercial Rep	_____	Date	_____
Technical Rep	_____	Date	_____
Quality Rep	_____	Date	_____
Health & Safety Rep	_____	Date	_____
Environment Rep	_____	Date	_____

ATTACHMENT 2

PHASE I: COMMERCIAL SCORING SHEET

Commercial Scoring Matrix

Package Name:	Construction of 350kV HVdc Transmission Line - Section 1
Package No.:	CT0327
Project:	505573
Scored By:	Micah Sze
Date:	01/07/2013

Scoring Guide:

0 - Question not answered or no relevant information provided in response
1 - Response does not meet key Criteria
2 - Response only meets a few of the key criteria
3 - Response meets a majority of the key criteria
4 - Response meets all key criteria
5 - Response meets and exceeds key criteria

	Question Weight (%)	Abengoa / Inabensa		Barnard		Emera		Isolux		KCC		Kiewit		PowerTel		TransElec-Arno		Valard		RS Line / EC Source	
		Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score
General Commercial Information																					
2.5 Has Applicant provided names of Company Officers?	5	5	5	5	5	5	5	3	3	5	5	2	2	5	5	3	3	3	3	4	4
3.0 Has Applicant completed the Contract commitment table complete?	10	5	10	5	10	0	0	0	0	0	0	0	0	5	10	3	6	0	0	5	10
4.2 Applicant's Annual Revenue, Profit, and Debt/Asset Ratio.	15	3	9	5	15	5	15	5	15	4	12	0	0	3	9	3	9	5	15	3	9
4.3 Have financial statements for the last three (3) years been provided?	15	2	6	5	15	3	9	5	15	5	15	0	0	0	0	0	0	4	12	5	15
4.4 Are annual financial/income statements signed by an Accountant?	5	3	3	5	5	5	5	5	5	5	5	0	0	3	3	2	2	3	3	5	5
4.5 Range of costs Applicant is prepared to bid (Max/Min).	20	3	12	4	16	3	12	4	16	5	20	5	20	2	8	3	12	5	20	5	20
4.6 Can Applicant supply Performance/Payment bonds?	5	3	3	4	4	4	4	4	4	4	4	5	5	5	5	3	3	5	5	5	5
4.7 Can Applicant supply a Letter of Credit?	5	3	3	3	3	0	0	0	0	0	0	0	0	3	3	0	0	0	0	5	5
4.8 Can Applicant provide a guarantee?	5	5	5	5	5	5	5	5	5	5	5	0	0	5	5	1	1	5	5	5	5
4.10 (a) Does Applicant have any judgements, claims, or suits pending or outstanding?	2.5	5	2.5	3	1.5	5	2.5	5	2.5	3	1.5	5	2.5	5	2.5	5	2.5	3	1.5	5	2.5
4.10 (b) Has Applicant ever been involved in any bankruptcy or reorganization proceedings?	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5
4.10 (c) Has Applicant ever had a contract terminated before completion of the work?	2.5	5	2.5	3	1.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5
4.10 (d) Has Applicant ever had a draw down on a letter of credit issued for any contract?	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5	5	2.5
5.1 Has Applicant indicated it has read and will comply with the local Benefits Strategy?	5	5	5	5	5	5	5	5	5	3	3	5	5	5	5	0	0	5	5	5	5
Score	100	71.00		91.00		70.00		78.00		78.00		42.00		63.00		46.00		77.00		93.00	
	Percentage	**71.00%**		**91.00%**		**70.00%**		**78.00%**		**78.00%**		**42.00%**		**63.00%**		**46.00%**		**77.00%**		**93.00%**	

Notes:
Kiewit , PowerTel, and Transelec-Arno did not provide their financial statements. Emera only provided a copy of their parent company's financial statements.
PowerTel has a limited bonding capacity of $40M
Kiewit and TransElec-Arno cannot provided a parent guarantee.

ATTACHMENT 3

PHASE I: TECHNICAL SCORING SHEET

Technical Scoring Matrix

Package Name:	Construction of 350kv HVdc Transmission Line - Section 1
Package No.:	CT0327
Project:	505573
Scored By:	Keenan Healey
Date:	30-Jan-13

	Question Weight (%)	Abengoa/Inabensa		Barnard		Emera		Isolux		KCC		Kiewit		PowerTel		Transelec-Arno		Valard		RS Line/EC Source	
		Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score
Technical General																					
2.1 Work History Table	20	20	20	10	10	12	12	20	20	19	19	20	20	18	18	18	18	0	0	17	17
2.3.1 List the equipment with year, model, hours and whether it is owned or rented that is available to you for the construction of the transmission lines described in Section 1.0 of Supplier General Expression of Interest (EOI).	10	2	2	10	10	5	5	0	0	0	0	10	10	10	10	10	10	10	10	10	10
2.3.2 Describe any expertise with building transmission lines in cold climate winter weather conditions.	10	8	8	10	10	10	10	2	2	4	4	10	10	5	5	5	5	10	10	7.5	7.5
2.3.3 Describe your expertise with building and using ice bridges in construction.	10	2	2	0	0	8	8	0	0	2	2	10	10	5	5	5	5	10	10	3	3
2.3.4 Describe your company's experience with building transmission lines with very poor access.	10	10	10	8	8	5	5	2	2	8	8	10	10	5	5	5	5	6	6	5.5	5.5
2.3.5 Describe your company's experience with using helicopters in the construction of transmission lines.	10	10	10	8	8	8	8	4	4	10	10	5	5	5	5	4	4	6	6	9	9
2.3.6 Describe your company's expertise with managing, and in particular, training a large group of people from local communities.	10	5	5	10	10	8	8	2	2	4	4	10	10	8	8	2	2	10	10	5	5
2.3.7 Describe your company's experience working on projects with extensive environmental and regulatory compliance requirements.	10	5	5	10	10	10	10	4	4	6	6	10	10	6	6	5	5	10	10	10	10
2.3.8 On each of the transmission lines listed on the Table in Section 1.1, were foundations, tower erection, stringing or OPGW installation subcontracted out?	0	0	0	0	0	0	0	0	0	8	8	0	0	0	0	0	0	0	0	0	0
2.3.9 How many lattice tower transmission lines can you build concurrently? How many lattice tower transmission lines are you currently building? What was the maximum number of lattice tower transmission lines your company built concurrently in the past?	10	10	10	2	2	8	8	10	10	8	8	8	8	2	2	2	2	10	10	10	10
2.3.10 What was the maximum number of lattice tower transmission lines your company built concurrently in the past?	10	10	10	2	2	2	2	10	10	8	8	5	5	2	2	6	6	10	10	9	9
2.3.11 Describe your company's experience with building transmission lines in close proximately to existing energized facilities.	10	10	10	10	10	10	10	5	5	6	6	5	5	10	10	10	10	10	10	2.5	2.5

Technical Scoring Matrix

3.1 Has the applicant provided a proposed project and site organization chart?	5	5	5	2.5	2.5	5	5	5	5	5	5	5	5	5	5	0	0	8	8	5	5
3.2.1 Does your Company have formal written policies, processes and procedures to select, qualify and monitor Suppliers and Sub-Suppliers? inspecting or surveillance?	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	2.5	2.5
3.3.2 Does your company have formal written policies, processes and procedures to monitor its subcontractors, suppliers and sub-suppliers? Describe the process and procedures.	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
3.2.2 Does your Company have free access to its Suppliers and Sub-Suppliers Plants, Productions, Manufacturing, Service or other Facilities for quality auditing, monitoring, inspecting or surveillance?	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
3.3.2 Please describe your proposed site facilities that would be used for the work, including the square measure of fabrication facilities, offices, repair facilities, lay-down area, camp, warehouse space, wharfage or other facilities relevant to the Scope of Work of the Package for Prequalification.	5	1	1	4	4	5	5	0	0	1	1	5	5	5	5	0	0	5	5	1.25	1.25
3.3.3. Does your company currently own stringing equipment capable of tension string two pole, single modified Falcon 3640 kcmil ACSR conductors.. If not, how would your company obtain the required stringing equipment?	10	10	10	5	5	5	5	5	5	0	0	5	5	5	5	5	5	10	10	5	5
3.3.4 Please describe your work loading, for the facilities and equipment covered in this Section 3.3, during the timeframe in which the work described for the Package for Prequalification is to be performed. In addition please comment on your capacity to perform in the time frame indicated.	5	0	0	2.5	2.5	2.5	2.5	0	0	0	0	5	5	2	2	0	0	5	5	0	0
3.4.1 Please identify the major or special items of work that you expect to subcontract.	5	0	0	2.5	2.5	5	5	4	4	0	0	5	5	8	8	0	0	5	5	2.5	2.5
3.4.3 Please submit a list of the software (or company internal systems) that you will use in the execution of the work. This should cover design, planning and scheduling, materials management (procurement, inspection, expediting and logistics), quality assurance and contract administration.	5	4	4	5	5	4	4	5	5	5	5	5	5	2.5	2.5	0	0	4	4	1.25	1.25
	170	127.00		116.50		127.50		93.00		109.00		148.00		118.50		92.00		144.00		116.00	
	Percentage	**74.71%**		**68.53%**		**75.00%**		**54.71%**		**64.12%**		**87.06%**		**69.71%**		**54.12%**		**84.71%**		**68.24%**	
		Abengoa/Inabensa		**Barnard**		**Emera**		**Isolux**		**KCC**		**Kiewit**		**PowerTel**		**Transelec-Arno**		**Valard**		**RS Line/EC Source**	

LOWER CHURCHILL PROJECT
TECHNICAL SCORING GUIDE FOR:
505573-CT0327 Construction of 350kv HVdc Transmission Line - Section 1

Question Number	Scoring criteria					
	Very Poor (Score=0)	Poor (Score=20% of Max)	Neutral (Score=50% of Max)	Good (Score=80% of Max)	Very Good (Score=100% of Max)	Max Score
Question 2.1 The purpose of this section is to establish the Applicant's recent (post year 2000) line construction experience. Please ensure that the table provided below is filled out with the requested information, as this information will be used in the technical evaluation.	20 points Max. 1 point each for projects involving helicopters, 3 points each for projects using sky cranes, 1 point for each project over 100 km, 1 point for each project with 50+ km with OPGW, 2 points for each HVdc project of distance > 50 km, 1 point each for projects 50 km+ in remote areas, 2 point each for projects requiring remote camps supplied and maintained by the contractor, 2 point each for projects completed (>75 kM) in northern areas, 1 point each for projects in mountainous terrain, 4 point each for projects (>75 km) that included both primary clearing and line construction, 4 points each for projects using a similarly sized conductor, 1 point each for project >50km that used guyed and self-supporting structures.					20
Question 2.3.1 List the equipment with year, model, hours and whether it is owned or rented that is available to you for the construction of the transmission lines.	No response	5 or more	10 or more	15 or more	20 or more	10
Question 2.3.2 Describe your expertise with building transmission lines in cold climate winter weather conditions.	No experience	≥1 project or >75 km	≥2 project or ≥ 150 km	>3 project or >225 km	>4 project or >375 km	10
Question 2.3.3 Describe your expertise with building and using ice bridges in construction.	No experience	1 project or 1 bridge	3 project or 3 bridge	4 project or 4 bridge	5 project or 5 bridge	10
Question 2.3.4 Describe your company's experience with building transmission lines with very poor access.	No experience	1 project or >75 km	>2 project or >150 km	>3 project or >225 km	>4 project or >375 km	10
Question 2.3.5 Describe your company's experience with using helicopters in the construction of transmission lines.	No response	≥1 project or >75 km	≥2 project or ≥ 150 km	>3 project or >225 km	>4 project or >375 km	10
Question 2.3.6 Describe your company's expertise with managing, and in particular, training a large group of people from local communities.	No response	>1 project or > 25 people at once	>2 project or > 50 people	>3 projects or > 75 people	>4 projects or > 100 people	10
Question 2.3.7 Describe your company's experience working on projects with extensive environmental and regulatory compliance requirements.	No response	>1 project described or general info of a low level	>2 project described or general info of a medium level	>3 project described or general info of a high level	>4 project described or general info of a very high level	10
Question 2.3.8 On each of the transmission lines listed on the Table in Section 1, were foundations, tower erection, stringing or OPGW installation subcontracted out? Please indicate which items for the transmission lines where subcontractors were used.						
Question 2.3.9 How many lattice tower transmission lines can you build concurrently? How many lattice tower transmission lines are you currently building? indicate which items for the transmission lines where subcontractors were used.	No response	1 or more	1 or more but at least 150 km	2 or more and 275 km	3 or more and 610 km	10
Question 2.3.10 What was the maximum number of lattice tower transmission lines your company built concurrently in the past?	No response	1 or more	1 or more but at least 150 km	2 or more and 275 km	3 or more and 610 km	10
Question 2.3.11 Describe your company's experience with building transmission lines in close proximately to existing energized facilities.	No response or no experience	>1 project or >25 km	>2 project or >50 km	>3 project or >75 km	>4 project or >100 km	10

LOWER CHURCHILL PROJECT
TECHNICAL SCORING GUIDE FOR:
505573-CT0327 Construction of 350kv HVdc Transmission Line - Section 1

Question Number	Scoring criteria					
	Very Poor (Score=0)	Poor (Score=20% of Max)	Neutral (Score=50% of Max)	Good (Score=80% of Max)	Very Good (Score=100% of Max)	Max Score
3.1 Has the applicant provided a proposed project and site organization chart?	No	Partial just project or Site - but not both	Full Project or Site - but not both	Full or partial Project and Full or partial Site, at least one full and one partial	Full project and site	5
3.2.1 Does your Company have formal written policies, processes and procedures to select, qualify and monitor Suppliers and Sub-Suppliers?	No		No but a solid explanation of such a process		Yes	5
3.3.2 Does your company have formal written policies, processes and procedures to monitor its subcontractors, suppliers and sub-suppliers? Describe the process and procedures.	No		No but a solid explanation of such a process		Yes	5
3.2.2 Does your Company have free access to its Suppliers and Sub-Suppliers Plants, Productions, Manufacturing, Service or other Facilities for quality auditing, monitoring, inspecting or surveillance?	No		Not all but some		Yes	5
3.3.2 3.3.2 Please describe your proposed site facilities that would be used for the work, including the square measure of fabrication facilities, offices, repair facilities, lay-down area, camp, warehouse space, wharfage or other facilities relevant to the Scope of Work of the Package for Prequalification.	No explanation	Some points explained but less than half of the points asked for explained	Half the points asked for explained	Most of the points explained but not all of the points asked for explained	All points asked for explained	5
3.3.3 Does your company currently own stringing equipment capable of string single conductor 3640 kcmil 91/0 ACS.	Missed or simply no		No. But can source one.		Yes	10
3.3.4 Please describe your work loading, for the facilities and equipment covered in this Section 3.3, during the timeframe in which the work described for the Package for Prequalification is to be performed. In addition please comment on your capacity to perform in the time frame indicated.	Missed or no explanation	Somewhat explained	About half explained	Mostly explained	Fully explained	5
3.4.1 Please identify the major or special items of work that you expect to subcontract.	Missed or no explanation	Somewhat identified from what would be expected	About half expected identified	Mostly expected identified	Fully identified on what would be expected.	5
3.4.3 Please submit a list of the software (or company internal systems) that you will use in the execution of the work. This should cover design, planning and scheduling, materials management (procurement, inspection, expediting and logistics), quality assurance and contract administration.	Missed or no explanation	Somewhat identified from what would be expected	About half expected identified	Mostly expected identified	Fully identified on what would be expected.	5
					TOTAL Maximum Score:	170

Bidder	Technical Reviewer's Comments
Abengoa / Inabensa	Abengoa is a major player in the industry with a very impressive work history. They have HVac project experience with lines almost 1000 km long. However, they were the only pre-qualifier to have significant HVdc experience - a 2412 km, 600 HVdc, bipole line with a 2282 AAC conductor. Abengoa is one of three pre-qualifies who currently owns the stringing equipment required for the large conductor. Depending on their proposal I would recommend them for all three sections.
Barnard	Barnard is a major civil contractor with a lot of impressive contracts including linear infrastructure contracts. However, they don't have a lot of significant line experience and the lines subcontractor that they listed lacks lattice tower experience. I would recommend limiting Barnard to one segment and certainly not the complete Section, unless they proposed a more experienced lines subcontractor. With the right lines subcontractor they could be a major asset with their excellent construction experience.
Emera	Emera has preformed a lot of projects and have good Canadian utility experience with cold weather and helicopter experience. However, they have not performed any projects of the scale of this project, nor have they lot of experience with lattice towers in the last 10 years. I would recommend limiting Emera to one Segment.
Isolux	Isolux has preformed some very large transmission projects, three of the four projects are ≥ Section 1, with one project 1200 km. Their low score is mainly a reflection of not really seriously answering the questions. They appear to be a major player and had a potential for a much higher score.

Bidder	Technical Reviewer's Comments
Kenny Construction Company	KCC is general contractor with some decent projects listed. They seem to have good knowledge regarding building access in mountainous areas. However, they are a general contractor and would have to team up with a line contractor. They list Valard as their subcontractor who is also prequalifying so I am not sure if they have had any discussions with Valard., however, they listed Valard, thus, I am not sure if they even checked with Valard. They pass the prequalification but we will still need to evaluate their lines contractor if they bid on this project. This will be taken care of in the Technical Question in the RFP, for all general contractors who choose a lines contractor that we have not evaluated. Without knowing who their lines contractors are going to be I am not able to define how many segments they are able to perform concurrently.
Kiewit	Kiewit is a major general contractor with a tremendous amount of Canadian northern construction experience. Further, they have some good, similar line construction experience. They indicate that they would like to do the complete Section. The longest similar line they constructed was 217 km, so 610 km would be pushing new boundaries for them, but with their vast construction experience they should be considered for the Section, technically.
PowerTel	Powertel has some good transmission line construction experience and an impressive fleet of tracked vehicles. What they lack is lattice tower experience. I would think they could handle one segment but not the full Section. They were also listed as the subcontractor for Barnard.
Transelec-Arno	Transelec Arno has good Canadian northern experience. What they lack is experience with lines exceeding 100 km. There low score is not necessarily a reflection on their technical abilities but a reflection of limited answers. I would recommend them for a single segment but not the section.

Bidder	Technical Reviewer's Comments
Valard	Valard is a know major Canadian Lines Contractor who could do the full Section. Valard is one of three pre-qualifies who currently owns the stringing equipment required for the large conductor.
RS Line / EC Source	RSL is a know major Canadian Lines Contractor who could do the full Section. RSL is one of three pre-qualifies who currently owns the stringing equipment required for the large conductor. ECSource's score is lower than it would have been if they answered all the questions. The are JV'ing with RSL and thus left some question blank indicating that RSL would take care of the answer. They look to have some good transmission line project experience and even have a small fleet of helicopters used for the construction. They also have some good mountain experience.

ATTACHMENT 4

PHASE I: HEALTH AND SAFETY SCORING SHEET

Health and Safety Scoring Matrix

Package Name:	Construction of 350kV HVdc Transmission Line Sect 1
Package No.:	CT0327
Project:	Lower Churchill Project
Scored By:	Bill Bishop
Date:	08-Jan-13

Scoring Guide:

0 - Question not answered or no relevant information provided in response
1 - Response does not meet key Criteria
2 - Response only meets a few of the key criteria
3 - Response meets a majority of the key criteria
4 - Response meets all key criteria
5 - Response meets and exceeds key criteria

For Questions 4 - 13
5 - Yes
0 - No
0 - N/A

NOTES:

1. Abengoa barely passed with the aid of info provided by its new partner (Inabensa)
2. Barnard has acceptable statistics and a reasonable program
3. Valard has a very strong safety management system
4. Isolux passed following areview of H/S information submitted for another project package (CT0319)
5. Kiewit has a high rate of MA's but a comprehensive safety management system
6. Powertel has a reasonable safety management system
7. KCC has acceptable statistics and safety management system
8. Emera has barely acceptable statistics but a comprehensive safety management system
9. Transelec failed based upon a lack of information provided now and during past submission
10. RS Lines/EC Source did not provide statistical data but were very comprehensive with submitted safety mgt system

	Question Weight (%)	ABENGOA / INABENSA		BARNARD		VALARD		ISOLUX		KIEWIT		POWERTEL		KCC		EMERA		TRANSELEC - ARNO		RS LINE/EC SOURCE	
		Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score
Health & Safety																					
2.1 Employee/Person Hours	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.2	0	0
2.2 Workers Compensation (Full Section)	5	2	2	4	4	4	4	3	3	2	2	3	3	2	2	3	3	3	1.2	0	0
2.3 Safety/ Environment (Regulatory) Compliance Safety/ Environment	5	3	3	3	3	4	4	3	3	2	2	2	2	2	2	3	3	4	2.4	0	0
3.0 Health and Safety Record	5	2	2	4	4	4	4	4	4	3	3	3	3	3	3	2	2	2	0.8	0	0
4.1 Does Applicant's Health and Safety Program have a Policy Statement that clearly outlines the Company's commitment to health and safety stewardship?	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
4.2 Is Applicant's Health & Safety Program written to a Standard (such as ISO 18001 or CSA Z1000-06)?	5	5	5	0	0	5	5	5	5	5	5	5	5	0	0	5	5	5	5	5	0
5.1 Does Applicant provide formal Health & Safety management training to management personnel?	5	5	5	5	5	5	5	5	5	5	5	0	0	5	5	5	5	0	0	5	5
5.2 Does Applicant provide an overview of training program for management and employees?	5	5	5	5	5	5	5	5	5	5	5	0	0	5	5	0	0	0	0	5	5
6.1 Does Applicant have a written procedure for incident/accident reporting and investigation?	5	5	5	5	5	5	5	5	5	5	5	0	0	5	5	5	5	0	0	5	5
6.2 Does Applicant's incident/accident investigation follow a process such as the "TapRoot" process?	5	0	0	5	5	5	5	5	5	5	5	0	0	5	5	5	5	0	0	5	5
7.1 Does Applicant have an emergency response plan related to its activities and specific locations?	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
7.2 Does Applicant provide Emergency Response training?	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5
8.1 Does Applicant have an Alcohol and Drug Policy? Are all employees made aware of this policy and is it enforced?	5	0	0	5	5	5	5	5	5	5	5	5	5	5	5	5	5	0	0	5	5
8.2 Does Applicant have a policy pertaining to prohibited items (e.g. knives, firearms)?	5	0	0	5	5	5	5	5	5	5	5	5	5	5	5	0	0	0	0	5	5
8.3 Are all employees made aware of this policy and is it enforced?	5	0	0	5	5	5	5	5	5	5	5	5	5	5	5	0	0	0	0	5	5
8.4 Does Applicant make reference to following all applicable legislative requirements in the jurisdiction where work is being performed?	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	0	0	5	5
9.1 Does Applicant provide training for Management and Supervisors in safety management?	5	5	5	5	5	5	5	5	5	5	5	0	0	5	5	5	5	0	0	5	5

Health and Safety Scoring Matrix

9.2 Does Applicant have a process in place to ensure that only competent workers, including supervision, will be used during the operation?	5	5	5	5	5	5	5	0	0	5	5	5	5	5	5	5	5	0	0	5	5
10.1 Does Applicant have a policy or specific rules with respect to the use of Personnel Protective Equipment (PPE)?	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	0	0	5	5
10.2 Does Applicant have a formal process for determining personnel protective equipment requirements for its operation?	5	0	0	5	5	5	5	5	5	5	5	5	5	5	5	5	5	0	0	5	5
11.1 Does Applicant hold scheduled safety meetings, such as: Weekly General Safety Meetings for all crew and Weekly Departmental Meetings for each department at the work site?	5	0	0	5	5	5	5	5	5	5	5	5	5	5	5	5	5	0	0	5	5
11.2 Does Applicant inform workers of their rights to refuse unsafe work?	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	0	0	5	5
12.1 Does Applicant conduct Risk Assessments on all critical and non-routine jobs/job functions?	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	0	0	5	5
12.2 Does Applicant have a Permit To Work system?	5	5	5	0	0	5	5	5	5	5	5	5	5	5	5	5	5	0	0	5	0
13.1 Does Applicant's Health and Safety program outline the requirements for Supervisors and Employees to conduct regular inspections of equipment work conditions at the worksite?	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	0	0	5	5
13.2 Does Applicant's Health and Safety program require the prompt reporting of hazardous conditions at the worksite(s)?	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	0	0	5	5
Score	130	91.00		115.00		126.00		119.00		121.00		97.00		116.00		107.00		27.60		100.00	
	Percentage	**70.00%**		**88.46%**		**96.92%**		**91.54%**		**93.08%**		**74.62%**		**89.23%**		**82.31%**		**21.23%**		**76.92%**	
		ABENGOA / INABENSA		**BARNARD**		**VALARD**		**ISOLUX**		**KIEWIT**		**POWERTEL**		**KCC**		**EMERA**		**TRANSELEC - ARNO**		**RS LINE/EC SOURCE**	
		PASS		**PASS**		**PASS**		**PASS**		**PASS**		**PASS**		**PASS**		**PASS**		**FAIL**		**PASS**	

ATTACHMENT 5

PHASE I: ENVIRONMENTAL SCORING SHEET

Environmental Scoring Matrix

Package Name:	Construction of 350kV HVdc Transmission Line - Section 1
Package No.:	CT0327
Project :	Lower Churchill
Scored By:	Lesley Reid
Date:	31-Jan-13

Scoring Guide:

0 - Question not answered or no relevant information provided in response
1 - Response does not meet key Criteria
2 - Response only meets a few of the key criteria
3 - Response meets a majority of the key criteria
4 - Response meets all key criteria
5 - Response meets and exceeds key criteria

	Question	Abengoa/Inabensa		EC Source/RS Line		Barnard		Kenny Construction		Isolux		Translec-Arno		Valard		Emera		Kiewit		Powertel		Notes
		Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	
Environmental																						
2.1 Employee/Person-Hours																						
2.1.1 number of employees	0		0		0		0		0		0		0		0		0		0		0	no score required
2.1.2 number of person-hours	0		0		0		0		0		0		0		0		0		0		0	no score required
2.2 Environmental (Regulatory) Compliance																						
2.2.1.2 number of agency inspections conducted over past three years	0		0		0		0		0		0		0		0		0		0		0	no score required
2.2.1.3 Amount of fines incurred, if any	0		0		0		0		0		0		0		0		0		0		0	no score required
3.0 Contractor Environmental Record																						
3.1 person-hours/year for past three years	5	2.5	2.5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	5	
3.2 environmental incidents/non-compliance	5	1.75	1.75	5	5	5	5	5	5	5	5	5	5	5	5	3.5	3.5	5	5	5	5	
4.0 Leadership and Administration																						
4.1 Does your company have an environmental policy statement that clearly outlines its commitment to environmental stewardship?	5	4.25	4.25	3.75	3.75	5	5	4	4	4	4	4	4	5	5	4	4	4	4	2.5	2.5	
4.2 Does your company have a formal Environmental Management System that conforms to a recognized Standard (such as ISO 14001)?	5	3.75	3.75	1	1	4	4	0	0	4	4	0	0	2.5	2.5	4	4	4	4	0	0	
4.3 Does your company have in place a chemical management procedure?	5	1.25	1.25	2.5	2.5	4	4	0	0	4	4	3	3	4	4	4	4	0	0	0	0	
5.0 Leadership Training																						
5.1 Does your company provide formal environmental management training to management personnel?	5	4	4	3	3	4	4	4	4	4	4	0	0	4	4	2.5	2.5	4	4	0	0	
5.2 Provide an overview of training program for management and employees.	5	4	4	3.25	3.25	4	4	4	4	4	4	0	0	4	4	3	3	4	4	0	0	
6.0 Incident Investigations																						
6.1 Does your company have a written procedure for environmental incident reporting and investigation?	5	3.5	3.5	3	3	4	4	4	4	4	4	4	4	4	4	4	4	4	4	3.5	3.5	
6.2 Does your company incident investigation follow a process such as the "TapRoot" process?	5	3.5	3.5	3.25	3.25	1	1	4	4	3	3	4	4	3.5	3.5	4	4	0	0	2.5	2.5	
7.0 Emergency Preparedness																						
7.1 Does your company have an emergency response plan related to its activities and specific locations?	5	4	4	3.25	3.25	4	4	4	4	4	4	3	3	4	4	4	4	3.5	3.5	2.5	2.5	
7.2 Does your company provide Emergency Response training?	5	2.25	2.25	3.25	3.25	4	4	4	4	3.5	3.5	3	3	4	4	4	4	3.5	3.5	2.5	2.5	
7.3 Does your company have a spill response plan for hazardous materials, including fuels and other petroleum products, that it transports, handles, uses, stores and / or disposes?	5	4	4	3.25	3.25	4	4	4	4	4	4	4	4	4	4	4	4	3.5	3.5	2.5	2.5	
8.0 Organizational Rules, Policies & Procedures																						
8.1 Does your company follow all applicable legislative requirements in the jurisdiction where work is being performed?	5	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	2.5	2.5	
8.2 Does your company have formal environmental policies and procedures as part of its Environmental Management System?	5	3.5	3.5	3.25	3.25	4	4	4	4	4	4	3	3	4	4	4	4	4	4	2.5	2.5	
9.0 Employee Knowledge & Skills Training																						
9.1 Does your company provide training for Management and Supervisors in environmental management?	5	4	4	3.75	3.75	4.5	4.5	4	4	4	4	3	3	4	4	4	4	4	4	2.5	2.5	
9.2 Does your company have in place a process to ensure that only competent workers, including supervision, are used during the operation?	5	2.25	2.25	3.75	3.75	4	4	4	4	4	4	3	3	4	4	4	4	4	4	2.5	2.5	
9.3 Does your company offer WHMIS training to its staff?	5	1.25	1.25	3.25	3.25	3.5	3.5	2.5	2.5	3.5	3.5	3	3	3.5	3.5	4	4	3.5	3.5	4	4	
10.0 Job Meetings																						
10.1 Does your company discuss environmental issues at regular job meetings	5	3.5	3.5	3.75	3.75	4	4	3	3	3.5	3.5	3	3	4	4	4	4	3.5	3.5	2.5	2.5	
11.0 Planned Environmental Audits and Inspections																						
11.1 Does your company's environmental program outline the requirements for Supervisors and Employees to conduct regular environmental inspections of work conditions at the worksite?	5	4	4	3.75	3.75	4	4	4	4	4	4	3	3	4	4	4	4	3.5	3.5	2.5	2.5	
11.2 Does your company's environmental program require the prompt reporting of hazardous conditions and spill incidents at the worksite/s?	5	4	4	3.75	3.75	0	0	4	4	4	4	3	3	4	4	4	4	3.5	3.5	3.5	3.5	
Score	100	65.25		68.75		76.00		71.50		79.50		60.00		80.50		78.00		70.50		48.50		
	Percentage	**65.25%**		**68.75%**		**76.00%**		**71.50%**		**79.50%**		**60.00%**		**80.50%**		**78.00%**		**70.50%**		**48.50%**		
		Pass		**Pass**		**Pass**		**Pass**		**Pass**		**Pass**		**Pass**		**Pass**		**Pass**		**Fail**		

Note: Abengoa was scored using the questionnaire and backup information from CT0319. Most backup information provided was actually that of Inabensa, eventhough Insabensa provided their own responeses to the Questionnaire. If Abengoa responded yes, however didn't provide backup, they were scored 2.5. Abengoa's and Inabensa's scores were averaged to get the final score. Individual scores are included in hidden columns

Note: Powertel filled out the correct questionnaire, however backup information was taken from CT0319 Pre-Qual and wasn't complete. All questions that were answered "yes", but no backup provided were scored as 2.5

Note: RS Line and EC Source scores were averaged to get the final score. Individual scores are included in hidden columns

ATTACHMENT 6

PHASE I: QUALITY SCORING SHEET

Quality Scoring Matrix

Package Name:	Construction of 350kV HVdc Transmission Line - Section 1
Package No.:	CT0327
Project :	505573
Scored By:	Ken Morrison
Date:	14-Jan-13

Scoring Guide:

0 - Question not answered or no relevant information provided in response
1 - Response does not meet key Criteria
2 - Response only meets a few of the key criteria
3 - Response meets a majority of the key criteria
4 - Response meets all key criteria
5 - Response meets and exceeds key criteria

	Question Weight (%)	ABENGOA/INABENSA		BARNARD		KENNY CONSTRUCTION		RS LINE/ EC SOURCE		POWERTEL		ISOLUX-CORSAN		TRANSELEC-ARNO		PETER KIEWIT		EMERA UTILITIES		VALARD CONSTRUCTION	
		Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score	Answer	Score
Quality Part A - To be completed if Applicant has a registered Quality Management System (QMS)																					
Q1. Does Applicant have a registered Quality Management System? If "yes", was a certificate of registration provided?	50	4	40		0		0		0	4	40	3.3	33	4	40	4	40		0		0
Q2. If Applicant has a registered Quality Management System, did they provide a Table of Contents of thier Quality Manual?	50	4	40		0		0		0	4	40	4	40	4	40	3	30		0		0
Score Part A	100	80.00		0.00		0.00		0.00		80.00		73.00		80.00		70.00		0.00		0.00	
	Percentage	**80.00%**		**0.00%**		**0.00%**		**0.00%**		**80.00%**		**73.00%**		**80.00%**		**70.00%**		**0.00%**		**0.00%**	
Quality Part B - To be completed if Applicant "does not" have a registered QMS																					
Q3. Please explain how your organization controls its processes to ensure that you meet the customer's requirements.	15		0	4	12	4	12	3.5	10.5		0		0		0		0	4	12	4	12
Q4. Are there written procedures for your core processes?	15		0	4	12	4	12	4	12		0		0		0		0	4	12	4	12
Q5. How do you ensure that your main subcontractors/subsuppliers meet specified requirements (including requirements for Quality)?	15		0	3	9	3.5	10.5	4	12		0		0		0		0	3	9	3	9
Q6. What are your processes for addressing problems and opportunities for improvement?	10		0	4	8	3	6	3	6		0		0		0		0	4	8	3.6	7.2
Q7. Do you have a documented audit schedule for both internal and external audits?	10		0	4	8	2	4	2	4		0		0		0		0	3	4.8	3	6
Q8. What is your process for responding to customer complaints or corrective action requests?	10		0	3	6	3.5	7	3	6		0		0		0		0	3	6	1	2
Q9. Describe your process for investigating the root cause of problems and implementing effective corrective action.	10		0	3	6	3.5	7	3	6		0		0		0		0	4	8	3.3	6.6
Q10. Is there a procedure for management of hard copy and electronic records?	10		0	4	8	4	8	4	8		0		0		0		0	3	6	3	6
Q11. Please provide contact information for two client references and details of products or services provided.	5		0	4	4	4	4	0	0		0		0		0		0	0	0	0	0
Score Part B	100	0.00		73.00		70.50		64.50		0.00		0.00		0.00		0.00		65.80		60.80	
	Percentage	**80.00%**		**73.00%**		**70.50%**		**64.50%**		**80.00%**		**73.00%**		**80.00%**		**70.00%**		**65.80%**		**60.80%**	

Quality questionnaires were provided by Kenny Construction and Barnard. No quality questionnaires were provided by INABENSA or EC SOURCE, however, INABENSA provided an ISO 9001:2008 certificate and quality manual table of contents which are prerequisites for qualification. EC SOURCE provided a 686 page compilation of information including the technical questionnaire and copious detail on their environmental management and safety management programs, also provided was a Quality Control Manual. While they did not provide a formal response to the quality questionnaire, I reviewed the information provided to ascertain their approach to quality. It was evident that they provide quality management positions in their project organizational charts and make sufficient reference to quality processes such as supplier quality assessments in the procurement process, preventive and corrective actions processes and written procedures for core processes to allow evaluation for the EOI process. Pre-qualification responses from CT0319 were confirmed and added for POWERTEL UTILITIES, ISOLUX-CORSAN , TRANSELEC-ARNO, EMERA, VALARD CONSTRUCTION and PETER KEIWIT INFRASTRUCTURE.

ATTACHMENT 7

CONTRACTOR PRE-QUALIFICATON SUBMISSIONS
(E-FILES)

Valard
A QUANTA SERVICES COMPANY

APPLICATION FOR BIDDER SELECTION

Date: December 6th, 2012

From: *VALARD CONSTRUCTION LP*
UNIT #5 – THIRD FLOOR
1697 BRUNSWICK STREET
HALIFAX, NS
B3J 2G3
CANADA

To: Nalcor Energy - Lower Churchill Project
c/o SNC-Lavalin Inc.
350 Torbay Road Plaza, Suite 2
St. John's, NL
A1A 4E1
Canada

Attention: Micah Sze
Project No: **505573**
Package No: **CT0327**
Package Title: **Construction of 350kV HVdc Transmission Line Section 1**

Dear Mr. Sze:

I/We **VALARD CONSTRUCTION LP** hereby agree that:
(Official Name of Applicant)

1. After carefully examining the Bidder Selection documentation, we do hereby submit our Application for Bidder Selection to be a Bidder for the above referenced Package and enclose the following appendices as part of our Bidder Selection submittal:
   - Appendix 1 – Commercial Questionnaire
   - Appendix 2 – Technical Capability Questionnaire
   - Appendix 3 – Health and Safety Questionnaire
   - Appendix 4 – Environmental Questionnaire
   - Appendix 5 – Quality Questionnaire

Valard
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2. We are ☐ are not ☒ submitting this Application as a Joint Venture or Partnership. Where this response is in the affirmative (check each box as appropriate):
   - ☐ we confirm that we are the Lead Partner, and that each of the partners is identified in Attachment 1 to this Application, along with the scope of their participation;
   - ☐ we confirm that each partner agrees to be jointly and severally responsible for the work;
   - ☐ we confirm that a copy of the Joint Venture Agreement/Partnership agreement is enclosed.

3. The name and the position of our representative who is coordinating this Application, and who may be contacted for further information, as required, is as follows:

   Name: Vicki Marks

   Position: VP, Eastern Canada

   E-mail: vmarks@valard.com

   Tel: 416-455-9579 cell

4. We confirm that we have read and fully understood all of the information supplied with the Bidder Selection Document. In particular, we confirm that if we are invited to bid on the Lower Churchill Project:
   - we will comply with the Company's standards with respect to Health and Safety in the workplace, and fairness with respect to all bidding;
   - we will comply with the Lower Churchill Construction Project Benefits Strategy.
   - we will sign a Non-disclosure and Conflict of Interest Agreement prior to receipt of the Request for Proposal Documents.

5. We confirm and certify that the information submitted in this Application for Bidder Selection is true and correct.

6. We understand that the Engineer will need to verify information in the Application, as required, and we hereby confirm that your representatives are authorized to communicate with any person identified in the Application and Appendices.

7. We also confirm and acknowledge that:
   - Company and Engineer shall have no liability whatsoever, for any costs, expenses, charges or losses which we may incur or be required to expend in the preparation or presentation of this Application for Bidder Selection.
   - Our submission of this Application shall not convey any right to be included on the final Bidders List; and it will be Company's sole right to determine the final list of qualified bidders to be included on said Bidders List.
   - While the information submitted is not for general publication, it may be used as necessary for the purposes of Bidder Selection.

Valard
A QUANTA SERVICES COMPANY

SIGNED on this 6th day of December, 2012

For and on behalf of:

VALARD CONSTRUCTION LP
Official name of Applicant

Vicki Marks
Name and signature of authorised signing officer

VP, Eastern Canada
Title

December 6th, 2012
Date

416-455-9579
Telephone No. (including country code and area code)

vmarks@valard.com
Official e-mail address of Applicant

APPENDIX 2

TECHNICAL QUESTIONNAIRE

Package Number:	**CT0327**		
Package Name:	**Construction of 350kV HVdc Transmission Line Section 1**		
Applicant:	**VALARD CONSTRUCTION LP**		
Applicant Name:	**VICKI MARKS**		
Contact Phone:	**416-455-9579**	Email:	**vmarks@valard.com**

TABLE OF CONTENTS

1.0 WORK EXPERIENCE

1.1 Applicant is requested to Use Form 1.1 (attached) to record previous experience. Use one sheet for each contract.

1.2 Applicant is requested to list all contracts undertaken in the last 5 years which are similar in nature and complexity as this Package.

1.3 If the Applicant is a joint venture, Applicant is requested to list for each partner of the joint venture all contracts undertaken in the last 5 years by the said partner, and which are similar in nature and complexity to the work that will be performed by that partner.

2.0 TECHNICAL SPECIFIC

2.1 The purpose of this section is to establish the Applicant's recent (post year 2000) line construction experience. Please ensure that the table provided below is filled out with the requested information, as this information will be used in the technical evaluation. Please ensure that the table is as complete as possible. The Applicant may expand the table, as required to supply the requested information, or may supply the information in a separate document. Please ensure that the information is presented in a format that is easy to assess.

Table 1: Applicant's new transmission line construction experience, since year 2000															
Client/ Owner Name	Project Name/ Location	AC/DC Voltage (kV)	Line Length (km)	Single or Double Circuit	Conductor Per Phase	Conductor Size	OPGW	Guyed Steel Towers	Self-Supporting Steel Towers	Wood Poles	Start and Finish Dates	Remote Camps	Were helicopters used, if so describe	ROW Clearing	Project Value

2.2 Table Definitions

Client/Owner Name: Client's name and the owner of the line, if different.
Project Name/Location: The project name as known to the owner of the line and the location of the line construction.
Voltage (kV): The voltage of the line and indicate whether it was ac or dc, i.e. 400 kV dc
Line length (km): The kilometers of the line constructed.
Single or double circuit: Indicate if the line was a single circuit (S/C) or a double circuit line (D/C).
Cond. per phase: The number of conductors per phase.
Cond. Size: The conductor size of the line.
OPGW: Whether the line had OPGW or not, if so, give a brief description the OPGW installed.
Guyed Steel Towers: Whether the line had guyed steel towers (Yes, No).
Self-supporting Steel Towers: Whether the line had self-supporting steel towers (Yes, No).
Wood Poles: Indicate whether the line had wood poles (Yes, No).
Start and Finish dates: The start and finish date of Contractor's line construction – month, Year (i.e. May 2000 to Jun 2001).
Remote Camps: Indicate whether remote camps were required and if your company had to erect and manage the camps for the crews working on the line. Please describe the buildings and facilities and general operations of the camp.
Were helicopters used, if so, describe: If helicopters were used describe their use (i.e. moving materials, moving workers, erecting towers, pulling the pilot wire, etc.).
ROW Clearing: Indicate whether the main ROW clearing was a part of Contractor's: scope of work; Contractor directly supervised the clearing contractor, or the ROW was cleared by others.
Project value: The value of your company's portion of the work.

If the Applicant's scope of work for the project had multiple lines on different structures, list each line separately in the table.

2.3 Technical Specific Questions

2.3.1 List the equipment with year, model, hours and whether it is owned or rented that is available to you for the construction of the transmission lines. Include any pertinent details such as capacity, size, power rating, reach, speed, etc.

Please find attached listing of Valard-owned equipment.

Our substantial fleet of transmission line construction equipment is further augmented through the use of short and long term leases as required.

It is also our practice to utilize equipment available through local companies in the vicinity of the project area in order to ensure efficiency as well as to provide economic support and involve the local community in the project activities.

In addition to Valard Construction's large fleet of equipment, we also have access to Quanta Services' equipment pool – the largest fleet of utility-specific equipment in North America.

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EQUIPMENT LISTING

UNIT#	WEIGHT	YEAR	TYPE	SERIAL #
Numerous pickup trucks and vans				
3161	63500 kg	1991	Freightliner Conventional	2FUYFSEB5MV377720
3163	63500 kg	1993	Ford Conventional L	1FDZU90DXPVA29971
3220	63500 kg	1997	Freightliner Conventional	1FUYFDZB4VP714931
3221	63500 kg	2003	Freightliner	1FUJA6AV23LL08958
3222	63500 kg	1995	Kenworth Construct	2NKDLB0X7SM938146
3223	63500 kg	1999	Freightliner	1FUYFDZB7XPA03472
3224	63500 kg	2004	Freightliner	1FUJA6AV74LM72269
3225	63500 kg	2004	Freightliner	1FVHALCV44DN40737
3226	63500 kg	2007	Freightliner	1FUJA6CK47DW94415
3227	63500 kg	2006	Kenworth	3WKDD40X56F987961
3228	63500 kg	2007	Kenworth T800	1XKDPBEX37J995039
3229	20000 kg	2005	Chevrolet C5500 4x4 Dually	1GBE5C3215F524711
3230	63500 kg	2005	Kenworth T800B Winch Tractor	1XKDDB0XX5R979208
3231	63500 kg	2005	Kenworth T800B Winch Tractor	1XKDDB0X15R977752
3232	63500 kg	1996	Peterbilt 378 Winch Tractor	1XPFDBOX5TD389897
3233	63500 kg	2006	Kenworth Winch Tractor	1XKWDB0X56J990898
3301	63500 kg	2000	Freightliner	1FVXJJCBXYHF61650
3303	63500 kg	1998	Freightliner	1FVXTMDB1WH921859
3304	23000 kg	1993	Western Star Conventional	2WLPCCJF3PK931897
3305	29000 kg	1998	Freightliner M. Conventional	1FVXJLCBXWH810194
3306	29000 kg	2002	International 4000 Series	1HTMKADR92H410961
3307	20000 kg	2000	International 4000 Series	1HTSCAAPXYH307810
3308	29000 kg	2006	Freightliner M2	1FVHC5CV46HV47902
3309	47500 kg	1996	Kenworth Construct	1NKDLB0X6TS941056
3310	25400 kg	1999	Freightliner M. Conventional	1FVXTWCB1XHA10870
3312	28000 kg	2007	Sterling	2FZHATDC57AY39469
3313	46500 kg	2002	International	1HTGLAHT42H538573
3315	24500 kg	1987	International S1900	1HTLDTVNXHH507267
3316	27000 kg	2008	Sterling LT8513 Picker	2FZHAWBS28AZ62305
3318	63500 kg	2001	Kenworth T800B Picker	1XKDDB0X11R963831
3319		2007	Sterling LT8501 30 Ton Crane	2FZHAWDC17AY33878
3320	28000 kg	2007	Sterling LT7501 26 Ton Crane	2FZHATDC87AY34167
3321	24300 kg	2006	Sterling LT7501 23 Ton Crane	2FZHATDCB6AU04090
3322	24300 kg	2006	Kenworth T800 23 Ton Crane	2NKDL00X86M150776
3323	27000 kg	2006	Peterbilt 335 Picker	2NPLLZ0X96M886636
3324	27000 kg	2006	Peterbilt 335 Picker	2NPLLZ0X46M886625
3325	15000 kg	2001	Sterling Acterra Flatbed Crane	2FZAAKAK81AH36998
3326	15000 kg	2001	Sterling Acterra Flatbed Crane	2FZAAKAK21AH36995
3327	15000 kg	2001	Sterling Acterra Flatbed Crane	2FZAAKAK41AH36996
3328	47200 kg	2006	Freightliner FLD120SD Tri-Drive	1FPALAVX6DV47855
3329	30300 kg	2006	Freightliner FLD120SD Tri-Drive	1FVPALAV56DU48117
3330	47500 kg	1997	Western Star 4964F Picker	2WLPDCCJ0VK947809
3331	35380 kg	2010	Peterbilt 365 Tri Drive Crane Truck	1NPSX0EX9AD104094
3332	63500 kg	2006	Kenworth T800B Winch Tractor	1XKDDB0X86R986692
3333	25500 kg	2006	Sterling Acterra Picker Truck	2FZXCN0096AV76317
3334	35000 kg	2010	Mack GU713 Granite 40 ton Crane	1M2AX04C6AM007996
3335	26400 kg	2009	Sterling LT8513 23 Ton Boom Truck	2FZHAWCY89AAD9958

UNIT#	WEIGHT	YEAR	TYPE	SERIAL #
3336	26400 kg	2009	Sterling LT8513 23 Ton Boom Truck	2FZHAWCY99AAD9953
3338	63500 kg	2007	Kenworth T800 Tractor	1XKDD40X57R930898
3339	63500 kg	2007	Kenworth T800 Tri-Drive Winch Tractor	1XKDPBEX67J930377
3340		2000	Kenworth T800B w/Hiab 9.5 Ton Boom Truck	1NKDL60X0YR958554
23-S-797	24300 kg	2007	Kenworth T800 23 Ton Crane	1NKDL00X17J211703
4135		2008	Magnum Utility Trailer	5AJGS13128B001489
4191		1998	Homemade pole Trailer	T419A
4225		2004	Freightliner Peerless 25T Trailer	2AT6071884M102659
4335		1995	Easy Ride Jeep Trailer	2N9M6E402SE016132
4401		1975	Pole Trailer	T401
4402		1976	Pole Trailer	T402
4403		1995	Homemade Trailer	T403
4404		1975	Pole Trailer	T404
4405		1980	Pole Trailer	T405
4407		1964	Pole Trailer	832R265403
4407A		2002	LodeKing SD953-3 Trailer	2LDSD533729037670
4408		1964	Pole Trailer	DTE16962
4410		1967	Fruehauf Trailer	AB464242
4413		1975	Homemade Trailer	NONE
4414		1972	Transcraft Trailer	146404
4415		1972	Transcraft Trailer	TC3743
4416		1979	Trailmobile Trailer	T94987
4417			Peerless Page Pole Trailer	B79-277701
4418		1973	Trans Flat Trailer	TC8738
4420		2000	Homemade Trailer	T420A
4422		1988	Homemade Trailer	4422
4425				
4426		1980	Fruehauf Trailer	NONE
4427		1980	Factory Made Trailer	6220030
4428		1969	Can Car Utility Trailer	69W3096
4429		1981	Trailmobile Van PSV Trailer	14022021001
4430		1990	Timb Puller Trailer	T430
4432		1995	Flat Deck Utility Trailer	83019
4434		2000	Homemade Trailer	T434-00
4435		1974	ts Trailer	90577000463
4437		1976	Homemade Trailer	SASK9107700097
4438		1975	Homemade Trailer	SK400045243
4439		1991	Tension Stringing Trailer	1T92S0421MS268073
4440		1977	Craig Trailer	C17402
4442		1995	Aspen fg40-3 Trailer	2A9LB4031SS037511
4444		1995	K & O 30ft Trailer	1K9FL2961SH048087
4445		2005	Doepker Tridem Scissor Trailer	2DE5NSZ3061018240
4446		1980	Homemade PSV Trailer	SS003
4448		1981	Homemade Utility Trailer	WP33
4449		1991	Homemade Trailer	ELSXW392
4450		1979	Homemade Trailer	T771009
4451		1995	Homemade ATV Flat Utility Trailer	T451
4453		1961	Nodwell RNT110 Trailer	66110019
4456		2003	Homemade Trailer	445603
4457		2003	Homemade Trailer	445703
4458		2003	Homemade Trailer	445803
4459		1981	Weldex Pole Trailer	445903
4460		1986	Craig 322gt25k Trailer	CRABB55D2E1025062
4461		1973	West PSV Trailer	2061T73
4462		1986	Laroche	5662T
4463		1983	Argyl PSV Trailer	83019
4464		2003	Homemade Trailer	446502

UNIT#	WEIGHT	YEAR	TYPE	SERIAL #
4465		2003	Homemade Trailer	446503
4466		1975	Homemade Trailer	28755
4467		1979	Opsco Platform PSV Trailer	87942
4475		1992	Timb dp6 Trailer	2T9A31F33NA022003
4476		1991	Timb Q10 Trailer	2T9G02E38MA022054
4477		1986	Reel Trailer	2L9RA44T8G1018001
4479		1997	Rainbow 2 place Trailer	2R92P1214U2625257
4480		1980	Homemade pole Trailer	448000
4487		2001	Timberline Puller Trailer	1T92S04291S265270
4488		1961	Elias Power Cable Trailer	2418
4495		1976	Homemade Trailer	NONE
4497		1993	Goertzen Trailer	2G91B182XP0006481
4499		1998	Homemade pole Trailer	T499
4501		1980	2 Drum Tensioner Homemade Trailer	1L9DF14I0P1109033
4502		2001	Homemade Trailer	450201
4503		1988	Ardco Trailer	8803RT01875
4506		1976	Homemade Trailer	817
4507		1976	Homemade Trailer	814
4508		1975	Ditchwitch	7111
4509		1981	Wilox Trailer (Lb-28)	79WRL102
4510		1981	Fruehauf T-A Van Trailer	2H8V04221BS090303
4512		1970	Homemade Trailer	451206
4515		1975	Homemade pole Trailer	4515
4516		1982	Argyl Trailer	82015
4517		2004	Ubuilt Pole Trailer	2AT4081124U100759
4519		1982	Scona 8' X 13' Tandem Pintle Hitch Trailer	OBL
4520		2005	PJ 31' Tri Pintle Hitch Equipment Trailer	4P5PH363X51065441
4521		2007	Interstate IAS10227TA4 27' T/A Cargo Van Trailer	4RACS27237N049617
4522		2006	Norte 7' x 18' T/A Utility Trailer	3BZHP18246C006686
4523		2006	Cart-a-Way CMT100 Tandem Trailer	4MFMA15296M002399
4524		2010	U Built Pole Utility Trailer	2ATA05149AU106825
4525			Tandem Axle Converter Dolly	
4526		2010	Loadmax Tandem Flatdeck	5L8PH2629A1019838
4527R		2001	TSE International UP85B Trailer	1T92S09172S268429
4528		2011	Mirage MXL714TA2 14 ft Tandem Axle Trailer	SM3BE1421B1045487
4602		1994	Rainbow Utility Trailer	2R9CH1623P1625149
4603		2004	Reel Trailer	T4603
4604		2004	Ubuilt Reel Trailer	2AT4053134U300061
4606		2002	SWS gfb283	2S9GB283826090356
4607		2004	Trailtech CEL270	2CUL31G9X42015317
4608		1997	Trail Tech H270 Trailer	CU23AEA2V2002023
4609		2003	Trailtech H-270 Trailer	2CU23ARA532012827
4610		2005	Trailtech L270-18 Trailer	2CU138JA652018560
4611		2006	Doepker SN8381S Trailer	2DESNSZ3461018855
4614		1970	Can-Car Van	C7906
4616		1987	Fruehauf Van	2H8V04826HS002426
4617		2006	Lakeland Flatdeck Trailer	2L9FC42766T124012
4619		1990	Rotec Trailer	2R9ML4625MN039514
4620		1978	Tandem Trailer	2AT610318AU201224
4621		1990	Home Built Reel Trailer	2AT610262LU201221
4624		1979	King Trailer	2764082
4625		1987	Trailmobile Converter Dolly	1PT0YR0G5H9007978
4626		2010	Rainbow Pole Trailer	2RGBU1418A1000747
4787		2007	Scona TLB Trailer	2E9L50F3773003075
4788		2008	Doepker Scissorneck Trailer	2DESNSZ3381020308
4789		1993	Ingersoll-Rand Compressor Utility Trailer	220116UKC328
4791			4 Drum Cable Winder	M13472

UNIT#	WEIGHT	YEAR	TYPE	SERIAL #
4792		2003	SWS CH18252SU	2S9CH182133090314
4793		2003	SWS Beaver Tail Gooseneck Trailer	AB464343
4794		1999	Rainbow Ski Doo Utility Trailer	2R94P223X1625039
4795			2 Reel Trailer	74503
4796		2002	SWS Beaver Tail Trailer	2S9PB322X25090841
4797			HCT S/A Cable Reel Trailer	HCT200
4800		2008	Southland SL270-14HY14' Dump Trailer	2S9JM239X81019693
4801		1992	Scona Pole Trailer	2E9Y15C21N3003456
4802		2002	Rainbow Utility Trailer	2R2P121321625317
4803		1993	Scona 8' X 16' Extendable Pole Trailer	2E9U15C27P3003487
4804		1992	Scona 8' X 16' Extendable Pole Trailer	2E9U15D2XN3003429
4805		1992	Scona 8' X 16' Extendable Pole Trailer	2E9U15C23N3003457
4806		1989	Saube Pintle Hitch Reel Trailer	1F9RC1412KV048311
4807		1994	Custombuilt 21' Triaxle Single Drop Trailer	0024774
4808		2008	Ubuilt pole trailer	2AT8030478U104456
4809		2008	Ubuilt pole trailer	2AT8030498U104457
4810		2008	Ubuilt pole trailer	2AT8030408U104458
4811		2007	Manac Tridem Dropdeck Trailer	2M513161571113747
4812		2008	Continental Car Utility Trailer	5NHUCC6228T607382
4813		2008	BWS 21XHD Tandem Axle Trailer	2B921TT2381001378
4814		2007	Trailtech Prospector 24' Equipment Trailer	2CU4BARL372021089
4815		2002	Scona 50 Ton 25' Scissorneck Trailer	2E9L50F3823003305
4816		1998	Scona Jeep	2E9C40C28W3003888
4817		1994	Gerry's LB50 50 Ton Tridem Lowboy	2A9LB5030RS037175
4818		2008	Norte 7X18 FT Utility Trailer	3BZHP18258C006439
4819		2004	Gerry's LDDCRS S/A Booster	2A9TD10194N125201
4820		2005	Trailtech Car Hauler	2CUL2TJ9152017840
4821		2008	Ubuilt Pole Trailer	2AT8090858U105224
4823		2008	Ubuilt Pole Trailer	2AT8090818U105222
4824		1990	Homemade Tandem Trailer	2AT810228LU105325
4825		1987	Sherman & Reilly PT-2766 Puller Tensioner	123WM1310K1P06722
4826		2008	Trail Pro AAEQ22 Equipment Trailer	2T9EC73768T166116
4827		2003	Sherman & Reilly T/A Bullwheel Tension Trailer	123WM192531T16194
4828		2002	Gerry's 50 Ton Double Drop Tridem Lowboy	2A9LB50392N125050
4829		2005	Hi Deck Flatbed Trailer	4J6HD15265B074882
4830		1997	Manac Tridem Hiboy Trailer	2M5131612V1043153
4831		1996	Columbia Remtec Inc Crt-9 Reel Trailer	2C9FLD1B9T1026009
4832		1978	Fruehauf 45' x 8'6" Trailer	DXY768801
4833		1996	Scona Pole Trailer	T84PLE1013
4835			Raytel Horizontal Trailer	2R9AAS9S9J1014124
4836		1990	Scona Trombone Trailer	T91UT391
4837		2009	Load Trail LTEQ20	4ZECH202991065905
4839		2004	RT 12 Ft Tandem Axle Dump Trailer	2R9US32D74W682381
4840		2003	Gerry's 40 Ton Scissorneck Tridem Trailer	2A9LB40303N125093
4841		2007	Doepker 53' Tridem Flat Deck Hiboy	2DEHBFZ3371020527
4842		2006	Manac 53' Tridem Flat Deck Hiboy	2M513161761109505
4843		2007	Doepker 40 Ton Tri Scissorneck Lowboy	2DESNSZ3271020010
4844		2005	ETM 40 Ton Tri Scissorneck Lowboy	2N9LB40335E065045
4845		2008	Tow Master 5th Wheel 16' Tandem Dump Trailer	4KNFT16288L160273
4846		2002	Homemade Tandem Axle Reel Trailer	RLT01
4847		2007	Roadmaster Tridem Hiboy Trailer	2T9FA533271011195
4848		2009	Trailtech P20KPHBT	2CU4BARL892027544
4849		2009	MFG DT 610-10K Dump Trailer	2CPUSB2D79A013629
4850		2009	MFG DT 714-14K Dump Trailer	2CPUSD2F49A013617
4851		2009	GCT 13Ton Pole Trailer	08199
4852		2007	Starlite 16 FT T/A Enclosed Cargo Trailer	46YCP162571079392
4853		2005	Gerry's Tridem Scissorneck Lowboy	2K9LB35375L052115

UNIT#	WEIGHT	YEAR	TYPE	SERIAL #
4854			Gerry's TD202SS Tandem Axle Steering Booster	2A9TD2022YN125271
4855			Aspen TD101SS Single Axle Booster	2A9TD1018YN125308
4856		2001	Manac 53' Tridem Step Deck Trailer	2M513161911075222
4857		2009	Load Trail 18' Tandem Trailer	4ZECH182491067852
4858		2010	Homemade Pole Trailer	2ATA07091AU107072
4859			Homemade Pole Trailer	2ATA07098AU107070
4860			Homemade Pole Trailer	2ATA0709XAU107071
4861		2002	Manac 48 Ft Tri Trombone Stepdeck Trailer	2M513146521080904
4862			Witzco RG50 Tridem Double Drop Lowboy Trailer	1WBA11F326S000286
4863		1999	Thruway 51 Ft Tridem Trombone Step Deck Trailer	2T9DF5131X1011202
5001	24500 kg	2005	International 4000 Series	1HTMKADR15H111646
5002	24500 kg	2005	International 4000 Series	1HTMKADR35H111647
5005	24500 kg	2005	International 4000 Series	1HTMKADR55H111648
5006	24500 kg	2005	International 4000 Series	1HTMKADR75H111649
5009	15876 kg	2002	GMC C Series	1GDP7H1C72J508508
5011	29000 kg	1990	GMC Kodiak	1GDT7H4J3LJ610513
5015	17999 kg	2002	GMC C Series	1GDP7H1C62J509830
5016	25900 kg	2003	GMC Topkick	1GDP8J1CX3F511931
5017	17000 kg	2003	International	1HTMKADR33H601566
5018	26000 kg	2003	International 4000 Series	1HTMKADR53H601567
5019	25900 kg	2003	International 4000 Series	1HTMKADR73H601568
5020	24500 kg	2003	International 4000 Series	1HTMKADR93H601569
5021	17000 kg	1992	International 4000 Series	1HTSDNZR5NH428850
5022	24500 kg	2006	International MA035	1HTMKAZR76H184143
5024	25000 kg	1985	International S Series	1HTLKTVR1FHA62040
5025	35500 kg	1991	WhiteGMC Conventional	4V2JABME5MR810175
5026	26353 kg	1991	WhiteGMC Conventional	4V2JABME6MN809933
5027	24500 kg	2006	International 4400	1HTMKAZR56H184142
5028	24500 kg	2006	International 4000 Series	1HTMKAZR96H184144
5029	24500 kg	2006	International 4000 Series	1HTMKAZR06H184145
5030	16000 kg	1992	International 4000 Series	1HTSDNSN9NH428177
5032	24500 kg	2008	International 4000 Series	1HTMKAAR68H647405
5033	24500 kg	2008	International 4000 Series	1HTMKAAR88H647406
5034	24500 kg	2008	International 4000 Series	1HTMKAARX8H647407
5035	24500 kg	2008	International 4000 Series	1HTMKAAR18H647408
5036	29000 kg	1995	International 6000 Series	1HTSHADTXSH695235
5037	39500 kg	2001	Freightliner FL80 Mud Truck	1FVHBHB501HH69659
5038	24500 kg	2008	Sterling Acterra	2FZACHBSX8AAD1251
5039	24500 kg	2008	Sterling Acterra	2FZACHBS38AAD1253
5040	24500 kg	2008	Sterling Acterra	2FZACHBS18AAD1252
5041	24500 kg	2008	Sterling Acterra	2FZACHBS58AAD1254
5042	24500 kg	2008	Sterling Acterra	2FZACHBS78AAD1255
5043	24500 kg	2008	Sterling Acterra	2FZACHBS98AAD1256
5044	23000 kg	2001	International 4000 Series Mud Truck	1HTSHAAR41H323512
5045	24300 kg	2005	International 7400 Dump Truck	1HTWGAZR05J156539
5046	24300 kg	2005	International 7400 Dump Truck	1HTWGAZR95J156538
5047	32500 kg	1993	International 4900	1HTSHN2R9PH484744
5048	28000 kg	1990	Freightliner Bucket Truck	1FVXZWYB3LH443153
5049	14500 kg	1994	International 4900 Bucket Truck	1HTSDAAR4TH226003
5050	14500 kg	1988	GMC Topkick Bucket Truck	1GDP7HIJ6LJ609992
5051	40000 kg	1994	Peterbilt 357 Water Truck	1XPAD69XXRD349456
5107	23587 kg	1999	GMC C Series	1GDT7H4C6XJ511997
5133	14700 kg	1986	International S Series	1HTLDTVR4GHA49388
5137	24000 kg	1988	International S Series	1HTLDTVN0JH604922
5143	16000 kg	1997	Freightliner Conventional	1FV3HFAA5VH779831
5145	24800 kg	1999	GMC C Series	1GDT7H4C4XJ509648
5183	23500 kg	1993	GMC Topkick	1GDP7H1JXPJ503471

UNIT#	WEIGHT	YEAR	TYPE	SERIAL #
5195	26100 kg	1990	International S Series	1HTGGGRT1LH688406
5196	13000 kg	1991	GMC Kodiak	1GDM7H1M9MJ513224
5198	22900 kg	1985	International S Series	1HTLDTVR8FHA58044
5206	17690 kg	1986	Ford 8000	1FDYK80U0GVA15718
5207	32500 kg	1989	International 2000 Bucket Truck	1HTGHZ3T9KH694549
5208R	15000 kg	2007	Ford F750	3FRXF75T27V514798
5212	24500 kg	2001	International 4700 Single Axle	1HTSCABN81H293408
5213	24000 kg	2001	International 4700 Single Axle	1HTSCABN61H360782
5215	29000 kg	2010	International 4400 Series	1HTMSAARXAH174405
5216	24500 kg	2010	International 4400 Series	1HTMSAAR1AH174406
5217	25000 kg	2010	International 4400 Series	1HTMKAAR3AH174407
5218	25000 kg	2010	International 4400 Series	1HTMKAAR5AH174408
5219	25000 kg	2007	Kenworth Construct Vaccum Truck	1NKDLU0XX7R994996
5220	24000 kg	2005	Kenworth Construct Vaccum Truck	2NKMHZ7X05M977441
5221	44000 kg	2009	Kenworth T800B Hydrovac	1NKDX40X89R940801
5222	41000 kg	1999	Western Star 4986FX Mud Truck	2WLPSDCJ4XK956933
5224	24494 kg	2010	International Digger	1HTWNAAR0AJ242820
5225	24500 kg	2011	International Digger	1HTNKAAR7BH289898
5226	32000 kg	2011	International Digger	1HTMSAAR7BH289903
5227	32000 kg	2011	International Digger	1HTMSAAR9BH289904
5228	24500 kg	2007	International 4300	1HTMMAAN17H438353
5229	24500 kg	2007	International 4300 4X2	1HTMMAAN17H438398
5230	24500 kg	2007	Ford F750	3FRXF75T07V514752
5231	14968 kg	2007	Ford F750	3FRXF75T47V507383
5232	14968 kg	2007	Ford F750	3FRXF75T67V514786
5233		2007	Ford F750	3FRXF75T07V507476
5234	15000 kg	2006	International 4300	1HTMMAAN76H346730
5400	24500 kg	2007	International 4000 Series	1HTMKAZR87H393375
5401	24500 kg	2007	International 4000 Series	1HTMKAZRX7H393376
5402	25000 kg	2007	International 4000 Series	1HTMKAZR37H425889
5403	25000 kg	2007	International 4000 Series	1HTMKAZRX7H425890
5406	26000 kg	1991	International SF267	1HTGLGCR9MH303913
5407	14600 kg	1987	International S Series	1HTLDTVN1HH507268
5409	27000 kg	1992	International 4900	1HTSHN2R4NH454788
5410	38500 kg	1992	International	1HTSHN2R2NH454787
5411	30000 kg	1991	International	1HTGLA6R3MH381032
5413	32500 kg	1996	Freightliner FL80 Digger	1FUXJLBBXTL688253
5414	46500 kg	2009	International 4400 6X4 Digger	1HTMSAAR3AH223041
6110		2005	Brushcutter GT-25	BCT25051061C
6111		1976	T.V.S 1000 Single cab Track Vehicle	76749
6113		1971	FN 110 Nodwell	714110465
6114		1984	Hagg BV206DN	ADE1742
6115		1985	Hagglund BV206 ATV	ADE2117
6116			RN110B Nodwell	61373
6117			Bombardier SV73 Crew Carrier ATV	C6313F19HB
6118		1964	Nodwell RN110	64746598A
6119		1969	Nodwell RN110	C38003
6120		1978	Bombardier Little Nodwell	1678-76
6121		1977	Nodwell RN60	29414
6129		1964	Nodwell RN110	63646
6130			Nodwell	70-3-110
6131			Nodwell FN160 Flextrac	1980-160FN
6132		1964	Nodwell FN160 Flextrac ATV	91160222
6133			Nodwell FN110	176C178
6134			Nodwell RN400	71400002
6150		1985	Delta TeriFlex Rubber Tired ATV Double Bucket	1009002
6201		1981	Foremost Chiefton Four Trax	811319

UNIT#	WEIGHT	YEAR	TYPE	SERIAL #
6202		1981	Foremost Chiefton Four Trax	911709
6203		1981	Foremost Chiefton Four Trax	811220
6204		1974	Foremost Pioneer ATV	77782
6205			Foremost Super Yukon	74542
6206			Terra Flex TF605 ATV Wheeled	60S40182D025
6209		1978	Go-Track Nodwell	889
6210		1979	Hillbrand 6x6	T905102568
6211		1984	Foremost FN110 Track Crane ATV	841477
6212		2007	Argo Avenger	2DGSS0BT47NV25425
6221		1967	Nodwell RN110	72-110-233
6222			Go-Track GT-800 Nodwell	02-04-168
6320		1999	Honda TE226X ATV Wheeled	478TE2265X4000549
6323		2000	Argo Conquest ATV Wheeled	CB17271
6324		2003	Honda TE2263 ATV Wheeled	478TE226434400175
6325		2003	Honda TE2263 ATV Wheeled	478TE226434400015
6326			No File	
6327			No File	
6328		1998	Argo Conquest ATV Wheeled	CB14804
6329		2006	Argo Avenger	2DGLS0BT16NV24610
6330		2009	Artic Cat Prowler	4UF09MPVX9T303869
6331		2003	Artic Cat 500 ATV	4UF03ATV33T230860
6332			Bombardier BR400 Plus Snow Cat	831940457
6333		2005	Kawasaki ATV	JK1AFDB115B508886
6334		2009	Kawasaki ATV	JK1AFCR149B504031
6335		2009	Artic Cat Prowler ATV	4UF09MPVX9T302589
6336		2009	Artic Cat Prowler ATV	4UF09MPVX9T302365
6337		2009	Arctic Cat Prowler 700XTX ATV	4UF09MPVX9T302351
6338		2010	Arctic Cat Prowler 700H1 ATV	4UF10MPVXAT303485
6339		2010	Kawasaki 610 Mule ATV	JK1AFEA15AB549863
6401			No File	
6403		1984	Nodwell RN110	77-200-326
6404		2008	Honda ATV	1HFTE352384100856
6405		2008	Honda ATV	1HFTE352284101920
6406		2005	Gyro-Trac GT25 Mulcher	BCT25051045C
6407		1976	Bombardier B15T Nodwell ATV	0125760002
6408			Foremost Delta 3B 6X6 Swamp Buggy w/Digger	
6408C		2010	National Hydraulic 690E2 Crane	3001
6409		2009	Polaris Ranger 500 ATV	4XAHH50A392874613
6410		2009	Polaris Ranger 500 ATV	4XAHH50A392876815
6411		2009	Honda TE3189 Quad ATV	1HFTE318794400332
6412			Foremost Delta 100 ATV	861565
7030			Loader not in FM	
7298		2002	Ditch Witch JT2720M1 Jet Trac	2V2658
7299			Ditch Witch JT1220M1 Directional Drill	CMWJ1220P60000092
7301		1999	Ditch Witch JT4020 Directional Drill	2S2310
7302		1998	Ditch Witch JT4020 Directional Drill	2R2860
7303		2008	Ditch Witch JT4020M1 Directional Drill	CMWJ40T3T80000079
7309		1991	Case 1845C Skidsteer	JAF0079553
7310		1996	Bobcat Skidsteer	509325864
7314		1998	Ditch Witch 7610 Trencher	5R0261
7317			Ditch Witch 7610 Trencher	5P0295
7318			No File	
7322		1996	John Deere 444G Loader	CK444GX002400
7326			No File	
7327		2001	Case 1845C Skidsteer	JAF0332308
7329			Mobile Treatment Centre	FMC1380598
7330			Mobile Treatment Centre	FMC2010102

UNIT#	WEIGHT	YEAR	TYPE	SERIAL #
7332		2001	John Deere 310SG Loader/Backhoe	T0310SG900815
7333		2001	John Deere 200LC Excavator	FF0200X501660
7334		1990	Lerio Air Compressor	C211622
7339		2002	John Deere 310SG Loader/Backhoe	T0310SG906726
7340		2002	John Deere 310SG Loader/Backhoe	T0310SG908976
7341		2002	John Deere 310SG Loader/Backhoe	T0310SG906228
7344		2004	John Deere 310SG Loader/Backhoe	T0310SG937268
7345		2001	John Deere 310SG Loader/Backhoe	T0310SG897155
7346			Case XT Skidsteer	JAF401567
7348		2005	John Deere 544J Loader	DW544JP600082
7350		2005	John Deere 750J Crawler	T0750JX116124
7351		2004	John Deere 310SG Loader/Backhoe	T0310SG942297
7352		2004	John Deere 310SG Loader/Backhoe	T0310SG940815
7353		2005	John Deere 310SG Loader/Backhoe	T0310SG948387
7354		2005	John Deere 310SG Loader/Backhoe	T0310SG948380
7355		2006	John Deere 700J Crawler	T0700JX120466
7357		2005	John Deere 750 C LGP Crawler	T0750CX941768
7358		2001	Ditch Witch RT90 Trencher	5V0276
7359		2006	Ditch Witch RT95M Trencher	CMWRT95MK60000082
7360		2000	John Deere 444H Wheel Loader	DW444HX574861
7361		2006	John Deere 544J Wheel Loader	DW544JZ607773
7363		2005	John Deere 200CLC Excavator	FF200CX505502
7364		2006	John Deere 700J Crawler Dozer	T0700JX120452
7365		2006	John Deere 310SG Loader/Backhoe	T0310SG956636
7366		2006	John Deere 700J Crawler	DW624JP601391
7367		2006	John Deere 200CLC Excavator	FF200CX507738
7370		2006	John Deere 444J Wheel Loader	DW444JP602254
7371			No File	
7372		2006	John Deere 310SG Loader/Backhoe	T0310SG956766
7373		2005	John Deere 200C LC Hydraulic Excavator	FF200CX506497
7374		2006	John Deere 310SG Loader/Backhoe	T0310SG953835
7375		2006	John Deere 200CLC Excavator	FF200CX507029
7377		2005	John Deere 240D LC Excavator	FF240DX605063
7378		2003	Case Backhoe 580SM	JJG0374055
7379		2006	John Deere 200CLC Excavator	FF200CX507734
7381		2006	John Deere 310SG Loader/Backhoe	T0310SG956636
7382		2006	John Deere 410G Loader/Backhoe	T0410GX958201
7383		2006	John Deere 444J Wheel Loader	DW444JZ608335
7384		2006	John Deere 240D LC Excavator	FF240DX 605108
7386A			John Deere 200CLC Excavator - Neil Campbells	FF200CX505514
7389			Hyster H40XL Forklift	C177B08606N
7391		2001	JLG 450AJ Articulated Boom Lift	0300063107
7392		2009	John Deere 310SJ Loader/Backhoe	T0310SJ175728
7393		2004	John Deere 544H Wheel Loader	DW544HX587952
7394		2007	John Deere 700J Crawler Dozer	T0700JX149733
7395		2004	John Deere 270C LC Excavator	7071372
7396		2007	John Deere CT332 Skidsteer Loader	T0332TB149049
7397			Case 60XT Skidsteer Loader	JAF0350189
7398			Bomag DW141AC Double Drum Packer	101490110119
7399		2005	Skyjack Platform Manlift	617194
7403		2003	John Deere TC44H Wheel Loader	DWTC44HX587652
7408		2007	John Deere 310SG Loader/Backhoe	T0310SG962721
7410		2006	John Deere 310SG Loader/Backhoe	T0310SG956674
7411		2007	John Deere 200DLC Excavator	FF200DX510419
7412			Case Super M 580 Backhoe	JJG0374497
7413		2002	Ditch Witch RT70	T6267D221
7414			Ditch Witch 6510	65508

UNIT#	WEIGHT	YEAR	TYPE	SERIAL #
7415			Ditch Witch Tractor RT95	CMWRT95MK70000147
7417		2007	John Deere 310SJ Loader/Backhoe	T0310SJ147841
7419		2006	John Deere 200C LC Hydraulic Excavator	FF200CX507764
7420		2006	John Deere 544J 4WD Loader	DW544JZ604814
7422		2007	John Deere 200 DLC Excavator	FF200DX510259
7425		2007	John Deere 410J Loader/Backhoe	T0410TJ151092
7427		2007	John Deere 750JLGP Crawler	T0750JX149178
7428		2007	John Deere 624J Wheel Loader	DW624JZ613878
7431		2007	John Deere 544J Loader	DW44JP613149
7432		2007	John Deere 410J Rubber Tire Backhoe	T0410TJ151216
7433			John Deere 77BH Motor Grader	DW770BH554895
7434		2007	John Deere 200DLC Excavator	FF200DX510434
7435		2006	John Deere 450J LGP Crawler	T0450JX133872
7437		2008	John Deere 310 TJ Loader Backhoe	T0310TJ150984
7441		2006	John Deere 200C LC Hydraulic Excavator	FF200CX507078
7442			Bobcat A220 Skidsteer Loader	51961137
7445		2008	Ditch Witch Hydrovac FX30	1DSB202S281702095
7446		2001	Case Skidsteer w/Loader	JAF0332692
7447		2005	John Deere 200CLC Excavator	FF200CX505515
7451		2004	Case 75XT Skidsteer Loader	JAF0380207
7452		2001	John Deere 270LC Hydraulic Excavator	FF0270X070912
7454		2006	John Deere CT322 Crawler Skidsteer Loader	T0322TB121707
7455		2002	Bobcat 463 Skidsteer Loader	520012522
7465			Tamrock Ranger 700 Hydraulic Drill	J013238
7467		2001	Ditch Witch T18S 6 X15' Equipment Trailer	1DSB202S9117V2420
7468		2005	Bobcat T250 Crawler Skidsteer Loader	525613956
7469		2003	Bobcat T250 High Flow Skidsteer Loader	523111359
7470		2006	John Deere 332 Skidsteer Loader	T00332F127299
7471		2006	John Deere CT322 Crawler Skidsteer Loader	T0322TB121229
7472		1994	Ditch Witch HT100 Crawler Cable Plow	6L0074
7473		1996	Ditch Witch HT100 Crawler Cable Plow	6N0049
7474		2005	Case 60XT Skidsteer Loader	JAF410802
7475			Bobcat 334 Excavator	234511311
7476			Bobcat 322 Excavator	224011578
7477			John Deere 270LC Excavator	FF270CX702451
7478			John Deere 444J Wheel Loader	DW444JT593163
7479			JCB Zoom Boom Loader	JCB5AGKGP71195175
7480			JCB Zoom Boom Loader	SLP550BA3E1037192
7481		2009	John Deere 624 K Wheel Loader	DW624KP624704
7482		1999	Komatsy PC200LC-6A Hydraulic Excavator	J21348
7483		2007	New Holland E70SR Mini Excavator Rubber Tracks	N6TA16081
7484		1988	Caterpillar IT12 Integrated Tool Carrier	4NC01442
7485		2002	John Deere TC54H Wheel Loader	DWTC54H583436
7486		2009	John Deere 544K Wheel Loader	DW544KZ623919
7487		2008	John Deere 750J LGP Crawler	T0750JX155300
7488		2004	Haulotte HB44J 4X4 Boom Lift	TD101855
7489		2007	Genie GS2632 Electric Scissorlift	GS320889456
7490		2007	Genie GS2032 Electric Scissorlift	GS3208089437
7491		2001	John Deere TC54H Wheel Loader	DWTC54H578646
7494		2010	John Deere 444K Wheel Loader	DW444KP622816
7497R		2003	Cat 140H Grader	CAT0140HTAPM000723
7502		2006	John Deere 750J LGP Crawler	T0750JX133862
7503R		2008	Komatsu D61PX Excavator	B45326
7504R		2009	John Deere 750J LGP Dozer	T0750JX170794
7505		2008	John Deere 200D LC Hydraulic Excavator	FF200DX511409
7507		2005	Cat D5N LGP Crawler Tractor	CAT00D5NVAKD01201
7508R			John Deere 333D Track Skidsteer	T0333DK18962

UNIT#	WEIGHT	YEAR	TYPE	SERIAL #
7509		2006	Daewoo G30P-3 Forklift	
7510R		2010	John Deere 444K Wheel Loader	1DW444KPCA0629687
7512R		2010	John Deere 410J Loader/Backhoe	1T0410JXCA0185003
7513R		2010	John Deere 310 SJ Loader	1T0310SJVA0188751
7903		2001	LI Q185DKE Trailer	3540X60
7905			Genie Z45/25 45' Knuckle Boom	Z452506-29760
7906		1997	Tadano TR600XL3 60 Ton Crane	545258
7907			Air Compressor 185 Diesel	366786UBQ222
7908			Air Compressor 185 Diesel	366787UBQ222
7910		2005	John Deere IR XP185W Air Compressor	4FVCBBAA65U358426
7911		2005	IR Air Compressor 185 Diesel	358426UFP222
7912			Genie Z45 PK 45' Knuckle Boom	Z452508A-38654
7913		2000	Tadano TR650XL3 65 Ton Rough Terrrain Crane	545374
7915		1999	Liebherr LTM1080 80 Ton Crane	W09474000XEL05159
7916		2007	Atlas Copco XAS185 Air Compressor	4500A10177R020477
7917		2007	Atlas Copco XAS185 Air Compressor	4500A10167R020745
7918		2009	SR65 Self Erecting Drilling Rig	3618
7919		2009	Traxxon TR-EX 2000 Hydraulic Rock Drill	TRXAA21009BB0226
7920		2008	Tadano GR800XL 80 Ton Crane	546693
7921			Liebherr LTM1200 200 Ton Crane	
8008			Loader not in FM	
8011			Trackhoe not in FM	
8100		2003	Coleman 35-40KW Portable Generator	DUG02012
8102		2001	Olympian 10-12KW Skid Mounted Generator	40662/040
8104		2003	Kubota 14KW Generator Set	W01298713
8105		2004	Northern 10X40 FT Office	104004597
8106		2000	International 8X19 FT Office Trailer	2C9HB47C2Y2044011
8107		2000	International 8X19 FT Office Trailer	2C9HB47C0Y2044010
8108		2001	Onan DGCA-4492460 50 KW 6'X12' Skid Mounted Generator	K000178466
8112			Trip Reel Skid	
8113			12' X 60' Skid Mount Office Trailer	260038284
8114			12' X 40' Skid Mount Office Trailer	240015949
8115			12' X 40' Skid Mount Office Trailer	240005104
8120			Multiquip DCA25USIC Gen Set	8101210
8121			12' X 60' Skid Mount Office Trailer	260016690
8122			12' X 60' Skid Mount Office Trailer	260016141
8123			12' X 40' Skid Mount Office Trailer	240027336
8124		2006	Magnum Pro MLT5080 Light Tower	
8125		2006	Magnum Pro MLT5080 Light Tower	
8126		2006	Magnum Pro MLT5080 Light Tower	
8127		2006	Magnum Pro MLT5080 Light Tower	
8128		2006	Magnum Pro MLT5080 Light Tower	
8129		2006	Magnum Pro MLT5080 Light Tower	
8130		2006	Magnum Pro MLT5080 Light Tower	
8131			Magnum MLT4060 MMH Light Tower	
8132			Magnum MLT4060 MMH Light Tower	
8133			Magnum MLT4060 MMH Light Tower	
8134			Magnum MTG80 Trailer Mounted Generator	0810860
8135			Magnum MTG80 Trailer Mounted Generator	0800489
8136			Magnum MTG80 Trailer Mounted Generator	0800482
8137			Westeel Skidmounted Double Walled 4600 L Fuel Tank	
8138			Custombuilt 12'X61' Skid Mounted Office Trailer	328071260
8139			46' Skid Mounted Drilll Shack	
8140			36' Skid Mounted Drill Shack	
8141		2009	12'X60' Skid Mounted Office Trailer	260016090
8142		2007	FMC Medic Unit	1040107
8145			Concrete Cutter	

UNIT#	WEIGHT	YEAR	TYPE	SERIAL #
8146			Light Plant	
8147			Atco 12'X60' Skid Mounted Office Trailer	260015953
8148			NP K Jackhammer	11021961
8149		2007	Star Industries Manlift Basket	8149
8150			Timberland K1003H 4 Bundle Tensioner	7913045
8151			Lykal 12X56 FT Skid Wellsite	LSW125611940512
8165			Homemade Track Ploe Trailer	8165
8166			Timberland K1004H 4 Drum Puller on Nodwell Trailer	7913028
8167		2006	Shanco 12X60 FT Skid Mounted Office/Sleeper	2512580992
8168		2006	Northern Steel 15000 L Skid Mounted Fuel Tank	H100813
8169		2006	Northern Steel 4328 L Skid Mounted Fuel Tank	H101060
8170			Skid Mounted Oil Fired Incinerator	
8171			Custom Built Portable Light Tower	59SR2A22
8172			Custom Built 8 Ft Sleigh	
8173			Genset 60KW	
8174			Rev Drill Series 4 Model 35	35116
8175		1982	Texoma Drill Rig 330-20	100-3182
G0111916		2008	Hogg & Davis Puller - Commercial Rental	1H91D222981011032

2.3.2 Describe your expertise with building transmission lines in cold climate winter weather conditions.

Valard has an extensive history of completing projects during winter and in areas where work can only be done in "frozen/winter" conditions.

1) *ATCO Electric - Brintnell to Wesley Creek 240 kV, 100kms, start Jan 14/08 completed April 20/08 Northern Alberta*
2) *ATCO Electric – Wesley Creek to Meikle Line. Construction of double circuit 240kV steel towers in Northern Alberta; 125km with 97 km completed in 84 days, January through March 2009*
3) *ATCO Electric – Dover to Whitefish – 340km of 240kV lattice steel double circuit and steel H-frame structures in Northern Alberta; constructed over a single winter.*
4) *All Fort McMurray projects*
5) *Victor Mine in Northern Ontario (James Bay Lowlands); 415km of 115kV line constructed largely over 3 winters*
6) *BP Noel - Dawson Creek, BC; 70km 138kV line*
7) *Northwest Transmission Line – BC Hydro*
   This project is being constructed year-round; through the winter in Northern BC during cold and extreme snow conditions. Environmentally sensitive areas around the Skeena River are being constructed in the winter to eliminate environmental risks.
8) *Suncor – Firebag Transmission Line in Fort McMurray Alberta. Construction of 50km of 230kV lattice double circuit. This line was built cross-country with 4 access points constructed.*
9) *Manitoba Hydro – Herblet to Ralls – 165km 230kV constructed in the Canadian shield over two consecutive winters with only a single mid-point access.*

Of the dozens of Major Projects completed by Valard in the past 10 years, the majority have been in extreme climates. While these project conditions have included dangerous forest fire conditions, the most frequent extreme conditions are those experienced from winter temperatures.

Valard's experience in these conditions, coupled with extraordinary personnel has allowed Valard to complete all projects we have participated in, on time and without incident, regardless of the conditions.

2.3.3 Describe your expertise with building and using ice bridges in construction.

Valard has constructed in excess of 1,000 km of winter roads on various projects throughout Canada. We have extensive project experience where access for construction was based on the utilization of frozen muskeg, ice roads and ice crossings These include ice roads over lakes, muskegs and river crossings that have played a crucial role in enabling projects to move forward with equipment, material and supplies, as the sites were otherwise inaccessible. These roads have been constructed to allow transportation for anywhere from a few weeks to several months before they become unusable. With the use of Hydraulic Engineers, ice profiles and the results of deflection tests Valard's construction teams can build to, and perform activities, as per the requirements of the works with sound and safe access designs.

Winter Roads have been of particular importance on the following projects:

- *ATCO Electric – Wesley Creek to Meikle Line*
  Construction of double circuit 240kV steel towers in Northern Alberta

- *Manitoba Hydro Herblet Ralls 230 kV Transmission Line*
  With substantial portions of the project inaccessible accept in frozen conditions, the construction necessitated the use of winter roads and accelerated construction in order to deal with the late starting and early ending construction season.

- *Victor Transmission Line*
  Much of the 415 km transmission line covered swampy areas that were only capable of supporting travel in frozen conditions. The Winter roads were essential for both supply and construction with organization of the project work revolving around the progression of thawing throughout the project area.

- *BP Noel*
  Sections of the 70 km line were only accessible in frozen conditions. Due to environmental restrictions, a push to complete sensitive areas with Winter Roads substantially reduced the cost of swamp matting.

- *Yukon Energy Corporation Carmacks to Stewart Stage II*
  One month to complete 30 km of transmission line work in various distributed permafrost areas prior to Spring Breakup.

- *Suncor – Firebag Transmission Line in Fort McMurray Alberta.*
  Construction of 50km of 230kV lattice double circuit. This line was built cross-country with 4 access points constructed.

2.3.4 Describe your company's experience with building transmission lines with very poor access.

Virtually the complete list of our project history is reflective of works performed with very little, if any, pre-existing access. The Use of ice/frost for access construction is commonplace, ice crossings and bridges are fairly standard, and Valard has constructed many "matted" access systems when the cold has not presented itself or in non winter conditions for swampy areas.

2.3.5 Describe your company's experience with using helicopters in the construction of transmission lines.

Valard has a significant amount of experience utilizing helicopters in our construction work. Our experience ranges from using helicopters to transport personnel and equipment into areas that are difficult to access by land, using helicopters to transport tower structures into inaccessible areas, and using helicopters to string/install conductor.
Please refer to Table 1 for the listing of projects that utilized helicopters in different aspects of the construction works.

2.3.6 Describe your company's expertise with managing, and in particular, training a large group of people from local communities.

Valard is a self-sustaining / self-performing construction company; with respect to resources however we employ a proactive approach in engaging a local workforce and local enterprises when completing projects that are adjacent to communities. Specifically, Valard's approach includes:

a. Filling positions with qualified persons that are available;
b. Hiring reliable and certified equipment from local owners and entrepreneurs;
c. Subcontracting enterprises that have the demonstrated capacity and experience to provide services as required.

Because of the depth of Valard's workforce, we are able to provide a large number of skilled leaders to transmission projects, and these individuals are in turn well-equipped to provide the necessary mentoring and leadership to train inexperienced new hires in entry level jobs at the outset of the project. Valard has an excellent record of not only training new personnel, but also maintaining a good safety record while training is

taking place. On a recent project in the Fort MacMurray region, Valard flew approximately 100 First Nation personnel from its previous joint ventures to complete the tower assembly activities. This project was completed with zero lost time and zero reportable incidents.

Valard has a long history of engaging local First Nations communities in major projects in a meaningful way, creating and sustaining employment, and providing contracting opportunities. In many instances, Valard will prepare large local and aboriginal population segments for future opportunities by hiring and assigning them to other projects that Valard has underway. We currently have groups of Cape Breton Mi'kmaq training in Alberta; Gaspe Mi'kmaq training on our Hanna (Alberta) Project; Manitoba Cree working and training in all regions of the country. Our programs are hands-on in all respects with trainees being mentored in all elements of transmission line construction. The end result of this activity has local residents prepared for employment when the project in their home region begins. Many of the training positions become full apprenticeships. Valard currently has two hundred apprentices under their employ; that program is managed by a professional Human Resource Management staff. This program is available for the Nalcor project and planning/discussions have already been underway for over a year.

Whenever Valard becomes involved in projects it enters into agreements with the impacted communities that specify the particulars of the pending relationship. Fundamental to these agreements are the commitments that each party makes to training and creating employment opportunities. Valard has several of these arrangements currently in place. In Northern British Columbia, we have a comprehensive agreement affecting eight First Nations and the independent Nisga'a Nation that specifies the number and term of the employee groups that we bring into the project. The training programs are sustained; they last throughout the life of the job and are portable beyond the end of the contract. Valard offers continuing employment to all employees that become proficient in their specialty.

In the Yukon, Valard constructed YEC's Carmacks-Stewart Landing Project in two separate phases under a 5-way joint venture with a local contractor and three First Nations. The project was executed on time and at its peak over half of the project complement of 60 personnel were local First Nation members. In addition to this, the project was able to place subcontracts in the small local communities (total population of approx. 600 people) in excess of $2.5M, making a substantial contribution to the local economy.

In Manitoba, Valard in engaged in a Joint Venture with Fox Lake Cree Nation that is employment-based and co-managed. The long term nature of the projects in the region will result in local residents forming the bulk of the future employee base because of the training they will receive as a result of the Valard program.

On a previous Manitoba project – the Herblet to Ralls Island Transmission Project – Valard was able to score a 96% local content score, owing to employing a large contingent of Manitoba linemen and combining that with labour for tower assembly that was exclusively local. The personnel trained on this project from the local Cree and Metis communities have since been invited to travel to other projects in Alberta, BC and Ontario.

Projects and potential projects in Ontario are covered by MOU's and Joint Ventures with eleven aboriginal communities (Lake Huron Anishinabek Transmission Corporation [LHATC] and Bamkushwada Corporation) and in each instance the core objective of the agreement is to create and sustain employment for major segments of the local population. Once underway, each agreement is managed with the employment and training milestones monitored and adjusted continually.

An MOU with the Eskasoni Band in Cape Breton is employment-based and highly successful. It is aimed at producing skilled linemen for potential employment in Cape Breton. That agreement has produced a group of nine new hires for Valard, all of whom are receiving their training in Alberta.

Valard has agreements with First Nations' communities that go beyond the technical elements of construction. With the LHATC we are preparing members of the community for the non-construction components of the regions' projects by offering scholarships in the engineering, environmental and business elements of the transmission business. Students are provided with scholarships to major Canadian universities.

Valard enters into extensive community consultation processes that are aimed at ascertaining the training and employment needs and then begins a negotiation process with local leadership intended to arrive at a partnership agreement that meets those needs. To the same extent, business opportunities are presented and those opportunities become a fundamental part of the agreement. The employment created by the business opportunities is significant and Valard works toward assuring the success of those ventures by providing management and mentoring support. The resulting indirect employment has a long term impact on the overall viability and economic health of the community.

2.3.7 Describe your company's experience working on projects with extensive environmental and regulatory compliance requirements.

All of Valard's projects are subject to very stringent environmental and regulatory constraints. Whether on Crown or private lands, Valard has a dedicated team of Right-of-Way experts and Environmental Monitors to control and regulate construction activities. The NTL/BC Hydro project has been one of Valard's most comprehensive projects regarding Environmental sensitivities.

Valard has experience working on some of the most demanding environmentally sensitive projects in Canada. Northern British Columbia Projects demanded single drop reporting for spills; native areas in the Yukon required zero contamination commitments and organic farms saw extreme owner scrutiny to ensure continue Organic certification. These and all other challenges have been met by Valard in its commitment to the environment. Valard has a general policy to fully comply with environmental, health and safety regulations. The approach is to follow the most strict policies and procedures between client-specific, local, provincial or federal.

Valard has been in cooperative compliance with our clients and has been successful in the completion of our works under a wide variety of conditions. These are some examples:

- *BC Hydro – Northwest Transmission Line (currently underway). Valard is responsible for the Logging and Right of Way preparation as part of our full EPC contract. Valard is currently managing and mitigating environmental issues such as raptor nesting, grizzly bear hibernation/dens, salmon spawning streams, other fish bearing stream conditions, mountain goat ungulate areas, moose ungulate areas, caribou migration zones, rare amphibian areas, fisher nesting zones, hundreds of stream/river crossing conditions, working on islands on river crossings, protected volcanic/lava areas, sensitive archaeological sites, and many no-equipment zones to mitigate, to name a few.*

- *AltaLink/SNC Lavalin – South West River Crossing Foundations. Involved in the mitigation and access through rattlesnake hibernation areas, rare grasses, noxious weed areas, migratory bird nesting zones, and highly sensitive archaeological sites. There was also a huge risk to manage regarding grass fires during spring time.*

- *ATCO Electric - All projects in the regions of Northern Alberta are subject to moose and caribou ungulate zones requiring timing restrictions for the completion of work. Extreme environmental constraints such as "winter construction conditions" requiring significant coordination of manpower,*

equipment, camps and materials, as well as forest fire precautionary measures during summer work and the forest fire seasons.

- *The BP Noel project had zero tolerance for even a drop of contaminants, stringent air quality requirements for the burning of woody debris during brushing, significant landowner issues regarding pastures/farmlands, immense access restrictions and siltation requirements regarding several rivers and stream crossings.*

2.3.8 On each of the transmission lines listed on the Table in Section 1, were foundations, tower erection, stringing or OPGW installation subcontracted out? Please indicate which items for the transmission lines where subcontractors were used.

All tower erection, stringing and OPGW installation is and was performed by Valard Construction employees/personnel directly. These construction functions are part of our core competencies and are self performed.

Please refer to Table 1 for the detailed information requested specific to the foundation work self-performed and subcontracted out.

2.3.9 How many lattice tower transmission lines can you build concurrently? How many lattice tower transmission lines are you currently building?

Using only the resources currently at our disposal, Valard Construction can construct seven (7) major concurrent lattice steel transmission projects.

Making use of our client companies (other wholly-owned subsidiaries of the Valard Construction group of companies in Canada), we can construct ten (10) major concurrent lattice transmission projects.

Including the resources that we have access to through our sister-companies within Quanta Services, resources are in place to manage and construct in excess of one hundred (>100) concurrent major projects.

Valard Construction currently has three major projects in progress, with two additional projects to start over the winter months. Valard's controlled subsidiaries have an additional two transmission projects in progress. Of these projects, only 1 is anticipated to intersect the construction schedule of the Nalcor HVDC projects.

Valard Construction represents Canada's largest transmission construction complement – we are actively seeking large projects to fill our backlog beyond 2013 in order to keep our local and national workforces busy.

2.3.10 What was the maximum number of lattice tower transmission lines your company built concurrently in the past?

As stated above: Valard Construction has independently constructed seven (7) concurrent major projects, with its client companies having previously supported three (3) concurrent projects for a total of ten (10). The total number of concurrent projects constructed by Quanta Services cannot be accurately estimated due to sheer volume. To put the company's capacity in perspective, on a recent project in Alberta, a single team constructed and strung 115km of double-circuit 230kV transmission line in three months, while the company was simultaneously engaged in six (6) other major projects including stringing of a 175km double-circuit, 4-bundle 500kV transmission line.

2.3.11 Describe your company's experience with building transmission lines in close proximately to existing energized facilities.

Valard Construction has extensive experience working with both crossings of energized lines and in parallel with energized lines. Many of the facilities that Valard has constructed and strung have been built in common corridors with existing energized facilities. The best recent example of this is the recent completion of the 180km Bruce x Milton project in the greater Toronto area. This project was constructed in a shared corridor that included 2 circuits of 500kV for its entire length and 2 circuits of 230 kV for over 100km. The calculated potential created by the 8km open-loop stringing segments on this project was in excess of 14kV, requiring that the entire project be treated as energized when it was being strung. This project, which required the placement of 4300 km of conductor, was completed with no lost time injuries. This is just a single example of dozens of projects that have required the construction of Faraday enclosures around the stringing operations and butt-downs. Further to this, Valard has completed crossings of literally thousands of energized facilities. To return to the Bruce x Milton project, this project included crossings of 340 municipal road corridors, almost all of which included an energized distribution line. At both ends and in several locations midway along the line, there were also energized crossings of 500kV and 230kV facilities. Valard Construction employs the largest contingent of journeymen linemen available for construction anywhere in Canada, and in any province can deliver capable tradesmen that are qualified to coordinate take work protection (clearances) or set holdoffs from the local utilities, and setup adequate protections (rider structures, rope bridges and enclosures)

around energized facilities. In most cases, Valard is easily able to exceed locally required apprentice to journeyman ratios.

Valard also has a dedicated team of personnel that have been trained under Quanta Services' Energized Services program, and that are qualified to perform maintenance and construction activities directly on live facilities at transmission voltages as high as 345kV. These personnel are used both for dedicated live-maintenance programs underway by our clients, as well as being brought in occasionally by transmission construction crews to complete particularly technical crossings or modifications.

3.0 ORGANIZATION AND RESOURCES

3.1 Proposed Project and Site Organization Chart

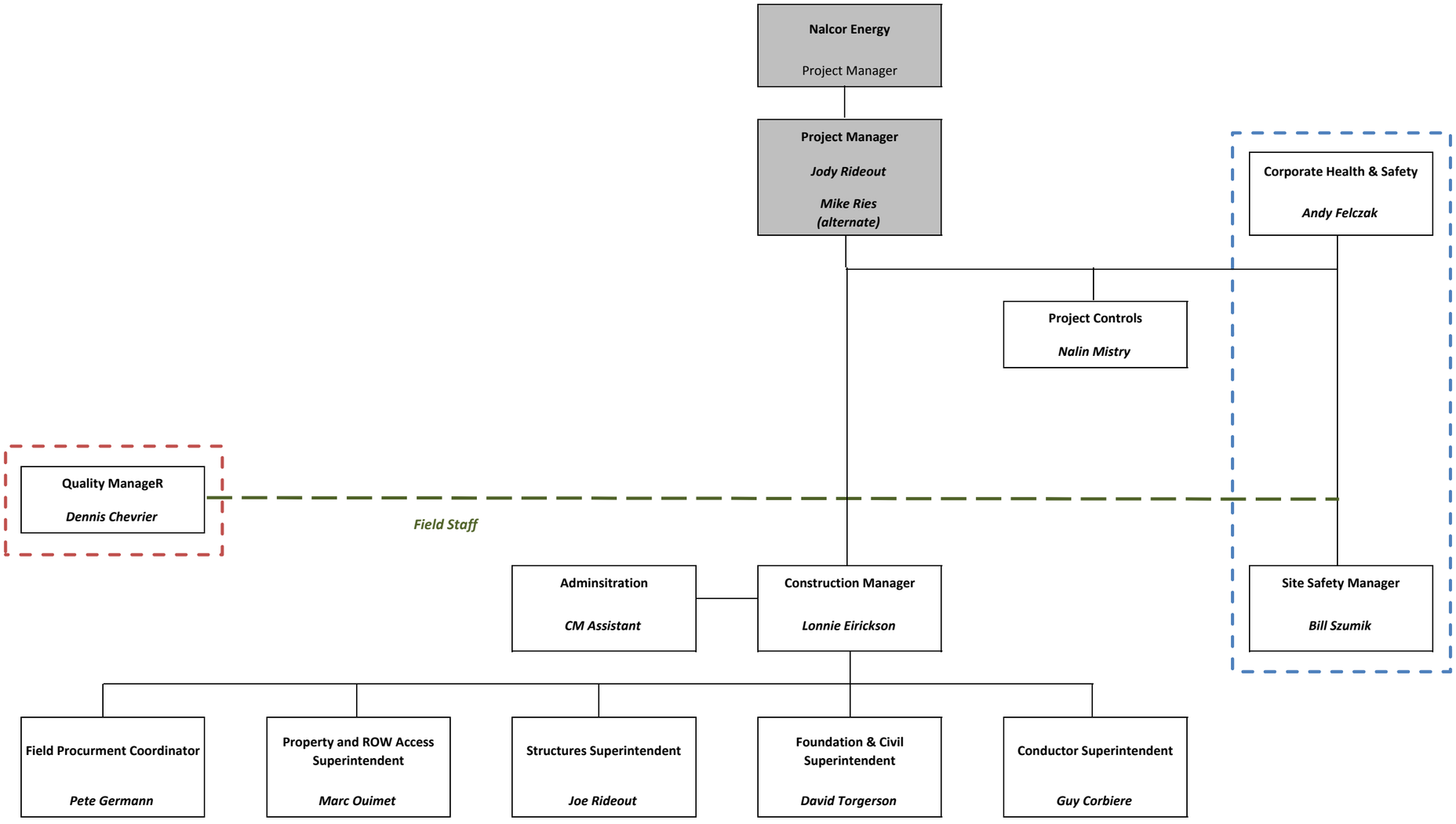
3.1.1 Please provide your preliminary Project and Site Organization that would execute the scope of work of the Package for Prequalification. As a minimum the chart should show the positions for Project Manager, Quality Assurance Manager, Chief Design Engineer, Planning and Scheduling Manager, Material Manager (Including procurement, inspection, expediting and logistics), Site Manager, and the key area superintendents. Include CVs for the key roles including the number of years of experience that the individual has in the position to be filled.

Please find attached the proposed project organization chart

Please also see the CVs attached for each

Project Team Organizational Chart

Construction of 350kV HVdc Transmission Line



3.2 Subcontracting

3.2.1 Does your company have formal written policies, processes and procedures to select and qualify its subcontractors, suppliers and sub-suppliers? Describe the process and procedure.

Yes we do have written policies, processes and procedures to select and manage our subcontractors and suppliers.

Please see the attached Section 4 of our HS&E Procedures which describes our selection and qualification process for subcontracted services.

Section 3.2 of the attached Quality Program describes our management of materials supplied by subcontractors/suppliers.

3.2.2 Does your company have formal written policies, processes and procedures to monitor its subcontractors, suppliers and sub-suppliers? Describe the process and procedures.

Yes we do have written policies, processes and procedures to monitor our subcontractors and suppliers.

Please see the attached Section 4 of our HS&E Procedures which describes our process ongoing construction and safety monitoring of our subcontracted services.

Section 3.2 of the attached Quality Program describes our management of materials supplied by subcontractors/suppliers.

3.2.3 Does your company have free access to its suppliers, sub-suppliers and subcontractors plants, productions, manufacturing, service or other facilities for quality auditing, monitoring, inspecting or surveillance?

Yes, generally we have access to all supplier and subcontractor facilities when requested.

3.3 Off-Site Resources and Organization

3.3.2 Please describe your proposed site facilities that would be used for the work, including the square measure of fabrication facilities, offices, repair facilities, lay-down area, camp, warehouse space, wharfage or other facilities relevant to the Scope of Work of the Package for Prequalification.

The requirement for facilities will depend on the actual volume of work assigned to Valard through the contract (i.e. # of kms of line).

For similar projects, our project facilities have been set up as follows:

Repair facilities for Equipment/Tools:
We will set up a site/project specific maintenance facility that is easily accessible from various locations along the line route. In the case of longer/larger projects, we have and will set up additional facilities. These facilities are staffed with licensed mechanics to ensure timely and quality repairs.

Material Laydown Areas are set up per section or segment of work. A project of this magnitude may be segmented in as many as 8-10 segments. Laydown areas range in size depending on the location and what other uses the area may serve. For example, a 10 acre yard functions as a material laydown area but it also houses the camp, mechanical repair shop, fuel storage and access, and the office trailers. Most materials may be received here initially and then redeployed to the other laydown areas along the route. Smaller laydown areas that serve only limited functions are closer to 3 acres in size.

Project Offices are also set up along the line route. There will typically be one main office with smaller segment-specific offices located elsewhere.

3.3.3 Does your company currently own stringing equipment capable of tension string two pole, single modified Falcon 3640 kcmil ACSR conductors.. If not, how would your company obtain the required stringing equipment?

Valard Construction currently owns pulling equipment that would be suitable for pulling this conductor. At this time, we do not own the requisite tensioning equipment.

In the event of award, we have access to the stringing equipment manufacturing facility of its sister-company – PAR Electrical Contractors of Kansas City, MO. PAR has assembled and made use of comparable exotic tensioning equipment for specific client

needs. Recognizing that Valard Construction is a major and substantial sister-company of PAR, the requirements of this contract/project would be treated as a priority within the manufacturing facility and the equipment will be made available to suit the construction/stringing schedule of this project.

3.3.4 Please describe your work loading, for the facilities and equipment covered in this Section 3.3, during the timeframe in which the work described for the Package for Prequalification is to be performed. In addition please comment on your capacity to perform in the time frame indicated.

As stated in Section 2.3.9, we represent Canada's largest transmission construction workforce and we are actively seeking large projects to fill our backlog beyond 2013. Although we do have a few projects confirmed for 2014, the majority of our larger projects are scheduled for completion in late 2013 and early 2014 ensuring that we have ample experienced resources and equipment available for this project.

Valard Construction is confident that using only its own resources it would be capable of completing the work described in this package for prequalification in the period specified.

Please refer to the information provided in Section 2.3.9.
Including the resources that we have access to through our sister-companies within Quanta Services, resources are in place to manage and construct in excess of one hundred (>100) concurrent major projects therefore being able to deliver the Nalcor HVdc project in the timeline specified is well within our capacity.

3.4 Site Resources and Organization

3.4.1 Please identify the major or special items of work that you expect to subcontract.

Type of Work or Service	Potential Sub-Contractor and Location
Camp Construction	*TBD* *Local to Newfoundland and Labrador*
OPGW Fibre Splicing	*VistaCare – Halifax, NS*
Right of Way clearing	*Utilize local resources and partnerships* *We do have a relationship with Nukem Forestry*

3.4.3 Please submit a list of the software (or company internal systems) that you will use in the execution of the work. This should cover design, planning and scheduling, materials management (procurement, inspection, expediting and logistics), quality assurance and contract administration.

Planning & Scheduling – we will use Primavera

Material Management – we utilize a system called Traker. *We receive and send out materials to the field using this system. Purchase Orders (as required) are also generated using this system.*

Contract Documents - We make use of a system called MFiles for all our documentation, drawings, contract documents, etc. This system is also used for Quality Documents.

Contract Administration: Valard manages its major projects in a proprietary database realized in FileMaker.

APPENDIX 4

ENVIRONMENTAL QUESTIONNAIRE

Package Number: **CT0327**
Package Name: **Construction of 350kV HVdc Transmission Line Section 1**
Applicant:
Applicant Name:
Contact Phone: Email:

TABLE OF CONTENTS

1.0 INTRODUCTION

Nalcor's environmental focus is on preventing pollution, complying with legislation, and continual improvement to ensure an environmentally responsible development. Nalcor's commitment is to be an industry leader in setting environmental standards in all areas of its work, and meeting these standards during Project execution.

To accomplish this, only Contractors / Suppliers who meet or exceed Nalcor's Environmental Standards shall be used. Accordingly, the Applicant is requested to provide information specified in this Attachment. This will help to evaluate the Applicant's Environment Management System for comparison against that of the Lower Churchill Project.

2.0 QUESTIONNAIRE INSTRUCTIONS

Please provide responses in the spaces provided. The completed Pre-Qualification Questionnaire and supporting documentation must be included in the Expression of Interest (EOI).

2.1 EMPLOYEE/PERSON HOURS

Please provide the average number of employees and estimated person hours for the last three years (including subcontractors)

Year	2012	**2011**	2010
Number of Employees	995	709	520
Number of Person hours	2,227,757	1,576,305	1,376,312

2.2 ENVIRONMENTAL (REGULATORY) COMPLIANCE

2.2.1 Please provide information on any violations, citations, orders, or incidents of non-compliance experienced by the Applicant and its subcontractors during the past three years.

Year:	2012	2011	2010
Number of Violations, Citations, Orders, or Incidents	0	0	0
Number of Agency Inspections conducted	0	0	0
Amount of fines incurred if any	0	0	0

2.2.2 List of Agencies performing inspections:

Please note: The Regulatory Compliance information is to include violations, citations, orders, and/or incidents of environmental non-compliance all contractors and subcontractors while working directly for You, not just those directly attributed to you.

3.0 ENVIRONMENTAL RECORD

Please provide your Environmental record for past three years (Double-click on table below to activate):

Year:	2012	2011	2010	Total
Category				
Person hours / year	2,227,757	1,576,305	1,376,312	5E+06
Environmental Incidents / Non Compliance	0	0	0	0

Please indicate the answer in the 'response' column. If 'yes' then provide a reference and attach appropriate documentation or attach explanatory notes		Yes	No	N/A
4.0	**LEADERSHIP AND ADMINISTRATION**			
4.1	Does your company have an environmental policy statement that clearly outlines its commitment to environmental stewardship? *See attached Policy Statement from our HS&E Manual*	Y		
4.2	Does your company have a formal Environmental Management System that conforms to a recognized Standard (such as ISO 14001)? *We do have a formal Environment Management System; the Table of Contents is attached.* *We are in the process of obtaining ISO 14001 certification*		N	
4.3	Does your company have in place a Chemical Management Procedure? *See attached Hazardous Materials section of our HS&E Manual*	Y		
5.0	**LEADERSHIP TRAINING**			
5.1	Does your company provide formal environmental management training to management personnel? *Project specific Environmental Orientation is a mandatory pre-job requirement for all levels of personnel associated with the project. Daily monitoring and reporting instills awareness progressively throughout the works, and reviews of any incidents are done at the weekly meetings*	Y		
5.2	Provide an overview of training program for management and employees.	Y		

Please indicate the answer in the 'response' column. If 'yes' then provide a reference and attach appropriate documentation or attach explanatory notes		Yes	No	N/A
	See attached document on Training & Orientation			
6.0	**INCIDENT INVESTIGATIONS**			
6.1	Does your company have a written procedure for environmental incident reporting and investigation? *See attached Section 7 – Environmental for details on incident reporting* *Also provided and attached is a sample of our Incident Report form for Environmental Incidents*	Y		
6.2	Does your company incident investigation follow a process such as the "TapRoot" process?	Y		

7.0	**EMERGENCY PREPAREDNESS**			
7.1	Does your company have an emergency response plan related to its activities and specific locations? *See attached Emergency Preparedness document that is part of our HS&E Manual*	Y		
7.2	Does your company provide Emergency Response training? *Yes – general training is provided as well as site and project specific training*	Y		
7.2	Does your company have a spill response plan for hazardous materials, including fuels and other petroleum products, that it transports, handles, uses, and/or stores? *See attached Section 7 – Hazardous Materials for an outline of our Spill Response policy and procedures*	Y		
8.0	**ORGANIZATIONAL RULES, POLICIES AND PROCEDURES**			
8.1	Does your company follow all applicable legislative requirements in the jurisdiction where work is being performed?	Y		
8.2	Does your company have formal environmental policies and procedures as part of its Environmental Management System? *See attached documents provided with this submission which have been extracted from our HS&E Manual*	Y		
9.0	**EMPLOYEE KNOWLEDGE AND SKILLS TRAINING**			
9.1	Does your company provide training for Management and Supervisors in environmental management? *See response provided under 5.1*	Y		

Please indicate the answer in the 'response' column. If 'yes' then provide a reference and attach appropriate documentation or attach explanatory notes		Yes	No	N/A
9.2	Does your company have in place a process to ensure that only competent workers, including supervision, are used during the operation? *See attached document on Training and Orientation*	Y		
9.3	Does your company offer WHMIS training to its staff?	Y		
10.0	**JOB MEETINGS**			
10.1	Does your company discuss environmental issues at regular job meetings?	Y		
11.0	**PLANNED ENVIRONMENTAL AUDITS AND INSPECTIONS**			
11.1	Does your company's environmental program outline the requirements for Supervisors and Employees to conduct regular environmental inspections of work conditions at the worksite? *See attached document on Audits & Inspections extracted from our HS&E Manual*	Y		
11.2	Does your company's environmental program require the prompt reporting of hazardous conditions and spill incidents at the worksite/s? *See attached Incident Reporting & Investigation*	Y		

1.1 INTRODUCTION

Valard considers the safety of its employees, contractors and other related individuals to be of prime importance.

We are committed to providing a work place free of accidents, injuries or fatalities.

To this end, every reasonable effort shall be made in the interest of accident prevention to provide for safe and healthy working conditions and to eliminate hazards that can cause injury to workers or damage to environment, property and equipment.

The purpose of this program is to emphasise Health, Safety & Environmental practices for the benefit of all employees and to serve as a reference guide.

New technology, changing social values and legislative requirements demand that this manual remains dynamic through on-going reviews and input from experienced personnel. This activity is encouraged and appreciated.

1.2 Corporate Health, Safety and Environmental Policy Statement

It is Valard's policy to ensure that safe working systems are in place to enable the company to perform its operations in such a manner as to avoid as far as reasonably practicable, harm to its employees, sub-contractors and all others who may be affected by its activities.

Further to this, the company will strive for the highest practically achievable standards of safety, occupational health and environmental protection.

To assist in achieving these goals the company invites and welcomes all active support of its employees and in turn will ensure they have the required skills and support to meet this commitment.

Employees and sub-contractors on there part have clear responsibility to cooperate and continuously strive to achieve these high standards.

The company will review all applicable legislation annually to insure that this policy is in compliance to all legislation, based on the geographical area of work.

The following broad principles are to be used to achieve the company's policy:

- To prevent all injures at the workplace.
- To structure and maintain high standards of safety and provide for a healthy working environment.
- To ensure the company's employees are informed, trained, and supervised to meet these standards and that their cooperation and responsibilities to achieve these standards are clearly understood.
- To establish safe and environmentally sound working practices throughout its operations to ensure a safe and healthy workplace for all employees.
- To be aware of statutory requirements and other published guidelines including the safe working systems of the company's clients, and ensure that all personnel comply with these requirements.
- To revise the company's safety policy, safe work practices, procedures as often as is necessary.

Signed

Adam Budzinski
President

1.3 ENVIRONMENTAL POLICY

Valard is committed to acting in an environmentally responsible manner. We affirm our commitment to our stockholders, our employees, our clients, and our neighbours through the following policy:

Valard is committed to protecting human health and the environment through compliance with applicable Federal, provincial and local environmental laws and regulations and by continually striving to reduce the environmental impact associated with our operations.

We will achieve this commitment through the application of the following principals:

1. Valard will comply with all applicable environmental laws and regulations.

2. Valard will not create unacceptable new risks to the environment and will strive to minimize risks from existing environmental conditions.

3. Valard will strive to minimize the quantity and degree of hazardous waste resulting from its operation.

4. Valard will strive to become a leader in respect to environmental protection and enhancement.

Valard's Environmental Policy was adopted in 2002 and is applicable to all operations.

Signed

Adam Budzinski
President

VALARD A QUANTA SERVICES COMPANY	Document Description		HS&E Policy Table of Contents					
	Created By:	A. Felczak	Doc. Number	Health, Safety & Environmental Policy				
	Date:	Sept. 23, 2003	Revision:	9	Revised by:	A. Felczak	Date:	Jan. 3, 2012

TABLE OF CONTENTS

SECTION 1 - POLICIES

TABLE OF CONTENTS

VALARD A QUANTA SERVICES COMPANY	Document Description						Environmental Policy	
	Created By:	A. Felczak	Doc. Number				Health, Safety & Environmental Policy 7.00	
	Date:	Sept. 23, 2003	Revision:	5	Revised by:	A. Felczak	Date:	Jan. 3, 2012

SECTION 7 - ENVIRONMENTAL

TABLE OF CONTENTS

VALARD A QUANTA SERVICES COMPANY	Document Description				WHMIS Policy			
	Created By:	A. Felczak	Doc. Number		Health, Safety & Environmental Policy 13.00			
	Date:	Sept. 23, 2003	Revision:	3	Revised by:	A. Felczak	Date:	Jan. 3, 2012

SECTION 13 - HAZARDOUS MATERIALS

TABLE OF CONTENTS

13.1 HAZARDOUS MATERIALS POLICY

Material Safety Data Sheets for all materials on site are to be maintained and shall be made available to workers. MSDS's must be dated within three years.

All materials shall be stored and used in accordance with information provided in Material Safety Data Sheets.

All Valard employees shall receive WHMIS training. Proof of this training shall be kept in the employee's file in the Office. Workers will be scheduled to receive refreshers if there are changes to the Program. This training shall include:

- Labelling of containers, and how to work with the controlled product safely, including required PPE that is required to handle the product.
- All controlled products that are placed in new containers must have a work site label attached as soon as the container has controlled product placed in it.
- All Controlled products must have a supplier's MSDS attached to it when the product arrives directly from the supplier.
- All labels must be legible, if they are damaged a new label must be attached with all of the original information on it. This must be done as soon as the damaged label is identified. This information must contain the following info: Procedures for safe storing, First Aid and emergency procedures required in case of a emergency of the controlled product.
- Location of the MSDS binder.

WHMIS should be periodically discussed on site at the Health, Safety & Environmental Meetings to ensure all workers are reminded of labelling, storing and disposal procedures of materials presently on site.

The Area Supervisor is responsible to ensure that the First Aid Attendant (if applicable) has an above average WHMIS knowledge and has copies of all pertinent MSDS available, or they must be available to the workers who must be informed of the location of the documents. These can be made available to the workers in the following formats: Hard copies in the site lunchroom, site office, or on the Web www.valard.msdsbinders.com.

13.2 MONITORING WORKPLACE EXPOSURES

Agents potentially harmful to a worker's heath fall into one of three categories:

1. Chemical - asbestos fibres, concrete dust, etc.
2. Physical - noise, etc.
3. Biological - urine and blood samples, etc.

In construction, chemical and physical agents are far more likely to be encountered.

Ambient dust and sound levels shall be measured as required by provincial Health, Safety & Environmental regulations. Refer to the provincial/federal safety regulations for further information pertaining to permissible levels and concentrations.

Before demolition work is started, a survey of building materials must be conducted to confirm that no toxic materials are present (i.e.: asbestos, PCB, lead etc.). This survey must be in writing and available on site for review by provincial safety inspectors or workers.

Any jobsite where workers may be exposed to any lead must be evaluated as to the work activity and a atmospheric test must be performed prior to any work activity commencing. No worker shall be exposed to concentrations higher than the Occupational Exposure limit as stated in the Provincial regulations. Where there is a concentration higher than 0.05 mg/cu. meter over an 8 hour exposure shall be trained in the work procedures and hazards of working with lead. These workers must wear the appropriate clothing and personal protective equipment to prevent any inhalation of any lead fumes.

Any jobsite containing asbestos materials must have an asbestos related Job Procedure in written form and all work must be in conformance with the provincial safety regulations.

Regulatory Reference:

Alberta

- Part 29 Alberta's OH&S Code (WHMIS)

Ontario

1990, Regulation 860 WHMIS

- Sections 1-18 inclusive

Saskatchewan

Part XXII Workplace Hazardous Material Information System

- Sections 315 to 327 Inclusive

British Columbia

Regulation & Guidelines for WHMIS

- Part 5 Chemical Agents and Biological Agents
- Sections 5.3 – 5.9 Workplace Hazardous Material Systems

Yukon

WHMIS Regs. O.I.C. 1988/107

Occupational Health & Safety Acct O.I.C.

- Section 1 to 14

NWT/ Nunavut

Part I to Part V inclusive All sections

Manitoba

Manitoba workplace Safety & Health Regulation M.R. 217/2006

- Part 35 Section 35.1 to 35.25 inclusive

13.3 WHMIS CLASSIFICATION

HAZARD SYMBOLS

There are eight symbols, which are designed to tell you at a glance the kinds of hazards that exist with a particular chemical. They are the following:

CLASS A – COMPRESSED GAS
Any gas or any liquid that boils at or below ordinary temperatures, in a pressurised container (regardless of whether it remains as a gas, turns to liquid, or is dissolved in another liquid).

CLASS B - FLAMMABLE or COMBUSTIBLE
There are six subdivisions of substances in this category, all capable of self-sustaining combustion in air with various degrees of intensity.

CLASS C - OXIDIZING MATERIALS
Substances (such as pure oxygen, chlorine, organic peroxides) that support the burning of fuels or of other materials capable of oxidation.

CLASS D1 - ACUTE POISONS
Substances capable of causing rapid death of a person exposed to very small amounts.

CLASS D2 - OTHER POISONS

Substances eventually causing serious illness of a person repeatedly exposed to small amounts, or substances able to cause sensitization of a person to further exposure.

CLASS D3 - INFECTIOUS MATERIALS
Organisms believed to cause disease, or the toxins of such an organism.

CLASS E - CORROSIVE MATERIALS
Any solid, liquid, or gas that can destroy the skin or eat through metals.

CLASS F - DANGEROUSLY REACTIVEA
A substance that may undergo an unexpected change (for example, producing heat, pressure, explosion, or toxic fumes) if simply subjected to heat, pressure, or shock or allowed to contact water.

VALARD A QUANTA SERVICES COMPANY	Document Description		Orientation/Training and Meeting Policy					
	Created By:	A. Felczak	Doc. Number	Health, Safety & Environmental Policy 8.00				
	Date:	Sept. 23, 2003	Revision:	6	Revised by:	A. Felczak	Date:	Jan. 3, 2013

SECTION 8 - ORIENTATION, TRAINING AND MEETINGS

TABLE OF CONTENTS

8.1 HEALTH, SAFETY & ENVIRONMENTAL MEETINGS

Health, Safety & Environmental Meetings are to be held as a minimum on a monthly basis. At some worksites the client may require these meetings to be held weekly. Every employee is required to attend.

Safety meeting topics can be drawn from pertinent Tailboards, Safe Work Practices and Procedures and Safety Topics as scheduled by the HS&E Department.

Items discussed at the meetings are to be recorded and submitted to the Corporate HS&E Manager for review. Issues raised during the meeting are to be resolved and the results reported to the workforce at the following meeting.

Valard and its subcontractors will hold joint meetings whenever practicable.

8.2 WORKER ORIENTATION:

8.2.1 NEW HIRE VALARD WORKERS:

All newly hired workers must receive a “New Worker Orientation” (Section 8.2.4) prior to commencing work on a project. All associated paperwork is to be forwarded to the Office, this includes all certificates to prove competency in the trade for which they are hired for. This includes any related training records. Workers will provide this information in order that it may be entered in the training database. A hardhat sticker will be issued to identify oriented workers.

8.2.2 VALARD WORKERS NEW TO JOBSITE:

If an existing employee is transferred to a new job site and has received Valard’s “New Hire Orientation”, a complete orientation will not be required. Instead the worker will be advised of site-specific hazards, requirements and emergency procedures before commencing work. A commencement form must be filled out so that the site has appropriate emergency contact information.

8.2.3 SUBCONTRACTOR WORKERS:

All new subcontractor employees must receive a “Contractor Worker Orientation” (Form # 8.6.1) prior to commencing work on a project. All associated paperwork is to be forwarded to Valard’s Office. Subcontractor employees with proof of Valard’s “Contractor Orientation” less than 1 year old will not require complete orientation. They will instead be advised of site-specific hazards, requirements and emergency procedures before commencing work.

8.2.4 NEW WORKER ORIENTATION OUTLINE:

The purpose of this outline is to ensure that all new employees receive a consistent Orientation to Valard.
All employees orientated must sign Form Orientation Control Sheet.

ORIENTATION PREPARATION:

The following forms and booklets are required as a minimum:

1. Valard Employee Orientation (Commencement) Package containing the following:

a. Employee Commencement Form
b. Personal Tax Credits Return
c. New Employee Orientation Form
d. Medical Questionnaire
e. Training information Form
f. Vehicle Use Form
g. Health Sign on Form (Short/Long term Disability etc.)
h. HS&E Handbook

Employees are to view the following:

- **Valard's PowerPoint voice over Orientation Program**
- **Seven Steps to Safety program.**
- **CSTS (If required by Client)**
- **Any additional client required orientation**
- **Site Specific Orientation if on a large project**

2. Sub Contractor Orientation (Commencement) Package containing the following:

a. Subcontractor's PowerPoint Orientation
b. New Employee Orientation Form.

Valard Employee's ORIENTATION:

Topics to be addressed and discussed

Trained supervisor's or site Safety advisers who have received training may conduct orientations.

1. Introduction: Introduce yourself and welcome employee to the company or project.
2. Explain how to fill out paperwork.
3. Open the Valard Orientation Power Point Presentation
4. Review the New Employee Orientation Form with workers and have them check off the subject boxes as each section is discussed and completed. Answer any questions the employee may have. The following outline is to be followed:

Company History

Valard was founded in the Northwest Territories and since grown into one of Canada's largest General Power line contractor.

Company Health, Safety & Environmental Policy

Review the policy with the workers.

Responsibility for Safety

Safety is not only the responsibility of Management or Safety personnel. All workers are responsible for their own safety and the safety of others as per the Occupational Health and Safety Act.

Right to Refuse

No worker is to carry out any work that will cause imminent danger to himself or another worker as per the Occupational Health and Safety Act.
Imminent Danger is defined as:

a) A danger which is not normal for that occupation, or
b). A danger under which a person engaged in that occupation would not normally carry out his work.

All employees will receive training stating the process required to address unsafe work.

Process:

- Worker perceives the work requested is unsafe.
- Worker is to report this to his immediate Supervisor.
- Work that is deemed unsafe will not be performed (MUST STOP) until an investigation is completed and work process has addressed the unsafe issues.

Worker who identified the unsafe work request shall not be reprimanded. Work refusal shall be documented and maintained by the safety department and entered in the Entropy database.

Right to Refuse Unsafe work process document shall be posted at each worksite including Shops and offices. (See page 20)

Supervisor

A supervisor is anyone who gives instruction or direction to workers.
The Supervisor is responsible to ensure that the entire Health, Safety & Environmental program is carried out.

Management

The President will provide the necessary resources to accomplish the objectives of the Health, Safety & Environmental Program.

Vice President of Health and Safety

Vice President of Health and Safety oversees the Health, Safety & Environmental Program and its effectiveness and compliance to the applicable Provincial and Territorial Legislation of the worksite location.

POLICIES/PROGRAMS

Modified Work:

Valard will make every reasonable effort to provide suitable temporary duties to assist in the rehabilitation and early return to work of employees who suffer a work related injury or illness. All work will be meaningful and will be approved by a physician. All workers are required to participate in Valard's Modified Work Program as a condition of employment.

Substance Abuse:

Valard's Substance Abuse Program is a term and condition of your employment.
Read 16.3.1 Work Standards, 16.4.1 Alcohol and Drug Work rule, 16.4.4 Implementation of the program

Drug Work Rule:

Inform workers the complete Substance Abuse Program can be found in the Health, Safety & Environmental Manual and will be made available to them if they wish to review it.

Harassment/ Violence Policy:

Valard has a Harassment policy and a Violence Policy. If you are either harassed or subjected to violence then you must report it to you immediate supervisor, if he is not available then you are to call the VP of Health, Safety & environment at the Edmonton office.

Environmental:

Valard will endeavour to prevent environmental damage on its work sites.
All spills or releases must be reported to your supervisor immediately so that a clean up can take place. Provincial and Federal environmental emergency reporting numbers are listed in Section 7

Observation / Near-miss Program:

Briefly explain the Observation program and show the workers the Observation card.
Explain both the BBS side of the card and the Near Miss Reporting form on the reverse.

Emergency Problems:

Review the site emergency response plan with the employees. Ensure that they are informed of the location of first aid facilities, evacuation points and emergency communication devices (i.e. phone, radio, horns). Inform them of how to call for fire, ambulance and police/security response.

Incident Reporting:

It is of utmost importance that all incidents, injuries and near misses must be reported to your supervisor immediately so that they can be properly reviewed and preventative measures put in place to prevent recurrence. Failure to report incidents is considered cause for disciplinary action. If you injure yourself and have to go to a medical clinic/Hospital or any other medical facility such as a physiotherapist/ Chiropractor's office etc. you must inform the Edmonton office and complete a Worker's WCB injury report.

GENERAL RULES

Horseplay, Fighting:

Horseplay and fighting are responsible for a large number of injuries and fatalities. Neither will be tolerated on any Valard Project.

Vehicle Operation:

No worker shall operate a vehicle in which he/she is not licensed or trained to operate.
Logbooks must be completed daily when operating any equipment over 4500 kg.
All rules and regulations of the road will be followed at all times.
Worker is to sign the Vehicle use policy form
(Inform employees of client's rules and regulations if applicable)

Theft:

Theft will not be tolerated and will result in immediate dismissal. Local law enforcement will be contacted.

MEETINGS

Tailboards:

A Tailboard will be performed at the beginning of each new task. Foremen will assist workers as necessary.

Safety Meetings:

All employees on site will attend a Monthly Safety Meeting, either Valard's, or in the case of subcontractors, their own. Subcontractors must forward a copy of their Safety Meeting minutes to Valard's Site Foreman.
(Inform the employees of the time and day that meetings are held)

SAFE WORK PRACTICES/PROCEDURES

General Housekeeping:

You are responsible for maintaining all work and storage areas so that they are neat, clean, organized and safe at all times. All equipment must be stored in designated area.

No garbage is to be left in any piece of Equipment.

You are responsible for the removal of your own waste materials, and must remember the following when dealing with wood scraps and waste:

1. Recycle rags, bottles, empty cans, cartons, wrappings and crates or properly dispose of them in approved waste containers. There must be no illegal or inappropriate dumping of debris, refuse, food scraps or any other wastes. All wastes must be transported and disposed of according to approved procedures.

2. Keep doorways, walkways, stairways and exits from buildings clear at all times.

3. Store all flammable substances to be used for the work (e.g., paints, solvents and fuels) on our property only in a location and manner approved by the company.

4. Debris should be cleaned as it is created whenever possible; it is not to be stockpiled.

Scaffolds:

- All scaffolds must be erected by a competent worker or by a worker under direct supervision of a competent worker.
- All scaffolds are to be tagged as follows:

Please refer to Valard's Safe Work Practices and Procedures for more information.

Floor Openings:

- All Floor openings over 4" X 4" must be guarded as follows:
  - Guard-rails as per Part 22 of the Alberta OH&S Code Covered Openings 315(1) and/or
  - Covers installed. Covers are to be designed to carry two times (2x) its known load, marked "DANGER OPEN HOLE DO NOT REMOVE" and mechanically fastened so it requires a tool to remove.
  - Part 22 of the Alberta OH&S Code Covered Openings 314(1)

Ladders:

- All ladders are to be used only as designed.
- Step ladders are to be used only in the fully open position and arms locked into place.
- The top two rungs of any ladder are not to be used.
- All ladders must extend 3'/1 meter above all landing points.
- All ladders must be placed 1/4 ratio.
- All ladders must be tied off on top and if possible on the bottom.
- When not in use, ladder shall be secured or placed on the edge on ground.
- Please refer to Safe Work Practice 26.012.

Excavations/Trenches:

- No person is allowed to work in any excavation over 1.2 meters (4') unless the following:

a. Temporally supported or,
b. Cut back the side of the excavation to below 1.5 meter (4') height requirement.
c. A safe means of egress/assess must be placed every 16 meters/52'5".
d. All spoil piles be a minimum 1 meter/3'3" away from the edge.
e. Refer to Valard's Safe Work Practice 26.037 on Excavation

Cutting/Welding:

- The appropriate number lens must be used.
- All oxygen and acetylene bottles to be stored in an upright position with caps on.
- All oxygen/acetylene cutting units to have flashback protectors.
- All welding that takes place at eye level shall have welding blinds installed to protect workers.
- All oxygen/acetylene units are to broken down at end of every shift and caps replaced.

- A 20 pound ABC fire extinguisher to be placed within 30' of work area for all welding and cutting.

Refer to Valard's l Safe Work Practice 26.009 on Cutting and Welding

Manual lifting:

Poorly planned lifts often result in strains, sprains, falls and hernia type injuries. For safer lifting:

1. Prior to any manual lifting, moving, pushing handling, loading or hauling a hazard assessment is to be performed to determine the approximate weight of the object, to verify if mechanical lifting equipment may be required, As a minimum any material weighing greater than 75 lbs, it is recommended that more than one person or equipment be utilized to do the lifting. This equipment will be provided to the worker where the hazard assessment identifies the need for it. All heavy or awkward loads require a hazard assessment to identify the means used to lift and move the load, or the equipment required to lift it safely.
2. Plan your direction of travel; ensure that there are no obstacles and trip or slip hazards.
3. Use proper lifting technique, use your legs rather than your back muscles, and avoid twisting motions.
4. Regular stretching is recommended to prevent injuries
5. All work procedures will be reviewed in all cases where there was an injury whether soft tissue or musculoskeletal. All procedures will be reviewed whenever there are any injuries while performing a specific task.

Rigging:

- All rigging shall be done by a competent worker.
- All rigging shall be inspected daily.
- All rigging for critical lifts must be approved by an engineer.
- Refer to Valard's Safe Work Practice 26.006 on Cranes and Rigging

Hoisting:

- All loads must have a tag line unless it creates a greater hazard than not providing one.
- Signalmen must wear a high visibility vest or arm gauntlet for easy identification of the operator.
- Only C.S.A. approved slings to be used.
- Refer to Valard's Safe Work Practice # 26.006 on Cranes and Rigging.

Powder Actuated Tools:

- Only formally trained workers can use powder actuated tools. Courses are available through Trade Certificate or Manufacture Training.
- Any worker using the equipment is responsible to clean and maintain as per manufacturer's specs.

Refer to Valard's Health, Safety & Environmental Manual Safe Work Practice on Powder Actuated Tools.

Electrical Equipment:

- A competent worker must connect all electrical equipment.
- All workers to follow Safe Work Practice for Electrical Extension Cords.

Grounding:
- All tools and equipment to be double insulated or electrical grounded.

CSTS:
-CSTS is mandatory to work for Valard in Alberta/ British Columbia/Saskatchewan/Manitoba. Insert proof of training.

WHMIS:
- The site MSDS book is normally located in the jobsite office.
- All Controlled products to have proper WHMIS labeling.

Personal Protective Equipment

We understand that not all jobs are efficiently accomplished while wearing standard Personal Protective Equipment. If you feel that a task you need to perform cannot be reasonably accomplished while wearing all of the required PPE, it is your responsibility to arrange for a deviation BEFORE you begin working.
Contact your foreman, Area Supervisor or the Safety Advisor.

Head Protection:
- All site employees must wear a CSA approved Hard Hat (welders to wear hard hat combo).
- All Hard Hats are to be worn as per manufactures design.
- Certain Clients require CSA approved Side Impact Hard Hats.

Eye Protection:
- All site employees to wear CSA/ANSI safety glasses.
- All employees that wear prescription glasses must meet CSA- Z87 or over safety glasses are to be worn.
- All side shields must meet CSA standards. Hard side shields only.

Respiratory Protection:
-Employees to wear respirators for controlled products as required on MSDS sheets.
-All employees that require a half or full face mask must be fit tested prior to receiving mask.
-Dust masks to be worn in all dusty areas.

Hearing Protection:
- Hearing protection to be worn in all areas that sound exceeds 85dba.
- A good rule of thumb is if you cannot hear a person talking in normal tone 3 feet away from you, you require hearing protection.
- Only use CSA approved hearing protection.

Foot Protection:
- Only CSA approved footwear (c/w green triangle and the Omega Symbol) with above ankle support is permitted on site.
-All footwear that is badly worn must be replaced as soon as possible. i.e. Steel toes exposed, cuts.
- Boots designed for Ironworkers are not permitted on site.

Hand/Body Protection:
- Glove use is mandatory at all times on Valard's Projects

Fall Protection:
- All employees to ensure full fall protection in place when their feet exceed 3.0 metres (10 ft.).
- Safety belts are not permitted, Full Body Harness with maximum 5' lanyard only. Except when climbing wooden poles where a Lineman's climbing belt complete with a choking pole strap and a Miller retractable lanyard.
- Refer to Valard's Safe Work Practice 26.028 on Fall Protection

As Valard's workers receive new tasks on an on-going basis any unfamiliar tasks will be fully explained by the Foreman. Supervision of Workers outlines in more detail training required for workers as well as provides reference materials for instruction in Safe Work Practices. All workers will receive training when required such as Respiratory, Forklift, and Fall Protection etc. This will be identified during a job specific Pre-Job Hazard Analysis prior to the start of each work site.

8.3 MANAGEMENT ORIENTATION:

In this section "Manager" refers to all Managers, QA/QC Personnel, Safety Advisors, Area Supervisors, and Foremen.

In order to ensure that Valard's Managers understand their Health, Safety and Environmental responsibilities, any new manager will receive an overview of the Health, Safety and Environmental Manual in a timely manner. This review will be conducted by the VP of Health, Safety & Environment or an experienced Safety Advisor and documented.

New Area Supervisors, Foremen and Safety Advisors hired by the company will be issued a copy of the Valard's Health, Safety & Environmental Manual and a copy of the Applicable Provincial/Territorial Occupational Health and Safety Act, Regulations and the appropriate Provincial Electrical Utility Code for reference.

8.4 MINIMUM REQUIRED TRAINING FOR EMPLOYEES

The following table outlines the general training requirements for Valard Employees. Any employee hired without required training should obtain it within a reasonable time period.

	Managers	Safety Advisor	Area Supervisors	Foreman	Line Workers	Equipment Operator	Labourers	Power System Electricians
Orientation/Electrical Awareness/HS&E Manual Review	R	R	R	R	R	R	R	R
CSO[3] or CRSP	X	R	O	X	X	X	X	X
Construction Safety Training System[1]	R	R	R	R	R	R	R	R
Leadership for Safety Excellence[1]	R	R	R	R	O	X	X	O
Principles of Health and Safety[1]	R	R	R	O	X	X	X	X
Prime Contractor[1]	R	R	R	O	O	X	X	X
Standard First Aid/CPR	O	R	O	R	R	R	R	R
Supervisor Training in House	R	R	R	R	X	X	X	X
WHMIS	R	R	R	R	R	R	R	R
TDG Training	X	O	O	O	R	R	X	X
Equal Potential Grounding	O	R	R	R	R	R	X	R
Bucket Rescue	X	X	X	R	R	X	X	O
Traffic Control (Flag Person Training)	X	X	X	O	R	O	R	O
Ground Disturbance	X	R	O	R	R	R	O	R
Ground Disturbance (level II)	X	R	O	R	O	O	X	O
Radial Boom truck Training	X	X	X	R	R	R	X	R
Fall Arrest Training	X	R	X	R	R	R	O	R
Equipment Training (dozer/loader/bobcat /	X	X	X	X	X	R	O	R

R - Required
O – Optional, but Recommended
X – Not Required
Notes:
1 - Alberta Construction Safety Association Training Course
(Alberta/BC/Saskatchewan/Manitoba Required only)
2 - Construction Safety Officer– Alberta Construction Safety Association Designation
3 - CRSP – Canadian Registered Safety Professionals Designation

VALARD A QUANTA SERVICES COMPANY	Document Description		Orientation/Training and Meeting Policy					
	Created By:	A. Felczak	Doc. Number	Health, Safety & Environmental Policy 8.00				
	Date:	Sept. 23, 2003	Revision:	6	Revised by:	A. Felczak	Date:	Jan. 3, 2013

SAFETY MEETING

Date:_____

Crew:_____

Job Location:_____

Recorded By:_____

ITEM A) REVIEWED LAST MEETING MINUTES

ITEM B) TOPICS DISCUSSED:

1	
2	
4	
5	
6	
7	
8	
9	
10	
11	
12	
13	
14	
15	

Guest Speaker/Presenter:_____ Topic:_____

_____

I have attended and participated in this safety meeting discussion as indicated by my signature

Print Name	Signature	Print Name	Signature

8.5.2 MEETING/ ATTENDANCE SIGN-IN SHEET

DATE: _____ TRAINING /MEETING SUBJECT_____

Print Name:	Signature:	Company

8.6.1 ORIENTATION FORM

Employee name: _____ Date: _____

Company name: _____ Trade: _____

INTRODUCTION
- ☐ Company History
- ☐ Company Safety Policy

RESPONSIBILITY FOR SAFETY
- ☐ Worker
- ☐ Right to Refuse
- ☐ Supervisor
- ☐ Management

POLICIES/PROGRAMS
- ☐ Violence/ Harassment Policy
- ☐ Substance Abuse
- ☐ Environmental
- ☐ Behaviour Observation Program
- ☐ Modified Work

EMERGENCY PROBLEMS
- ☐ Ambulance
- ☐ First Aid
- ☐ Security/Police
- ☐ Incident Reporting
- ☐ Fire

GENERAL RULES
- ☐ Theft
- ☐ Horseplay/Fighting
- ☐ Disciplinary Action System

MEETINGS
- ☐ Tailboards (JHA)
- ☐ Safety Meetings

SAFE WORK PRACTICES
- ☐ General Housekeeping
- ☐ Scaffolds
- ☐ Ladders
- ☐ Excavations
- ☐ Hoisting/Rigging
- ☐ Electrical Equipment
- ☐ Grounding
- ☐ Pole Climbing
- ☐ Smoking Rules
- ☐ Operating Equipment

VEHICLE POLICY
- ☐ Personal use of Vehicles
- ☐ Vehicle Operation

PERSONAL PROTECTIVE EQUIPMENT
- ☐ Head Gear
- ☐ Eye Protection
- ☐ Respiratory Protection
- ☐ Hearing Protection
- ☐ Foot Protection
- ☐ Hand/Body Protection
- ☐ Fall Protection

I understand the information outlined in the above orientation and I will demonstrate my commitment to safety while on site. I will participate fully in all safety initiatives and programs and will adhere to Valard's Policies, Safe Work Practices and Procedures.

_____ _____

Employee Name(Print) Employee Signature

8.6.2 – MEDICAL QUESTIONNAIRE (CONFIDENTIAL)

WELCOME TO OUR COMPANY AND OUR PROJECT

We are sincerely interested in the Health and Safety of all our employees.

In an effort to prevent or minimize potential occupational injury or illness to yourself and others while employed here in our workplace, please complete the following confidential questionnaire:

Please indicate your responses with a check mark.

		No	Yes
1.	Do you have a hearing impairment?	☐	☐
2.	Do you have high blood pressure?	☐	☐
3.	Are you uncomfortable working at heights?	☐	☐
4.	Are you uncomfortable working in confined spaces?	☐	☐
5.	Do you have diabetes?	☐	☐
6.	Have you suffered injuries to your back in the past?	☐	☐
7.	Do you have epilepsy?	☐	☐
8.	Do you suffer from any visual impairment?	☐	☐
9.	Do you suffer from any repetitive strain injury?	☐	☐
10.	Have you had an injury in the past that may affect your work**?**	☐	☐

Do you have any other medical conditions or allergies? Are you taking any special medications that may have side effects that we should aware of? (If yes, please explain)

_____

_____

Acknowledgement: I hereby verify the foregoing is accurate and truthful, to the best of my knowledge, and are my responses:

_____	_____	_____
Employee's Full Name (please print)	Signature	Date
_____	_____	_____
Supervisor (please print)	Signature	Date

8.6.3 SAFETY ORIENTATION ACKNOWLEDGEMENT

I understand that as a condition of my employment, I may be required to complete an employment, job related medical examination. This examination may include appropriate testing to determine the presence or absence of certain drugs or alcohol.

I hereby authorize Valard to conduct through its designated medical examiner said physical examinations as now and may be later determined by the company to be appropriate. I further authorize full release of all test results and medical information to Valard Construction Ltd., and will hold the company, its subsidiaries, their directors, employees, and agents harmless from any claims arising out of the information obtained through the medical inquiries or tests.

I understand that participation in the Modified Work Program is a condition of my employment at Valard

I have received and understood the Harassment and Violence Policies, which states that it is not acceptable and if I'm harassed or being subjected to violence I am to report this to my supervisor and the Safety Department.

Signature of Employee	Date
Valard's Representative	Date

Worker's Training and Tickets: Provide Scans or Copies of tickets

8.6.4 SAFETY QUESTIONAIRE

This questionnaire is to be completed by the new employee upon the completion of their orientation.

Name of Worker: _____ Date: _____

Instructions: Place an **X** beside the most appropriate response.

1. Hazard identification and control is important to maintain a safe working environment.
   ☐ No ☐ Yes

2. Working safely is a condition of employment.
   ☐ No ☐ Yes

3. All injuries regardless of how minor must be reported to your supervisor immediately.
   ☐ No ☐ Yes

4. It is important to maintain good housekeeping in your work area.
   ☐ No ☐ Yes

5. You observe an unsafe condition on site, should you:
   ☐ Wait for a tailgate or safety meeting and report it.
   ☐ Report it immediately to your supervisor.
   ☐ Let someone else worry about it.

6. Personal Protective Equipment (i.e. hearing protection, eye protection, hard hat, etc) should be worn whenever:
   ☐ Someone else is wearing it.
   ☐ Your supervisor advises you to wear it.
   ☐ The potential for personal injury exists.

7. Is it your responsibility to know and understand the OH&S regulations pertaining to your work area and equipment?
   ☐ No ☐ Yes

8. Is it your responsibility to refuse unsafe work where imminent danger exists or may exist?
   ☐ No ☐ Yes

9. It is your employer's responsibility to provide a safe work place.

☐No ☐Yes

10. Tools and equipment whose guards are inoperative or missing are OK to use "just this once."

☐No ☐Yes

Signature of Worker: _____

Reviewed By: _____

PERSONAL PROTECTIVE EQUIPMENT POLICY (for employees and sub-contractors)
All employees and sub-contractors will use the proper PPE at all times, when and where required.

_____
Initial

DISCIPLINE POLICY (for employees and sub-contractors)
I understand the Discipline Policy as explained to me during the orientation process

_____
Initial

SAFETY POLICY STATEMENT

I understand the contents of the Safety Policy Statement and the company's commitment to a safe work place. This includes the Harassment and Violence Policies and my role in reporting of them.

_____
Initial

SAFETY / EMERGENCY/ FIRST AID EQUIPMENT

I will acknowledge the location of all safety, emergency, and first aid equipment. I further acknowledge the location of the MSDS binder and the emergency meeting location.

_____
Initial

SAFETY HANDBOOK
I am responsible for reviewing Valard's Employee Safety Handbook and understand that adherence to all rules and regulations set by Valard are a condition of my employment. Any infractions of these rules may result in my dismissal.

_____
Initial

PHYSICAL CAPABILITIES & DEMANDS

I understand the physical demands of my job and acknowledge that I am physically capable of doing the required tasks. I further acknowledge that a medical examination may be required to determine my capabilities to perform my job duties.

_____
Initial

MODIFIED WORK PROGRAM

I understand the modified work program and acknowledge that I am aware that it is a condition of my employment and I will participate in it.

_____
Initial

Employee: (signature)_____

Or Sub-Contractor: (signature) _____

Signature of Valard's Rep: _____

Date:_____

RIGHT TO REFUSE

The following are the steps to be followed when raising a refusal to work due to imminent Danger:

Step 1:
The employee reports the situation to the Foreman or other appropriate management staff and the Safety Coordinator.

Step 2:
The superintendent or other management staff member investigates the situation in the presence of the worker, the Safety Coordinator (if available), or a person chosen by the refusing worker.

Step 3:
If the investigation results in improvement or clarification satisfactory to the worker, he/she returns to work.

If there is insufficient improvement or clarification and the employee still has reasonable grounds to refuse, the employee or the employer or both, notify the OH&S inspector.

Step 4:
The inspector examines the situation in the presence of the person named in step 2. The inspector gives an order either requiring improvements or requiring that the employee return to work.

Valard

Valard

Muskrat Falls Transmission Line

Incident Report - environment

☐DRAFT REPORT	☐FINAL REPORT
Date of Incident: mmm/dd/yyyy	**Incident report#:**

Incident type: ☐Spill (section 1) ☐Environmental damage (section 2) ☐Animal interaction (section 3)

Company responsible for incident: ☐Valard ☐Other:

Supervisor on site:		Contact phone #:	
Who was the incident reported to:		When: mmm/dd/yyyy	
Weather:	☐Sunny ☐Raining ☐ Overcast ☐Windy ☐ Snowing ☐Hailing ☐Other:		
Temperature	°C	Was anything removed from site	☐Y(see section 4) ☐N

REPORT REVIEW – for internal circulation until authorized for release			
Safety Advisor:		PM	***signature***
HSE Manager:	***signature***	Proj Dir	***signature***

SECTION 1 – SPILL or RELEASE ⇨Go to Section 4b when completed

Time started (approx):	**hh:mm**	**Time stopped (approx):**	**hh:mm**

Substance(s) involved (list all substances involved; attach all applicable documentation (e.g. MSDS, products sheets, etc):

•

Location of incident (site id, GPS coordinates, place name, cross street, etc):

Quantity:	(other measure:)	Biodegradable: ☐Y

SECTION 2 – ENVIRONMENTAL DAMAGE ⇨Go to Section 4b when completed

Location(s) of damage (list all sites and/or areas which were damaged) **⇨Go to Section 4a for associated costs**

Site ID	GPS Coordinates	General Extent of Damage, remediation red'd
a:		☐minor ☐moderate ☐extensive ☐remediation
b:		☐minor ☐moderate ☐extensive ☐remediation
c:		☐minor ☐moderate ☐extensive ☐remediation
d:		☐minor ☐moderate ☐extensive ☐remediation

Pictures Available:	☐Y ☐N	Included in this report: ☐	Available from:
Water course entered (unauthorized):	☐Y	Location(name):	
Is this area considered sensitive:	☐Y	Sensitivity: ☐wetland ☐fish bearing ☐nesting area	

SECTION 3 – ANIMAL INTERACTION/SIGHTING ⇨Go to Section 4b when completed

Location where incident occurred (at or near):			
Animal involved:	☐Bear ☐Cougar Ungulate (☐moose ☐mountain goat ☐deer ☐caribou ☐elk) ☐frog ☐toad ☐bird (nesting) ☐raptor ☐fish ☐other:		
Was the animal aggressive	☐Y ☐N	Was there young visible:	☐Y ☐N
Describe the actions of the animal:	☐Territorial ☐Predatory (circling) ☐Transitional (passing through) ☐Other:		

Valard	**Muskrat Falls Transmission Line** **Incident Report - environment**

Found a dead animal:	☐Y	Found a wounded animal:	☐Y	Animal at a kill:	☐Y
Dead/wounded due to:	☐Vehicle ☐Animal ☐Human (e.g. hunter) ☐Other:				

SECTION 4A – COSTS ASSOCIATED WITH INCIDENT

SECTION 4b – INVESTIGATION DETAILS

What was the cause of the incident:					
Details of what was affected by the incident (environmental impacts):					
Describe the actions taken to responds to the incident(equipment used, worker actions, etc):					
Identify corrective actions taken (clean-up, remediation, etc):					
Date started:		Date completed:			
Reviewed by:		On Date:			
For contamination removed from site (soil, water, etc)					
	Amount: Lt	TDG weigh bill required	☐Y ☐N		
	Where was it taken:				
	Weigh bill #:		**Date/Time**	**By Who**	
Was anyone injured as a result of the incident?	☐Y ☐N				
Was PM contacted?	☐Y ☐N				
Was HSE Manager, BC contacted?	☐Y ☐N				
Was the contractor contacted (contractor incident only)	☐Y ☐N				
Ministry of Environment contacted?	☐Y ☐N				
Other Agencies Contacted?	☐Y ☐N				
	Name:				
	Name:				
	Name:				
Other People Contacted?	☐Y ☐N				
	Name:				
	Name:				
	Name:				

NOTES:

•

SECTION 12- EMERGENCY PREPAREDNESS

TABLE OF CONTENTS

12.1 EMERGENCY PREPAREDNESS POLICY

It is the policy of Valard Construction that all projects shall have in place an emergency response plan specific to the potential hazards of the project. For projects designated by the Corporate Health, Safety & Environmental Manager, emergency preparedness drills will be conducted. Valard Construction shall provide first aid facilities as required by provincial/federal regulations.

12.2 EMERGENCY/FIRST AID RESPONSE PLAN

To be effective, an Emergency Response/First Aid Plan must be tailor made for the site that it is intended for. Emergency Response needs should be discussed during the initial project hazard analysis and a procedure developed and made available to all employees.

Items that should be considered include:

- Legislated requirements for first aid training and facilities and
- Provide a plan to provide prompt First Aid to injured worker/s
- Distance of the site from an advanced medical care facility and time to reach a medical facility.
- Provide a Emergency Transport Vehicle if required
- A Level 3 first aid certificated attendant will be required
- Availability of client provided first aid and emergency resources
- Availability of Valard Construction first aid resources
- Location and availability of professional emergency services (fire, ambulance, police)
- Review types of injuries that may be incurred on the worksite
- If air transportation is the primary or only method for transporting an injured worker, before the start of operations in a workplace, arrangements must be made with an air service to ensure that an appropriate aircraft is reasonably available to the workplace during those operations, and a system in place in case of the unavailability of the aircraft the provider must notify the employer and a means of communication between the pilot and first aid provider if no medical assistance is not provided with the aircraft company.
- Special situations that may be encountered (e.g. confined space rescue, high angle rescue)
- Hazards specific to the work site (e.g. product releases at petrochemical facilities, work over water)
- Methods of internal communication available, radio, Sat phone, cell phone*, land line phone, horn, alarm etc.
- Methods of external (off site) communications (radio, Sat phone, land line, cell phone* etc.)
- Internal fire fighting capability

- Emergency evacuation procedures and muster points
- Requirements for Environmental Spills (spill kits, absorbent)
- Contact numbers for Federal and Provincial reporting (OH&S, Environmental incident)

FIRST AID:

First aid equipment, supplies and facilities must be kept clean, dry and ready for use, and be readily accessible at any time a worker works in the workplace. Conspicuously posted signs at the work site will direct workers to where First Aid supplies are available. Locations of First Aid Kits are in each vehicle used on any site, and identified on each daily tailboard. This first Aid Kit must be kept in the interior of the vehicle to insure a clean and safe environment for storage.

First aid training will be provided by:

- EMP
- St. John's First Aid
- Canadian Heart foundation

Valard's policy is to provide First Aid Training to a minimum of 80% of their employees. This is due the fact that crews change at any moment's notice, travel to different work sites. This policy insures that every crew of 4 has at least 2 qualified first aiders. Training providers are to inform the corporate office of all workers' successful completion of training with supporting documentation; this will be inputted into the training database.

Where the site is more than 20 minutes from a medical facility a Mobile treatment centre will be based at the worksite.

When developing an emergency response plan See Emergency Preparedness Form and complete the required numbers and a list of contacts to call in the event of an emergency so that all employees are aware of it. This procedure must be posted in areas where workers are present such as lunchrooms, vehicles and the site office. This must be communicated and discussed with the workers for their input to insure their understanding and also discussed at the start of the job as well as during it. If required a list of the landing points for Stars or other aircraft to be able to locate must be identified on page 4 of an Emergency Preparedness Form.

This plan must be reviewed on a monthly basis as well when conditions or services change.

* It should be noted that cell phone communication is not ideal in all situations due to possible service disruption and the tendency for cellular towers to be overloaded with calls during widespread emergencies. An example of this would be the Pine Lake tornado disaster in Alberta, in which only one cell phone call was received by the local the ambulance service before towers were overloaded and failed to function.

Emergency Equipment provided:

- Blankets In site office (also in MTC (mobile Treatment Centre) if available
- First Aid kits (in all vehicles)
- Stretcher (available in Site office or MTC

Emergency procedure as to location of hospitals Medi-centres etc. shall be identified on worker's daily Tailboards (Hazard Assessments) This includes land locations, directions to a hospital, identify the First aiders on crew, directions for the emergency crew and the emergency phone numbers. Crews must address this daily as they may be changing locations daily, Pole/structure locations have the land locates identified on them. These must be identified on all daily tailboards. All workers will attend an annual training program for both Pole top rescue and Bucket rescue, this documentation is to be sent to the corporate office. In case of an emergency the means of transporting the injured worker to a hospital must be addressed at each site. A dedicated vehicle must be identified on each crew. In cases where there is a MTC available then the attending EMT will insure that the worker is transported in an appropriate vehicle.

All records of injuries must be sent to the corporate office for retention for a period of not less than 3 years from date of injury.

12.3 EMERGENCY PREPAREDNESS DRILLS

For projects as designated by the Health, Safety & Environmental Manager, emergency preparedness drills will be conducted quarterly.

All personnel on site should be notified in advance of the drill. An incident should be simulated and observations made of the response. A post drill meeting should be conducted to review the response and address any deficiencies.

12.4 FIRE PROTECTION AND PREVENTION

A fire team will be established on sites when the risk of fire is high. The Project Management or designate and the Project HS&E Advisor shall establish the Fire Team. The Area Fire Team will be organized with specific duties being designated to each member.

The type of project and associated hazards will determine the need for a Team, its size, functions and specific duties.

An individual will be appointed by the Project Superintendent to act as Fire Team leader. Team members should always ensure they are able to escape in the event the fire is out of control. Team duties shall include as a minimum:

- Sounding the alarm or notify the work force using the pre-established emergency summon.
- Notifying the local Fire Department.
- Directing fellow workers to the evacuation area.
- Fighting the fire with available equipment, if safe to do so, until assistance arrives.
- De-energizing power to machines and equipment.
- Closing-off fuel supply to furnaces, ovens, temporary heating facilities, etc.
- Closing doors to contain fire.
- Removing combustible materials from threatened areas.

- Closing-off valves on lines that carry flammable fluids.
- Spreading waterproof covers over open floor drains to minimize water damage.
- Removal of vehicles or equipment from threatened areas.
- Guiding municipal fire fighting personnel to fire.
- Assisting police in crowd control.
- Maintaining access for fire fighting and other emergency vehicles.
- Re-establishing the fire fighting capability after the fire has been extinguished (i.e. spent fire extinguishers recharged or replaced immediately).

Important: No Fire Team member shall place his or her own personal safety at risk.
Additional direction for investigation, cleanup and reconnection of services will be provided by the respective fire agency, during their investigation of cause.
The HS&E department on an annual basis will arrange the training of the Area Fire Team.
It is essential that organizers of Fire Team impress upon its members that the Team is only the first line of defense against a fire. Caution must be exercised and the Team members are instructed not to place themselves in danger at any time.

12.5 COMMUNICATION WITH WORKERS, PUBLIC AND MEDIA

If and when an emergency occurs, the workers will be advised by sounding the horns on the trucks as well as utilizing the 2 way radios that are in all pieces of equipment. The following company officials will only be permitted to talk to either the general public and/or media;

- President
- Vice-President of Transmission Projects
- Vice President of Health, Safety and environment

Following an actual incident, the response shall be reviewed to evaluate effectiveness and to correct deficiencies.

Regulatory References:

Alberta

- Part 7 Alberta's OH&S Code (Emergency Preparedness)
- Part 11 Alberta's OH&S Code (First Aid)
- Part 11 Alberta's OH&S Code, Schedule 2, tables 5, 6, &7

British Columbia

- Occupational First Aid Sections 3.14 – 3.21
- Enacted by B.C. Reg. 348/2003, effective March 30, 2004.
- Amended by B.C. Reg. 320/2007, effective February 1, 2008

Yukon

- Yukon Workers Health and Safety Board. Minimum First Aid regs.
- Sections 1-21 including tables 2-12 inclusive

Saskatchewan

- The Occupational Health and Safety Regulations, 1996

Manitoba

- Workplace Health and Safety Regulation 217/2006 Part 5 First Aid

Northwest Territories/Nunavut

- Part III of the Act First Aid Service Requirements

EMERGENCY RESPONSE PLANNING

This procedure is to aid in the development of Emergency procedures for work activities in remote areas and to be performed in a safe and efficient manner.

Objective: The following is a list of items which must be addressed and questions that need to be answered and addressed in order that a plan is in place in case of an emergency. It is to be reviewed by everyone so that they are aware of the actions that must be taken to reduce the impact of the emergency itself.

1. **Goals:**
   - To ensure timely response.
   - To provide transportation (how?)
   - To provide immediate treatment to injured worker.
   - To safeguard the general public.
   - To prevent additional injury or damage to the rescuers and environment.
2. **Communication:**
   - Radio system or cell phones (check if there is cell coverage) Ensure that the 911 number is available in the working location.
   - Note the phone numbers or system to be used in daily tailboards.
   - Have workers review emergency numbers in the safety meetings (document)
3. **Potential Emergencies:**
   - Hoisting Equipment upset
   - Electrical contact (worker).
   - Fall from height.
   - Heart attack/stroke
   - Motor vehicle accident
   - Personal injury (fractures, deep cuts, loss of consciousness).
   - Aircraft accident.

The following pages contain the emergency process required to be completed and reviewed at safety meetings. (Please place numbers and contact names in appropriate locations). The Emergency process is to be conspicuously posted throughout the work site and beside site office phones. All supervisors / Forman must carry the ERP with them.

Page 3 - Provide numbers to call and give a copy to the workers.

Page 4 - Provide GPS locates for each area where aircraft can land and/or actual emergency muster point locates (GPS). (Provide this to workers to identify their GPS locates). Insure workers add this information on the tailboard. Ask client for the GPS locates or identify them yourself.

4. **Directions required:**
   - Identify local communities where there is a hospital.
   - Write down exact directions to the nearest hospital so that workers know the directions.
   - Make sure they write this in their daily tailboards.

VALARD A QUANTA SERVICES COMPANY	Document Description		Emergency Preparedness				
	Created By:	A. Felczak	Doc. Number	Health, Safety & Environmental Policy 12.00			
	Date:	Sept. 23, 2003	Revision:	5	Revised by:	A. Felczak	Date:	Jan. 3, 2013

EMERGENCY PROCEDURE

1. **Protect yourself**
2. **Control the scene**
3. **Call the foreman or the EMT's phone number**
4. **Provide first aid (if trained)**
5. **Keep individual warm while waiting for assistance**

CALLING FOR ASSISTANCE

Information required

1. **Your name and call back number.**
2. **Location GPS or other.**
3. **Type of injury(s).**
4. **Number of injured.**
5. **Call Valard's EMT for assistance.**
6. **Advise Stars of Emergency.**
7. **Ask if response will be land or air and the approximate time.**
8. **Keep line free for follow-up calls from Stars.**
9. **Instruct someone to wait at the pre-determined location to meet the emergency crew.**

COMMUNITY	AMBULANCE	HOSPITAL	FIRE DEPT.	RCMP
				911
STARS	888-888-4567			

POSITION	CONTACT	PHONE NUMBER
Valard's Safety Department		
Valard's Head Office		
Client's Site Supervisor		

EMERGENCY MUSTER POINTS

LAND LOCATION	MUSTER POINT	NAME OF LOCATION	N LATITUDE			STARS REG #	W LONGTITUDE		

NOTE: **Provide this information to the workers every day to be noted on their tailboard.**

VALARD A QUANTA SERVICES COMPANY	Document Description							Inspections/ Monitoring
	Created By:	A. Felczak	Doc. Number					Health, Safety & Environmental Policy 9.00
	Date:	Sept. 23, 2003	Revision:	5	Revised by:	A. Felczak	Date:	Jan. 3, 2013

SECTION 9 - INSPECTION & MONITORING

TABLE OF CONTENTS

9.1 HEALTH, SAFETY AND ENVIRONMENTAL INSPECTION AND AUDIT POLICY

Valard through its entire employee's will maintain Health, Safety and Environmental Inspection and Audit programs involving formal and informal inspections and Audits.

Informal Health, Safety and Environmental inspections are to be performed on a continuous basis by all supervisory and management staff. All hazards are to be corrected at once.

It is the responsibility of the Area Supervisor's and Manager's to ensure that formal Health, Safety and Environmental Inspections are performed on a bi-weekly basis. A copy of the Health, Safety and Environmental Inspection Report will be forwarded to the Corporate HS&E department for review.

The Health, Safety and Environmental Manager will also conduct inspections on as need basis. PPE will be inspected on quarterly basis by the site Safety Advisor including the worker. This information will be recorded on Form # 9.6 located in section 9 of the HS&E Policy Manual.

All unsafe acts or practices observed during formal Health, Safety and Environmental inspections are to be placed on the next Health, Safety and Environmental meeting agenda.

The Health, Safety and Environmental Manager will or appoint a certified Auditor to conduct formal and informal Audits as a minimum every 12 months as directed in the Health, Safety and Environmental Audit Procedure.

9.2 HEALTH, SAFETY AND ENVIRONMENTAL AUDIT PROCEDURE

PURPOSE

To define the process for conducting periodic audits of the Health, Safety and Environmental Program. The procedure defines the process for scheduling, conducting, and reporting of Health, Safety and Environmental audits.

SCOPE

This procedure applies to all internal Health, Safety and Environmental audits conducted at the site. The scope of Health, Safety and Environmental audits may cover all activities and processes comprising the Health, Safety and Environmental Program or selected Sections or Policies.

GENERAL

Internal Health, Safety and Environmental audits help to ensure the proper Implementation and maintenance of the Health, Safety and Environmental Program by verifying that activities conform to documented procedures and that corrective actions are undertaken and are effective.

All audits are to be conducted by Alberta Construction Safety Association trained Auditors.

When a candidate for Health, Safety and Environmental auditor is assigned to an audit team, the Health, Safety and Environmental Manager will prepare an evaluation of the candidate auditor's performance following the audit.

The Corporate HS&E Manager is responsible for maintaining Health, Safety and Environmental audit records, including a list of trained auditors, audit or training records, audit schedules and protocols, and audit reports.

Health, Safety and Environmental audits are scheduled to ensure that all of the Health, Safety and Environmental Program elements are audited at least once each year.

The Corporate HS&E Manager is responsible for notifying ACSA of any upcoming audits a reasonable time prior to the scheduled audit date. Site areas and functions subject to the Health, Safety and Environmental audit will also be notified a reasonable time prior to the audit.

The Corporate HS&E Manager is responsible for ensuring that the audit, audit report and any feedback to the site areas or functions covered by the audit is completed per the audit schedule.

The Site Safety Advisor/Area Supervisor, in conjunction with the Corporate HS&E Manager, is responsible for ensuring that Audit Action Items are prepared for audit findings, as appropriate.

PROCEDURE

1. **Audit Team Selection** - One or more auditors comprise an audit team. When the team consists of more than one auditor, a Lead Auditor will be designated. The Lead Auditor is responsible for audit team orientation, coordinating the audit process, and coordinating the preparation of the audit report.
2. **Audit Team Orientation** - The Lead Auditor will assure that the team is adequately prepared to initiate the audit. Pertinent policies, procedures, standards, regulatory requirements and prior audit reports are made available for review by the audit team. Each auditor will have appropriate audit training from the ACSA.
3. **Written Audit Plan** - The Lead Auditor is responsible for ensuring the preparation of a written plan for the audit.
4. **Prior Notification** - The site areas to be audited are to be notified a reasonable time prior to the audit.
5. **Conducting the Audit**
   a. A pre-audit conference is held with appropriate personnel to review the scope, plan and schedule for the audit.

b. Auditors are at liberty to modify the audit scope and plan if conditions warrant.

c. Objective evidence is examined to verity conformance to Health, Safety and Environmental Program requirements, including site procedures. All audit findings must be documented.

d. Specific attention is given to corrective actions for audit findings from previous audits.

e. A post-audit conference is held to present audit findings, clarify any misunderstandings, and summarize the audit results.

6. Reporting Audit Results

a. The Team Leader prepares the audit report, which summarizes the audit scope, identifies the audit team, describes sources of evidence used, and summarizes the audit results.

b. Findings requiring corrective action are entered into the corrective action database.

Audit Report Distribution

a. The Corporate HS&E Manager is responsible for communicating the audit results to responsible site management. The Corporate HS&E Manager will make copies of the audit report available.

b. The Corporate HS&E Manager is responsible for ensuring availability of audit reports for purposes of the annual Management review.

8. Audit Follow-up

a. Management in the affected site is responsible for any follow-up actions needed as a result of the audit.

b. The Corporate HS&E Manager Manager is responsible for tracking the completion and effectiveness of corrective actions.

9. Record Keeping

Audit reports are retained for at least two years from the date of audit completion. The Corporate HS&E Manager is responsible for maintaining such records.

9.3 HEALTH, SAFETY AND ENVIRONMENTAL INSPECTIONS

Informal site inspections are to be performed on a continuous basis by management and supervisors. Formal site inspections are to be performed a minimum bi-weekly.

The inspection team is to be made up of at least one supervisor and at least one worker (chosen on a rotational basis).

The inspection team will tour:

- The entire site

Or:

- On larger projects, a designated portion of the site. If only a portion is completed, additional inspections will be required to ensure the entire project is inspected once bi-weekly.

Following the inspection, form 9.4a must be filled out for site inspections and 9.4b for office and shop inspections

- All deficiencies found must be noted on the checklist (if applicable) and on the summary.
- Any item on the summary must be assigned to an individual for corrective action. The corrective action must be carried out by the due date and signed off.
- Completed inspection forms are to be submitted to Corporate Safety in a timely manner.

VALARD A QUANTA SERVICES COMPANY	Document Description				Inspections/ Monitoring			
	Created By:	A. Felczak	Doc. Number		Health, Safety & Environmental Policy 9.00			
	Date:	Sept. 23, 2003	Revision:	5	Revised by:	A. Felczak	Date:	Jan. 3, 2013

9.4a SITE SAFETY INSPECTION

Supervisor: _____ **VC#:** _____

Inspected by: _____ **Date:** _____

Instructions for completing the form:

Complete the status columns checking **S** = Satisfactory, **A** = Action Required, **NA**=Not Applicable
Hazard Class priorities shall be determined by the inspector(s) along with the recommended corrective action for each item identified as **A** (action required). Corrective actions shall be assigned to appropriate individuals.

Class 1 –Rectify in **8 hours** Class **2**- Rectify within **2 days Class 3-** Rectify within a **week** **Class 4** –Rectify within a **month**

	S	A	NA
1. Site Trailers / Buildings			
a. Adequate access/egress for emergencies	☐	☐	☐
b. Lunch room clean and free of hazardous material	☐	☐	☐
c. Waste receptacles provided and emptied regularly	☐	☐	☐
d. Tidiness of office facilities	☐	☐	☐
e. Steps, walkways and fire escapes clear	☐	☐	☐
f. Copies of HSE Manual available	☐	☐	☐
g. Copies of applicable legislation available	☐	☐	☐
2. First Aid & Medical			
a. First aid kit and supplies are maintained	☐	☐	☐
b. Eye wash station free from obstructions and clean	☐	☐	☐
c. MSDS books up to date and accessible	☐	☐	☐
d. AED inspected	☐	☐	☐
3. Minimum Posting			
a. Current safety policy	☐	☐	☐
b. Emergency phone numbers and directions posted	☐	☐	☐
c. Fire and emergency evacuation procedures	☐	☐	☐
d. Memos, bulletins and reminder posters	☐	☐	☐
4. Housekeeping	☐	☐	☐
a. Tools and storage areas neat	☐	☐	☐
b. Working areas orderly	☐	☐	☐
c. Garbage container emptied	☐	☐	☐
5. Fire protection & prevention			
a. No Smoking posted and enforced where prohibited	☐	☐	☐
b. Extinguishers in trucks, equipment and buildings	☐	☐	☐
c. Extinguishers at fuel dispensing areas	☐	☐	☐
d. Extinguishers in welding and burning areas	☐	☐	☐
e. Monthly inspection & seal intact	☐	☐	☐
6. Personal Protective Equipment			
a. Hard hats, glasses, footwear, and high visibility	☐	☐	☐
b. Proper respiratory protection where applicable	☐	☐	☐
c. Hearing protection when required	☐	☐	☐
d. Fall protection as required	☐	☐	☐
7. Ladders & Diving Board/Baker Board m			
a. Ladder rails extend 1m above landing or platform	☐	☐	☐
b. Installed at a 4:1 angle ratio, and secured	☐	☐	☐
c. Structural integrity acceptable	☐	☐	☐
d. Pins and hinges in good condition and secure	☐	☐	☐
e. Chains secure and in good condition			
8. Tools	☐	☐	☐
a. Proper tool being used for each job	☐	☐	☐
b. Damaged / defective tools, tagged and removed	☐	☐	☐
c. Tools and cords in good condition	☐	☐	☐
d. Mechanical guards in place and working order	☐	☐	☐

	S	A	NA
9. Compressed Air & Temporary Heaters			
a. All compressed air equipment used safely	☐	☐	☐
b. Hose connections wired together (whip checks)	☐	☐	☐
c. Heaters clear from combustible / flammable materials	☐	☐	☐
d. Sufficient ventilation provided	☐	☐	☐
10. Electrical			
a. Lock-out or tag-out system used	☐	☐	☐
b. Worn / frayed cables tagged and removed of service	☐	☐	☐
c. Extension cords protected and in orderly manner	☐	☐	☐
d. Temporary lights equipped with guards	☐	☐	☐
	☐	☐	☐
11. Excavation, shoring & trenching			
a. Atmospheric conditions tested where necessary	☐	☐	☐
b. Banks more than 1.4m shored or cutback minimum 45°	☐	☐	☐
c. Spoil piles at least 1m from edge of excavation	☐	☐	☐
d. Ladders or stairs provided as required (every 15m)	☐	☐	☐
	☐	☐	☐
12. Hoists, Cranes & Derricks			
a. Check slings and shackles for defects and damage	☐	☐	☐
b. Crane hand signal posted, understood, and observed	☐	☐	☐
c. All equipment properly maintained and inspected	☐	☐	☐
d. Signal man identified with vest and wristbands	☐	☐	☐
e. Tag lines used on loads	☐	☐	☐
f. Log book, equipment check list completed	☐	☐	☐
g. Applicable bucket rescue equipment	☐	☐	☐
13. Signs &Barricades			
a. Appropriate signs to warn against hazards	☐	☐	☐
b. Signs & barricades removed with hazard	☐	☐	☐
14. Welding & Cutting			
a. Screens, shields and eye protection available and used	☐	☐	☐
b. Flashback arrestors installed	☐	☐	☐
c. Cylinders secured, capped when not in use	☐	☐	☐
d. Checked before using, leak free	☐	☐	☐
14. Power System Protection Systems			
a. Grounding and bonding as required	☐	☐	☐
b. Lockout procedures followed	☐	☐	☐
c. Meter testing preformed	☐	☐	☐
d. Overhead protection (caps when required)	☐	☐	☐
e. Ground chains, hot sticks, etc. with current inspection	☐	☐	☐
15. Stringing Protection			
a. EPZ properly installed with signs and fencing	☐	☐	☐
b. Slug sites properly protected	☐	☐	☐
c. Bonding and trip grounds installed as required	☐	☐	☐
16. Station Protection			
a. Person In Charge posted	☐	☐	☐
b. Log book / Station Log up to date	☐	☐	☐

Inspection Item Requiring Correction (List Item # from above)	Hazard Class	Corrective Responsibility Assigned To:	Corrective Verification

VALARD A QUANTA SERVICES COMPANY	Document Description				Inspections/ Monitoring			
	Created By:	A. Felczak	Doc. Number		Health, Safety & Environmental Policy 9.00			
	Date:	Sept. 23, 2003	Revision:	5	Revised by:	A. Felczak	Date:	Jan. 3, 2013

9.4b SHOP/OFFICE SITE SAFETY INSPECTION

Supervisor: _____ **Shop/ Office:** _____

Inspected by: _____ **Date inspected:** _____

Instructions for completing the form:
Complete the status columns checking **S** = Satisfactory, **A** = Action Required, **NA** = Not Applicable
Hazard Class priorities shall be determined by the inspector(s) along with the recommended corrective action for each item identified as A (action required). Corrective actions shall be assigned to appropriate individuals.

Class 1 –Rectify in **8 hours** **Class 2**- Rectify within **2 days** **Class 3-** Rectify within a **week** **Class 4** –Rectify within a **month**

Shop Inspection Criteria	S	A	NA
1. Buildings	☐	☐	☐
a. Adequate access/egress for emergencies	☐	☐	☐
b. Lunch room clean and free of hazardous material	☐	☐	☐
c. Waste receptacles provided and emptied regularly	☐	☐	☐
d. Copies of HSE Manual available	☐	☐	☐
e. Copies of applicable legislation available	☐	☐	☐
2. First Aid & Medical			
a. First aid kit and supplies are maintained	☐	☐	☐
b. Eye wash station free from obstructions and clean	☐	☐	☐
c. MSDS books up to date and accessible	☐	☐	☐
3. Minimum Posting			
a. Current safety policy	☐	☐	☐
b. Emergency phone numbers and directions posted	☐	☐	☐
c. Fire and emergency evacuation procedures	☐	☐	☐
d. Memos, bulletins and reminder posters	☐	☐	☐
e. PPE free zones identified	☐	☐	☐
4. Housekeeping			
a. Tools and storage areas neat	☐	☐	☐
b. Working areas orderly	☐	☐	☐
c. Garbage container emptied	☐	☐	☐
d. Electrical panel clear access	☐	☐	☐
5. Fire protection & prevention			
a. No Smoking posted and enforced where prohibited	☐	☐	☐
b. Extinguishers available with inspection & seal intact	☐	☐	☐
c. Fire extinguishers marked and visible	☐	☐	☐
6. Personal Protective Equipment			
a. Hard hats, glasses, footwear, and high visibility	☐	☐	☐
b. Hearing protection when required	☐	☐	☐
c. Visitor PPE available	☐	☐	☐
7. Tools	☐	☐	☐
a. Proper tool being used for each job	☐	☐	☐
b. Damaged / defective tools, tagged and removed	☐	☐	☐
c. Tools and cords in good condition	☐	☐	☐
d. Mechanical guards in place and working order	☐	☐	☐
8. Hoists & Cranes			
a. Check slings for defects and damage	☐	☐	☐
b. Hand signal posted, understood, and observed	☐	☐	☐
c. Signal man identified with vest and wristbands	☐	☐	☐
9. Welding & Cutting			
a. Screens, shields and eye protection available	☐	☐	☐
b. Flashback arrestors installed	☐	☐	☐
c. Cylinders secured, capped when not in use	☐	☐	☐
d. Checked before using, leak free	☐	☐	☐
e. Cylinders stored away from flammable material	☐	☐	☐

Office Inspection Criteria	S	A	NA
10. Buildings	☐	☐	☐
a. Adequate access/egress for emergencies	☐	☐	☐
b. Lunch room clean and free of hazardous material	☐	☐	☐
c. Waste receptacles provided and emptied regularly	☐	☐	☐
d. Copies of HSE Manual available	☐	☐	☐
e. Copies of applicable legislation available	☐	☐	☐
f. First aid kit and supplies maintained	☐	☐	☐
g. MSDS books up to date and available	☐	☐	☐
11. Minimum Posting			
a. Current safety policy	☐	☐	☐
b. Emergency phone numbers and directions posted	☐	☐	☐
c. Fire and emergency evacuation procedures	☐	☐	☐
d. Memos, bulletins and reminder posters	☐	☐	☐
12. Individual Work Station			
a. Sufficient ventilation	☐	☐	☐
b. Sufficient open floor space	☐	☐	☐
13. Work Station Behaviors			
a. Maintain neutral posture	☐	☐	☐
b. Keep arm level	☐	☐	☐
c. Keep elbows in	☐	☐	☐
d. Avoid extended reaches	☐	☐	☐
14. Walking Surfaces			
a. Aisles correctly established and clear	☐	☐	☐
b. Tripping hazards clear	☐	☐	☐
c. Matts available to prevent slipping hazards	☐	☐	☐
d. Floors dry – not slippery	☐	☐	☐
15. Halls, Ramps and Lighting			
a. Adequate lighting suitable for work	☐	☐	☐
b. Ramps have non-slip surfaces	☐	☐	☐
c. Handrails installed and in good condition	☐	☐	☐
d. Halls kept clear of equipment and supplies	☐	☐	☐
16. Storage Areas			
a. Shelves and file drawers safety loaded	☐	☐	☐
b. Heavy items stored close to the ground	☐	☐	☐
c. Overhead storage material secured	☐	☐	☐
	☐	☐	☐
17. Office Equipment			
a. Chairs (springs, casters, hydraulics) in good repair	☐	☐	☐
b. Safety step / ladders available	☐	☐	☐
c. Chemicals properly stored	☐	☐	☐
d. Paper supplies and Material safely stacked	☐	☐	☐
18. Electrical Hazards			
a. Temporary heater plugged directly to outlet	☐	☐	☐
b. Proper multi-outlet devises used	☐	☐	☐
c. Extension cords –maximum length 10ft (3 M)	☐	☐	☐

9.5 MONTHLY FIRE EXTINGUISHER CHECKLIST

Fire Extinguisher Number	Location	Date	Remarks

9.6 PPE INSPECTIONS

NAME	ITEM	DATE	REMARKS

VALARD A QUANTA SERVICES COMPANY	Document Description				Inspections/ Monitoring			
	Created By:	A. Felczak	Doc. Number		Health, Safety & Environmental Policy 9.00			
	Date:	Sept. 23, 2003	Revision:	5	Revised by:	A. Felczak	Date:	Jan. 3, 2013

9.7 FALL ARREST EQUIPMENT INSPECTION CHECKLIST

Lanyard

- ☐ Check rope for damaged fibers and strands
- ☐ Inspect the splices for loose strands
- ☐ Thimbles in good shape/secure
- ☐ Hooks – free of cracks, corrosion pits or distortion
- ☐ Keeper freely without binding and the spring exerts enough pressure to remain firmly closed.
- ☐ Check shock absorber for signs of over tension
- ☐ Identification tag and labels are in place and legible

Remarks: _____

Hooks / Gaffs

- ☐ Acceptable hook length
- ☐ Nylon straps in acceptable order
- ☐ Hooks acceptably sharpened
- ☐ Gaffe screws tight
- ☐ All adjustable and replaceable parts in good order and securely fasted

Remarks: _____

Body Belts

- ☐ D-Rings not bent or corroded
- ☐ Free from cuts or tare
- ☐ Rivets and stitching intact and secure
- ☐ Seat belt free from contamination
- ☐ No handmade hooks
- ☐ Hardware attachments in good order (no burns, or loose stitching)
- ☐ Properly attached tool bag

Remarks: _____

Body Harness

- ☐ D-ring pad free of rips
- ☐ Rivets tightly secured
- ☐ Grommets must be tight
- ☐ Buckles are working properly and not bent
- ☐ Webbing free from cuts, broken/pulled stitches, frayed or damaged strands
- ☐ Buckles and D- rings free from cracks and deformities

Remarks: _____

Pole Straps

- ☐ Free from wear and cuts
- ☐ Attachments in good order

Remarks: _____

Work _____

Don't take any chances! If your Fall Protection is damaged, malfunctioning, or just showing signs of excessive wear, take the safe route and replace it. When replacing a lineman's belt or any other piece of fall protection equipment, don't just discard it… destroy it! This prevents anyone else from using it and injuring themselves.

VALARD A QUANTA SERVICES COMPANY	Document Description		Incident Investigation Policy					
	Created By:	A. Felczak	Doc. Number	Health, Safety & Environmental Policy11.00				
	Date:	Sept. 23, 2003	Revision:	5	Revised by:	A. Felczak	Date:	Jan.3, 2013

SECTION 11 - INVESTIGATIONS

TABLE OF CONTENTS

11.1 INVESTIGATION POLICY

It is the Policy of Valard Construction to have all incidents reported utilizing the Notification/Investigation Report Form 11.3.1.

If the incident requires investigation it must be classified either Level I, Level II or Level III and it is to be thoroughly investigated.

Vehicle accidents must be reported on form # 11.3.1 (Incident Notification Form) and if available the Police report must also be attached. In case of a serious or major environmental spill the Environmental Incident Report Form 11.3.4 must be completed. The purpose of such investigations is to determine the basic root causes of the incident so that appropriate action can be taken to prevent its recurrence.

11.2 INVESTIGATION PROCEDURE

All incidents that result in First Aids, Lost Time Injury, Medical Aids, Modified Work, or Near-Misses that could have resulted in serious injury or property damage are to be thoroughly investigated. All investigators will be trained in investigative techniques. The Area Supervisor in conjunction with the Safety Advisor shall lead the investigation unless otherwise indicated by the VP of Health and Safety. The investigator shall take statements from witnesses or others who may have relevant information and thoroughly review the site and all pertinent evidence. All incidents must identify action items that will reduce the likelihood of re-occurrence. The lead investigator shall forward the Investigation Report to the Corporate HS&E Manager within 48 hours of the incident. A copy of the report shall be forwarded to the VP of Health, Safety & Environment within 48 hours. The VP of Health, Safety & Environment shall review all corrective action notices implemented.

Steps:

1. Secure area of incident. Rope off area and keep all personnel away.
2. Inform client, Valard's OH&S department and the appropriate Provincial government OH&S Office or the equivalent in other jurisdictions/provinces such as in Ontario (MOL), Yukon, NWT, British Columbia (WCB).
3. Have all witnesses complete a detailed statement as to what they either witnessed or heard.

All Investigation Reports will be reviewed at the next Health, Safety & Environmental meeting.

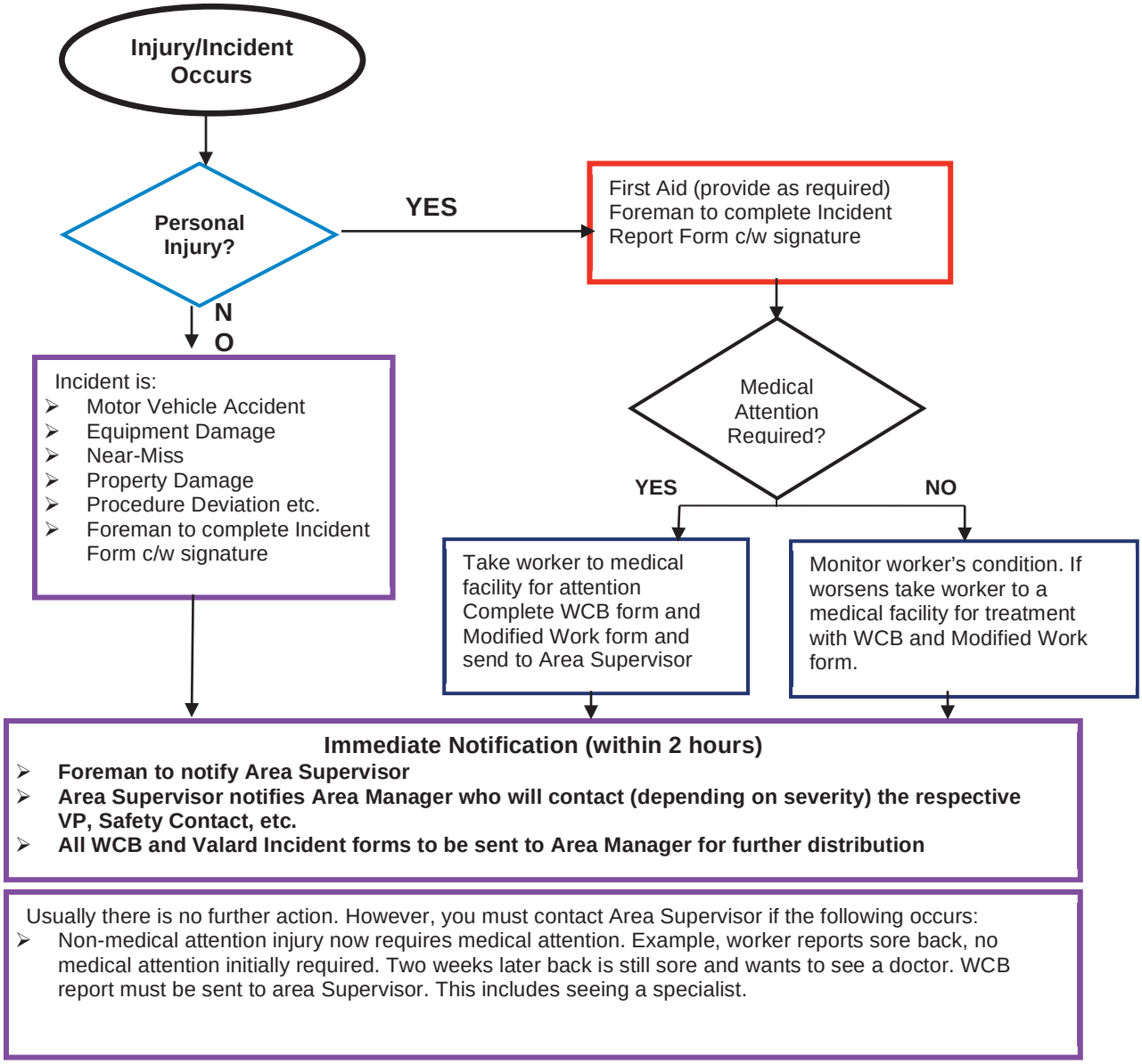
All Investigation Reports and new appropriate measures will be reviewed at regularly scheduled staff meetings.

Workers will be instructed to report injuries (including minor scratches, muscle strain and particles in the eye, etc.) immediately to their foreman or supervisor. All incidents regardless of their severity shall be initially reported utilizing Incident Notification/Investigation Report Form 11.3.1. Employees should be instructed that if they must leave the job for illness or injury (either work related or non-work related) they must notify their supervisor.

Any employee seeking the care of a physician following an occupational injury or illness will be given a Modified Work Package for the physician to fill out (see Section 15 Modified Work), and will be instructed to report any anticipated loss of work time to

his/her supervisor as soon as possible. When modified work is required, it will be arranged for as per Section 15 of this manual using the information provided by the Physician. If the Employee visits a medical clinic they and their supervisor will fill out the appropriate Workers' Compensation forms as prescribed by legislation. Immediately notify the Director of Health and Safety, and forward any all required WCB, (WSIB in Ontario) forms within 24 hours of the incident.

11.2.1 Injury/Incident Reporting Flow Chart



11.2.2 Incident Classification and Investigation Process

Incidents are classified to differentiate from those that do not require a full investigation process from those that do.

For all incidents regardless of its severity must be reported on form # 11.3.1

For environmental Incidents use form # 11.3.2

LEVEL I: (Requires an incident report)

- First Aid
- Medical Aid (no high potential injury i.e. small cut to finger)
- Non-injury vehicle incident less than $1000.00 damage
- Occupational Illness
- Loss of Property
- Damage to property or equipment less than $1,000.00
- Procedure deviation with no damage

LEVEL II: Requires an investigation

- Lost Time or Medical Aid with high potential to cause permanent impairment
- Environmental noticeable but repairable short-term damage
- Vehicle incident with greater than $1000.00 damage
- Vehicle incident with 3rd party injury
- Contact with either underground/overhead lines
- Procedure deviation that caused damage or an unscheduled outage
- Criminal Acts or threats to employees
- Damage to property or equipment greater than $1000.00 and less than $500,000.00

LEVEL III: Requires a full investigation (Tap Root Investigation Process)

- Death or permanent disability
- Environmental damage that may cause long term harm
- Damage that could exceed $500,000.00
- Bomb threat or an attack against person resulting in serious injury or death, etc.

NOTE: For any incident in Level II and III the site must be secured and all workers involved must participate in the investigation.

References:

OHSAS 180001:1999 Section 4.5.2 Accidents, incidents, non-compliance, and corrective and preventative action.

Federal OSHA Voluntary Protection Program (VPP)

29 CFR 1904 (Recording and Reporting Occupational Injuries and Illnesses

VALARD A QUANTA SERVICES COMPANY	Document Description			Incident Investigation Policy			
	Created By:	A. Felczak	Doc. Number	Health, Safety & Environmental Policy11.00			
	Date:	Sept. 23, 2003	Revision:	5	Revised by:	A. Felczak	Date: Jan.3, 2013

11.3.1 Injury/Property/Vehicle Incident Report

INCIDENT IDENTIFYING INFORMATION

Incident Title:		**Incident Location:** (enter street address or land location)		**VC Number:**
Division (i.e. Transmission, Shops, Substations, etc.):		**Crew Leader:**	**Supervisor:**	**Client:**
Incident Date:	**Incident Time:**	**Reported by** (Person Completing this Report):		**Reported Date:**

INCIDENT INFORMATION

Type	**Potential**	**Frequency for Occurrence**	**Potential Equipment/Property Loss**
☐ **Actual**	☐ **High**	☐ **Frequent – Likely to occur repeatedly**	☐ **Major – Higher than $10,000**
☐ **Near Miss**	☐ **Medium**	☐ **Occasional – likely to occur sometimes**	☐ **Serious - $1000 to $10,000**
	☐ **Low**	☐ **Rare – Not likely to occur**	☐ **Minor – Less than $1000**

Energy Sources & Potential Hazards

Body Mechanics	**Electrical**	**Gravity**	**Kinetic**	**Chemical**
☐ Lifting/Straining	☐ Backfeed	☐ Fall From Height	☐ Traffic	☐ Confined Space
☐ Slip/Trip	☐ Flash	☐ Falling Object	☐ Vehicle Collision	☐ Corrosive
☐ Repetitive Strain	☐ Induction	☐ Falling Structure	☐ Vehicle Rollover	☐ Flammability
	☐ Live Conductor			☐ Drowning
Mechanical	☐ Step Potential	**Property Damage Type**	**Security**	☐ Explosive
☐ Caught/Hit By		☐ Abuse	☐ Break In	
☐ Failure	**Fire**	☐ Fire	☐ Fraud	**Thermal**
☐ Flying Particles	☐ Fuse	☐ Procedural	☐ Theft	☐ Ambient Cold
☐ Sharp Tools	☐ Apparatus Failure	☐ Struck By	☐ Vandalism	☐ Ambient Heat
Pressure	☐ Grass	☐ Wear and Tear	☐ Violence	☐ Hot Objects
☐ Hydraulic Failure	☐ Other	☐ Lost		
☐ Compressed Gas		☐ Malfunction		

Incident Description:

For Injuries/Illness Only Classification: ☐ F.A. ☐ M.A. ☐ LTI ☐ N/A

Body Parts Injured - (circle one or more of the parts listed)

☐ Eyes	☐ Head (includes face, neck)	☐ Fingers (Includes thumb)	☐ Hands (includes wrist)
☐ Arms (includes elbow)	☐ Back	☐ Knees	☐ Legs
☐ Trunk (includes chest, hips, shoulders)	☐ Feet (includes toes, ankles)	☐ Internal	☐ Other

Nature of Injury - (circle one or more)

☐ Cut	☐ Fracture	☐ Allergy	☐ Sprain	☐ Scrape	
☐ Shock	☐ Welder's Flash	☐ Bruise	☐ Crush	☐ Foreign Body	
☐ Burn	☐ Exposure	☐ Puncture	☐ Amputation	☐ Dermatitis	
☐ Other					

VALARD A QUANTA SERVICES COMPANY	Document Description		Incident Investigation Policy				
	Created By:	A. Felczak	Doc. Number	Health, Safety & Environmental Policy11.00			
	Date:	Sept. 23, 2003	Revision:	5	Revised by:	A. Felczak	Date: Jan.3, 2013

PERSONS INVOLVED

Employee Name:	Title	Company Name:

WITNESSES

Name:		Company Name and/or Phone number
	☐ Witness ☐ Third Party	
	☐ Witness ☐ Third Party	
	☐ Witness ☐ Third Party	

DAMAGE

Equipment Damaged:	Cost:
Description:	

CAUSAL ANALYSIS (AREAS BELOW WHICH WERE THE CAUSE OF THE INCIDENT)

☐ Job Planning	☐ Lock Out Standards	☐ Ergonomics/human engineering	☐ Personal Factors
☐ Work Procedures	☐ Protective Equipment	☐ Tools	☐ Low Work Standards
☐ Communications	☐ Engineering/Design	☐ Equipment Difficulty/Defective	☐ Other
☐ Supervision	☐ Physical Conditions	☐ Lack Of Knowledge/Training	

Description of causes:

PROGRAM OPPORTUNITIES FOR IMPROVEMENT

☐ Project Mgmt. Roles & Resp.	☐ Inspections	☐ Waste Disposal	☐ Emergency Planning
☐ Safety performance/discipline	☐ Public Safety	☐ Waste Classification	☐ Safety Standards SWP's
☐ Contractor Safety Mgmt.	☐ Driving Safety	☐ WHMIS	☐ Protective Equipment
☐ Commercial Vehicle Compliance	☐ HSE Compliance	☐ TDG	☐ Orientation
☐ Supervisor Roles & Resp.	☐ Fitness For Work	☐ Other	

Description of Program Deficiencies:

SPECIFIC ACTIONS TO BE CARRIED OUT

ACTION / WORK TO CONTROL LOSS	BY WHOM	DATE DUE	DATE COMP.

Signed Off by: _____ Date: _____ _____ _____

Safety Year Month Day

_____ Date _____ _____ _____

Manager/Representative Year Month Day

11.3.2 ENVIRONMENTAL INCIDENT REPORT FORM

Project Name_____ VC # _____

Date of Incident_____ Foreman's Name_____

Company responsible for the spill if other than Valard Construction:

Address_____ Phone Number_____

Contact Name_____

Substance spilled/released _____

Location of spill on project _____

Total quantity involved_____

Quantity spilled/released_____

Time incident started_____ Stopped _____

What caused the spill/release _____

What areas were affected by the spill/release? _

What measures were taken to control spill/release? _____

Identify corrective measures taken (i.e. clean-up, packaging, transfer) _____

What authorities were notified? _____

Date and time of completion _____

Recommendation to prevent recurrence of incident _____

Valard Construction – Supervisor's Signature: _____ Date: _____

Reviewed by:
Management /Representative._____ HS&E _____

11.3.3 – STATEMENT FORM

Completed By:_____ Date completed: _____
Statement of _____ Incident date _____
Address _____ Incident time _____
Telephone _____ Incident location_____

Describe in as much detail as possible your recollection of the incident

_____

_____

_____

_____

_____

_____

_____

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_____

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_____

_____

_____

_____

_____

_____

The foregoing statement, which I have given to: _____ has been read over by myself. I understand the contents of this statement, and I declare that it correctly records the information given by myself.

_____ _____
Signature Date

VALARD A QUANTA SERVICES COMPANY	Document Description						Environmental Policy	
	Created By:	A. Felczak	Doc. Number				Health, Safety & Environmental Policy 7.00	
	Date:	Sept. 23, 2003	Revision:	5	Revised by:	A. Felczak	Date:	Jan. 3, 2012

SECTION 7 - ENVIRONMENTAL

TABLE OF CONTENTS

7.1 ENVIRONMENTAL EMERGENCY RESPONSE PLAN

Preventing the Release of Contaminants

The prevention of the release of contaminants is achieved through the following means:

1. Compliance with all government legislation.
2. Safety and Environmental Hazard Awareness Training.
3. Preventative maintenance.
4. Emergency response training.
5. ECO to be prepared prior to work commencing.

The release of a contaminant may happen as a result of equipment malfunctions and human error. In the event of a release of a contaminant, Valard Construction will respond by:

1. Ensuring the safety and health of its employees, subcontractors and the public.
2. Mobilizing the necessary crews and equipment to contain and clean up the contaminant to protect the environment.
3. Report the release of the contaminant to the appropriate government agencies immediately.
4. Complete Environmental Incident Report Form # 11.3.4 (See Section 11)
5. List of numbers for all provinces are listed in 7.3 of this section

Contaminant Release Types

Contaminant releases can be categorized as Major, Serious and Minor.

1. Major incidents:

a) An emergency presents an immediate threat to life, or an immediate hazard to property and/or to the environment.

b) An uncontrolled release, vehicle collision, line, valve or tank rupture with an extensive release of hazardous materials occurs e.g. uncontrolled leakage from the rupture of a gasoline storage tank.

c) Requires the involvement of an Emergency Team trained in spill contaminant and clean up.

d) May extend beyond the site property, including materials released in or adjacent to watercourses.

e) Are immediately reportable under legislation.

2. Serious incidents:

a) Present a safety, property and/or an environmental hazard.

b) Are controllable, but involve a high rate of release with the possibility of affecting a wide area. This includes small leaks of very hazardous materials, and may include materials released in or adjacent to water courses.

c) Requires assistance from personnel outside of the company. i.e. environmental personnel.

d) May have a potential to extend beyond the company site/property.

3. Minor incidents:

a) Present minimal potential to safety, property damage or environmental hazard.

b) Are localized and controllable.

c) Can be contained and cleaned up immediately by personnel first on the scene or with minor assistance.

Approaching a Contaminant Release

Some basic safety tips when approaching a hazardous incident.

1. Try to identify the product from a distance and determine the hazards.
2. Do not approach from downwind.
3. Avoid inhalation of gases, fumes and smoke.
4. Remember that relatively light gases, when cold, may be initially heavier than air.
5. Do not assume that gases and vapours are harmless because they lack odour or the odour is not offensive.

Initial Contaminant Assessment

1. Determine the severity of the release (Major, Serious or Minor) using contaminant release flow chart (see next page).
2. Determine the type (material) of release and the level of severity/potential impact.
3. Determine the proper protective equipment from the Material Safety Data Sheet (MSDS).

7.2 Right of Way Construction Guidelines

Construction traffic shall be restricted to the right-of-way and approved extra workspace only. If possible, traffic shall be confined to a single trail along the right-of-way. Construction vehicles and equipment shall be operated at speeds safe for existing roads and traffic conditions.

Valard shall ensure that access through sensitive areas (i.e., critical wildlife habitat, erodible soils, recreational sites, historical sites, etc.) is pre-planned in advance of construction initiation. The number of vehicles and trips in these areas shall be minimized to reduce or eliminate potential environmental impacts. Material and equipment purchased must be evaluated on its impact on the environment. This impact must be reviewed prior to any purchases being processed. This includes such items as light bulbs, water use equipment, fuel burning devices and any work activities that may impact the environment and green house gases.

All surface disturbances shall be kept to a minimum. Every effort shall be made to preserve topsoil, and prevent topsoil/subsoil mixing and compaction, loss of organic matter, and rutting. During the onset of a winter thaw, wet weather, and other saturated soil conditions, the Field Representative shall have the authority to suspend equipment travel on the right-of-way to reduce or eliminate impacts. Equipment travel shall resume only after soils are sufficiently dry or frozen.

Vehicle travel in areas susceptible to poor ground frost conditions or general unstable soil shall be closely monitored. Re-routes may be necessary to avoid low frost areas or employ alternate construction procedures such as swamp mats, log corduroy, rip-rap, or filter fabric. Approval of all re-routes shall be obtained from Valard Construction. All seasonal road bans shall be respected when and where applicable. Vehicles are not to be left idling unless required for a work activity. Workers will be transported to worksites in vehicles that accommodate more than 4 workers to minimize equipment used and lessen the impact on green house gases. This will also require that equipment purchased is evaluated for fuel efficiency.

When material is ordered for work on site, every effort must be made to order only the material required to perform the task and to minimize the amount of waste that is to be removed from site. Examples would be ordering the exact quantity of concrete for footing; only order the exact amount required and not extra “just in case” This prevents any addition trucking that may be required to remove any waste from the worksite.

7.3 REPORTING OF SPILLS

The following numbers are for reporting Environmental spills and are only accessible in the applicable province.

Alberta:	**1-800-222-6514**
British Columbia	**1-800-663-3456**
Saskatchewan	**1-800-667-7525**
Manitoba	**1-204-994-4888**
Ontario	**1-800-268-6060**
Yukon	**1-867-667-7244**
NWT/Nunavut	**1-867-920-8130**
Newfoundland	**1-800-563-9089**

IN ALBERTA REPORTABLE RELEASES INCLUDE: (IN ALBERTA)

- All oils > 5 Litres
- Gas, diesel & glycol > 50 litres
- PCBs > 50 ppm
- SF_6 or CF_4 > 0.5kg
- Refrigerant > 10kg (ozone depleting substance)
- Releases entering or near entering waterways
- Releases that **MAY** cause adverse effect

WHEN REPORTING YOU WILL BE ASKED TO PROVIDE:

- The location and time of the release
- A description of the circumstances leading to the release
- The type and quantity of substance released
- The details of any action proposed or taken at the release site
- A description of the immediate surrounding area

Evacuate all persons to a safe distance!!!

VALARD A QUANTA SERVICES COMPANY	Document Description				Environmental Policy			
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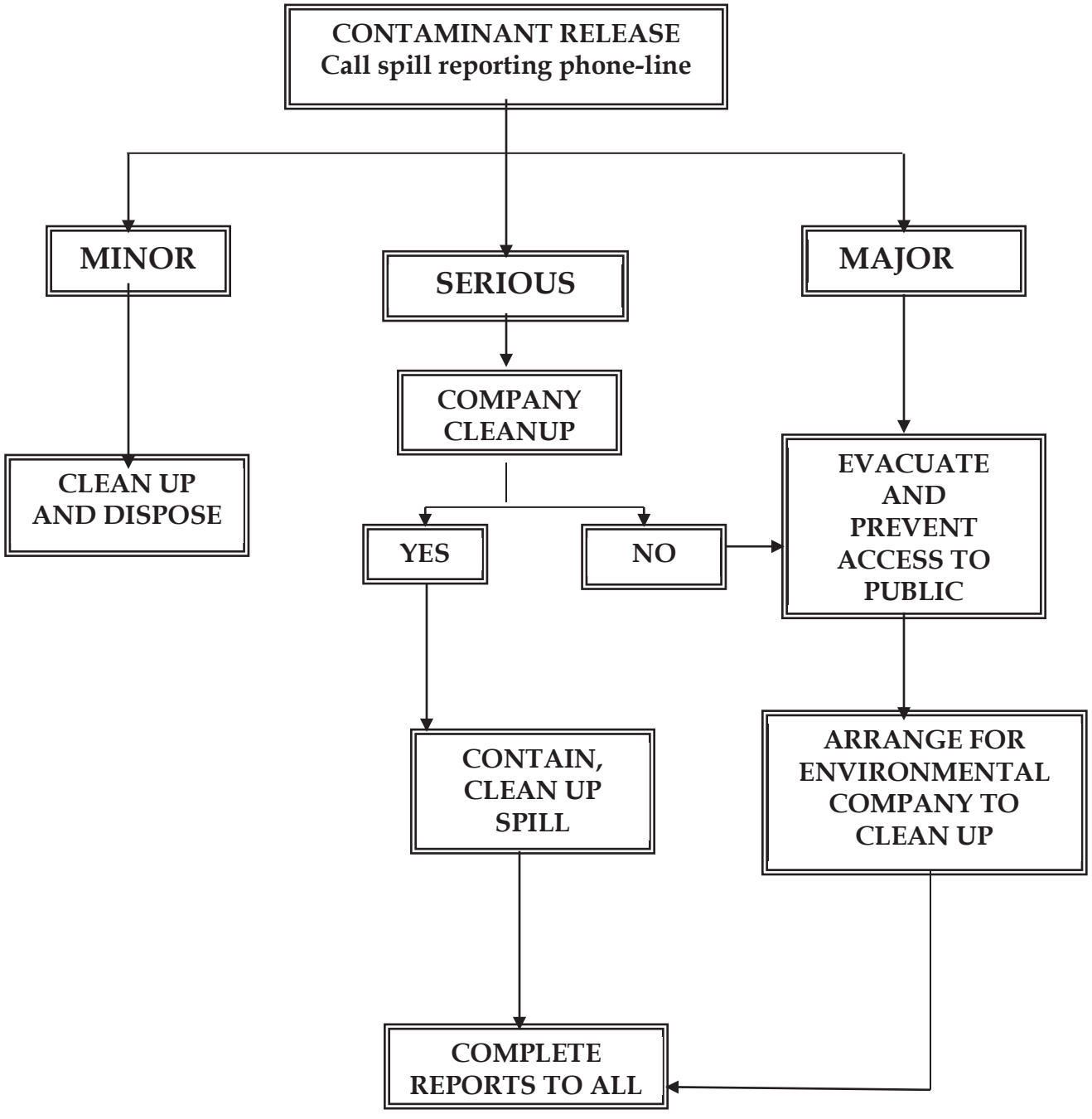


Valard Construction Ltd. Quality Program
Project Quality Plan

Transmission

Document Number: VCLP-02-7000-0-00
Revision 1

Originated:	Project Manager	Date	Signature
Reviewed:		Date	Signature
Reviewed:		Date	Signature
Approved:		Date	Signature

Revisions

No.	Date	Originator	Originating Document	Change	Approved

Table of Contents

Definitions

The following definitions shall be used in the interpretation of this manual and all referenced subdocuments:

- **Client** – Any entity with which Valard Construction Ltd. holds a contract for the provision of products and/or services.
- Constructed Works – The structures, devices and/or installations specified for construction in the scope of a Contract.
- **Contract** – Governing agreement between the Client and Valard Construction Ltd. for the provision of services associated with a Project.
- **Directive** – Instruction to responsible parties.
- **Distribution Register** – Register maintained by the Quality Program Documents Administrator listing all recipients of controlled copies of the Quality Manual.
- **Document** – See 'Quality Program Document'.
- **Engineer** – To be interpreted as per the definition provided by the Engineering Professional Association in the jurisdiction where a product or service is provided, completed, purchased, negotiated or constructed.
- **Engineering Services** – Any services governed by an Engineering Professional Association in the jurisdiction where a product or service is provided, completed, purchased, negotiated or constructed.
- **Engineering Consultant** – Individual or entity subcontracted to provide Engineering Services to Valard Construction Ltd.
- **Form** – Quality Program Document provided for the purpose of gathering data.
- **Hold Point** – Juncture in a work Process at which work must not be continued until the specified inspections and/or signoffs are completed.
- **ITP** – Inspection and Test Plan
- **Operational Controls** – Documentation and devices employed in the assurance of Quality at the construction stage of a Project.
- **Originator** – Individual assigned the responsibility of establishing a Quality Program Document.
- **Owner** – Individual assigned the responsibility of revising a Quality Program Document.
- **Procedure** – Quality Program Document consisting of a verbal narrative of the manner in which a task is to be completed.
- **Program** – See 'Quality Program'.

- **Project** – Any undertaking of Valard Construction Ltd. under a Contract with a Client.
- **Project Engineer** – The individual or entity charged with the provision of Engineering Services.
- **Project Quality Plan** – Quality plan enacted to ensure the quality of products and services associated with a single contract or portion thereof.
- **Quality** – All features of a product or service that is required by the Client.
- **Quality Manual** – Refers to this manual.
- **Quality Plan** – See 'Project Quality Plan'
- **Quality Program** - Refers to the documentation procedure governed by this Quality Manual and any documents referred to hereby.
- **Quality Program Document** – Any document, inclusive of the Quality Manual, that is listed in the Document Register maintained by the Quality Program Documents Administrator.
- **Quality Record** – The sum total of all documentation collected in the completion of a Project Quality Plan.
- **Register** – Quality Program Document summarizing information that is vital to the implementation of the Quality Program and/or a Project Quality Plan.
- **Role** – Position or title specified in a Quality Program Document.
- **Supervisor** – Describes any individual engaged in the supervision of work and / or any individual listed in the Supervisory Qualification Registry.
- **VCL** – Valard Construction Ltd.

0 Introduction

0.1 Goals of the Project Quality Plan

The stated goal of this Project Quality Plan is to establish a framework for the control and assurance of the Quality of (a) work completed by the Subcontractor, (b) materials supplied by Valard Construction, and (c) materials supplied by the client. This Preliminary Project Quality Plan is preliminary and has been composed for the purpose of proposing an implementation strategy for the Subcontractor's responsibilities on The 240 kV Transmission Line; this strategy has also been composed for the purpose of identifying the subcontractor's ability to conform to clients's Inspection and Testing Plan. The client is invited to review this PQP for the purpose of identifying any discrepancies or inconsistencies, following which the PQP will be revised to better reflect the requirements of the Contract.

0.2 Form of Project Quality Plan

This document is divided into four primary sections:

1) Management & Administration: In addition to providing an overview of the proposed project management structure, this section will summarize the role assignments and assumed responsibilities associated with each role.
2) Records: This section will overview the manner in which records will be gathered, preserved, and distributed over the course of project completion.
3) Materials: This section will summarize all materials to be supplied by the by the Prime Contractor and/or the Subcontractor under the terms of the Contract; it will also specify the proposed methods of Quality Control associated with each material category.
4) General Work Activities: This section will examine Quality Control over broad topics affecting several or all work activities (i.e. supervision, certifications, etc.)
5) Specific Work Activities: This section will specifically address the work activities for The 240 kV Transmission Line

1 Management & Administration

1.1 Project Management Structure

The general form of the Project management structure (as it pertains to Quality) is illustrated below:

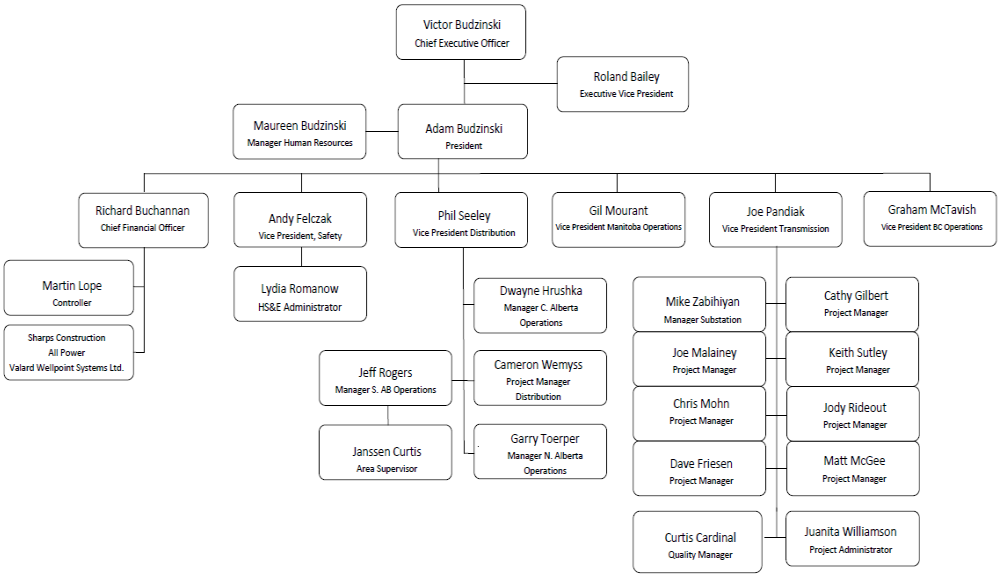


Fig. 01 Project Management Structure Diagram

The primary observable features of this structure are as follows:

- The Quality Manager answers directly to the President.
- Quality Coordinators report to the Quality Manager.
- Trade Supervisors and Project Coordinators are monitored by Quality Coordinators on behalf of the Quality Manager.

1.2 Role Assignments

The following chart will be completed to summarize some of the key personnel to be employed in the completion of the Project. Only personnel having responsibilities specified in the PQP are to be listed. The names of those personnel having key managerial roles are presently listed for the purpose of proposal.

The role assignments chart will continue to be updated as personnel are added to and/or removed from the Project.

Role	Name	E-mail	Phone	Initial	QM Initial
Project Manager					
Quality Manager					
Lead Quality Coordinator					
Quality Coordinator					
Supervisor	(Several Assigned)				

1.3 Qualifications

All personnel employed in the administration of the Project Quality Plan shall possess the necessary skills and be qualified for the completion of their assigned responsibilities.

1.4 Responsibilities

It should be observed that the following responsibility summaries are not exhaustive, and describe the responsibilities associated with the roles in question only as they relate to the Project Quality Plan.

1.4.1 Responsibilities of the President

The responsibilities of the President as they relate to Quality are as described under heading 1.2.1 of the Quality Manual.

1.4.2 Responsibilities of the Project Manager

The responsibilities of the Project Manager are as follows:

- To ensure that supervisors and trade foremen are of adequate training and/or experience to complete the production-related tasks assigned to them
- To enforce the authority of the Quality Manager and appointed project Quality Coordinators
- To address the concerns of the client with respect to Quality issues
- To ensure that supervisors and trade foremen are completing their responsibilities in accordance with the Project Quality Plan

1.4.3 Responsibilities of the Quality Manager

The responsibilities of the Quality Manager as they relate to Quality are as described under heading 1.2.2 of the Quality Manual.

1.4.4 Responsibilities – Project Coordinators

The responsibilities of Project Coordinators with regard to a given Project Quality Plan are as follows:

- Project Coordinators shall accept the delegation of any of the Project Manager's responsibilities at the written request of the Project Manager.
- Project Coordinators shall work with subcontractor personnel at the planning stage to ensure they are informed of any and all Quality requirements of the Project as they relate to the subcontractor's work.
- Project Coordinators shall enforce the authority of the Quality Coordinator with respect to the administration of the Project Quality Plan

1.4.5 Responsibilities – Quality Coordinators

The responsibilities of Quality Coordinators are as follows:

- The Quality Coordinator shall prepare the Project Quality Plan in accordance with the Quality Manual.
- The Quality Coordinator shall interface with the Project Manager to collect any required information for the completion of the Quality Plan.
- The Quality Coordinator shall interface with trade supervisors and foremen to collect any required information for the completion of the Quality Plan.
- The Quality Coordinator shall interface with subcontractor trade supervisors and foremen to collect any required information for the completion of the Quality Plan.
- The Quality Coordinator shall be responsible for review of the Quality Plan to ensure that all items listed in the 'Controls' columns of the Quality Plan components listed under heading 3.1 are further referenced in the plan narrative. In the event that these items are not referenced in the narrative, the Quality Coordinator shall request a review of the Quality Manual and Project Quality Plan template to satisfy the requirements of the Project.
- The Quality Coordinator shall submit the Project Quality Plan to the Client in accordance with the requirements of the Contract, or in accordance with any further agreements made with the Client.
- The Quality Coordinator shall collect all required documentation associated with the purchase of materials and products for the Project from employees charged with receiving such materials and products; this work is completed for inclusion in the Quality Record.
- The Quality Coordinator shall collect inspection forms and reports generated at the time of installation from foremen and trades people for the purpose of inclusion in the completed Quality Record.
- The Quality Coordinator shall compile all relevant Quality documentation for inclusion in the completed Quality Record.
- At project kick-off, the Quality Coordinator shall be responsible for explaining the Quality-related responsibilities of all trade-level employees and subcontractors (Supervisors, Foremen, Trades people, and Labourers) – as well as specifying his/her own role – to the project Foremen and Supervisors.

- The Quality Coordinator shall perform periodic audits for the purpose of confirming that all personnel are completing their work in accordance with the PQP.

1.4.6 Responsibilities – Engineering Manager

(Omitted)

1.4.7 Responsibilities – Design Lead

(Omitted)

1.4.8 Responsibilities – Design Engineers

(Omitted)

1.4.9 Responsibilities – Supervisors

The responsibilities assigned to Supervisors are as follows (responsibilities are common for both employed and subcontract supervisors):

- The Supervisor shall ensure that all trade-level employees are in possession of sufficient training and experience to complete their assigned tasks.
- The Supervisor shall enforce the authority of the Quality Coordinator as it relates to the direction of the completion and collection of Quality-related documents.
- The Supervisor shall ensure that trades people are supplied with those resources required to complete their work in accordance with the design requirements of the project, as well those required to observe and collect data pertaining to the Quality of the works constructed.

1.4.10 Responsibilities – Foremen

The responsibilities assigned to foremen are as follows:

- The Foreman shall supervise the completion of work to ensure that it is completed in accordance with the requirements of the Project design drawings.
- The Foreman shall ensure that works constructed are built only in observance of drawings marked 'Issued for Construction.'
- The Foreman shall ensure that records of works installed are completed by those individuals completing the work, and that such records are completed at the time of installation or assembly.
- Where required by Installation Records, the Foreman shall perform a secondary inspection of works completed and sign for such inspection.
- The Foreman shall direct trades people and labourers working under their supervision as to their Quality-related responsibilities in accordance with this document.

1.4.11 Responsibilities – Trades people (Not specified in management structure)

Trades people shall complete all Quality Records specified by the Project Quality Plan and associated with their work at the time of installation, assembly, or testing, as the case in particular requires.

1.4.12 Responsibilities - Labourers (Not specified in management structure)

Labourers shall complete all Quality Records specified by the Project Quality Plan and associated with their work at the time of installation, assembly, or testing, as the case in particular requires.

2 Quality Record

'Quality Record' refers to the complete body of Quality-related documentation collected over the course of project completion. This section provides a narrative of the manner in which the constituent documents will be collected, preserved and distributed.

2.1 Valard Construction's Inspection and Test Plan

Valard Construction will generate a complete Inspection and Test Plan (ITP). The Quality Record consists essentially of the body of documentation described in the ITP.

Regarding all forms associated with the Quality Record and/or the ITP, Valard proposes, the following measures should be taken to expedite the collection, and distribution of Quality related documentation:

- All forms should be revised to ensure that they can be presented in their entirety on a single page (can be accomplished through the use of smaller fonts and/or legal-sized documents).
- All forms should be printed and made available in triplicate carbon paper form; alternately, Valard Construction will make electronic copies of the Forms specified in the ITP available for the purpose of its advance preparation of site-specific Quality Forms.

All ITP's shall be submitted for acceptance by the client and if required by the client, prior to any work commencing. ITP's shall be submitted at least 7 (seven) days prior to the proposed work commencement date, to allow for review and input from all parties.

2.2 Reporting Summary

Valard will generate a Reporting Summary consisting of a complete list of all completed and/or partially completed forms to be submitted to the Prime Contractor over the course of the Project. These forms shall be available, at all times, for review by the Prime Contractor's Quality assurance staff. Explicitly, this Summary shall consist of the following:

- A summary of all Quality Related Forms to be collected in relation to material receiving and inspection;

- A summary of all Quality Related Forms to be collected for each individual structure (inclusive of foundation) to be installed in awarded sections

  In addition, the summary of structure-related Quality forms will also account for and reference secondary Quality forms such as concrete delivery tickets, third party concrete strength testing reports, laboratory sieve test results, and any other documentation.

- A summary of all Quality Forms relating to conductor and hardware installation.

2.2.1 Subcontractor Generated Quality Forms

In all cases, where the PQP specifies a Form, the Forms shall be generated in accordance with the requirements of the PQP. Each type of Form will be assigned a document number, in addition to a system of serial numbers whereby the Forms can be traced.

Subcontractor Quality Forms may be generated for the internal purposes of the Subcontractor with respect to Quality or may be generated for the purpose of satisfying elements of the specification that relate to Quality.

2.2.2 The Quality Record

'Quality Record' describes the complete set of Quality-related documentation that will be:

1. Assembled by the Subcontractor for the purpose of satisfying its internal requirements with respect to Quality.
2. Submitted to the Prime Contractor for the purpose of documenting the Quality of works constructed in association with the Contract.

The Reporting Summary represents a table of contents for the Quality Record. The expectation is that at Project completion, all Forms outlined in the Reporting Summary will be present in the Quality Record.

In addition to those elements specified in the reporting summary, the Quality Record will include documentation of other elements of the Quality Program (i.e. Nonconformity Reports, Audit Documentation Forms, etc.); these elements are referenced throughout the PQP, and will be compiled at the time of generation of the Reporting Summary.

2.2.3 Completeness of Record

The completed Reporting Summary shall form a benchmark for the performance of the Subcontractor with respect to Quality over the course of the Project. A complete Quality Record corresponding exactly to the Reporting Summary (along with any amendments thereto made over the course of the Project) shall be deemed to accurately represent the Quality of all works constructed by the Subcontractor.

2.3 Procedures for the Completion of Quality Documentation

This section shall establish procedures for the completion of each type of Quality Form listed in Valard's ITP, in addition to Quality Documentation deemed to be necessary by the Subcontractor and completed in addition to the requirements of the ITP. These procedures consist of a cross-functional procedural flowchart for each Quality form, along with a short narrative. The Procedures are divided into the same groups of forms described under Section 2.2 of this document.

It should be noted that for all forms – where the form has been completed and indicated for inclusion in the Quality Record – it is the

Subcontractor's preference that it first be submitted to the Subcontractor's Project office for the purpose of copying and filing prior to submission to the Prime Contractor.

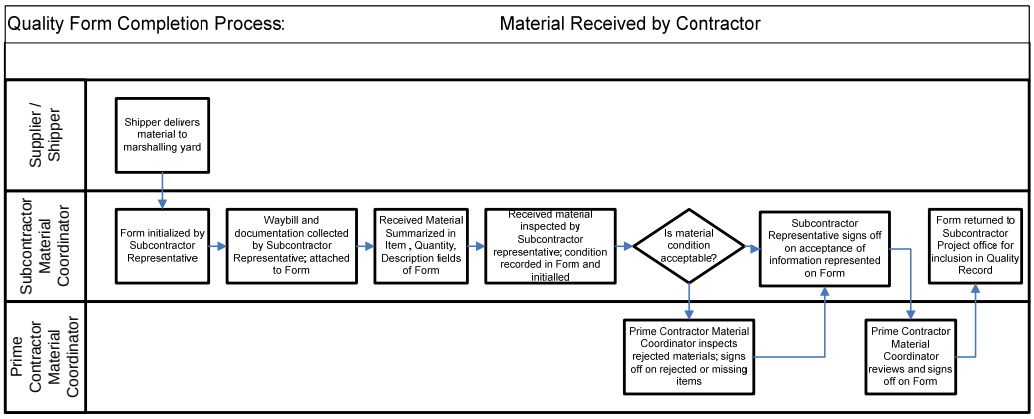
2.3.1 Forms Pertaining to Material Receiving and Inspection

In general the following will apply for Quality forms pertaining to material receiving and inspection:

1. Quality forms pertaining to borrow pits and earthworks materials will be initialized by the Project Manager and/or Project Coordinators at Project startup or as required over the course of the project. Borrow pit documentation will be preserved in the Project office and associated with the geographic location of the pit for the purpose of efficient access to earthworks materials.
2. Quality Forms pertaining to purchased materials and products will be initialized by the Subcontractor Materials Coordinator at the time of receiving.
3. In all places where a Form indicates that a Subcontractor representative will notify the Prime Contractor of its intention to begin work on the right-of-way or at a structure location, it is implicit that such notice will be accomplished via the Subcontractor's schedule updates and daily verbal amendments thereto. In general, it is expected that the Prime Contractor's representatives will be working closely with the Subcontractor's Supervisors and construction Foremen, and as such will be familiar with its construction schedule. With the exception of direct requirements thereof found in the Contract, written notice specifying the completion or inspection of work at a particular location will not be provided. Submission of schedule updates on a regular basis will be deemed to be acceptable notice of the imminence of construction activities at any given location.

2.3.1.1 Materials Received by Contractor

The following diagram illustrates the flow of information related to the completion of Materials Received by Contractor form:

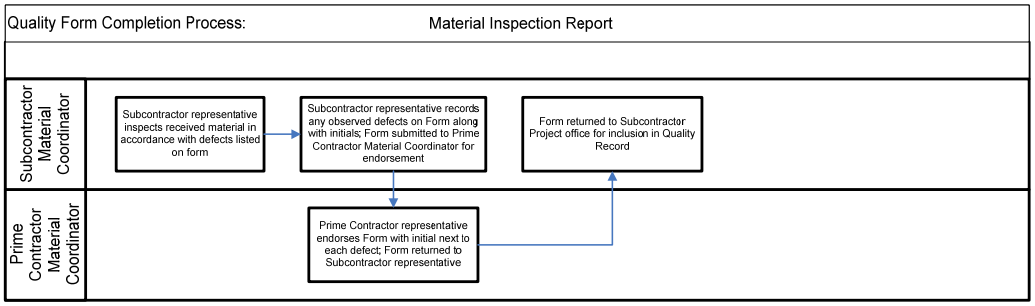


Process notes:

- Documentation collected by Sub-contractor's representative will include: mill test reports and bills of lading.
- In the event that the received condition of material is unacceptable, details of the reason for rejection of the material will be recorded in the available space on the form.
- Where the material or quantity thereof is inconsistent with the waybill, this condition will trigger the generation of a Vendor Shortage List.
- Process notes shall include welding examination and inspections for all welding completed by any supplier.
- All materials received from any supplier must be accompanied by welding reports and welding inspections substantiated quality of materials and workmanship.

2.3.1.2 Materials Inspection Report

The following diagram illustrates the flow of information related to the completion of Materials Inspection form:



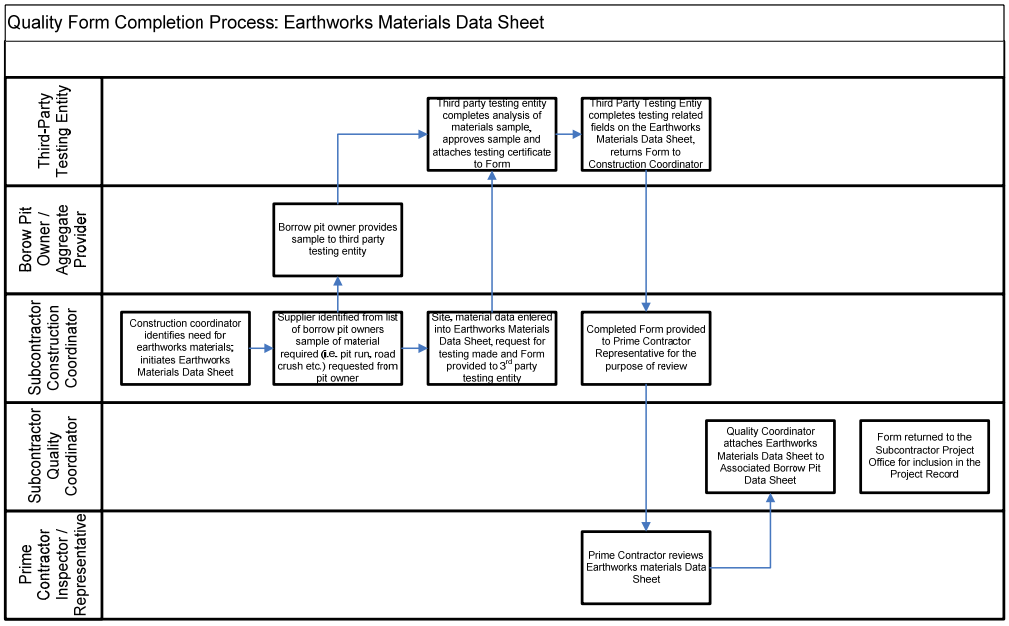
Process notes:

- Documentation collected by Subcontractor representative will include all defects, not just limited to defects specified on the Form.

- Sign established at pit will feature the following information:
  - Subcontractor name and logo
  - Contract tag and number
  - Borrow Pit Data Sheet document number
- Ultimately, as various materials are identified and approved at the borrow pit site, the associated Earthworks Materials Data Sheets will be attached to the Borrow Pit Data Sheet and made available in the Project Office.

2.3.1.3 Earthworks Material Data Sheet

The following diagram illustrates the flow of information related to the completion of the Earthworks Material Data Sheet:

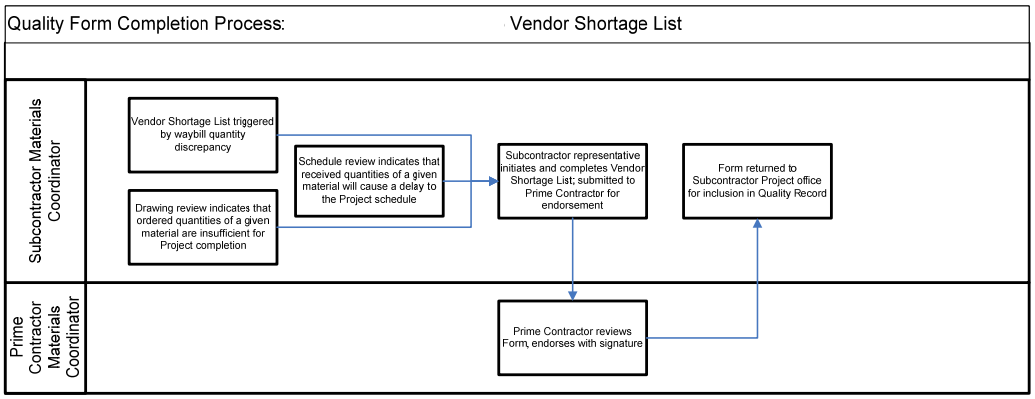


Process notes:

- As specified above, Earthworks Material Data Sheets will be attached to their respective Borrow Pit Data sheet, ultimately creating a record both of a site, as well as the properties of materials available at that site.

2.3.1.4 Vendor Shortage List

The following diagram illustrates the flow of information related to the completion of Vendor Shortage form:

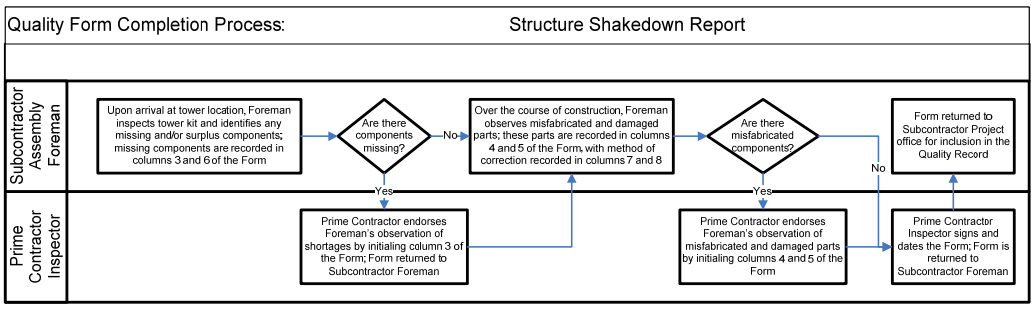


Process notes:

- Process assumes availability of Prime Contractor Representative for inspection of material and acceptance of Vendor Shortage Lists.

2.3.1.5 Structure Shakedown Report

The following diagram illustrates the flow of information related to the completion of Structure Shakedown form:



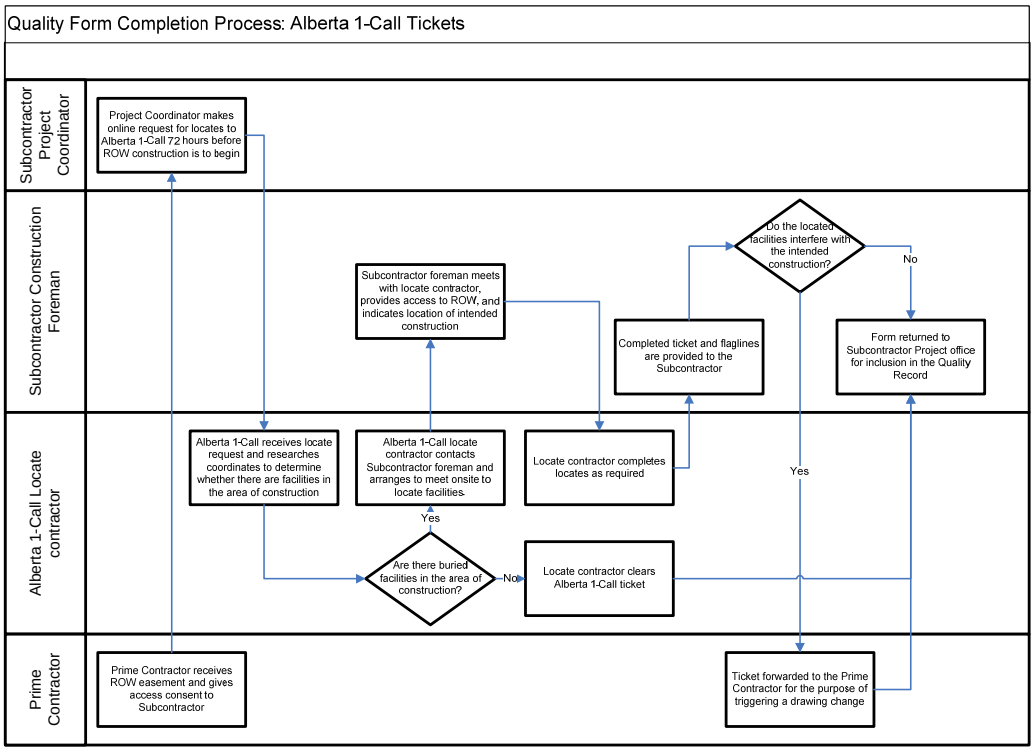
Process notes:

- Dependent upon the nature of the tower kit packaging, it may be beneficial to complete the initial survey for missing parts at the marshalling yard prior to delivery of the kit to the tower site.
- Observations of mis-fabrications are by necessity carried out over the course of construction; this is a result of the fact that many defects will be difficult or impossible to observe without actually attempting to assemble the tower.

2.3.2 Forms Pertaining to Structure Erection (Foundations)

2.3.2.1 Alberta 1-Call Tickets

Although the 1-Call Ticket is not a required element of the Prime Contractor's ITP, it will be included with the Quality Record.



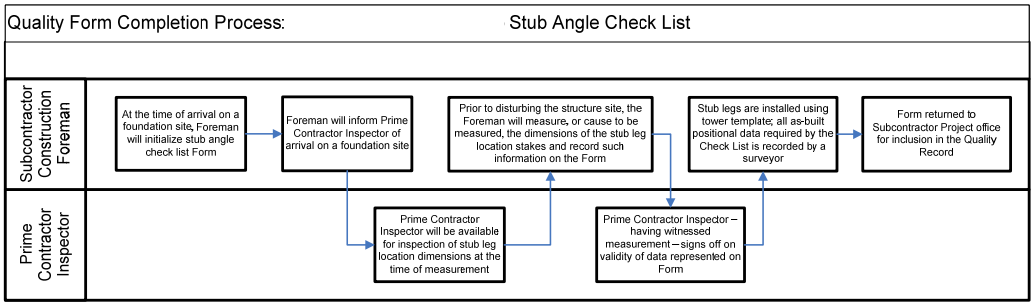
Process notes:

- In the event that it has been determined that located facilities interfere with the installation of a tower foundation, construction

at the tower site will be suspended pending a drawing change from the Prime Contractor.

2.3.2.2 Stub Angle Checklist

The following diagram illustrates the flow of information related to the completion of Stub Angle Checklist form:

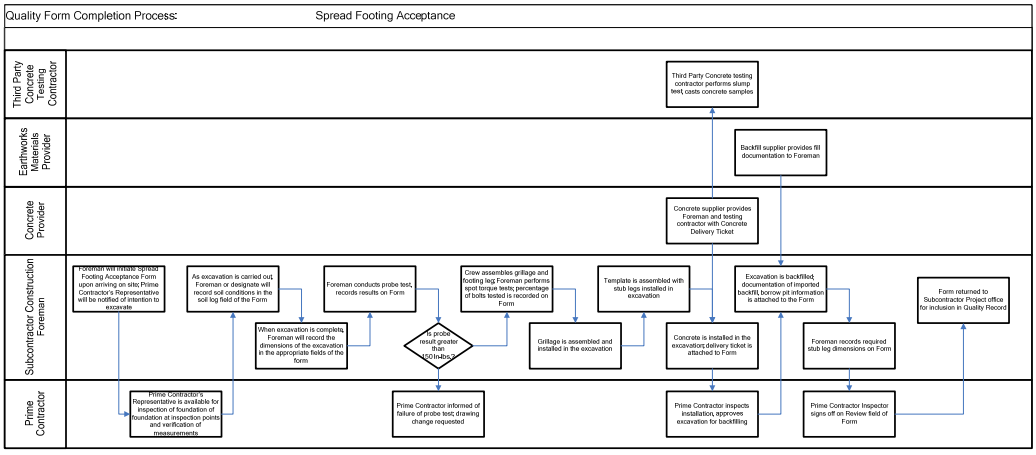


Process notes:

- (None)

2.3.2.3 Spread Footing Acceptance

The following diagram illustrates the flow of information related to the completion of Spread Footing Acceptance form:

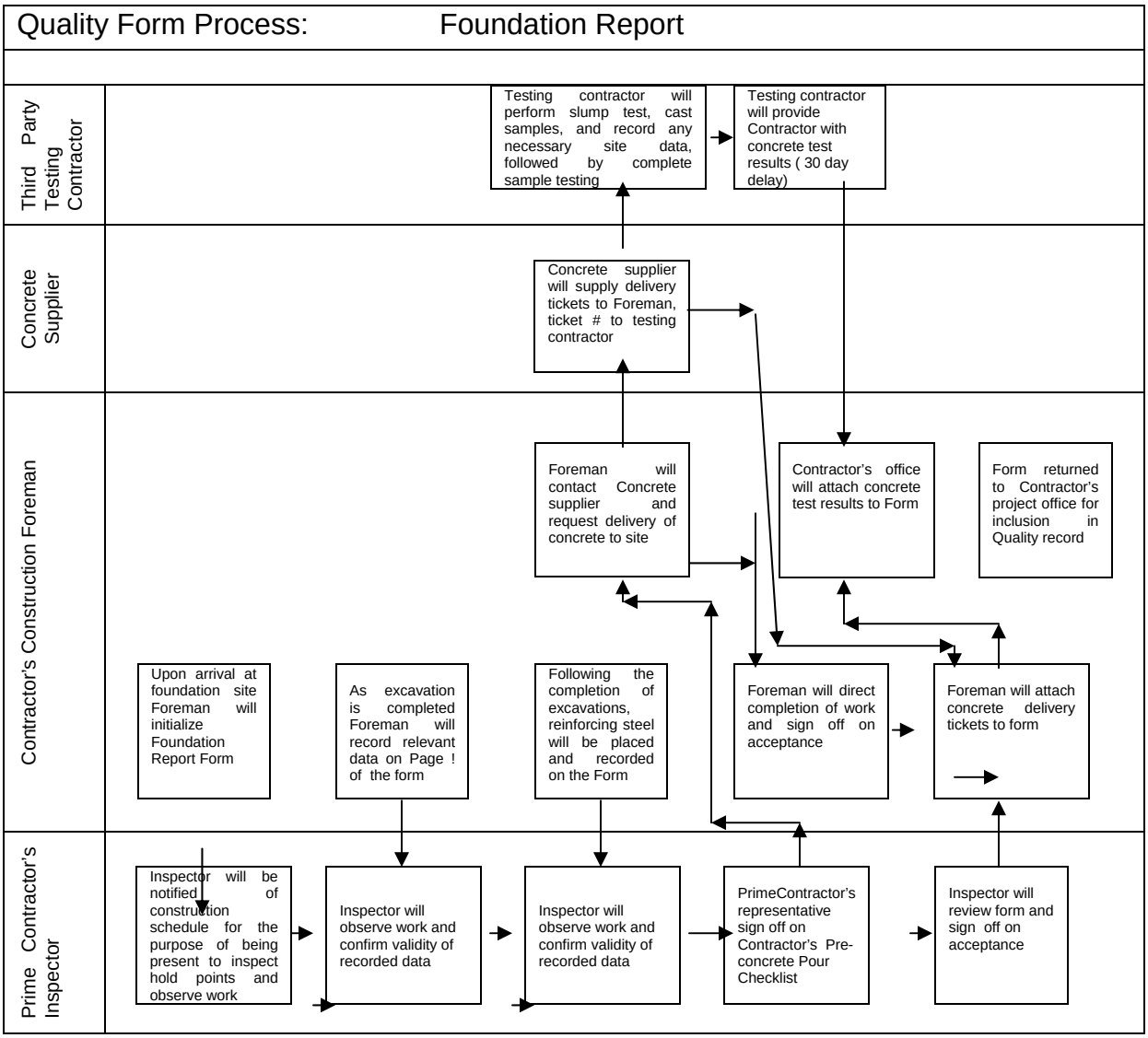


Process notes:

- (None)

2.3.2.4 Foundation Report for Structure

The following diagram illustrates the flow of information related to the completion of Foundation Report for Structure form:

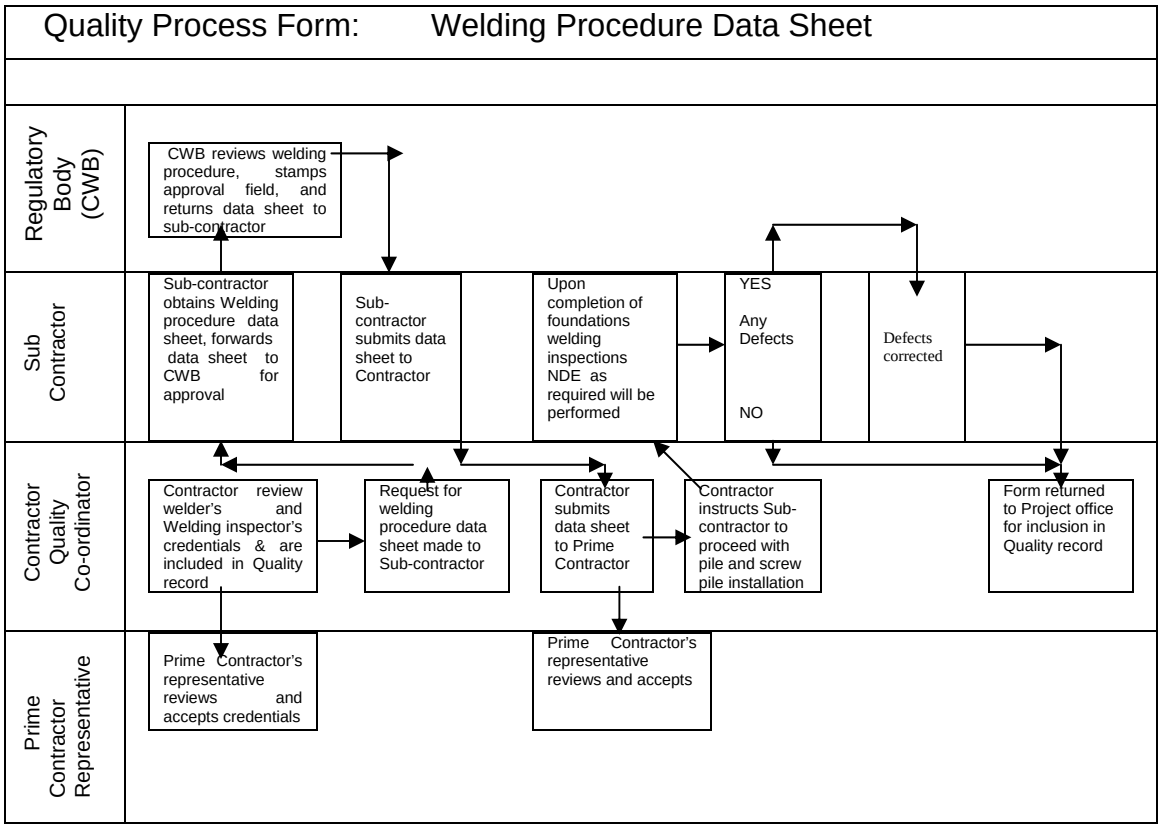


Process notes:

- None

2.3.2.5 Welding Procedure Data Sheet

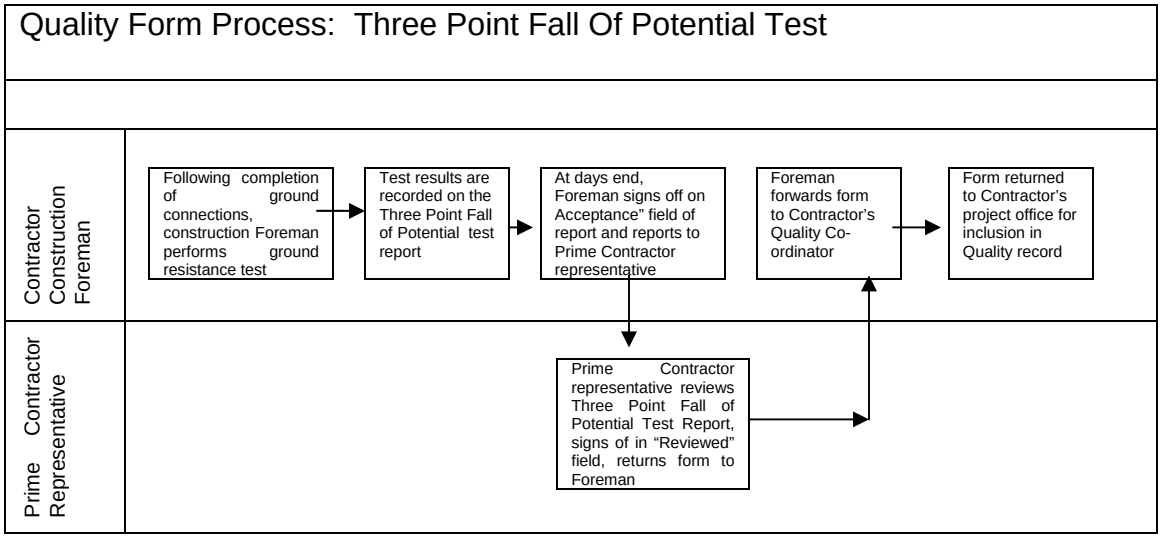
The following diagram illustrates the flow of information related to the completion of the Welding Procedure Data Sheet:



Process notes:

- Following completion of the Welding Procedure Data Sheet, it will be made readily available in the Project office

2.3.2.6 Three Point Fall of Potential Test Report

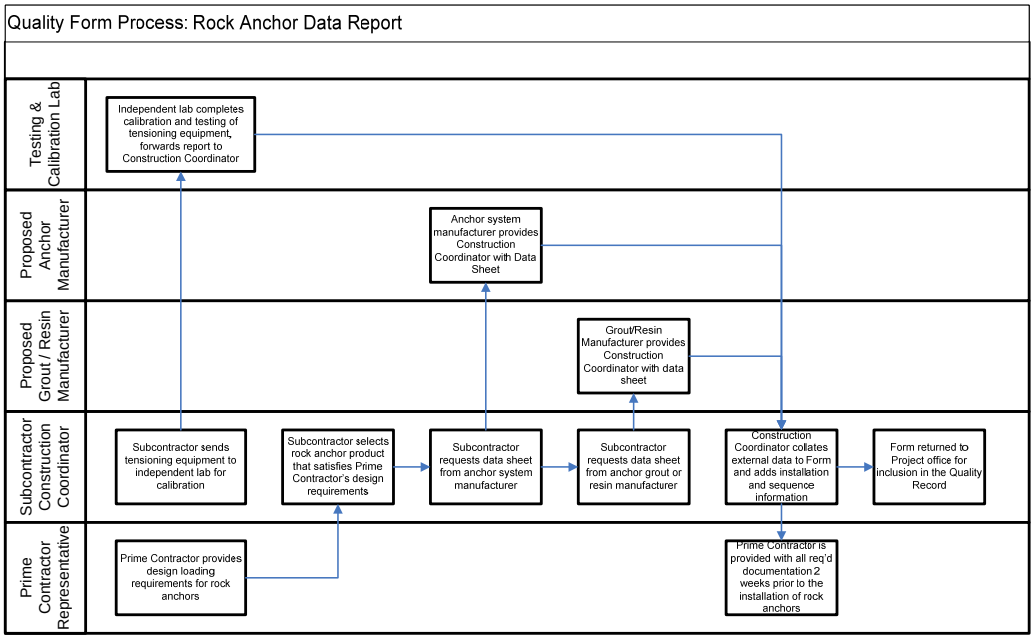


Process notes:

- Forms are to be completed and submitted on a daily basis.
- It is assumed that the Prime Contractor Representative will be available to provide supervision or spot-checks of testing process throughout the day for the purpose of confirming the validity of test results prior to signing the 'Reviewed field of the Form.

2.3.2.7 Rock Anchor Data Report

The following diagram illustrates the flow of information related to the completion of the Rock Anchor Data Report:

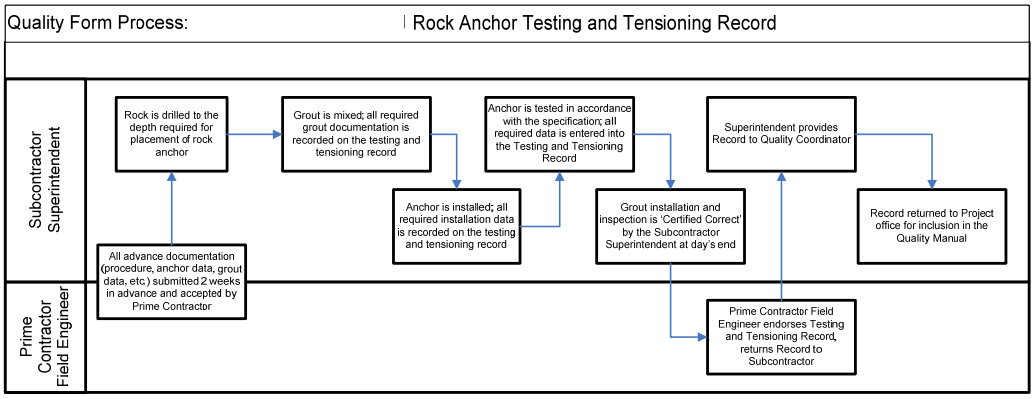


Process notes:

- Data report will consist essentially of a checklist indicating each piece of external documentation to be collected; these are to be collated to the report sheet when they are collected.
- Following submission of Rock Anchor Data Reports, they will be made available in the Project office for reference and/or inclusion subsequent Daily Rock Anchor Testing and Tensioning Reports.

2.3.2.8 Subcontractor's Daily Rock Anchor Testing and Tensioning Report

The following diagram illustrates the flow of information related to the completion of Rock Anchor form:



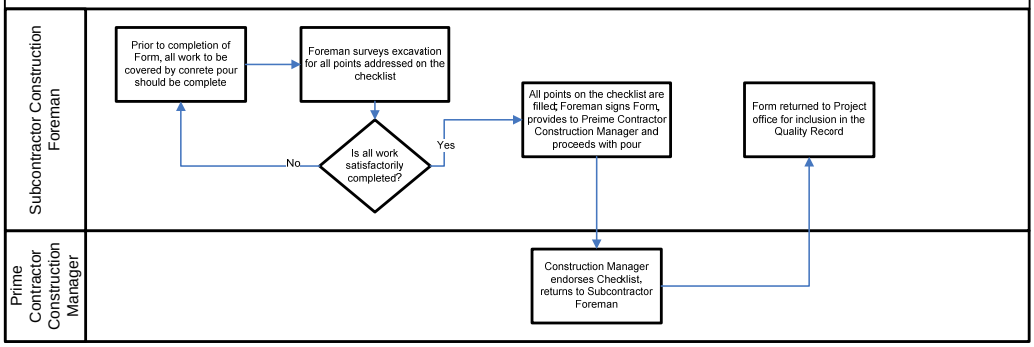
Process notes:

- ITP calls for only for testing of one anchor per day or every tenth anchor. The procedure outlined above applies only to those anchors specified for testing.

2.3.2.9 Pre-Concrete Pour Checklist

The following diagram illustrates the flow of information related to the completion of Pre-Concrete Pour Checklist form:

Quality Form Process: Pre-Concrete Pour Checklist

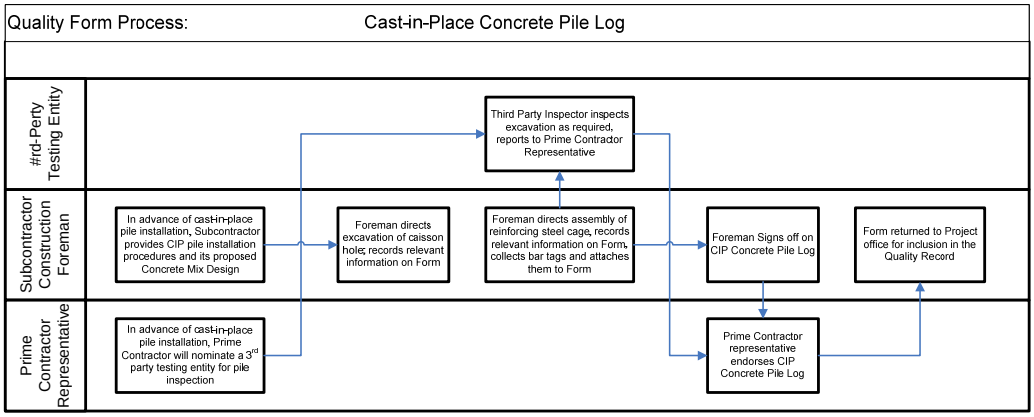


Process notes:

- All checklist points are to be evaluated in accordance with the specification.

2.3.2.10 Cast-in Place Concrete Pile Log

The following diagram illustrates the flow of information related to the completion of Cast-in-Place Concrete Pile form:

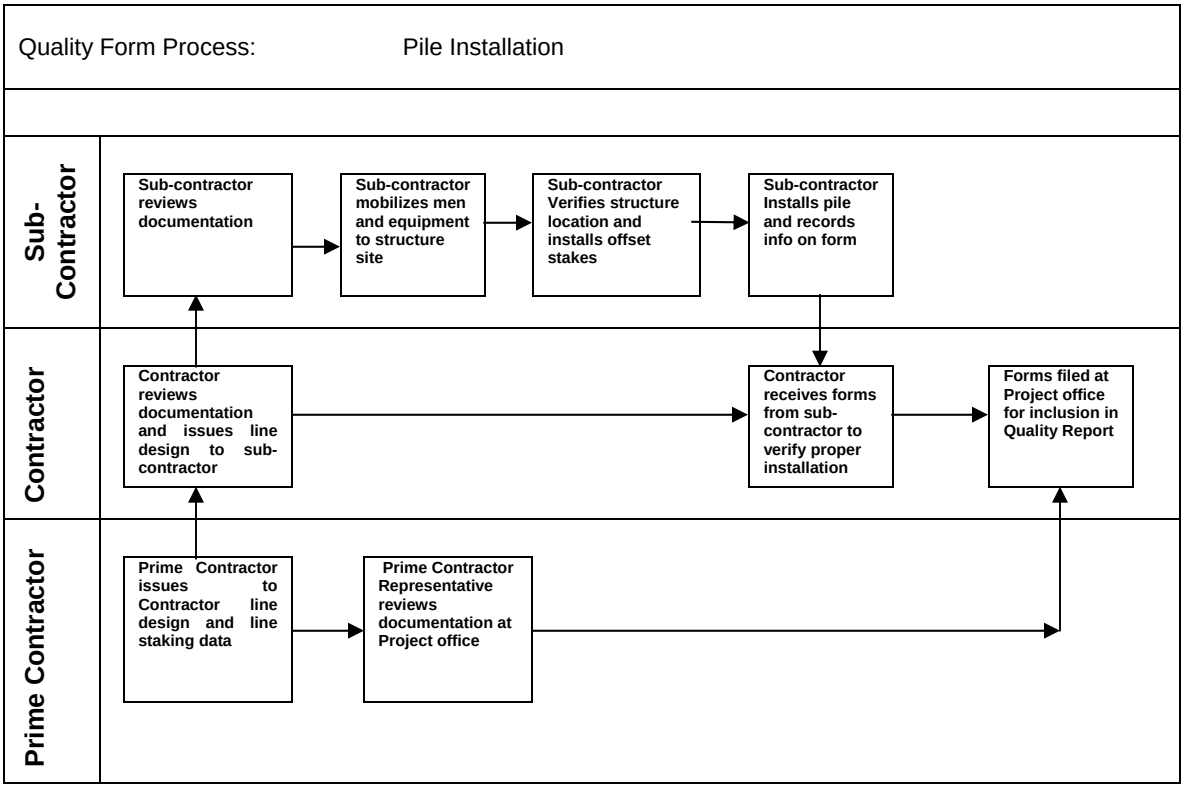


Process notes:

- 'Reinforcing Steel' field should be used to indicate the placement drawing number; bar tags taken from the reinforcing steel at the time of placement should be collected.
- Cast-in-place pile installation procedures will be provided to the Prime Contractor Two weeks in advance of installation of the first pile installed on the Project; this shall be deemed to be acceptable documentation of procedures for the entirety of CIP piles installed on the Project.
- It is expected that the Prime Contractor will nominate a single 3rd party testing entity at Project kick-off, and that this group will be available for efficient inspection of excavations as they come available.

2.3.2.11 Pile Installation

The following diagram illustrates the flow of information related to the completion of Cast-in-Place Concrete Pile form:



Process notes:

- none

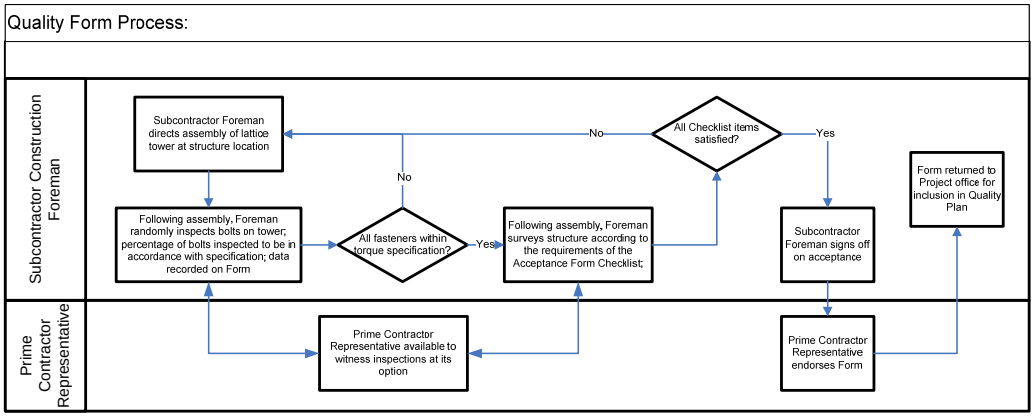
2.3.3 Forms Pertaining to Structure Erection

2.3.3.1 Structure Shake Down Report

- Note: The process associated with Structure Shakedown Report is included under Heading 2.3.1.5.

2.3.3.2 Tower Assembly Acceptance

The following diagram illustrates the flow of information related to the completion of Tower Assembly form:

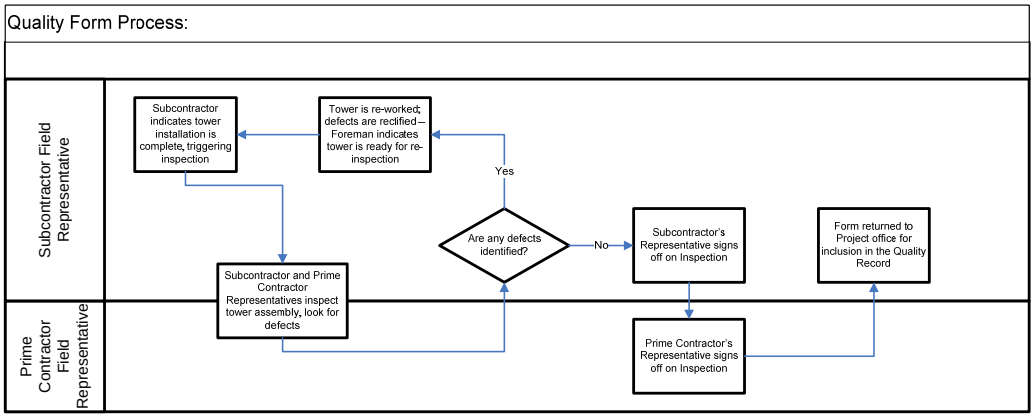


Process notes:

- (None)

2.3.3.3 Structure Assembly and Installation Inspection Report

The following diagram illustrates the flow of information related to the completion of Structure Assembly and Installation Inspection form:



Process notes:

- For the purpose of efficiency, the Subcontractor prefers that inspections should be completed immediately following tower erection.

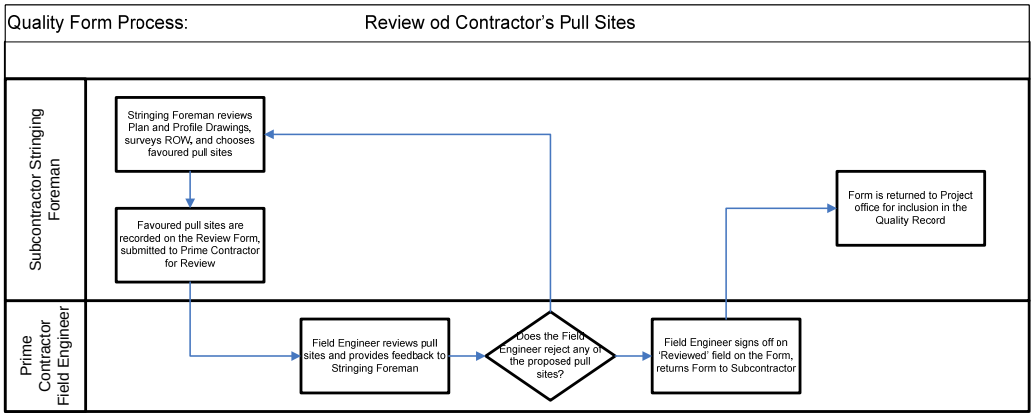
2.3.4 Forms Pertaining to Access and ROW issues

Note that in addition to the Form specified below, general ROW cleanup and conditioning is referenced in Tower Assembly Acceptance Form.

2.3.5 Forms Pertaining to Conductor Installation

2.3.5.1 Review of Contractor's Pull Sites

The following diagram illustrates the flow of information related to the completion of Pull Sites form:

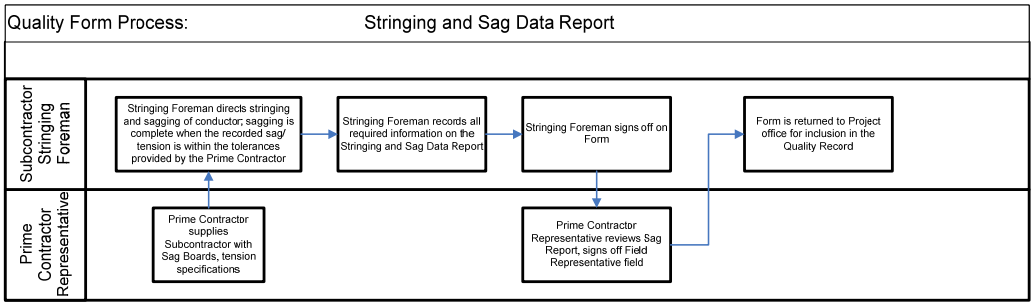


Process notes:

- It is expected that reviews of pull sites may be submitted and reviewed for discrete sections of line; this will be necessary for efficient execution of stringing work.
- Typically, pull sites will be chosen for the suitability of the ground and geography with respect to anchoring, accessibility for heavy stringing equipment, and to minimize wasted conductor.

2.3.5.2 Stringing and Sag Data Report

The following diagram illustrates the flow of information related to the completion of Stringing and Sag Data form:

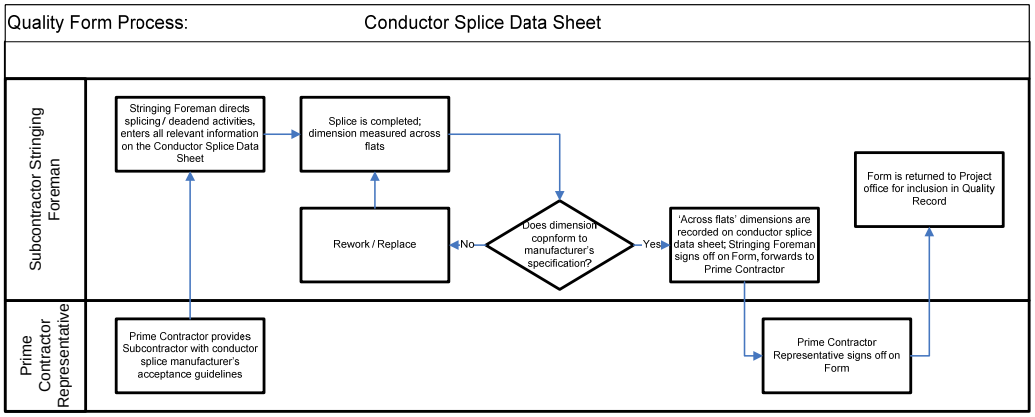


Process notes:

- (None)

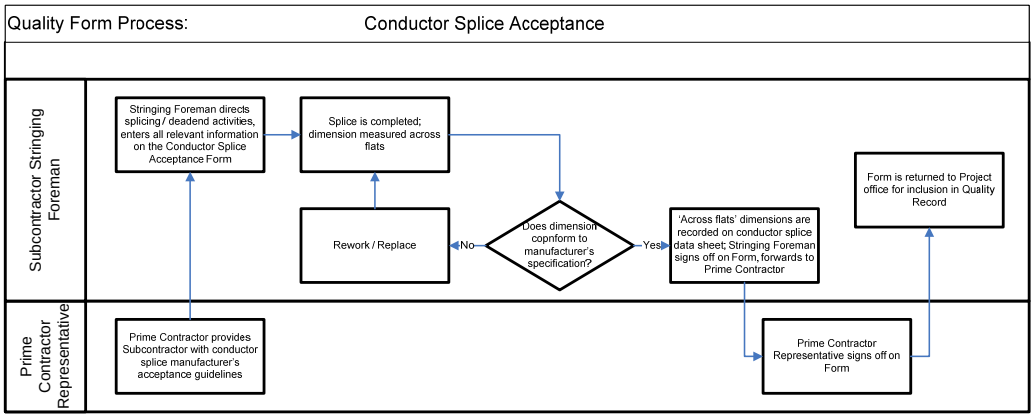
2.3.5.3 Conductor Splice Data Sheet

The following diagram illustrates the flow of information related to the completion of form:



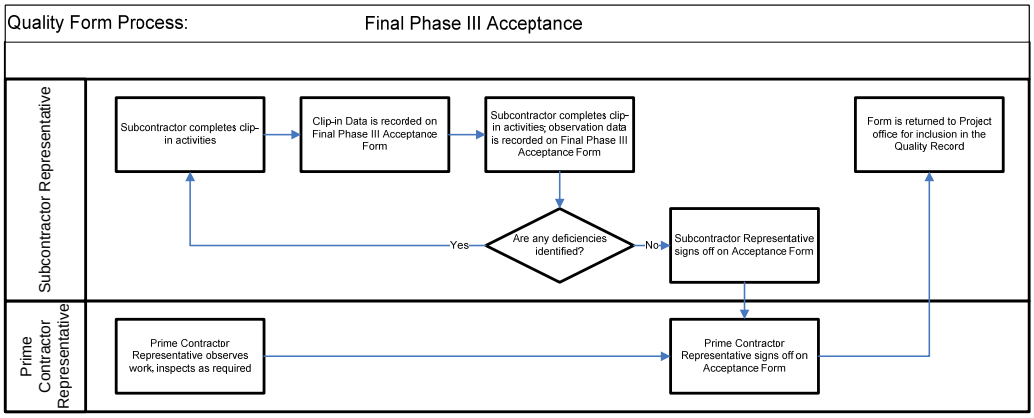
2.3.5.4 Conductor Splice Acceptance

The following diagram illustrates the flow of information related to the completion of Conductor Splice form:



2.3.5.5 Final Phase III Acceptance

The following diagram illustrates the flow of information related to the completion of form:



Process notes:

- (None)

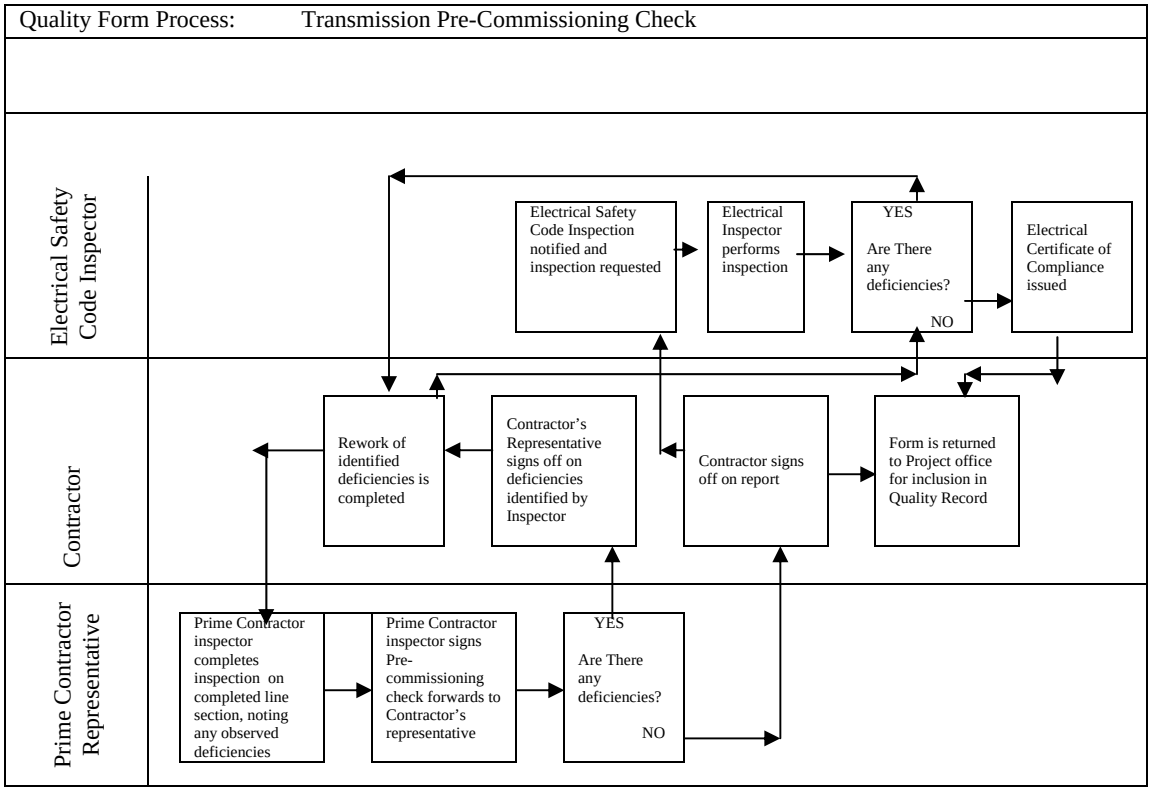
2.3.6 Forms Pertaining to Final Inspection and Commissioning

2.3.6.1 Ground Clearance Report

Note: This Form and the associated inspection will be completed by Valard Construction. These Forms will be submitted to the Prime Contractor for inclusion in the Quality Record.

2.3.6.2 Transmission Pre-Commissioning Check

The following diagram illustrates the flow of information related to the completion of Pre-Commission Check form:

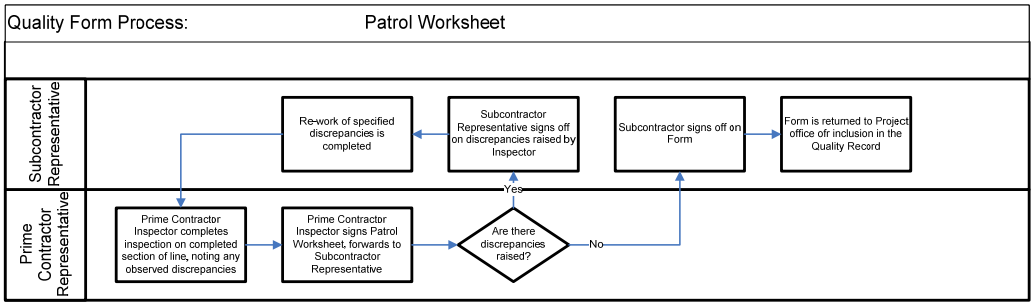


Process notes:

- Subcontractor Representative's acceptance of Inspector's specified discrepancies will be subject to evaluation and inspection of discrepancy.

2.3.6.3 Patrol Worksheet

The following diagram illustrates the flow of information related to the completion of Patrol Worksheet form:



Process notes:

- (None)

2.4 Collection of Quality Documentation

In all cases the collection of forms and additional documentation will proceed as follows:

1. The Form will be initialized by the Foreman, Supervisor, or coordinator directing the work.
2. All qualitative Form fields (i.e. checklist-style documentation) will be completed:
    a. In the field
    b. At the time of work completion
    c. By the tradesperson completing or directly supervising the work
3. All quantitative Form fields will be completed:
    a. In the field
    b. At the time of work completion
    c. By the Foreman or Supervisor directing the work
    d. Only by Foreman or Supervisor having personally performed the measurements represented or having directly observed the measuring process.
    e. Documentation will be presented to the Prime Contractor's representative for review and/or endorsement (as required by the Prime Contractor's ITP) following which it is to be returned to the Foreman or Supervisor responsible for the work.
    f. The Foreman or Supervisor will submit the Quality Form to the designated Quality Coordinator; the Quality Coordinator will be responsible for control and distribution of Quality Documentation.
4. All documentation shall be maintained by Valard Construction in a proper filing system. The Prime Contractor's Quality Staff shall be granted access to these files for the purpose of review.

2.5 Control of Quality Documentation

The Quality Record shall be collected and maintained in the Subcontractor's Project office. The following process will apply to its control:

1. Upon submission of a Quality document, it will be listed as complete in the Reporting Summary.
2. The Form will be stored in hardcopy at the Subcontractor's Project office.
3. The Form will be scanned and stored electronically on the Subcontractor's remote server.

2.6 Distribution of Quality Documentation

The following process is proposed to satisfy all elements of the Quality Plan:

e. All original documents shall be maintained by Valard Construction and shall be included in the turn over of documents at project completion.
g. The form will be copied in triplicate.
h. One copy of the Form will be entered into the Quality Record.
i. One copy of the Form will be forwarded to the Project Manager or a designated coordinator for the purpose of tracking progress.

3 Materials

Quality control with respect to materials is to be administered under two primary headings:

1. Materials Supplied by the Prime Contractor
2. Materials Supplied by the Subcontractor

3.1 Materials Supplied by the Prime Contractor

With respect to materials supplied by the Prime Contractor, the goals of the PQP are as follows:

1. To confirm the quantity and condition of material received from the Prime Contractor's suppliers
2. To confirm the conformity of received material to its type design
3. To quantitatively record deviations of the lattice tower materials from their type design for the purpose of calculating changes to the Contract

To the end of achieving the above, the following controls are to be implemented:

1. Visual Inspections
2. Quantity Checks
3. Vendor Shortage Reporting
4. Nonconforming Material Quarantine

3.1.1 Visual Inspections

Visual inspections will be conducted on all material received by the Subcontractor on behalf of the Prime Contractor at the time of receiving in the marshalling yard.

Visual inspections will be documented and will be subject to review and confirmation by the Prime Contractor's Materials Coordinator.

3.1.2 Quantity Checks

Quantity checks will be documented and will be subject to review and confirmation by the Prime Contractor's Materials Coordinator.

Shortages that become apparent as a result of quantity checks will trigger the generation of a Vendor Shortage List (see following section).

Quantity checks specifically addressing component checks for missing and misfabricated components of the steel lattice tower kits will be documented.

3.1.3 Vendor Shortage Reporting

Vendor shortages will be documented.

3.1.4 Quarantine

Upon taking possession of the respective marshalling yard, the Contractor will identify an area of the yard to be reserved for quarantined parts. This area will be clearly marked and segregated from the remainder of the yard by ropes or tape.

Upon identification of substandard, damaged, or broken parts or components, such components shall be clearly marked with a tag bearing the following information:

- Large bold notice: NONCONFORMING PART
- Discrepancy: Description of the identified problem with the part
- Supplier: Name of supplier
- Date: Date nonconformity was identified
- Initial: Initial of individual taking part out of circulation

Once parts have been deposited in the Quarantine area, tags will not be necessary.

3.2 Materials Supplied by the Subcontractor

With respect to materials supplied by the Subcontractor, the goals of the PQP are as follows:

1. To document the properties of received material for the internal requirements of the Subcontractor.
2. To document the properties of received material to assure the Prime Contractor of the Quality of such Material.

While the following Subcontractor-supplied materials are referenced in the ITP, no forms have been provided. As such, the Subcontractor will generate forms for the efficient tracking of these materials (Note: these forms are also referenced under headings 2.2 and 2.3):

- Borrow Pit documentation
- Road Crush
- Pit Run
- Sand
- Native Fill
- Concrete
- Reinforcing Steel
- Rock Anchors
- Grout

The information to be addressed in each of these forms is summarized in the table on the following page.

The following chart summarizes all Subcontractor supplied materials as specified in the Contract, along with proposed Quality controls:

Subcontractor Supplied Material	Product Controls	Submission Schedule	Comments
Earthwork Materials - Borrow Pits (General)	Borrow pit information to be submitted to Prime Contractor prior to provision of earthwork materials: -Address or coordinates of borrow pits -Summary of methods of excavation, mixing, screening, and transportation -Summary of the rated capacities of equipment used for borrow pit excavation and process -Summary of unusual mixing or excavating procedures -Summary of methods in use to control moisture and drainage -Information on disposition of oversized material -Information on the disposition of unsuitable material from stripping operations	Prior to use of borrow pit	
Road Crush	Information qualifying 'road crush' as conformant to Alberta Transportation Designation 4, Class 20: -Sieve analysis -Maximum density curve -Optimum Moisture curve	2 weeks prior to the commencement of material placement	
Pit Run	Information qualifying 'pit run' as conformant to Alberta Transportation Designation 6, Class 80: -Sieve analysis -Maximum density curve -Optimum Moisture curve	2 weeks prior to the commencement of material placement	
Sand	Information qualifying sand as conformant to SP-062200-4100-01 7.2.4: -Sieve analysis -Maximum density curve -Optimum Moisture curve	2 weeks prior to the commencement of material placement	
Native Fill	-Maximum density curve	2 weeks prior to the commencement of material placement	
	-Optimum Moisture curve		
Concrete	-Concrete mix design, formulated in accordance with the requirements of the design drawing	2 weeks prior to the commencement of material placement	
	-Concrete Delivery Tickets conforming to CSA A23.1 Section 5.2.4.5	Immediately following placement	
	Information gathered by third-party testing contractor: -Slump test results -Air content test results -Ambient temperature at time of delivery -Compressive strength test results	Immediately following availability of results	

Subcontractor Supplied Material	Product Controls	Submission Schedule	Comments
Reinforcing Steel	Mill test reports	Fastened to rebar at all times following delivery and prior to placement.	
	Reinforcing Steel Placing Drawings and Bar Lists		
	Bar tags featuring the following information: -Grade of steel -Mark number (as per bar list) -Rebar placing drawing number -Purchase order number -Shipping destination		
Screw Piles	Mill test reports	2 weeks prior to the commencement of material placement	
	Welding Inspection Reports		
	Bill of Lading		
Rock Anchors	Literature on chosen rock anchors inclusive of information on bar, centralizers, face plate, washer, and nut	2-weeks prior to the commencement of anchor placement	
	Information on the physical and chemical properties for each lot of steel rock anchors to be used.		
	Information on the proposed method of sealing fractures and voids in drill holes to prevent loss of grout		
	Certified statement from independent testing laboratory confirming the following properties: -Minimum cross-sectional area of the threaded portion of the bar -Minimum cross-sectional area of the unthreaded portion of the bar -Yield strength of the bar -Ultimate tensile strength of the bar		
	-Name of material -Manufacturer -Graph of unconfined compressive strength versus time -Gel time -Viscosity -Shelf life -Storage and handling requirements		
Grout	Published specification showing the following information: -Name of material -Manufacturer -7 & 28 day unconfined compressive strength -Composition -Shelf life -Storage and handling requirements	2-weeks prior to the commencement of anchor placement	

3.3 Audits

This section addresses only those audits associated Quality Assurance and Control for material.

3.3.1 General

Field-level audits will be instituted for the purpose of ensuring that Quality Assurance and Control measures are being implemented in accordance with the PQP. It is intended that an audit will be completed in approximately one day.

3.3.2 Procedure

The Subcontractor will compose a complete procedure for the completion of field-level audits. This procedure will implement the following elements:

1. Audits will include spot checks on documentation of new material arriving in the marshalling yard.
2. Audits will include an inspection of the measures used to identify the ‘Quarantine’ area of the marshalling yard.
3. Audits will include a review of collected borrow pit documentation.
4. Audits will include an observation of the received material inspection procedure.
5. Audits will include an inspection of reinforcement steel stored at the marshalling yard.
6. Audits will include a review of earthworks materials being installed at a structure location, complete with an inspection of the associated documentation.
7. The audit procedure will include a Form to be used for the purpose of documentation of the audit (referenced below).

3.3.3 Documentation

The audit documentation form will feature the following; where a field specifies ‘notes’, the field shall contain both a nonconformities column and a rectification column:

1. Information fields identifying:
    a. Date of audit
    b. Name of auditor
    c. Identification of marshalling yard audited
    d. Identification of Project office audited
2. Notes field for incoming material documentation
3. Notes field for quarantine area marking scheme
4. Notes field for borrow pit documentation.
5. Notes field for material receiving documentation
6. Notes field for reinforcing steel documentation
7. Notes field for installed earthworks material documentation

3.3.4 Frequency

Audits will be conducted on the following schedule (please note that this schedule will apply to :

- One audit will be conducted exactly 1 week following the first receipt of material.
- Following the initial audit, an additional two audits shall be conducted on two week intervals. These (three) audits correspond to the ‘setup’ period of the Project Quality Plan.
- After the ‘setup’ period, one audit will be conducted per month, on a random basis.

4 General Work Activities

This section describes Quality Control measures that are broad in application and that apply to multiple work activities.

4.1 Drawings

Under no circumstances will any of the Subcontractor's personnel, for the purpose of constructing or inspecting any element of the work represented in the Contract, consult drawings that are not marked "Issued for Construction".

4.2 Procedures

Where the Contract specifies that the Subcontractor must submit procedures for the work it completes, such documentation shall be collected prior to the start of work subject to the procedure requirement, and made available in the Project office.

Where specified procedure requirements are subject to certification (i.e. welding procedures) such procedures shall form a part of the Quality Record.

4.3 Certifications

Certification of procedures, where specified by the Contract, shall form a part of the Quality Record and be made available in the Project office.

Where Certifications are required as a part of the Quality record for a given work activity, copies of the certification are to be attached to the Quality Form associated with the work activity in question.

4.4 Trade Qualifications

Where the Contract specifies trade qualifications for a certain work activity (i.e. welding), such qualifications shall be documented in advance of the completion of work and be made available in the Project office.

4.5 Supervisory Qualifications

Several work elements of the Contract specify Supervision by a Qualified Supervisor. In order to document its conformance to the requirements of the Contract, it is the Subcontractors intent to implement a Supervisory Qualification Registry. This registry will be kept in the Project office and updated each time a new Supervisor is introduced or promoted on the Project.

4.5.1 Supervisory Qualification Registry

The Supervisory Qualification Registry shall consist of a chart listing the following information for each of the Subcontractor's Supervisors:

- Supervisor's name
- Check-boxes for each Contract work activity specifying Supervisory Qualifications
- Signature column for Quality Coordinator

The Supervisory Qualification Registry will form an element of the Quality Record.

4.5.2 Documentation

Documentation of any Supervisor's qualifications will be provided at the request of the Prime Contractor in the form of a resume.

4.6 Calibration & Testing of Tools & Instruments

4.6.1 General

Several work elements of the Contract specify Calibration or testing of installation tools and/or measurement instruments. In order to document its conformance to the requirements of the Contract, it is the Subcontractors intent to implement the following Quality Control measures:

- Collection and preservation of Calibration / Testing Records
- Tool Control Registry

4.6.2 Calibration / Testing Records

Prior to its use on the Project, any tool or measuring device specified in the Contract for calibration or testing will be tested (a) by the Subcontractor where its personnel and/or equipment are capable of completing such an inspection or calibration or (b) by an external calibration or testing laboratory.

Following testing or calibration of a tool or instrument, the following will apply:

- The testing or calibration certificate will be submitted to and preserved in the Project office.
    - The testing certificate will feature the instrument's serial number unit number
- A sticker or tag will be affixed to the tool or instrument indicating the date of its last calibration, and the date of its next calibration.
- An automated message will be initiated in Microsoft Outlook by the Quality Coordinator one month before the tool or instrument's next calibration.

Testing and calibration certificates will be preserved in the Project office and will form an element of the Quality Record.

4.6.3 Tool Control Registry

The tool control registry shall consist of a chart featuring the following columns:

- Tool unit number
- Description (2-4 words as required)
- Manufacturer
- Model Number
- Calibration Date
- Date of next calibration

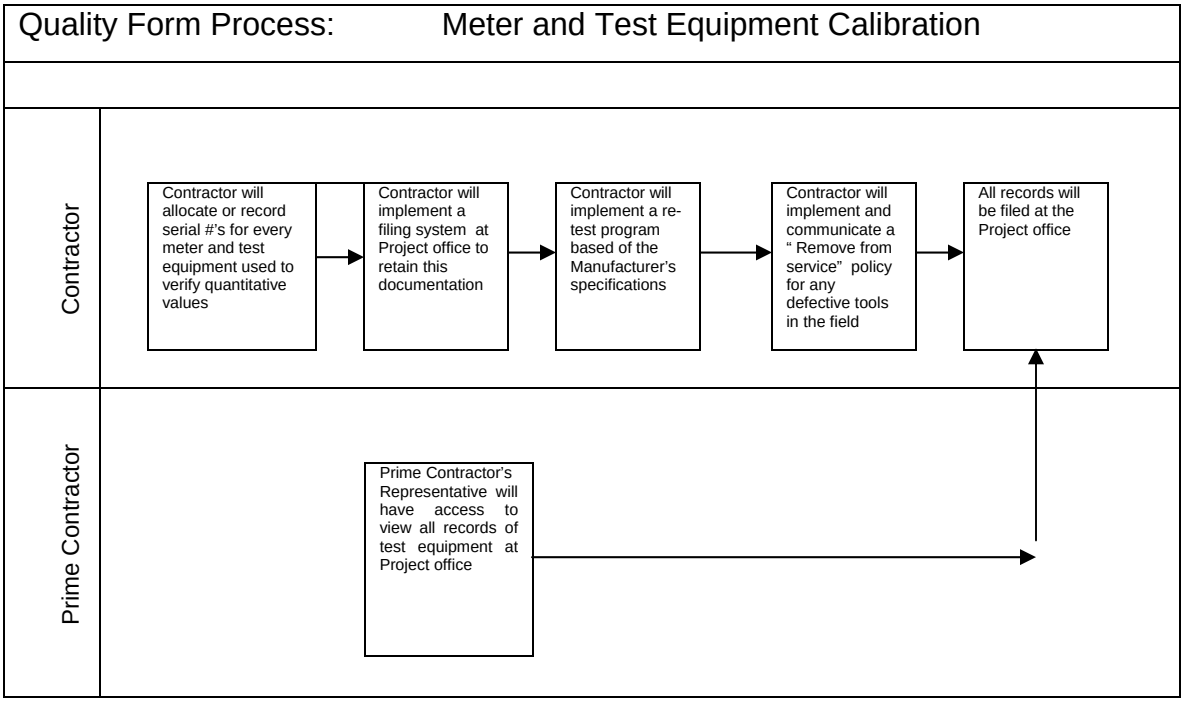
The Tool Control Registry shall form an element of the Quality Record.

4.6.4 Periodicity of Calibration / Inspection

With regard to periodicity, the period between calibrations of a given tool or instrument shall be determined from the following according to the following precedence:

1. Prime Contractor's requirements as specified in the Contract
2. Legislative requirements
3. Manufacturer's recommendations
4. 1 year (specified in the absence of any other recommendations)

Notwithstanding the above the shortest period specified by items (1), (2), and (3) shall take absolute precedence.



4.7 Audits (Work Activities)

This section addresses only those audits associated with Quality Assurance and Control for work activities.

4.7.1 General

Field-level audits will be instituted for the purpose of ensuring that Quality Assurance and Control measures are being implemented in accordance with the PQP. It is intended that an audit will be completed in approximately one day.

4.7.2 Procedure

The Subcontractor will compose a complete procedure for the completion of field-level audits on work activities. This procedure will implement the following elements:

1. Audits will include spot checks on documentation for material installed on the site.
2. Audits will include supervisory spot checks to ensure (a) that each work activity being completed is supervised by a supervisor listed on the Supervisory Qualification Registry, and (b) that Supervisor is qualified to supervise the work being completed.
3. Audits will include spot checks to ensure that any tools or measuring devices being used in the completion of work that are subject to testing or calibration are listed on the Tool Control Registry and further that any such tools carry a valid certificate of calibration or testing.
4. Audits will include an inspection of onsite documentation being completed for the purpose of documenting the completion of work and/or the inspection thereof.

5. Audits will include a review of the procedures documented in the Quality Record, and spot checks on affected activities to ensure that these activities are being completed in accordance with the governing procedure.
6. Audits will include a review for the purpose of identifying any related Quality issues, and reviewing the Project Quality Plan to ensure that it conforms to the requirements of the Contract.
7. The audit procedure will include a Form to be used for the purpose of documentation of the audit (referenced below).
8. The audit procedure will include reference to the identification of root causes and the correction thereof.

4.7.3 Documentation

The audit documentation form will feature the following; where a field specifies ‘notes’, the field shall contain both a nonconformities column and a rectification column:

1. Information fields identifying:
    a. Date of audit
    b. Name of auditor
    c. Identification of marshalling yard audited
    d. Identification of Project office audited
2. Notes field for installed material documentation
3. Notes field for supervisory qualification documentation
4. Notes field for tool and instrument and documentation
5. Notes field for work records documentation
6. Notes field for procedures documentation
7. Notes field for Contract conformity

4.7.4 Frequency

Audits will be conducted on the following schedule:

- One audit will be conducted exactly 1 week following the first completion of onsite work.
- Following the initial audit, an additional two audits shall be conducted on two week intervals. These (three) audits correspond to the ‘setup’ period of the Project Quality Plan.
- After the ‘setup’ period, one audit will be conducted per month, on a random basis.

- If a deficiency is identified , a formal notification report will be issued to the sub-contractor informing them of :
    1. The nature of the deficiency
    2. Potential severity or impact of deficiency
    3. Timeframe to Address Deficiency
        - Minor- 14 working days
        - Moderate- 7 working days
        - Major- 2 working days

4.8 Nonconformities

Nonconformity refers to an identified condition where a material or its associated documentation does not conform to the measures and procedures specified in the Project Quality Plan.

4.8.1 Stop Work Authority

Where a systematic nonconformity has been identified, the Quality Manager is empowered to halt any associated work until such time as he is satisfied with regard to the fact that the systematic nonconformity has been addressed or eliminated.

4.8.2 Nonconformity Reporting

'Nonconformity Reporting' as described in this section refers to the identification and tracking of material and construction nonconformities under conditions that are not explicitly addressed by the ITP.

The Contractor shall employ a nonconformity reporting Form for the purpose of logging nonconformities. Nonconformity Reports can be triggered on authority of coordinators in all management groups, construction Foremen and Supervisors, the Project Manager, or the Quality Manager. The following situations will trigger a Nonconformity Report:

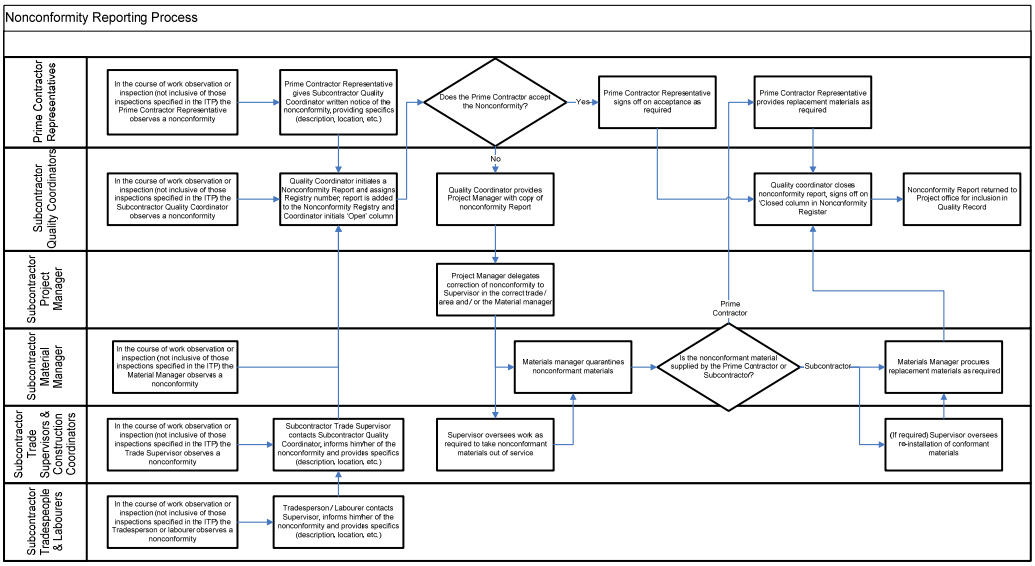
1. Nonconformity is identified in the course of an audit.
2. Nonconformity is observed by the material manager or a subordinate in the course of material distribution

3. Nonconformity is observed by a tradesperson or labourer in the field and reported to their Foreman or Supervisor
4. Nonconformity is observed by an agent of the Prime Contractor

All Non-conformances shall be copied to the Quality Manager as soon as they are initiated. All dispositions shall be submitted to the Quality Manager, and the Client's Quality Representative, prior to the remedial work commencing, for approval. No remedial work is to commence until this approval is obtained.

4.8.2.1 Procedure

The procedures to be followed in the identification and tracking of nonconformities is illustrated in the following diagram:



All non conformances shall be copied to the Quality Manager as soon as they are initiated.
All dispositions shall be submitted to the Quality Manager, and the Client's Quality Representative, prior to the remedial work commencing, for approval.

<u>No remedial work is to commence until this approval is obtained</u>

4.8.2.2 Nonconformity Control

The primary mechanisms of nonconformity control to be implemented are the Material Nonconformity Report Form and the Nonconformity Register.

Nonconformity Report Forms shall form an element of the Quality Record.

4.8.2.3 Nonconformity Report Form

The Nonconformity Report Form will feature the following information:

- Nonconformity Registry number
- Name of individual that observed the Nonconformity
- Name and signature of Quality Coordinator
- Description of Nonconformity
- Description of rectification
- Description of root causes

Nonconformity Report Forms are to be filled out only by the Quality Coordinator.

4.8.2.4 Nonconformity Register

The Nonconformity Register forms a part of the Quality Record.

The Nonconformity Register will consist of a grid wherein each row provides the information associated with a given Nonconformity Report. The columns of the Nonconformity Register will feature the following information for each Nonconformity Form:

- Nonconformity Registry Number
- Brief (2-3 words) Description
- ‘Open’ initial column
- ‘Closed’ initial column

5 Specific Work Activities

This section of the PQP directly addresses the manner in which Quality Control measures will be applied to specific work activities, as required by the Contract and Tender Documents and as directed by the PQP.

5.1 Construction of Access and Right-of-Way

The goals of the Project Quality Plan with respect to Construction access and ROW are as follows:

1. To ensure that access is constructed in accordance with the requirements of the Prime Contractor.
2. To promote and maintain the positive relationships of the Prime Contractor with Landowners along the ROW.
3. To ensure that gates and fencing are established in accordance with the requirements of the Prime Contractor.
4. To ensure that the ROW is restored in accordance with agreements between the Prime Contractor and affected landowners along the ROW.
5. To ensure that fence and access construction, as well as ROW restoration are documented for the purpose of assuring the Prime Contractor of the Quality of work completed.

Note: Control of access to the ROW is addressed in the Subcontractor's Access Plan.

Note: Environmental issues are addressed in the Subcontractor's environmental plan.

5.1.1 Access and Approaches

To ensure the conformance of constructed access roads and approaches, the Subcontractor Quality Coordinator, in cooperation with the Subcontractor Lands Manager will maintain a complete set of Plan and Profile drawings for each awarded section of ROW. In this set of Plan and Profile drawings, the following data will be recorded:

- Location and diagrams of every off-ROW access road or trail constructed by the Contractor
- An information box on each page indicating the status of the section of ROW

- Drawing amendments showing precisely which section of the ROW is addressed on the Plan and Profile drawing in question
- Information boxes for each access road or trail indicated on the Plan and Profile drawings indicating the status of the access facilities

When access to a section of ROW is granted by the Prime Contractor, the Subcontractor Lands Manager will mark all plan and profile drawings affected by the section of ROW to which access has been granted as 'Open'. The Land Manager will then affix a status label to the drawings for each off-ROW access trail. The status label will contain one of the following comments:

- Proposed – Entered in the status box when an access trail has been determined to be required for access to one or more structures.
- Approved – Entered in the status box when an access trail has been approved for construction or use.
- Abandoned – Entered in the status box when the use of an access trail is no longer required.

Where a proposed access trail conforms to the Prime Contractor's access plan or any amendments thereto, the trail will automatically be assigned 'Approved' status.

Typically, access trails will only be assigned 'Abandoned' status after all stringing activities have been completed, along with pre-commissioning reports.

5.1.2 ROW Restoration

To ensure the conformance of ROW restoration with the requirements of the Prime Contractor (i.e. conformance with the Prime Contractor's agreement with the Landowner) the Subcontractor Quality Coordinator in cooperation with the Subcontractor Lands Manager will maintain a complete set of Plan and Profile drawings for each awarded section of ROW. In this set of Plan and Profile drawings, the following data will be recorded:

- The status of each section with respect to ROW access
- 'Redline' Mark-ups of areas that have been disturbed, along with note-box labels describing the condition of the ROW.

The Subcontractor Lands Manager will be responsible for confirming the condition of the ROW. Following completion of construction and stringing activities, the lands manager will be responsible for directing and confirming the restoration of the ROW. Restoration of the ROW will be conducted in accordance with the requirements of the Contract.

If at any time over the course of ROW restoration a landowner directly expresses dissatisfaction with ROW restoration efforts, the Subcontractor will inform the Prime Contractor and continue with restoration activities under the Contract or any changes thereto.

Conformance of ROW restoration to the Contract will be demonstrated to the Prime Contractor by way of inspection. Documentation of the conformance of ROW restoration to the requirements of the Prime Contractor will be recorded.

5.2 Foundation Installation

The goals of the Project Quality Plan with respect to Foundation Installation are as follows:

1. To ensure that the positions of installed foundations conform to the positions described by the Prime Contractor's established markers.
2. To ensure that concrete employed in the construction of foundations conforms to the requirements of the Prime Contractor.
3. To ensure that the compaction of backfill materials and subsurface materials beneath the structure conform to the Prime Contractor's requirements.
4. To ensure that the placement of reinforcing steel is completed in accordance with the Prime Contractor's requirements
5. To ensure that soils not conforming to the Prime Contractor's expectations are observed and reported.
6. To assure the Prime Contractor that all foundation work completed by the Subcontractor is completed in accordance with the Prime Contractor's requirements.

5.2.1 Positional Tolerances

The following measures will instituted to ensure that towers are installed in accordance with the Prime Contractor's drawing package:

1. Upon arrival onsite the Subcontractor's personnel will establish offset stakes to allow space for the completion of work activities while preserving the locations of the Prime Contractor's stakes.
2. While foundation construction activities proceed, the offset stakes will be used to establish and confirm the positional dimensions of the foundation during the construction of forms and installation of caissons, and/or rock anchors.
3. Following the establishment of the lower elements of the foundation, a tower template will be used to confirm the location of the stub legs relative to each other. With the stub legs secured to the template, a (Subcontractor-employed) surveyor will confirm the location and orientation of the stub legs. The template and stub legs will then be secured with temporary works for the duration of tack welding or initial concrete setup.

For the purpose of assuring the Prime Contractor of the conformance of the positional dimensions of the installed tower to the tolerances provided by the Prime Contractor, the positional dimensions will be confirmed by the surveyor and recorded on Stub Angle Checklist Form. The site of the work will be available to the Prime Contractor for inspection at any time over the course of construction.

5.2.2 Concrete Testing

The following measures will be implemented to ensure that all concrete installed over the course of the Project satisfies the requirements of the Prime Contractor with respect to its physical properties:

1. The concrete mix design will be submitted to the Prime Contractor for review two weeks prior to the delivery of concrete to the site.
2. No concrete will be accepted onsite if delivery tickets are not provided. These tickets will be preserved in the Quality Record and attached to Foundation Report for Structure for the purpose of associating loads of concrete (and their associated test cylinders) with the structure locations at which they were deposited.
3. The Subcontractor will cooperate with the Prime Contractor's Third Party testing subcontractor with respect to the coordination of concrete testing (slump test, break test, compressive testing, etc.).

5.2.3 Compaction Testing

Compaction testing will be performed in accordance with the requirements of the Contract; associated documentation will be collected by the Subcontractor for inclusion in the Quality Record and attachment to any required Forms. All relevant documentation will also be forwarded to the Prime Contractor. In the event that compaction testing reveals incompetent soils, the Subcontractor's Supervisor will immediately notify the Prime Contractor's representative.

5.2.4 Forming and Placement of Reinforcing Steel

The following measures will be implemented for the purpose of ensuring that reinforcing steel is formed and placed in accordance with the requirements of the Prime Contractor:

1. The Subcontractor will submit CWB-approved welding procedures to the Prime Contractor for review 2 weeks prior to the completion of welding in the assembly and/or placement of reinforcing steel. In the completion of welding on any reinforcement steel installed on the Project, these welding procedures will be strictly adhered to (Note: Where welding is unnecessary in the assembly and placement of reinforcing steel, no such procedures will be submitted; the Subcontractor does not intend to weld together reinforcing steel except where it is specified by the Prime Contractor's documents).
2. The Subcontractor will submit bar placement diagrams to the Prime Contractor for review two weeks prior to the placement of reinforcing steel in a structure foundation (spread footing or cast-in-place caisson). For the generation of these drawings, the Subcontractor will require that the Prime Contractor distribute 'Issued for Construction' foundation drawings.
3. The Subcontractor will collect and archive mill test reports in the Quality Record at the time of receiving reinforcing steel at the Project marshalling yard. Mill test reports will be reviewed for the purpose of ensuring that received steel conforms to the requirements of the Prime Contractor with respect to the physical properties of the steel. In the event that a shipment of steel does not satisfy the requirement of the Prime Contractor, it will be returned to the supplier.
4. At the time of receiving, the Subcontractor will clearly label received reinforcing steel (or bundles thereof) with weather-proof bar tags referring the steel back to its mill test report. These tags will remain with the steel until such time as it is ready for installation at a foundation location.

For the purpose of assuring the Prime Contractor of the conformity of installed reinforcing steel to its requirements, at the time of installation, bar tags will be removed from the reinforcing steel and affixed to one of the following Quality Reports (dependent upon the foundation element installed):

1. Foundation Report for Structure
2. Cast-in-Place Concrete Pile Log

These forms, along with the associated bar tags, will be submitted to the Prime Contractor as an element of the Quality Record.

5.2.5 Subsurface Confirmation

The following measures will be adopted for the purpose of confirming that the subsurface conditions encountered in the course of excavation match the subsurface conditions predicted by the Prime Contractor, or for the purpose of ensuring that – in the case where subsurface formations do not conform to the predictions of the Prime Contractor – the Prime Contractor is informed of the nature of the subsurface condition:

1. The Subcontractor will observe the nature of excavated soils and record such information.

5.3 Tower Installation

The goals of the PQP with respect to tower installation are as follows:

1. To ensure the proper fit and engagement of tower members.
2. To confirm the length and type of bolts installed on towers are in accordance with the requirements of the Prime Contractor.
3. To prevent the installation of bent, deformed, or damaged members on towers.
4. To ensure that test devices used in the assembly and erection of towers are properly calibrated.
5. To ensure that towers are installed on plumb.
6. To assure the Prime Contractor of the Quality of all tower installations.

5.3.1 Fit and Engagement

For the purpose of ensuring the fit and engagement of installed steel lattice tower members the Subcontractor will adopt the following measures:

1. At the time of assembly of tower panes or box sections assembly personnel will inspect joined members to ensure that there are no gaps at bolted joints (or in the case of back-to-back L-beams with spacers, personnel will check to ensure uniformity of the gap).
2. At the time of setting of the lower section of the tower on the foundation stub legs, the Foreman will conduct a visual inspection of the joint between the lower tower members and the stub legs to ensure there is no gap between the members and the tower is not twisted at the stub.
3. At the time of complete tower assembly (i.e. assembly of panes and sections) installation personnel and Foreman will conduct a visual inspection of joint plates and associated seams to ensure there is no gap between the joined sections of tower.
4. Additional spot inspections of tower arms will occur at the time of conductor installation and spacer installation. Personnel involved in these activities will report any discrepancies to their Supervisor who will in turn trigger a nonconformity report.
5. Subcontractor Foremen / Supervisors will perform post-assembly inspections of towers for the purpose of identifying nonconformities.

The following documentation will be provided to the Prime Contractor for the purpose of assuring the fit and engagement of completed tower assemblies:

1. Tower Assembly Acceptance Form
2. Structure Assembly and Installation Inspection Report

5.3.2 Length and Type of Bolts

The Subcontractor will adopt the following measures to ensure the correct length and type of bolts:

1. Assembly personnel will be directed to assemble towers using only hardware provided in tower kits by the Prime Contractor.
2. Assembly personnel will be given information regarding the visual identification of properly chosen size of fastener both before and after installation. Information provided will cover the following points:
    a. Selecting the correct diameter of fastener

b. Selecting the correct length of fastener
c. Confirming the correct length of fastener (following installation)

3. At the time of tower inspections (whether following partial or complete assembly), supervisory personnel will be directed to examine installed fasteners to ensure they have been chosen properly and are of appropriate length.
4. The Subcontractor will cooperate with the Prime Contractor with respect to the coordination of inspections of towers (it is assumed the Prime Contractor will also be examining fasteners to confirm correct choice).
5. Fastener choice will be cited as a potential element to be observed in the submission of nonconformity Reports.

For the purpose of assuring the Prime Contractor that towers have been assembled using the correct fasteners, fastener choice shall form an element of the inspections associated with the following Forms:

1. Tower Assembly Acceptance Form
2. Structure Assembly and Installation Inspection Report

5.3.3 Bent, Deformed, or Damaged Items

For the purpose of identifying, eliminating, and/or correcting bent deformed or damaged tower members and/or fasteners, the following measures will be implemented:

1. Tower packages will be inspected both at the time of receiving and at the time of arrival onsite for assembly. Bent, deformed, or damaged members will be identified and logged on the structure shakedown report for notification of the Prime Contractor.
2. As towers are assembled, individual parts will be examined for fit and dimension. Bent, deformed, or damaged members will be identified and logged on the structure shakedown report for notification of the Prime Contractor.
3. In the event that the Subcontractor identifies bent, deformed or damaged items, it will make written application to the Prime Contractor to the Prime Contractor of its intentions for the members (rework, remanufacture, re-order, etc.) prior to proceeding.

4. Assembly personnel will be directed not to install bent or damaged members on towers.
5. At the time of tower inspections (whether following partial or complete assembly), supervisory personnel will be directed to examine tower members to ensure they are free of damage and defects.
6. The Subcontractor will cooperate with the Prime Contractor with respect to the coordination of inspections of towers (it is assumed the Prime Contractor will also be examining members to confirm that they are free of damage).
7. Member condition will be cited as a potential element to be observed in the submission of nonconformity Reports.

For the purpose of assuring the Prime Contractor that all towers have been assembled using only members that are straight and free of damage, member damage will be an element addressed in the inspections associated with the following Forms:

1. Structure Shakedown Report Form
2. Tower Assembly Acceptance Form
3. Structure Assembly and Installation Inspection Report

5.3.4 Installation Bolt Torque

Note: Because the two subjects are closely related and inspected in sequence, Installation Bolt Torque is addressed below along with Locking Devices.

5.3.5 Testing Tools and Calibration

In order to ensure that testing tools used in the assembly of towers conform to the requirements of the Contract, the following calibration schemes will be implemented:

1. Where power wrenches are used to torque bolts:
    a. Calibrated slip devices will be used to prevent over-torque situations.
    b. The Subcontractor will either procure the services of a testing laboratory to calibrate the slip devices daily, or it will purchase a standard and develop a testing rig for the purpose of calibrating slip devices on a daily basis.
2. Where manual wrenches are used to torque bolts:
    a. To prevent over-torque situations, power wrenches having a maximum torque output less than the minimum torque specified in the Contract (40 ft-lbs) will be used for initial installation of bolts on the structure
    b. Final torque installation will be completed using calibrated manual torque wrenches.
    c. The Subcontractor will either procure the services of a testing laboratory to calibrate the slip devices monthly, or it will purchase a standard and develop a testing rig for the purpose of calibrating torque wrenches on a monthly basis.

For the purpose of assuring the Prime Contractor of the conformity of its torque devices to the requirements of the Contract, the following documentation will be included in the Quality Record for submission to the Prime Contractor (ref. Section 4.5 of the PQP):

3. Calibration / Testing Records
4. Tool Control Registry
5. Labels applied to torque devices

5.3.6 Locking Devices (and Installation Bolt Torque)

In order to ensure that locking devices and torque devices are used in accordance with the requirements of the Contract the following measures will be adopted:

1. Copies of the torque charts for fasteners used in tower assembly as provided in the Contract will be distributed in the field (ideally these could form a part of the acceptance form or be printed on the back thereof).
2. Assembly personnel will receive training with respect to the use of power wrenches (with and without torque limiting devices) and manual torque wrenches.
3. Before the bolts to be installed in any given structure or surface thereof are secured at rated torque, all bolts on that structure or surface will be installed loosely, following which all bolts on the structure or surface will be installed to rated torque.
4. After each nut on the structure is torqued, the individual confirming the fastener torque will apply red permanent marker to the back side of the bolt.
5. After all bolts on a structure or surface are correctly torqued and the bottoms marked with red permanent ink, the structure will be inspected by the Foreman or Supervisor; the inspecting party will examine all fasteners for proper size and length, and torque-test 10% of the fasteners with a manual torque wrench. The inspection will then be recorded on the appropriate Quality Form.
6. Following the inspection of the structure or surface by the supervisor, each bolt will be deformed in the first thread emerging from its associated note using a punch/chisel and hammer (‘caulking’ or ‘corking’). After each bolt is deformed, the individual performing the corking will then apply black permanent ink to the back of the bolt.
7. Following corking (caulking) and marking, the supervisor will conduct a second inspection.

The installation and marking procedure described in steps 4-7 is routine for the Subcontractor’s tower assembly crews; it is referred to as the ‘Torque and Cork’ method.

For the purpose of assuring the Prime Contractor of the conformance of tower assemblies to the requirements of the Contract, the following Forms will be used to document the inspections conducted in the course of and following assembly:

1. Tower Assembly Acceptance Form
2. Structure Assembly and Installation Inspection Report

5.3.7 Plumb / Straightness of Erected Towers

Because of the rigid nature of lattice towers, tubular steel monopoles, and wood pole H-frames, the straightness of a tower is entirely dependent upon a level foundation. As such, ensure that a tower is plumb equates precisely to ensuring that the foundation is level. The following measures will be implemented for the purpose of ensuring that towers are installed in plumb in accordance with the requirements of the Contract:

1. Upon arrival onsite the Subcontractor's personnel will establish offset stakes to allow space for the completion of work activities while preserving the locations of the Prime Contractor's stakes.
2. While foundation construction activities proceed, the offset stakes will be used to establish and confirm the positional dimensions of the foundation during the construction of forms and installation of caissons, and/or rock anchors.
3. Following the establishment of the lower elements of the foundation, a tower template will be used to confirm the location of the stub legs relative to each other. With the stub legs secured to the template, a (Subcontractor-employed) surveyor will confirm the location and orientation of the stub legs (this process will be inclusive of confirming that the template is level). The template and stub legs will then be secured with temporary works for the duration of tack welding or initial concrete setup.

For the purpose of assuring the Prime Contractor of the conformance of tower assemblies with respect to plumb, each installation will be documented on a Stub Angle Checklist.

5.4 Installation of Conductors

The goals of the PQP with respect to the installation of conductors are as follows:

1. To ensure that splice and deadend connectors are installed in accordance with the Prime Contractor's requirements.
2. To ensure that conductors are installed at the sag specified by the Prime Contractor.
3. To ensure that conductor tie-ins are completed in accordance with the requirements of the Prime Contractor.
4. To assure the Prime Contractor of the Quality of all conductor installations.

5.4.1 Sleeves, Deadends, and Electrical Connectors

For the purpose of ensuring the conformance of sleeves, deadends, and connectors to the requirements of the Contract, the following measures will be adopted:

1. All personnel involved in conductor bonding will receive training in the use of compression-type splices and deadends.
2. Completed splices will be inspected in detail for defects; unsatisfactory splices will be cut out and replaced.
3. Compression-type splices will be inspected using go-no-go gauges 'across the flats'. Personnel will be provided with training in the use of go-no-go gauges.
4. At the option of the Prime Contractor, all implosive connectors will be installed in the presence of the Prime Contractor's Representative.
5. Implosive type sleeve connectors will be installed in accordance with Specifications.
6. Compression and implosive type connectors will be x-ray inspected at the Prime Contractor's option.

To assure the Prime Contractor of the conformance of deadends, sleeves, and connectors to the requirements of the Contract, splicing and connecting activities will be documented on the following Forms:

1. Conductor Splice Data Sheet
2. Conductor Splice Acceptance Form

To assure the Prime Contractor that the Subcontractor has properly accounted for all implosive sleeve connectors in its possession, the Subcontractor will document the storage and installation of implosive sleeve connectors on the following Forms:

1. Blasting Logs
2. Magazine Logs

5.4.2 Sag Verification

For the purpose of verifying the sag of installed conductors, the following measures will be implemented:

1. In advance of stringing / sagging operations, the Subcontractor's proposed butt down and pulling setup areas will be submitted to the Prime Contactor for review.
2. Butt-down locations will be chosen so as to minimize conductor waste.
3. The Subcontractor will submit a written request for sag data to the Prime Contractor.
4. Stringing sheaves will be chosen to conform to the requirements of:
    a. The Contract
    b. The conductor manufacturer
    c. IEEE standard 524
5. Stringing activities will be supervised by a qualified Supervisor with extensive experience in the tension stringing method of bundled conductor installation.
6. Stringing activities will be performed in conformance with the requirements.

For the purpose of assuring the Prime Contractor of the conformance of strung conductor to the requirements of the Contract, sagging activities will be documented in the following Forms:

1. Review of Contractor's Pull Sites Form
2. Stringing and Sag Data Reports

5.4.3 Ground Clearance Confirmation

As stated in the specification, ground clearance confirmation will be the responsibility of the Prime Contractor. The Subcontractor will cooperate with the Prime Contractor's Representative with respect to providing schedule information and confirming which sections of line are ready for ground clearance confirmation.

5.4.4 Conductor tie-ins

For the purpose of ensuring that conductor tie-ins are completed in accordance with the requirements of the Contract the following measures will be implemented:

1. Clipping personnel will receive training in the correct installation of tie-in hardware in accordance with specifications. This training will be inclusive of:
    a. Discussion of insulator handling and care
    b. Discussion of hardware alignment and installation
    c. Discussion of correct installation and orientation of cotter keys to allow for hotstick installation / removal.
2. Clipping personnel will be instructed in the correct installation of insulator string tie-ins with respect to offset distance.
3. Inspections will be conducted to ensure that conductor tie-in hardware is properly installed in accordance with the specification.

For the purpose of assuring the Prime Contractor that tying-in activities have been completed in accordance with the requirements of the Contract, the Subcontractor will document tying-in activities on Final Phase III Acceptance Form.

5.5 Final Inspections and Commissioning Patrols

The goals of the PQP with respect to final inspections and commissioning patrols are as follows:

1. To provide a final opportunity to ensure that all Quality-related properties of sections of the transmission line are confirmed prior to final handover of the line for commissioning.
2. To ensure that all commitments of the Subcontractor under the Contract have been satisfied prior to its closure of such Contract.
3. To assure the Prime Contractor of the overall Quality of all works constructed under the Contract prior to final handover of the transmission line.

Final inspections and patrols will be conducted and documented in accordance with Contract and in full cooperation with the Prime Contractor. These inspections will be documented in the following Forms:

1. Transmission Pre-Commissioning Check Form
2. Patrol Worksheet

(End of Document)

SECTION 4 – SUBCONTRACTOR CONTROLS

TABLE OF CONTENTS

4.1 SUBCONTRACTOR POLICY

It is the policy of Valard that all direct hire and subcontractor employees are entitled to work in a safe environment. To achieve this, every reasonable effort shall be to eliminate hazards and prevent incidents that cause injury to workers, environmental damage and property damage. This effort shall include controls applied both before awarding a subcontract and during the execution of the work.

Valard believes that taking proper precautions can prevent incidents. It is the duty of every subcontractor, in the performance of their subcontract, to cooperate with and comply fully with Valard's Health, Safety & Environmental Manual and Provincial/Federal Health, Safety & Environmental Regulations.

4.2 PRECONTRACT CONTROLS

All subcontractors are to be evaluated before being considered for a subcontract to ensure they are capable of meeting Valard's safety standards.

Subcontractors being evaluated must submit the following documentation to Valard.

- Copy of subcontractor's safety manual
- Completed copy of Form 4.5.2 Subcontractor Prequalification Questionnaire Form
- Copy of A WCB clearance letter. If the subcontractor is unable to provide the document, the client must approve them prior to them entering the worksite.

The Vice President of Health and Safety will review these documents for acceptability. The subcontractor can be rated as "approved", "approved with conditions" and "rejected". Subcontractors with a "rejected" rating may be considered only if there are no "approved" or "approved with conditions" rated contractors available.

Subcontractors are to be advised that they are responsible for screening any of their subcontractors they retain to ensure they are capable of meeting Valard's Safety standards.

Valard's Health, Safety and Environmental Department will review and evaluate subcontractor's 4.5.2 Prequalification Questionnaire Form by completing Form # 4.5.3 and will either approve their Manual or request that Valard's HS&E Manual be followed.

4.3 PRECONSTRUCTION CONTROLS

Before subcontractors are permitted to mobilize on site and begin work, the following steps must be taken:

- Subcontractor Policy Agreement Form #4.5.1 must be signed and forwarded to the Edmonton office.
- A copy of the subcontractor's safety manual must be submitted to the project Area Supervisor.
- WHMIS Material Safety Data Sheets are to be submitted to the Area Supervisor or the Safety Coordinator for every controlled product the subcontractor uses or stores on site. MSDS's are not valid if they are over three years old. (See Section 13 of this Manual)

All subcontractor personnel must complete CSTS (Construction Safety Training System, offered by the Alberta Construction Safety Association) if:

- The client requires it. Workers arriving for orientation must have a valid CSTS wallet card in their possession.
- Subcontractors are to ensure that they have an adequate number of employees trained in First Aid to meet the requirements of the OH&S First Aid Regulations.
- The subcontractor's Site Supervisor must attend a pre-job meeting and physically inspect the work site.
- Subcontractors must submit a Hazard Analysis for their scope of work. (See Section 6 of this manual)

4.4 CONSTRUCTION CONTROLS

Subcontractors in the process of performing work under the control of Valard must meet the following requirements:

- All work will be performed in accordance to the subcontractor's safety manual. If the standards set out in the subcontractor's manual is exceeded by Valard's Health, Safety & Environmental Manual, our clients Safety Manual and/or Legislation, the higher standard must be adhered to. Subcontractors without a manual or without elements included in Valard's manual shall follow Valard's manual.
- Workers arriving on a Valard's Site must receive Valard's Site Specific Orientation as per Section 8 of this manual and any applicable client required orientations.
- Subcontractors will be responsible for monitoring the performance of their employees and subcontractors and taking corrective action when necessary. (See Section 3 of this manual)
- All subcontractor employees will participate in a morning Tailboard (pre-task meeting) Valard and its subcontractors will hold joint meetings whenever practical. (See section 6 of this manual)
- All site subcontractor employees will participate in a monthly safety meeting. (See Section 8 of this manual)
- All subcontractors will perform a bi-weekly safety inspection and submit it to Valard's Foreman or Safety Coordinator. (See Section 9 of this manual)
- Subcontractors shall ensure that their employees have adequate Personal Protective Equipment available to them (See Section 10 of this manual)
- Subcontractors are required to report all incidents and near misses to Valard's Foreman and the Vice President of Health, Safety & Environment.
- Valard and their Subcontractors shall investigate as a minimum:
    1. Lost Time Incidents
    2. Medical Aid Incidents
    3. Incidents resulting in Modified Work
    4. Incidents that had potential for serious injury or property damage
- Valard and their subcontractors will provide the investigation of incidents results to the client if required.
- Subcontractors are to ensure their employees are familiar with site emergency procedures. (Both Valard's and the owner/clients if applicable).

- Valard may require a manpower roster within one hour of work commencing for the day for evacuation head count purposes.
- Subcontractors shall actively manage WCB claims and will provide Modified Work whenever possible.
- Subcontractors shall at all time maintain a substance abuse program equivalent while on the worksite as documented in the Construction Owners Association of Alberta Model. (See Section 16 of this manual). In cases where the client's Alcohol and Drug Policy differs from the Canadian Model then Valard will inform the subcontractor and will provide a copy of the client's Alcohol and Drug Policy and that this policy must be communicated to their employees and it must be adhered to while working on their worksite.
- Subcontractors shall maintain all of their tools and equipment as per manufactures specifications. All tools and equipment must be inspected at the start of the job and then on a monthly basis thereafter. The inspections must be recorded and forwarded to Valard's' Area Supervisor or Safety Advisor. All mobile equipment must be accompanied with a mechanic's report on its condition including a signed statement that all safety switches operate as per manufacturer's design. Cranes/ lifting devices require a Boom certificate dated within the past 12 months and recertified if it is expired before continuing work.
- On the last working day of the month, subcontractors are to submit their statistics for themselves and their subcontractors to the Area Supervisor or Safety Coordinator. The statistics must include:
    1. Number of First Aid Incidents
    2. Number of Medical Aid Incidents
    3. Number of Lost Time Incidents
    4. Number of Near Miss Incidents
    5. Number of Property Damage Incidents
    6. Number of Environmental Incidents
    7. Total Man Hours Worked
- Subcontractors are to provide or develop any necessary safe work practices and procedures. The practices and procedures must be applicable to the project.
- Subcontractors will be evaluated for compliance after a maximum of 30 days on site using Valard's Subcontractor's Site Safety Audit Form #4.5.4.
- All subcontractors will be evaluated after the specific project is completed using the following information;
    1. Monthly Health and Safety stat reports as required in Section 21 (monthly HS&E reports)
    2. Site Inspection reports
    3. Form 4.5.2 Subcontractor's pre-qual
    4. Form 4.5.3 Subcontractor's Pre-qual audit
    5. Form 4.5.4 Subcontractors site safety audit
- The following individuals are to be present during the projects subcontractors' evaluation meeting, Valard's Vice President of Health and Safety, Project Manager, site Superintendent, site Safety Advisor, Valard's person in charge of

subcontractors work and subcontractors project manager and site safety advisor if available.

- Subcontractors will be evaluated on the above 5 key result points and items that are identified as non compliance to Valard's HS&E requirements will be required to demonstrate a commitment to address these issues, will not be permitted to bid on work until they have shown until they satisfy the requirements.

4.5.1 SUBCONTRACTOR POLICY AGREEMENT FORM.

It is the policy of Valard Construction that all direct hire and subcontractor employees are entitled to work in a safe environment. To achieve this, every reasonable effort shall be to eliminate hazards and prevent incidents that cause injury to workers, environmental damage and property damage. This effort shall include controls applied both before awarding a subcontract and during the execution of the work.

Valard Construction believes that taking proper precautions can prevent incidents. It is the duty of every subcontractor, in the performance of their subcontract, to cooperate with Valard Construction and comply fully with Valard's Health, Safety & Environmental Manual and Provincial Health, Safety & Environmental Regulations.

I acknowledge and agree with the above policy and I will personally endeavour to ensure that the employees of my company comply with all of the above. I understand that non-compliance with these policies may result in the dismissal of individuals on site and/or the termination of my contract.

SIGNED BY:

_____ _____ _____
Senior Company Official Company Date

_____
Print Name + Title

_____ _____ _____
Site Supervisor Company Date

_____
Print Name

Additional required info:

- Services supplied:_____
- Liability Insurance Certificate:_____
- Phone #:_____ Fax #:_____
- GST #:_____
- List of Equipment c/w current certification attached.
- WCB Clearance Letter.

Note: All equipment must arrive with valid and current certification.

i.e. Cranes as well as boom trucks must have a boom inspection certificate within the last year. This includes all lifting equipment including manbaskets.

VALARD A QUANTA SERVICES COMPANY	Document Description				Sub-Contractor Controls		
	Created By:	A. Felczak	Doc. Number		Health, Safety & Environmental Policy 4.00		
	Date:	Sept. 23, 2003	Revision:	5	Revised by:	A. Felczak	Date: Jan. 3, 2012

4.5.2 SUB-CONTRACTOR PRE-QUALIFICATION QUESTIONAIRE FORM

Auditors	**Date:**

GENERAL

1.	**Company Name**	**Telephone**	**Fax**
	Street Address	**City**	**Province** / **Postal Code**

2. **Check classes of work**:

Concrete	☐	Painting	☐	Roofing	☐
Demolition	☐	Insulation	☐	Security	☐
Electrical	☐	Janitorial	☐	Sheet Metal	☐
Engineering	☐	Landscaping/Lawn Service	☐	Structural Steel	☐
Excavation	☐	Maintenance	☐	Other (list)	☐
Fencing	☐	Architectural Finishing	☐		☐
Fire Protection	☐	Mechanical	☐	_____	☐

3. **Workers Compensation Experience Rating:** **Industry code:** _____

Rating:	Year:	Partnership Discount/Surcharge
_____	20	_____
_____	20	_____
_____	20	_____

(copy of the past 3 years WCB Experience Rating attached)

4.

A.	Employee hours worked last three years (**excluding subcontractors**)	20	20	20
	Total Hours:			
B.	Employee hours worked last three years (**including subcontractors**)	20	20	20
	Total Hours:			

c) Provide the following data (excluding subcontractor) from the past three years:

	20		20		20	
	No.	Rate	No.	Rate	No.	Rate
Injury related fatality *Total x 200,000 = Rate* *Total Employee Hours*						
Injury involving Lost Time *Total x 200,000 = Rate* *Total Employee Hours*						
Injury related days total away from work *Total x 200,000 = Rate* *Total Employee Hours*						
Injuries involving medical treatment only *Total x 200,000 = Rate* *Total Employee Hours*						
Total Recordable Injuries including LTI & M.A. *Total x 200,000 = Rate* *Total Employee Hours*						
Total number of restricted work cases *Total x 200,000 = Rate* *Total Employee Hours*						
Total number of *days* of restricted work activity *Total x 200,000 = Rate* *Total Employee Hours*						

Notes: (1) Data should be the best available data applicable to the work in this region or area.

5.	Have you received any regulatory citations in the last three years?	☐ Yes	☐ No
	If yes, please attach copies.		

SAFETY & HEALTH MANAGEMENT

6.	Highest ranking safety/health professional in the company:		
	Title:	Telephone:	Fax:
7.	Do you have or do you provide:		
	a) Full-time Safety/Health Director	☐ Yes	☐ No
	b) Full-time Site Safety/Health Advisor	☐ Yes	☐ No
	At what time do you provide full-time safety person:		
	c) Are foremen trained and responsible for day-to-day safety activities?	☐ Yes	☐ No

INCIDENT REPORTING

9.	Do you have a procedure for the investigation, reporting, and follow-up of incidents, near misses, and occupation injuries?	☐ Yes	☐ No

VALARD A QUANTA SERVICES COMPANY	Document Description				Sub-Contractor Controls		
	Created By:	A. Felczak	Doc. Number		Health, Safety & Environmental Policy 4.00		
	Date:	Sept. 23, 2003	Revision:	5	Revised by:	A. Felczak	Date: Jan. 3, 2012

SAFETY & HEALTH PROGRAMS & PROCEDURES			
10.	**Do you have a written Safety and Health Program?**	☐ Yes	☐ No
	Does the program address the following key elements?		
	· Management commitment and expectations	☐ Yes	☐ No
	· Employee/partners participation	☐ Yes	☐ No
	· Accountabilities and responsibilities for managers, supervisors	☐ Yes	☐ No
	· Resources for meeting safety & health requirements	☐ Yes	☐ No
	· Periodic safety and health performance appraisals for all employee/partners	☐ Yes	☐ No
	· Hazard recognition and control	☐ Yes	☐ No
11.	**Does the program include work practices and procedures such as:**		
	a) Elevated Work	☐ Yes	☐ No
	b) Equipment Lockout and Tagout	☐ Yes	☐ No
	c) Confined Space Entry	☐ Yes	☐ No
	d) Hot Work	☐ Yes	☐ No
	e) Fall Protection	☐ Yes	☐ No
	f) Personal Protective Equipment	☐ Yes	☐ No
	g) Portable Electrical/Power Tools/Pneumatic	☐ Yes	☐ No
	h) Vehicle Safety	☐ Yes	☐ No
	i) Compressed Gas Cylinders	☐ Yes	☐ No
	j) Electrical Equipment Grounding Assurance	☐ Yes	☐ No
	k) Powered Industrial Vehicles (Cranes, Forklifts, JLG's, etc.)	☐ Yes	☐ No
	l) Housekeeping	☐ Yes	☐ No
	m) Excavation and Trenching/Stairways	☐ Yes	☐ No
	n) Unsafe Condition Reporting	☐ Yes	☐ No
	o) Emergency Planning	☐ Yes	☐ No
	p) Waste Disposal	☐ Yes	☐ No
	q) Scaffolding/Ladders/Stairways	☐ Yes	☐ No
12.	**Do you have written programs for the following**:		
	a) Hearing Conservation	☐ Yes	☐ No
	b) Respiratory Protection	☐ Yes	☐ No
	Where applicable, have employees been: ☐ Trained ☐ Fit Tested ☐ Medically approved		
	c) Hazard Communication	☐ Yes	☐ No
13.	**Do you have a substance abuse program?**	☐ Yes	☐ No
	If yes, does it include the following:		
	· Pre-employment Testing	☐ Yes	☐ No
	· Random Testing	☐ Yes	☐ No
	· Testing for Cause	☐ Yes	☐ No
	· Site Access	☐ Yes	☐ No
14.	Do your employees read, write, and understand English such that they can perform their job tasks safely without an interpreter? In no, provide a description of your plan to assure that they can safely perform their jobs.	☐ Yes	☐ No

15. Medical

a) Do you conduct medical examinations for:

- Hearing ☐ Yes ☐ No
- Pulmonary ☐ Yes ☐ No
- Respiratory ☐ Yes ☐ No

b) Describe how you will provide first aid and other medical services for your employees while on-site

Specify who will provide this service?

c) Do you have personnel trained to perform first aid and CPR? ☐ Yes ☐ No

16. Do you hold site safety and health meetings for:

Field Supervisors	☐ Yes	☐ No	Frequency
Employees	☐ Yes	☐ No	Frequency
New Hires	☐ Yes	☐ No	Frequency
Subcontractors	☐ Yes	☐ No	Frequency

17. Personal Protection Equipment (PPE)

a) Is applicable PPE provided for employees? ☐ Yes ☐ No

b) Do you have a program to assure that PPE is inspected and maintained? ☐ Yes ☐ No

18. Equipment and Materials:

a) Do you have a system for establishing applicable health, safety, and environmental specifications for acquisition of materials and equipment? ☐ Yes ☐ No

b) Do you conduct inspections on operating equipment (e.g. cranes, forklifts, JLG's) in compliance with regulatory requirements? ☐ Yes ☐ No

c) Do you maintain inspection and maintenance certification records for operating equipment which you own? ☐ Yes ☐ No

d) Do you verify inspection and maintain certification on rented or leased equipment? ☐ Yes ☐ No

19. Use of Subcontractors

a) Do you have a pre-qualification process for subcontractors? ☐ Yes ☐ No

b) Do you evaluate the ability of subcontractors to comply with applicable health and safety requirements as part of the selection process? ☐ Yes ☐ No

c) Do your subcontractors have a written Safety & Health Program? ☐ Yes ☐ No

d) Do you include subcontractors in:

- Safety & Health Orientation ☐ Yes ☐ No

Safety & Health Meetings

- Inspections ☐ Yes ☐ No
- Audits ☐ Yes ☐ No

20. Safety Audits

a) Who conducts audits and at what frequency

b) Do you conduct safety and health field audits? ☐ Yes ☐ No

c) Do you audit your safety and health programs (Policies & Procedures)? ☐ Yes ☐ No

d) Are corrections of deficiencies documented? ☐ Yes ☐ No

e) Do you have a corrective action process for addressing individual safety & health performance deficiencies ☐ Yes ☐ No

f) Attach a copy of the Certificate of Recognition if available

SAFETY & HEALTH TRAINING

21. Craft Training

a) Have employees been trained in appropriate job skills? ☐ Yes ☐ No

b) Are employees job skills certified where required by regulatory or industry consensus standards? ☐ Yes ☐ No

c) Do job descriptions exist for each employee task? ☐ Yes ☐ No

22. Safety & Health Orientation

	New Hires		Supervisors	
a) Do you have a Safety & Health Orientation Program for new hires and new supervisors?	☐ Yes	☐ No	☐ Yes	☐ No
b) Does the program provide instruction on the following:				
· New Worker Orientation	☐ Yes	☐ No	☐ Yes	☐ No
· Safe Work Practices	☐ Yes	☐ No	☐ Yes	☐ No
· Safety Supervision	☐ Yes	☐ No	☐ Yes	☐ No
· Toolbox Meetings	☐ Yes	☐ No	☐ Yes	☐ No
· Emergency Procedures	☐ Yes	☐ No	☐ Yes	☐ No
· First Aid Procedures	☐ Yes	☐ No	☐ Yes	☐ No
· Incident Investigation	☐ Yes	☐ No	☐ Yes	☐ No
· Fire Protection and Prevention	☐ Yes	☐ No	☐ Yes	☐ No
· Safety Intervention	☐ Yes	☐ No	☐ Yes	☐ No
· Hazard Communication/WHMIS	☐ Yes	☐ No	☐ Yes	☐ No
How long is the orientation program:	Hours			

23. Training Records

a) Do you have safety and health and crafts training records for your employees? ☐ Yes ☐ No

b) Do the training records include the following:

Employee identification ☐ Yes ☐ No

Date of training ☐ Yes ☐ No

Name of Trainer ☐ Yes ☐ No

Method used to verify understanding ☐ Yes ☐ No

c) How do you verify understanding of the training? (Check all that apply)

☐ Written Test
☐ Oral Test
☐ Performance Test
☐ Job Monitoring
☐ Other List:

VALARD A QUANTA SERVICES COMPANY	Document Description							Sub-Contractor Controls
	Created By:	A. Felczak			Doc. Number			Health, Safety & Environmental Policy 4.00
	Date:	Sept. 23, 2003	Revision:	5	Revised by:	A. Felczak	Date:	Jan. 3, 2012

ENCLOSURES

Include the following:

- ☐ WCB Rating
- ☐ Safety & Health Program (Overview)
- ☐ Safety & Health Incentive Program
- ☐ Accident/Incident Investigation Procedure
- ☐ Unsafe Condition Reporting Procedure
- ☐ Pre-qualification Form for subcontractors
- ☐ Safety & Health Orientation Outline
- ☐ Certificate Of Recognition

Name of Auditor (print) _____

Date: _____

Signed: _____

VALARD A QUANTA SERVICES COMPANY	Document Description				Sub-Contractor Controls		
	Created By:	A. Felczak	Doc. Number		Health, Safety & Environmental Policy 4.00		
	Date:	Sept. 23, 2003	Revision:	5	Revised by:	A. Felczak	Date: Jan. 3, 2012

4.5.3 SUB-CONTRACTOR PRE-QUALIFICATION AUDIT FORM

Auditors	**Date:**

GENERAL

1	**Company Name**	**Telephone**		Fax
	Street Address	**City**	**Province**	**Postal Code**

WORK CLASSIFICATIONS

2 Check classes of work:

Boiler Work	☐	Heavy Hauling-Rigging	☐	Painting	☐	Other (List)	☐
Clerical	☐	HVAC	☐	Paving	☐	_____	☐
Concrete	☐	Inspection and Testing	☐	Piping	☐	_____	☐
Demolition	☐	Instrumentation	☐	Plumbing	☐	_____	☐
Electrical	☐	Insulation	☐	Remediation	☐	_____	☐
Engineering	☐	Janitorial	☐	Roofing	☐	_____	☐
Excavation	☐	Landscaping/Lawn Service	☐	Security	☐	_____	☐
Fencing	☐	Maintenance	☐	Sheet Metal	☐		
Fire Protection	☐	Manpower	☐	Structural Steel	☐		
Flooring	☐	Mechanical	☐	Tanks	☐		

SAFETY & HEALTH PROGRAMS AND PROCEDURES

3	Show the mechanism that is used to communicate the following from safety and health programs to the employees. View documentation from employee files.		
·	Management commitment and expectations	☐ Yes	☐ No
·	Employee participation	☐ Yes	☐ No
·	Accountability & responsibilities for managers, supervisors & employees	☐ Yes	☐ No
·	Resources for meeting safety & health requirements	☐ Yes	☐ No
·	Hazard recognition and control	☐ Yes	☐ No
·	View training documentation and procedures for the following:		
·	Elevated work	☐ Yes	☐ No
·	Equipment Lockout & Tagout	☐ Yes	☐ No
·	Confined Space Entry	☐ Yes	☐ No
·	Hot Work	☐ Yes	☐ No
·	Fall Protection	☐ Yes	☐ No
·	Personal Protective Equipment	☐ Yes	☐ No
·	Portable Electrical/Power Tools/Pneumatic	☐ Yes	☐ No
·	Vehicle Safety	☐ Yes	☐ No
·	Compressed Gas Cylinders	☐ Yes	☐ No
·	Powered Industrial Vehicles (Cranes, Forklifts, JLGs, etc.)	☐ Yes	☐ No

SAFETY & HEALTH PROGRAMS AND PROCEDURES – Continued

·	Housekeeping	☐ Yes	☐ No
·	Excavation and Trenching/Stairways	☐ Yes	☐ No
·	Unsafe Condition Reporting by Employees	☐ Yes	☐ No
·	Emergency Planning	☐ Yes	☐ No
·	Waste Disposal	☐ Yes	☐ No
·	Scaffolding/Ladders/Stairways	☐ Yes	☐ No

4. View training documentation for the following programs. Check that these exist for each applicable employee.

a)	Hearing Conservation	☐ Yes	☐ No
b)	Respiratory Protection	☐ Yes	☐ No

Where applicable, have employees been:

- ☐ Trained
- ☐ Fit Tested
- ☐ Medically Approved

c)	Hazard Communication	☐ Yes	☐ No
d)	Program to support the contractor requirements of a hazard assessment .	☐ Yes	☐ No

5. View contractor's documentation for communicating their substance abuse program. Does this include the following:

·	Pre-employment Testing	☐ Yes	☐ No
·	Random Testing	☐ Yes	☐ No
·	Testing for Cause	☐ Yes	☐ No

6. Are safety meetings held for the following:

·	Field Supervisors	☐ Yes	☐ No	Frequency
·	Employees	☐ Yes	☐ No	Frequency
·	New Hires	☐ Yes	☐ No	Frequency
·	Subcontractors	☐ Yes	☐ No	Frequency

Are the safety and health meetings documented? ☐ Yes ☐ No

7. Personal Protection Equipment (PPE)

a)	Is applicable PPE provided for Employees?	☐ Yes	☐ No
b)	View documentation for the program to assure that PPE is inspected and maintained	☐ Yes	☐ No

8.	Show mechanism that is used for a corrective action process for addressing individual safety and health performance deficiencies?	☐ Yes	☐ No

9. View the supporting documents that address the following material and equipment questions:

a)	System for establishing applicable health, safety, and environmental specifications for acquisition of materials and equipment?	☐ Yes	☐ No
b)	Checklist and procedure for inspections on operating equipment (e.g. cranes, forklifts, JLGs) in compliance with regulatory requirements?	☐ Yes	☐ No
c)	Inspection and maintenance certification records for operating equipment?	☐ Yes	☐ No

10.	Subcontractors:		
	a) View safety and health performance criteria in selection of subcontractors?	☐ Yes	☐ No
	b) Show the mechanism to evaluate the ability of subcontractors to comply with applicable health & safety requirements as part of the selection process.	☐ Yes	☐ No
	c) View the subcontractors pre-qualification records.	☐ Yes	☐ No
	d) View the supporting documentation that shows attendance of the following for subcontractors.	☐ Yes	☐ No
	· Safety & Health Orientation	☐ Yes	☐ No
	· Safety & Health Meeting	☐ Yes	☐ No
	· Inspections	☐ Yes	☐ No
	· Audits	☐ Yes	☐ No
	View the following:		
	a) Safety and health inspections?	☐ Yes	☐ No
	b) Safety and health program audits?	☐ Yes	☐ No
	c) Supporting documents for corrections of deficiencies?	☐ Yes	☐ No

SAFETY & HEALTH TRAINING

11.	Craft Training		
	a) Show craft specific training documentation for employees	☐ Yes	☐ No
	b) View certification where required by regulatory or industry consensus standards	☐ Yes	☐ No
	c) Show documentation that relates craft specific hazards and the relationship to tasks being performed in a highly hazardous environment	☐ Yes	☐ No

COMMENTS: _____

_____

_____

_____

_____

12.	**Safety & Health Orientation**				
		New Hires		Supervisors	
	a) View the Safety & Health Orientation Program for new hires and newly hired or promoted supervisors.	☐ Yes	☐ No	☐ Yes	☐ No
	b) Does program provide instruction on the following:				
	· New Worker Orientation	☐ Yes	☐ No	☐ Yes	☐ No
	· Safe Work Practices	☐ Yes	☐ No	☐ Yes	☐ No
	· Safety Supervision	☐ Yes	☐ No	☐ Yes	☐ No
	· Toolbox Meetings	☐ Yes	☐ No	☐ Yes	☐ No
	· Emergency Procedures	☐ Yes	☐ No	☐ Yes	☐ No
	· First Aid Procedures	☐ Yes	☐ No	☐ Yes	☐ No
	· Incident Investigation	☐ Yes	☐ No	☐ Yes	☐ No
	· Fire Protection and Prevention	☐ Yes	☐ No	☐ Yes	☐ No
	· Safety Intervention	☐ Yes	☐ No	☐ Yes	☐ No
	· Hazard Communication	☐ Yes	☐ No	☐ Yes	☐ No
	c) How long is the orientation program?			Hours	

COMMENTS: _____

_____

_____

13.	Training Records		
	a) View safety & Health & craft training records for your employees?	☐ Yes	☐ No
	b) Do the training records include the following:		
	· Employee Identification	☐ Yes	☐ No
	· Date of Training	☐ Yes	☐ No
	· Name of trainer	☐ Yes	☐ No
	· Method used to verify understanding	☐ Yes	☐ No

c) How is training verified? (Check all that apply)

☐ Written Test ☐ Job Monitoring

☐ Oral Test ☐ Other (List) _____

☐ Performance Test _____

COMMENTS: _____

_____

_____

Signature of Company Director: of Health and Safety _____

Dated: _____

DO NOT FILL OUT – INTERNAL USE ONLY

Contractor is:

☐ Acceptable for Approved Contractor List

☐ Conditionally acceptable for Approved Contractor List

☐ Conditions:

Name of Contractor: **Worksite Location:**

Contact:

Reviewer: _____ Date: _____

VALARD A QUANTA SERVICES COMPANY	Document Description						Sub-Contractor Controls	
	Created By:	A. Felczak			Doc. Number		Health, Safety & Environmental Policy 4.00	
	Date:	Sept. 23, 2003	Revision:	5	Revised by:	A. Felczak	Date:	Jan. 3, 2012

EVALUATION CRITERIA

Safety and Health Performance	**Acceptable**	**Needs Improvement**
Modified Work cases	☐	☐
Medical Aid cases	☐	☐
Lost Time Rate	☐	☐
Citations	☐	☐
Safety and Health Program	**Acceptable**	**Needs Improvement**
Safety & Health Staff	☐	☐
Safety & Health Program	☐	☐
Safety & Health Procedures	☐	☐
Substance Abuse Policy	☐	☐
English Comprehension	☐	☐
Safety Meetings	☐	☐
Subcontractor Programs	☐	☐
Inspections	☐	☐
Training	☐	☐
Requested Copies Provided	☐	☐
Contractor should be added to the approved contractors list:	☐ Yes	☐ No

Audited by: _____	Date: _____

4.5.4 SUBCONTRACTOR SITE SAFETY AUDIT CHECKLIST

Area:	Contractor Company Name:	Valard Representative:
Location:	Audit Date:	Contractor Representative:

ITEM

Rating:

0	Contractor meets none of the requirements of the category
5	Contractor meets some of the requirements of the category
10	Contractor meets all requirements of the category

PERSONAL PROTECTIVE EQUIPMENT Comments	Rating
1. **Is proper Personal Protective Equipment being used?**	
a) Head	
b) Eyes	
c) Hearing (If applicable)	
d) Respiratory (If applicable)	
e) Foot	
f) Goggles on hard hat (if applicable)	
g) Flame retardant garment (If applicable)	
h) Face	
i) Others	
SAFE WORK PROCEDURES	
1. Housekeeping?	
2. Fall Protection Used?	
3. Open holes/danger zone barricaded/lights at night?	
4. Lockout/Tagout procedures followed?	
5. Chemical labels displayed?	
6. Food consumed in lunch area only?	
7. Scaffold procedures followed (i.e. kick boards, railings, tagged)?	

FORM 1.1 - APPLICANT EXPERIENCE (Use one sheet for each contract)

Name of Applicant:	***VALARD CONSTRUCTION LP***
Name of Contract:	***ATCO HANNA DEVEVELOPMENTS***
Number of Contract:	
Country and Location:	*Hanna, Alberta*
Contract Role: ☒ Prime Contractor ☐ Lead Partner in Joint Venture ☐ Partner in Joint Venture ☐ Subcontractor	
Name of Client (or Prime Contractor if Contract Role was as Subcontractor):	*ATCO Electric*
Client's Representative: 1. Name: 2. Title: 3. Telephone No. 4. Email Address:	*Quyen Neguien* *780-420-5640*
Client's Address:	*10035 – 105th Street* *PO Box 2426 Station Main* *Edmonton, Alberta T5J 2V6*
Value of the Contract in equivalent CAD$:	*$172,000,000*
Schedule: 1. Date of Award: 2. Date of Completion as specified in the Contract on the date of award: 3. Actual Date of Completion:	 *Fall 2011* *Various in 2012* *Various in 2012*
Description of the Work Performed:	*Regional Transmission Develop* *Full construction for segments 1 & 2* *T3 Transmission Line – 17km single circuit 144kV* *T6 Transmission Line – 240km double circuit 240kV* *T7 Transmission Line – 2km double circuit 240kV* *T4 Transmission Line – 95km single circuit 144kV* *All circuits used self supporting lattice steel structures*

All stringing was done using helicopters

FORM 1.1 - APPLICANT EXPERIENCE

Name of Applicant:	***VALARD CONSTRUCTION LP***
Name of Contract:	***NORTHEAST LOOP PROGRAM***
Number of Contract:	
Country and Location:	*Northeast Alberta*
Contract Role:	☒ Prime Contractor ☐ Lead Partner in Joint Venture ☐ Partner in Joint Venture ☐ Subcontractor
Name of Client (or Prime Contractor if Contract Role was as Subcontractor):	*ATCO ELECTRIC*
Client's Representative:	1. Name: *Dean Kandt* 2. Title: 3. Telephone No. 4. Email Address: dean.kandt@atcoelectric.com
Client's Address:	
Value of the Contract in equivalent CAD$:	$90,400,000
Schedule:	1. Date of Award: *November 2011* 2. Date of Completion as specified in the Contract on the date of award: *Various dates throughout 2012* 3. Actual Date of Completion: *Various dates throughout 2012 and 2013* *See attached project summary sheet for specific information on schedule performance*
Description of the Work Performed:	*The ATCO Northeast Loop Program included the following sub-projects:* *1. 240kV Tower Lines* *2. 144kV Wood Pole Lines* *3. Substations in Fort McMurray and the Wabasca areas. The project itself started approximately 20km southwest of the Fort McMurray Airport and ran 127km north paralleling sections of a pipeline, a 260kV Steel Lattice Transmission Line and several Tar Sands Oil Refineries. The 127km right-of-way was primarily accessed via a radio-controlled road shared*

by pipeline and logging companies. There were two river crossings involved.

The project was required to supply the load demands in the Fort McMurray region. As the Transmission Facilities Owner (TFO), ATCO Electric was required to construct 240kV double circuit transmission lines, 144kV transmission Lines and substations for the following sections:

- *from the proposed Salt Creek substation to the proposed Black Fly substation*
- *from the proposed Black Fly substation to the proposed McClelland substation*
- *from the proposed Black Fly substation to the proposed Green Stocking substation*
- *from the proposed Salt Creek substation to connect to the existing 240-kV line*

The substations included four (4) new greenfield 240kV substations and four (4) new greenfield 138kV substations near Fort McMurray, at the Husky Sunrise Plant and North of Fort McMurray. An additional substation required salvage to be completed. Our scope of work included full construction; installation of ground grid, above-ground grounding, steel erection, equipment erection, bus works, electrical control cable installation and termination.

The following substations were included in this project:

- *240kV Salt Creek Greenfield substation*
- *240kV Livock Greenfield substation*
- *240kV Green Stocking Greenfield substation*
- *138kV Quigley Greenfield substation*
- *138kV Germain Greenfield substation*
- *138kV Kinosis Addition to existing substation*

Salvage of the reactor and switches at the Ruth Lake substation was later added to the contract on an hourly rate basis.

See attached Project Summary Sheet for further information

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NORTHEAST LOOP PROGRAM

Northeast Alberta / Fort McMurray & Wabasca Areas
November 2011 – Staggered Completion Dates Throughout 2012

Owner: ATCO Electric

Contacts:

Orrin Perry e-mail Orrin.Perry@atcoelectric.com – substations
Dean Kandt email: dean.kandt@atcoelectric.com – lines
Reza Sharifi – 780 733 2685 - lines

The ATCO Northeast Loop Program included the following sub-projects:

1. 240kV Tower Lines
2. 144kV Wood Pole Lines
3. Substations in Fort McMurray and the Wabasca areas

The project itself started approximately 20km southwest of the Fort McMurray Airport and ran 127km north paralleling sections of a pipeline, a 260kV Steel Lattice Transmission Line and several Tar Sands Oil Refineries. The 127km right-of-way was primarily accessed via a radio-controlled road shared by pipeline and logging companies. There were two river crossings involved.

The project was required to supply the load demands in the Fort McMurray region. As the Transmission Facilities Owner (TFO), ATCO Electric was required to construct 240kV double circuit transmission lines, 144kV transmission Lines and substations for the following sections: (refer to the attached map)

- from the proposed Salt Creek substation to the proposed Black Fly substation
- from the proposed Black Fly substation to the proposed McClelland substation
- from the proposed Black Fly substation to the proposed Green Stocking substation
- from the proposed Salt Creek substation to connect to the existing 240-kV line

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The substations included four (4) new greenfield 240kV substations and four (4) new greenfield 138kV substations near Fort McMurray, at the Husky Sunrise Plant and North of Fort McMurray. An additional substation required salvage to be completed.

Our scope of work included full construction; installation of ground grid, above-ground grounding, steel erection, equipment erection, bus works, electrical control cable installation and termination.

The following substations were included in this project:

240kV Salt Creek	Greenfield substation
240kV Livock	Greenfield substation
240kV Green Stocking	Greenfield substation
138kV Quigley	Greenfield substation
138kV Germain	Greenfield substation
138kV Kinosis	Addition to existing substation

Salvage of the reactor and switches at the Ruth Lake substation was later added to the contract on an hourly rate basis.

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The 240kV Transmission Line has 323 double circuit 240kV RC22 type steel lattice structures carrying two-bundle 795 kcmil ACSR "Drake" conductor in addition to one OPGW and one overhead shield wire. There were also several sections of 240kV H-Frame wood pole structures with two-bundle 477 kcmil ACSR "Hawk". The towers vary in height from 43meters to 58 meters and in weight from 13,700 Kg to 82,000 Kg. This section was split between 2 seasons; approximately 240 structures were completed from December 11, 2011 to April 5, 2012. Valard's scope of work including the assembly of all towers, erection, stringing of conductor and wire, and commissioning.
28 Structures were also added to Valard's scope 83 Structures remain to be completed.

Three major crossings are involved in the project including two River Crossings over the Clearwater and Steepbank Rivers, and one hotline crossing over the 260kV Steel Lattice.

Two 144kV projects were also completed in two separate areas, South of Fort McMurray and in Cheecham, AB. Construction of approximately 5km's of new wood 144kV powerline from the new Salt Creek Substation to the existing Hangingstone Substation and 13km from Quiqley Substation to Kinosis Substation.

The scope of work was for material delivery, pole setting, stringing and commissioning

Valard utilized 430 personnel on the project consisting of linemen, electricians, equipment operators, laborers, supervisors, safety personnel, administrative staff and management positions.
Accommodations were handled in self sustained camps located along the line route at various locations and in the existing oilsand's camps.

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SCHEDULE PERFORMANCE

Substation	November 31, 2011 – December 31, 2012 Schedule has been delayed for 240kV Livock Substation, 240kV Blackfly and 138kV McCellan Lake / shifted at the client's request 240kV Salt Creek Substation, 240kV Greenstocking, 138kV Quigley, 138kV Germain, 138kV Kinosis Substations were completed on time.
240kV Transmission Line	Dec 31, 2011 – March 31, 2012 Requested ISD was April 4, 2012
144kV Transmission Line Quigley to Kinosis	Jan 3, 2012 – March 31, 2012 Requested completion date was March 9, 2012 The schedule was extended by 22 days at our request due to weather / time of year
144kV Transmission Line Hangingstone to Salt Creek	Feb 28, 2012 – March 29, 2012 Requested completion date was March 31, 2012 The project was completed on time with no extensions or delays

COST PERFORMANCE / BUDGET MANAGEMENT

Substations:

Value of Contract:	$17,200,000
Extra Claims:	$1,200,000
	All change orders were initiated and requested by the client / ATCO Electric

240kV Transmission Line:

Value of Contract:	$65,000,000
Extra Claims:	$4,400,000 for additional scope
	All change orders were initiated and requested by the client / ATCO Electric. The majority of the change orders were for increased and additional scope of work items; we were requested to perform work originally in another contractor's contract.

144kV Transmission Line Quigley to Kinosis:	Value of Contract:	$1,800,000
144kV Transmission Line Hangingstone to Salt Creek:	Value of Contract:	$800,000

FORM 1.1 - APPLICANT EXPERIENCE (Use one sheet for each contract)

Name of Applicant:	***VALARD CONSTRUCTION***
Name of Contract:	***WESLEY TO MEIKLE***
Number of Contract:	
Country and Location:	*Northern Alberta*
Contract Role: ☒ Prime Contractor ☐ Lead Partner in Joint Venture ☐ Partner in Joint Venture ☐ Subcontractor	
Name of Client (or Prime Contractor if Contract Role was as Subcontractor):	*ATCO Electric*
Client's Representative: 1. Name: 2. Title: 3. Telephone No. 4. Email Address:	 *Mark Durby* *1-780-420-7603*
Client's Address:	*#400, 10235 – 101 Street* *4th Floor* *Edmonton, Alberta* *T5J 1V9*
Value of the Contract in equivalent CAD$:	*$10,600,000*
Schedule: *1.* Date of Award: 2. Date of Completion as specified in the Contract on the date of award: 3. Actual Date of Completion:	 *2010* *2010* *2010*
Description of the Work Performed:	*Construction of 125km of double circuit, double bundled lattice steel tower line.* *97km of the line was fully constructed and completed in 87 days.*

FORM 1.1 - APPLICANT EXPERIENCE (Use one sheet for each contract)

Name of Applicant:	***VALARD CONSTRUCTION***
Name of Contract:	***BP NOEL***
Number of Contract:	
Country and Location: BC	*Dawson Creek, BRITISH COLUMBIA*
Contract Role: ☒ Prime Contractor ☐ Lead Partner in Joint Venture ☐ Partner in Joint Venture ☐ Subcontractor	
Name of Client (or Prime Contractor if Contract Role was as Subcontractor):	*British Petroleum*
Client's Representative: 1. Name: 2. Title: 3. Telephone No. 4. Email Address:	*unavailable; no longer with the company*
Client's Address:	
Value of the Contract in equivalent CAD$:	*$16,000,000*
Schedule: 1. Date of Award: 2. Date of Completion as specified in the Contract on the date of award: 3. Actual Date of Completion:	*2008* *2009* *2009*
Description of the Work Performed:	*Engineer, Procure, Construct contract for 70km single circuit 138kV transmission line in Northern BC* *Transmission line was required to connect 3 compressor sites to BC Hydro's system.* *Wood pole structure using 366kcmil ACSR conductor*

FORM 1.1 - APPLICANT EXPERIENCE (Use one sheet for each contract)

Name of Applicant:	***VALARD CONSTRUCTION LP***
Name of Contract:	***BRUCE x MILTON DOUBLE CIRCUIT 500kV TRANSMISSION LINE***
Number of Contract:	
Country and Location:	*West of Toronto ONTARIO*
Contract Role:	☒ Prime Contractor ☐ Lead Partner in Joint Venture ☐ Partner in Joint Venture ☐ Subcontractor
Name of Client (or Prime Contractor if Contract Role was as Subcontractor):	*HYDRO ONE NETWORKS INC.*
Client's Representative:	1. Name: *Mike Power* 2. Title: *Project Manager* 3. Telephone No. *416-345-1333* 4. Email Address: *michael.power@hydroone.com*
Client's Address:	*483 Bay Street South Tower 7th Floor Toronto, ON M5G 2P5*
Value of the Contract in equivalent CAD$:	*$143,400,000.00*
Schedule:	1. Date of Award: *2009* 2. Date of Completion as specified in the Contract on the date of award: *December 2012* 3. Actual Date of Completion: *April 2012*
Description of the Work Performed:	*Construction of 175km of double circuit 500kV lattice steel tower line between the Bruce Nuclear plant and Milton, Ontario.* *Four-bundled 973kcmil ACSR conductor.* *Please see attached Project Summary sheet for more detailed information about the project.*

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BRUCE x MILTON
DOUBLE CIRCUIT 500kV TRANSMISSION LINE

2009 - 2012

Owner: Hydro One Networks Inc.
Contact: Michael Power 416-345-1333

The Bruce to Milton Transmission Reinforcement Project included the construction of all above-ground facilities for a new double circuit 500kV lattice steel transmission line in Ontario.

The program was the largest expansion to Ontario's transmission system in 20 years. Valard Construction was selected by Hydro One to construct the new overhead transmission line from Bruce Nuclear Generating Station on the shores of Lake Huron to the Milton Substation in the Greater Toronto Area, Ontario. The new line was located largely on a widened existing transmission corridor

The scope of this critical project included:

- Assembly and erection of 720 steel lattice towers
- Stringing of 180 kilometers of new 500 kV double circuit conductor, 4 bundle 732 ACSR/TW (OHSW and OPGW)

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Challenges ranged from land acquisition timelines that impacted construction schedules to crossing Highway 401 and several railroad tracks. The line also crossed near or through several environmentally sensitive areas, including four watersheds, rivers, the Saugeen Ojibway Nations Reserve and the Niagara Escarpment.

Valard Construction held *Notice of Project* and were the *Constructor*

SCHEDULE PERFORMANCE

Following initial mobilization in 2009, the project was delayed by the Owner / Hydro One for approximately one year.
Revised completion date was set for December 2012
A series of subsequent schedule advancements were requested by Hydro One and the project was successfully completed 7months (approximately 215 days) early.
Completion date = end April 2012

COST PERFORMANCE / BUDGET MANAGEMENT

The initial contract was awarded at $271,000,000
The final value was $143,359,448

There were eight (8) change orders on the project; all issued and initiated by the client / Hydro One.
No change orders initiated by Valard

FORM 1.1 - APPLICANT EXPERIENCE (Use one sheet for each contract)

Name of Applicant:	***VALARD CONSTRUCTION LP***
Name of Contract:	***EDMONTON 240KV LINE UPGRADE (DE-BOTTLENECKING)***
Number of Contract:	
Country and Location:	*Edmonton, AB*
Contract Role: ☒ Prime Contractor ☐ Lead Partner in Joint Venture ☐ Partner in Joint Venture ☐ Subcontractor	
Name of Client (or Prime Contractor if Contract Role was as Subcontractor):	*SNC Lavalin ATP Inc. for AltaLink Management Ltd*
Client's Representative: 1. Name: 2. Title: 3. Telephone No. 4. Email Address:	 *Bill Ennse* *1-780-426-1000* *bill.ennse@snclavalin.com*
Client's Address:	*608, 10235 – 101 Street* *Edmonton, Alberta T5J 3G1*
Value of the Contract in equivalent CAD$:	*$19,200,000*
Schedule: 1. Date of Award: 2. Date of Completion as specified in the Contract on the date of award: 3. Actual Date of Completion:	 *December 2011* *October 2012*
Description of the Work Performed:	*Construction of 60km of single and double circuit 240kV self-supporting lattice steel towers using double bundled 1033kcmil ACSR conductor.*

FORM 1.1 - APPLICANT EXPERIENCE (Use one sheet for each contract)

Name of Applicant:	***VALARD CONSTRUCTION LP***
Name of Contract:	***HERBLET-RALLS TRANSMISSION LINE***
Number of Contract:	
Country and Location:	*The Pas, Manitoba*
Contract Role: ☒ Prime Contractor ☐ Lead Partner in Joint Venture ☐ Partner in Joint Venture ☐ Subcontractor	
Name of Client (or Prime Contractor if Contract Role was as Subcontractor):	*Manitoba Hydro*
Client's Representative: 1. Name: 2. Title: 3. Telephone No. 4. Email Address:	 *Greg Malcolm* *Field Project Manager, Manitoba Hydro* *1-204-360-3400* *gsmalcolm@hydro.mb.ca*
Client's Address:	*Winnipeg, MB*
Value of the Contract in equivalent CAD$:	*$15,000,000*
Schedule: 1. Date of Award: 2. Date of Completion as specified in the Contract on the date of award: 3. Actual Date of Completion:	 *Fall 2010* *April 2011* *March 2011*
Description of the Work Performed: *Procurement and construction for a 165km cross country 230kV single circuit Transmission Line use of 954 kcmil ACSR "Cardinal". Structures were guyed-Y and self supporting lattice steel towers.* *The contract included the installation of temporary access road; installation of various types of foundations in rock, earth and swam; installation of anchors; assembly erection and stringing of conductors, overhead ground wires and OPGW.* *Towers were installed using various conventional and helicopter techniques.*	

FORM 1.1 - APPLICANT EXPERIENCE (Use one sheet for each contract)

Name of Applicant:	***VALARD CONSTRUCTION LP***
Name of Contract:	*KEARL OILSANDS PROGRAM*
Number of Contract:	
Country and Location:	*Fort McKay, Alberta*
Contract Role: ☒ Prime Contractor ☐ Lead Partner in Joint Venture ☐ Partner in Joint Venture ☐ Subcontractor	
Name of Client (or Prime Contractor if Contract Role was as Subcontractor):	*Fluor*
Client's Representative: 1. Name: *Mike Bilotta* 2. Title: 3. Telephone No. *403-537-4793* 4. Email Address:	
Client's Address:	
Value of the Contract in equivalent CAD$: Substation *$12,467,812* Transmission Line *$50,758,441*	
Schedule: 1. Date of Award: *August 2009* 2. Date of Completion as specified in the Contract on the date of award: *June 2010* 3. Actual Date of Completion: *December 18, 2010* *(as negotiated due to weather impacts)*	
Description of the Work Performed: *The Kearl Project consisted of a 240kV:72kV substation and approximately 39 km of 240kV transmission line, fiber optic and shield wire terminating at the Kearl Oil Sands main plant site.* *The transmission line contract involved right-of-way clearing, assembly and installation of 69 concrete foundations and steel monopoles ranging from 105' – 180'. The remainder of the line consisted of 145 wood pole H-frame structures. The foundation component of the contract was EPC (Engineer, Procure and Construct).* *Please see attached detailed Project Summary sheet for more information on the project.*	

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KEARL OILSANDS PROGRAM

Fort McKay, Alberta
August 2009 – December 2010

Owner: Imperial Oil Ventures Limited (IOVL)
Contact: Mike Bilotta (Fluor) 403-537-4793
Contact: Wayne Duncan (IOVL) 403-969-6485

The Kearl Project consisted of a 240kV:72kV substation and approximately 39 km of 240kV transmission line, fiber optic and shield wire terminating at the Kearl Oil Sands main plant site.

The substation team mobilized in May 2010 and demobilized in keeping with the bid schedule of completion by December 18th, 2010. The substation construction involved installation of ground grid, all steel structure and gantry installations, transformer installation, 240kV and 72kV gas insulated switchgear (GIS), building installation, cable and fiber installations, terminations and splicing, and some testing & commissioning.

The transmission line contract involved right-of-way clearing, assembly and installation of 69 concrete foundations and steel monopoles ranging from 105' – 180'. The remainder of the line consisted of 145 wood pole H-frame structures.

The foundation component of the contract was EPC (Engineer, Procure and Construct).

The foundation utilized approximately 4,320 m^3 of concrete while the transmission portion included some procurement and construction. The transmission line start date was August 2009 with final transmission construction ending mid-August 2009. Final commissioning and energization took place on December 18th, 2010.

SCHEDULE PERFORMANCE

The transmission line contract was extended approximately 180 days due to material availability.

COST PERFORMANCE / BUDGET MANAGEMENT

Substation:
The contract was delivered on a *Cost-Plus* basis.
The initial contract was awarded at $6,109,019
The final value was $12,467,812
There were no claims issued by Valard Construction; all change orders were initiated by the client.
There were approximately sixteen (16) change orders issued. Direct costs have been reimbursed; negotiations ongoing with respect to indirect charges.

Transmission Line:
The contract originated at $31,451,824
The value was finalized at $50,758,441
There were approximately 40 change orders items with the majority issues by Valard. Change Orders were issued for standard out of scope items and delays; all issues were amicably resolved.

Valard did not act as *Constructor* on this project

FORM 1.1 - APPLICANT EXPERIENCE (Use one sheet for each contract)

Name of Applicant:	***VALARD CONSTRUCTION***
Name of Contract:	***NORTHWEST BC TRANSMISSION LINE (NTL)***
Number of Contract:	
Country and Location: BC	*NORTHERN BRITISH COLUMBIA*
Contract Role: ☐ Prime Contractor ☐ Lead Partner in Joint Venture ☒ Partner in Joint Venture ☐ Subcontractor	
Name of Client (or Prime Contractor if Contract Role was as Subcontractor):	*BC HYDRO*
Client's Representative: 1. Name: 2. Title: 3. Telephone No. 4. Email Address:	 *Neil McNeill* *1-604-528-3044*
Client's Address:	*13th Floor* *6911 Southpoint Drive* *Burnaby, BC V3N 4X8*
Value of the Contract in equivalent CAD$:	*$170,630,000 (i.e. $170M)*
Schedule: 1. Date of Award: 2. Date of Completion as specified in the Contract on the date of award: 3. Actual Date of Completion:	 *July 2011* *July 2013* *Target completion Dec 2013* *(negotiated delay due to Owner-managed clearing works)*
Description of the Work Performed:	*Engineer, Procure, Construct contract for 350km single circuit, double bundled 287kV transmission line in Northern BC; from the Skeena Substation (near Terrace, BC) to a new substation near Bob Quinn Lake.* *Lattice steel guyed-y towers used 1590ACSR conductor* *Construction of 4 personnel camps and material laydown areas as well as 2 equipment maintenance facilities*

FORM 1.1 - APPLICANT EXPERIENCE (Use one sheet for each contract)

Name of Applicant:	***VALARD CONSTRUCTION***
Name of Contract:	***SUNCOR FIREBAG III***
Number of Contract:	
Country and Location:	*Fort McMurray, Alberta*
Contract Role: ☒ Prime Contractor ☐ Lead Partner in Joint Venture ☐ Partner in Joint Venture ☐ Subcontractor	
Name of Client (or Prime Contractor if Contract Role was as Subcontractor):	*Washington Group North*
Client's Representative: 1. Name: *Mike Buzan* 2. Title: 3. Telephone No. *(780) 588-1714* 4. Email Address:	
Client's Address:	*Edmonton, Alberta*
Value of the Contract in equivalent CAD$:	*$11,600,000*
Schedule: *1.* Date of Award: *April 2008* 2. Date of Completion as specified in the Contract on the date of award*: Q1 2009* 3. Actual Date of Completion: *March 2010 (contract placed on hold for a year by Owner)*	
Description of the Work Performed: *Construction of foundations for substations and construction of 50km of 144kV transmission lines. The transmission line was constructed in swampy muskeg conditions for the entire line route.* *The foundation portion of the project was to construct foundations for five (5) 240kV:144kV substations and three (3) 144kV transmission lines. Foundations included transformer pads as well as structure foundations. Transmission line foundations were constructed for the installation of steel monopoles. Foundation construction commenced in the spring of 2008 and was completed by January 2009. The largest foundation measured 9.5m x 13.5m with multiple pours.* *The foundations were delivered under a Procure & Construct contract while the transmission was solely construction*	

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SUNCOR FIREBAG

PHASE 3 – TRANSMISSION / SUBSTATION PROGRAM
April 2008 – March 2010

Subcontract to Washington Group North
Contact: Mike Buzan (780) 588-1714

This project was at the Suncor Firebag site and the client was Washington Group North.

SUBSTATION SCOPE OF WORK

The foundation portion of the project was to construct foundations for five (5) 240kV:144kV substations and three (3) 144kV transmission lines. Foundations included transformer pads as well as structure foundations. Transmission line foundations were constructed for the installation of steel monopoles. Foundation construction commenced in the spring of 2008 and was completed by January 2009. The largest foundation measured 9.5m x 13.5m with multiple pours.

The foundations were delivered under a Procure & Construct contract while the transmission was solely construction.

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The photos depict transformer pad construction as well as bus structures and monopole foundations. Some foundations were constructed in the summer months in muskeg utilizing temporary road access.

SCHEDULE PERFORMANCE

The original contract award schedule spanned two years and was driven entirely by the Owner.
Valard mobilized and began construction within a timely manner however upon completion of foundation construction, Suncor placed the project on-hold for a period of approximately one year (365 days). Once the work was able to resume, transmission line construction was completed and the transmission line facilities were delivered within the agreed-upon timeline of three (3) months.

COST PERFORMANCE / BUDGET MANAGEMENT

Foundations:
The initial contract was awarded at $11,600,000
The final value was $11,351,516

Transmission Lines:
The initial award for the transmission contract was $4,732,448
The final value was $5,776,787

There were approximately 5 change orders on the project at the request of the client; none by Valard.

Valard did not act as *Constructor* on this project.

FORM 1.1 - APPLICANT EXPERIENCE (Use one sheet for each contract)

Name of Applicant:	***VALARD CONSTRUCTION LP***
Name of Contract:	***VICTOR MINE***
Number of Contract:	
Country and Location:	*Northern Ontario* *James Bay Lowlands*
Contract Role:	☒ Prime Contractor ☐ Lead Partner in Joint Venture ☐ Partner in Joint Venture ☐ Subcontractor
Name of Client (or Prime Contractor if Contract Role was as Subcontractor):	*DeBeers Canada Inc.*
Client's Representative: 1. Name: 2. Title: 3. Telephone No. 4. Email Address:	 *Tony Copland* *Manager Engineering* *905-829-5399 ext. 2351*
Client's Address:	
Value of the Contract in equivalent CAD$:	*$95,000,000 (i.e. $95M)*
Schedule: 1. Date of Award: 2. Date of Completion as specified in the Contract on the date of award: 3. Actual Date of Completion:	 *2005* *2007* *2008 (project shut down for 1 yr due to FN road closure)*
Description of the Work Performed:	*This contract was an Engineer, Procure, and Construct project for a 115kV transmission line across northern Ontario from Otter Rapids to the De Beers Victor Mine Site on James Bay Lowlands. The scope also included 3 x 115kV substations.* *The project involved substantial logistical challenges; the entire line was built along the James Bay Coast with mobilization and support by rail, barge, and air. The project included dedicated CN-414 for expediting support and crew moves, as well as construction of public-use ice road linking isolated Northern communities to the Ontario highway system.* *This project included 2400 single pole structures, 3 river crossings,*

Valard was responsible for planning and scheduling, preliminary design, supplier and subcontractor selection, surveying and geotechnical, final design of transmission and substations, procurement, right-of-way clearing, construction, and commissioning. As part of the construction of the transmission line, Valard was responsible for providing camp accommodation for construction crews. Valard placed a full time Environmental Coordinator and Health and Safety Officer on the Project.

Please see the attached detailed Project Summary sheet for further details on the project

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VICTOR MINE

Northern Ontario
2005 - 2008

Owner: DeBeers Canada Inc.
Contact: Tony Copland, Manager Engineering
905-829-5399 ext2351

This contract was an Engineer, Procure, and Construct project for a 115kV transmission line across northern Ontario from Otter Rapids to the De Beers Victor Mine Site on James Bay lowlands. The scope also included 3 115kV substations.

The project involved substantial logistical challenges; the entire line was built along the James Bay Coast with mobilization and support by rail, barge, and air. The project included dedicated CN-414 for expediting support and crew moves, as well as construction of public-use ice road linking isolated Northern communities to the Ontario highway system.

This project included 2400 single pole structures, 3 river crossings,

Valard was responsible for planning and scheduling, preliminary design, supplier and subcontractor selection, surveying and geotechnical, final design of transmission and substations, procurement, right-of-way clearing, construction, and commissioning. As part of the construction of the transmission line, Valard was responsible for providing camp accommodation for construction crews. Valard placed a full time Environmental Coordinator and Health and Safety Officer on the Project

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SCHEDULE PERFORMANCE

Contract start date = 2005
Requested completion = 2007
Actual completion date = 2008

There was a schedule delay of approximately 365 days (one year) due to a road blockage by the First Nations community.

COST PERFORMANCE / BUDGET MANAGEMENT

The project was a lump sum contract initiated at $88M
The final contract price was $95M which included change orders for delays and other client-initiated changes.

Valard Construction Ltd. Quality Program
Project Quality Plan

Transmission

Document Number: VCLP-02-7000-0-00
Revision 1

Originated:	Project Manager	Date	Signature
Reviewed:		Date	Signature
Reviewed:		Date	Signature
Approved:		Date	Signature

Revisions

No.	Date	Originator	Originating Document	Change	Approved

Table of Contents

Definitions

The following definitions shall be used in the interpretation of this manual and all referenced subdocuments:

- **Client** – Any entity with which Valard Construction Ltd. holds a contract for the provision of products and/or services.
- Constructed Works – The structures, devices and/or installations specified for construction in the scope of a Contract.
- **Contract** – Governing agreement between the Client and Valard Construction Ltd. for the provision of services associated with a Project.
- **Directive** – Instruction to responsible parties.
- **Distribution Register** – Register maintained by the Quality Program Documents Administrator listing all recipients of controlled copies of the Quality Manual.
- **Document** – See 'Quality Program Document'.
- **Engineer** – To be interpreted as per the definition provided by the Engineering Professional Association in the jurisdiction where a product or service is provided, completed, purchased, negotiated or constructed.
- **Engineering Services** – Any services governed by an Engineering Professional Association in the jurisdiction where a product or service is provided, completed, purchased, negotiated or constructed.
- **Engineering Consultant** – Individual or entity subcontracted to provide Engineering Services to Valard Construction Ltd.
- **Form** – Quality Program Document provided for the purpose of gathering data.
- **Hold Point** – Juncture in a work Process at which work must not be continued until the specified inspections and/or signoffs are completed.
- **ITP** – Inspection and Test Plan
- **Operational Controls** – Documentation and devices employed in the assurance of Quality at the construction stage of a Project.
- **Originator** – Individual assigned the responsibility of establishing a Quality Program Document.
- **Owner** – Individual assigned the responsibility of revising a Quality Program Document.
- **Procedure** – Quality Program Document consisting of a verbal narrative of the manner in which a task is to be completed.
- **Program** – See 'Quality Program'.

- **Project** – Any undertaking of Valard Construction Ltd. under a Contract with a Client.
- **Project Engineer** – The individual or entity charged with the provision of Engineering Services.
- **Project Quality Plan** – Quality plan enacted to ensure the quality of products and services associated with a single contract or portion thereof.
- **Quality** – All features of a product or service that is required by the Client.
- **Quality Manual** – Refers to this manual.
- **Quality Plan** – See 'Project Quality Plan'
- **Quality Program** - Refers to the documentation procedure governed by this Quality Manual and any documents referred to hereby.
- **Quality Program Document** – Any document, inclusive of the Quality Manual, that is listed in the Document Register maintained by the Quality Program Documents Administrator.
- **Quality Record** – The sum total of all documentation collected in the completion of a Project Quality Plan.
- **Register** – Quality Program Document summarizing information that is vital to the implementation of the Quality Program and/or a Project Quality Plan.
- **Role** – Position or title specified in a Quality Program Document.
- **Supervisor** – Describes any individual engaged in the supervision of work and / or any individual listed in the Supervisory Qualification Registry.
- **VCL** – Valard Construction Ltd.

0 Introduction

0.1 Goals of the Project Quality Plan

The stated goal of this Project Quality Plan is to establish a framework for the control and assurance of the Quality of (a) work completed by the Subcontractor, (b) materials supplied by Valard Construction, and (c) materials supplied by the client. This Preliminary Project Quality Plan is preliminary and has been composed for the purpose of proposing an implementation strategy for the Subcontractor's responsibilities on The 240 kV Transmission Line; this strategy has also been composed for the purpose of identifying the subcontractor's ability to conform to clients's Inspection and Testing Plan. The client is invited to review this PQP for the purpose of identifying any discrepancies or inconsistencies, following which the PQP will be revised to better reflect the requirements of the Contract.

0.2 Form of Project Quality Plan

This document is divided into four primary sections:

1) Management & Administration: In addition to providing an overview of the proposed project management structure, this section will summarize the role assignments and assumed responsibilities associated with each role.
2) Records: This section will overview the manner in which records will be gathered, preserved, and distributed over the course of project completion.
3) Materials: This section will summarize all materials to be supplied by the by the Prime Contractor and/or the Subcontractor under the terms of the Contract; it will also specify the proposed methods of Quality Control associated with each material category.
4) General Work Activities: This section will examine Quality Control over broad topics affecting several or all work activities (i.e. supervision, certifications, etc.)
5) Specific Work Activities: This section will specifically address the work activities for The 240 kV Transmission Line

1 Management & Administration

1.1 Project Management Structure

The general form of the Project management structure (as it pertains to Quality) is illustrated below:

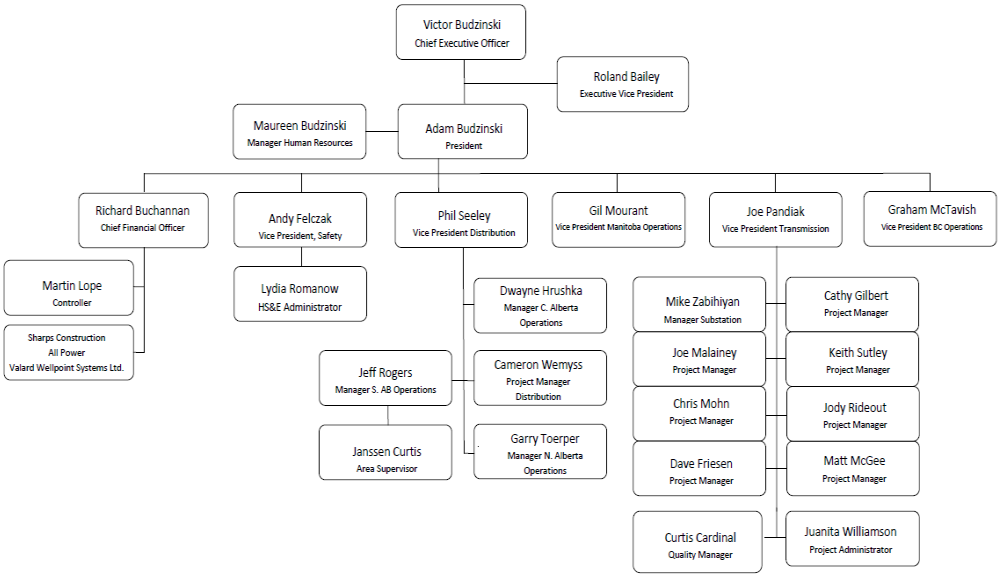


Fig. 01 Project Management Structure Diagram

The primary observable features of this structure are as follows:

- The Quality Manager answers directly to the President.
- Quality Coordinators report to the Quality Manager.
- Trade Supervisors and Project Coordinators are monitored by Quality Coordinators on behalf of the Quality Manager.

1.2 Role Assignments

The following chart will be completed to summarize some of the key personnel to be employed in the completion of the Project. Only personnel having responsibilities specified in the PQP are to be listed. The names of those personnel having key managerial roles are presently listed for the purpose of proposal.

The role assignments chart will continue to be updated as personnel are added to and/or removed from the Project.

Role	Name	E-mail	Phone	Initial	QM Initial
Project Manager					
Quality Manager					
Lead Quality Coordinator					
Quality Coordinator					
Supervisor	(Several Assigned)				

1.3 Qualifications

All personnel employed in the administration of the Project Quality Plan shall possess the necessary skills and be qualified for the completion of their assigned responsibilities.

1.4 Responsibilities

It should be observed that the following responsibility summaries are not exhaustive, and describe the responsibilities associated with the roles in question only as they relate to the Project Quality Plan.

1.4.1 Responsibilities of the President

The responsibilities of the President as they relate to Quality are as described under heading 1.2.1 of the Quality Manual.

1.4.2 Responsibilities of the Project Manager

The responsibilities of the Project Manager are as follows:

- To ensure that supervisors and trade foremen are of adequate training and/or experience to complete the production-related tasks assigned to them
- To enforce the authority of the Quality Manager and appointed project Quality Coordinators
- To address the concerns of the client with respect to Quality issues
- To ensure that supervisors and trade foremen are completing their responsibilities in accordance with the Project Quality Plan

1.4.3 Responsibilities of the Quality Manager

The responsibilities of the Quality Manager as they relate to Quality are as described under heading 1.2.2 of the Quality Manual.

1.4.4 Responsibilities – Project Coordinators

The responsibilities of Project Coordinators with regard to a given Project Quality Plan are as follows:

- Project Coordinators shall accept the delegation of any of the Project Manager's responsibilities at the written request of the Project Manager.
- Project Coordinators shall work with subcontractor personnel at the planning stage to ensure they are informed of any and all Quality requirements of the Project as they relate to the subcontractor's work.
- Project Coordinators shall enforce the authority of the Quality Coordinator with respect to the administration of the Project Quality Plan

1.4.5 Responsibilities – Quality Coordinators

The responsibilities of Quality Coordinators are as follows:

- The Quality Coordinator shall prepare the Project Quality Plan in accordance with the Quality Manual.
- The Quality Coordinator shall interface with the Project Manager to collect any required information for the completion of the Quality Plan.
- The Quality Coordinator shall interface with trade supervisors and foremen to collect any required information for the completion of the Quality Plan.
- The Quality Coordinator shall interface with subcontractor trade supervisors and foremen to collect any required information for the completion of the Quality Plan.
- The Quality Coordinator shall be responsible for review of the Quality Plan to ensure that all items listed in the 'Controls' columns of the Quality Plan components listed under heading 3.1 are further referenced in the plan narrative. In the event that these items are not referenced in the narrative, the Quality Coordinator shall request a review of the Quality Manual and Project Quality Plan template to satisfy the requirements of the Project.
- The Quality Coordinator shall submit the Project Quality Plan to the Client in accordance with the requirements of the Contract, or in accordance with any further agreements made with the Client.
- The Quality Coordinator shall collect all required documentation associated with the purchase of materials and products for the Project from employees charged with receiving such materials and products; this work is completed for inclusion in the Quality Record.
- The Quality Coordinator shall collect inspection forms and reports generated at the time of installation from foremen and trades people for the purpose of inclusion in the completed Quality Record.
- The Quality Coordinator shall compile all relevant Quality documentation for inclusion in the completed Quality Record.
- At project kick-off, the Quality Coordinator shall be responsible for explaining the Quality-related responsibilities of all trade-level employees and subcontractors (Supervisors, Foremen, Trades people, and Labourers) – as well as specifying his/her own role – to the project Foremen and Supervisors.

- The Quality Coordinator shall perform periodic audits for the purpose of confirming that all personnel are completing their work in accordance with the PQP.

1.4.6 Responsibilities – Engineering Manager

(Omitted)

1.4.7 Responsibilities – Design Lead

(Omitted)

1.4.8 Responsibilities – Design Engineers

(Omitted)

1.4.9 Responsibilities – Supervisors

The responsibilities assigned to Supervisors are as follows (responsibilities are common for both employed and subcontract supervisors):

- The Supervisor shall ensure that all trade-level employees are in possession of sufficient training and experience to complete their assigned tasks.
- The Supervisor shall enforce the authority of the Quality Coordinator as it relates to the direction of the completion and collection of Quality-related documents.
- The Supervisor shall ensure that trades people are supplied with those resources required to complete their work in accordance with the design requirements of the project, as well those required to observe and collect data pertaining to the Quality of the works constructed.

1.4.10 Responsibilities – Foremen

The responsibilities assigned to foremen are as follows:

- The Foreman shall supervise the completion of work to ensure that it is completed in accordance with the requirements of the Project design drawings.
- The Foreman shall ensure that works constructed are built only in observance of drawings marked 'Issued for Construction.'
- The Foreman shall ensure that records of works installed are completed by those individuals completing the work, and that such records are completed at the time of installation or assembly.
- Where required by Installation Records, the Foreman shall perform a secondary inspection of works completed and sign for such inspection.
- The Foreman shall direct trades people and labourers working under their supervision as to their Quality-related responsibilities in accordance with this document.

1.4.11 Responsibilities – Trades people (Not specified in management structure)

Trades people shall complete all Quality Records specified by the Project Quality Plan and associated with their work at the time of installation, assembly, or testing, as the case in particular requires.

1.4.12 Responsibilities - Labourers (Not specified in management structure)

Labourers shall complete all Quality Records specified by the Project Quality Plan and associated with their work at the time of installation, assembly, or testing, as the case in particular requires.

2 Quality Record

'Quality Record' refers to the complete body of Quality-related documentation collected over the course of project completion. This section provides a narrative of the manner in which the constituent documents will be collected, preserved and distributed.

2.1 Valard Construction's Inspection and Test Plan

Valard Construction will generate a complete Inspection and Test Plan (ITP). The Quality Record consists essentially of the body of documentation described in the ITP.

Regarding all forms associated with the Quality Record and/or the ITP, Valard proposes, the following measures should be taken to expedite the collection, and distribution of Quality related documentation:

- All forms should be revised to ensure that they can be presented in their entirety on a single page (can be accomplished through the use of smaller fonts and/or legal-sized documents).
- All forms should be printed and made available in triplicate carbon paper form; alternately, Valard Construction will make electronic copies of the Forms specified in the ITP available for the purpose of its advance preparation of site-specific Quality Forms.

All ITP's shall be submitted for acceptance by the client and if required by the client, prior to any work commencing. ITP's shall be submitted at least 7 (seven) days prior to the proposed work commencement date, to allow for review and input from all parties.

2.2 Reporting Summary

Valard will generate a Reporting Summary consisting of a complete list of all completed and/or partially completed forms to be submitted to the Prime Contractor over the course of the Project. These forms shall be available, at all times, for review by the Prime Contractor's Quality assurance staff. Explicitly, this Summary shall consist of the following:

- A summary of all Quality Related Forms to be collected in relation to material receiving and inspection;

- A summary of all Quality Related Forms to be collected for each individual structure (inclusive of foundation) to be installed in awarded sections

  In addition, the summary of structure-related Quality forms will also account for and reference secondary Quality forms such as concrete delivery tickets, third party concrete strength testing reports, laboratory sieve test results, and any other documentation.

- A summary of all Quality Forms relating to conductor and hardware installation.

2.2.1 Subcontractor Generated Quality Forms

In all cases, where the PQP specifies a Form, the Forms shall be generated in accordance with the requirements of the PQP. Each type of Form will be assigned a document number, in addition to a system of serial numbers whereby the Forms can be traced.

Subcontractor Quality Forms may be generated for the internal purposes of the Subcontractor with respect to Quality or may be generated for the purpose of satisfying elements of the specification that relate to Quality.

2.2.2 The Quality Record

'Quality Record' describes the complete set of Quality-related documentation that will be:

1. Assembled by the Subcontractor for the purpose of satisfying its internal requirements with respect to Quality.
2. Submitted to the Prime Contractor for the purpose of documenting the Quality of works constructed in association with the Contract.

The Reporting Summary represents a table of contents for the Quality Record. The expectation is that at Project completion, all Forms outlined in the Reporting Summary will be present in the Quality Record.

In addition to those elements specified in the reporting summary, the Quality Record will include documentation of other elements of the Quality Program (i.e. Nonconformity Reports, Audit Documentation Forms, etc.); these elements are referenced throughout the PQP, and will be compiled at the time of generation of the Reporting Summary.

2.2.3 Completeness of Record

The completed Reporting Summary shall form a benchmark for the performance of the Subcontractor with respect to Quality over the course of the Project. A complete Quality Record corresponding exactly to the Reporting Summary (along with any amendments thereto made over the course of the Project) shall be deemed to accurately represent the Quality of all works constructed by the Subcontractor.

2.3 Procedures for the Completion of Quality Documentation

This section shall establish procedures for the completion of each type of Quality Form listed in Valard's ITP, in addition to Quality Documentation deemed to be necessary by the Subcontractor and completed in addition to the requirements of the ITP. These procedures consist of a cross-functional procedural flowchart for each Quality form, along with a short narrative. The Procedures are divided into the same groups of forms described under Section 2.2 of this document.

It should be noted that for all forms – where the form has been completed and indicated for inclusion in the Quality Record – it is the

Subcontractor's preference that it first be submitted to the Subcontractor's Project office for the purpose of copying and filing prior to submission to the Prime Contractor.

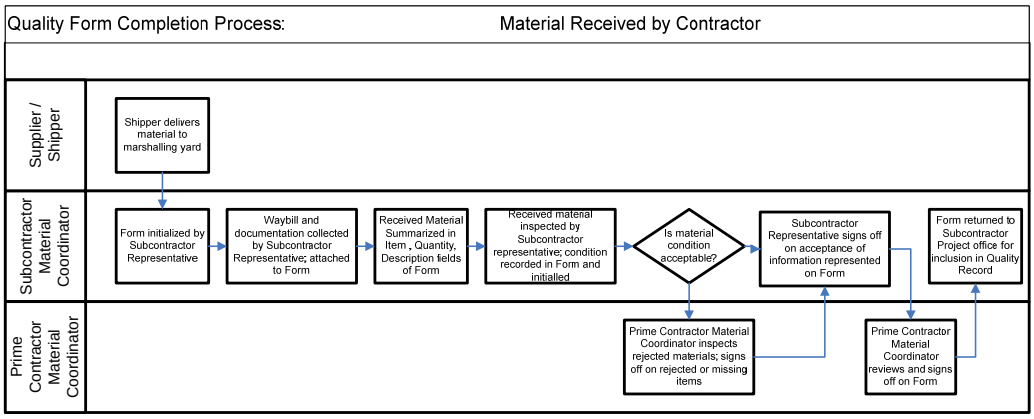
2.3.1 Forms Pertaining to Material Receiving and Inspection

In general the following will apply for Quality forms pertaining to material receiving and inspection:

1. Quality forms pertaining to borrow pits and earthworks materials will be initialized by the Project Manager and/or Project Coordinators at Project startup or as required over the course of the project. Borrow pit documentation will be preserved in the Project office and associated with the geographic location of the pit for the purpose of efficient access to earthworks materials.
2. Quality Forms pertaining to purchased materials and products will be initialized by the Subcontractor Materials Coordinator at the time of receiving.
3. In all places where a Form indicates that a Subcontractor representative will notify the Prime Contractor of its intention to begin work on the right-of-way or at a structure location, it is implicit that such notice will be accomplished via the Subcontractor's schedule updates and daily verbal amendments thereto. In general, it is expected that the Prime Contractor's representatives will be working closely with the Subcontractor's Supervisors and construction Foremen, and as such will be familiar with its construction schedule. With the exception of direct requirements thereof found in the Contract, written notice specifying the completion or inspection of work at a particular location will not be provided. Submission of schedule updates on a regular basis will be deemed to be acceptable notice of the imminence of construction activities at any given location.

2.3.1.1 Materials Received by Contractor

The following diagram illustrates the flow of information related to the completion of Materials Received by Contractor form:

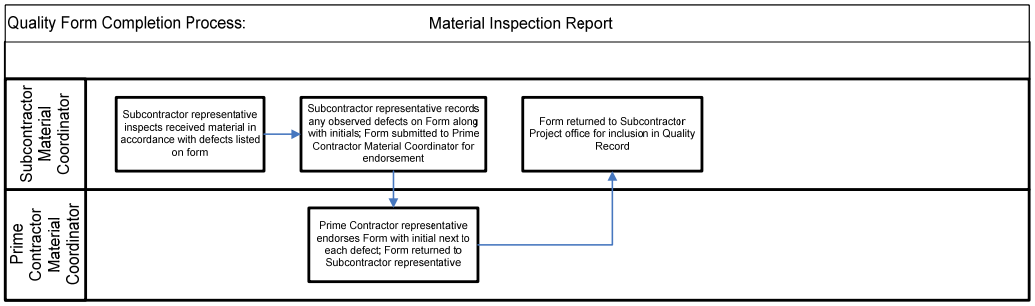


Process notes:

- Documentation collected by Sub-contractor's representative will include: mill test reports and bills of lading.
- In the event that the received condition of material is unacceptable, details of the reason for rejection of the material will be recorded in the available space on the form.
- Where the material or quantity thereof is inconsistent with the waybill, this condition will trigger the generation of a Vendor Shortage List.
- Process notes shall include welding examination and inspections for all welding completed by any supplier.
- All materials received from any supplier must be accompanied by welding reports and welding inspections substantiated quality of materials and workmanship.

2.3.1.2 Materials Inspection Report

The following diagram illustrates the flow of information related to the completion of Materials Inspection form:



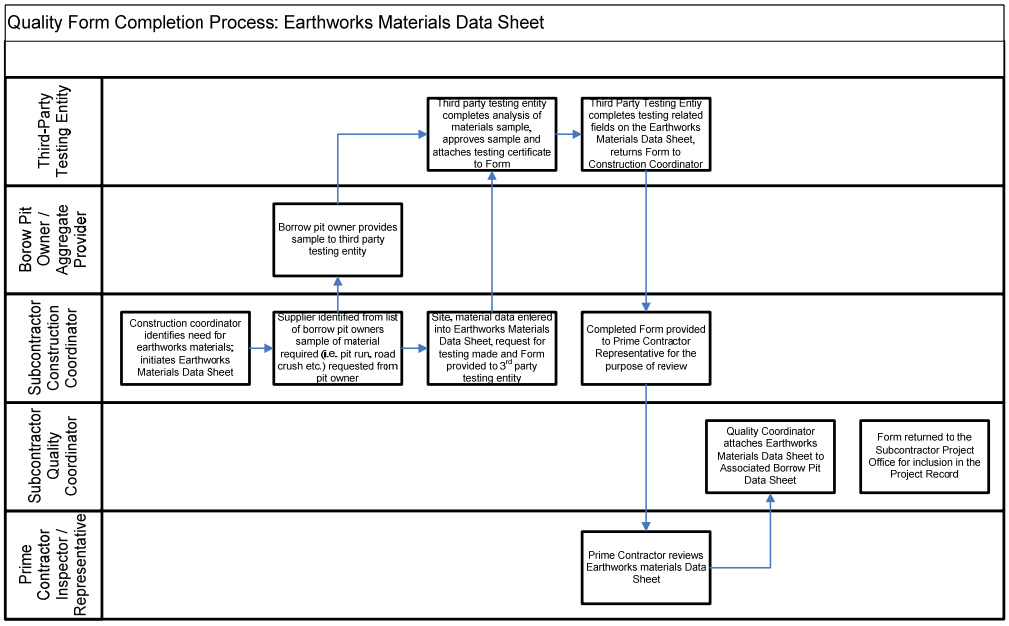
Process notes:

- Documentation collected by Subcontractor representative will include all defects, not just limited to defects specified on the Form.

- Sign established at pit will feature the following information:
  - Subcontractor name and logo
  - Contract tag and number
  - Borrow Pit Data Sheet document number
- Ultimately, as various materials are identified and approved at the borrow pit site, the associated Earthworks Materials Data Sheets will be attached to the Borrow Pit Data Sheet and made available in the Project Office.

2.3.1.3 Earthworks Material Data Sheet

The following diagram illustrates the flow of information related to the completion of the Earthworks Material Data Sheet:

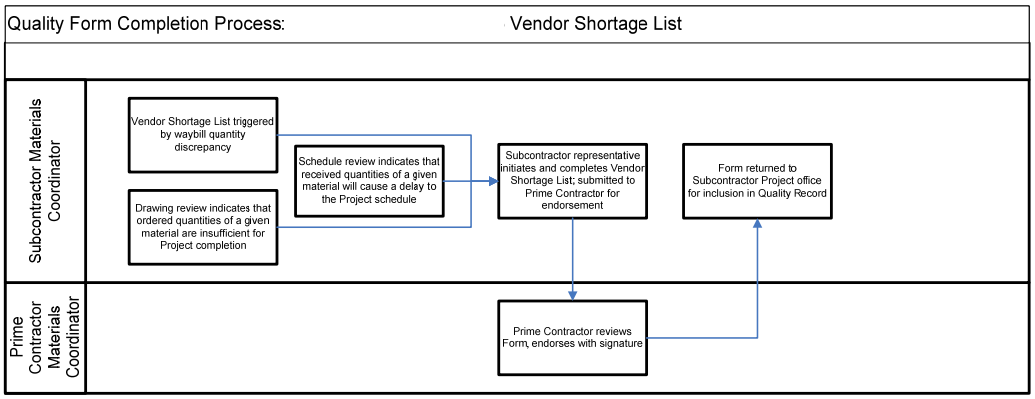


Process notes:

- As specified above, Earthworks Material Data Sheets will be attached to their respective Borrow Pit Data sheet, ultimately creating a record both of a site, as well as the properties of materials available at that site.

2.3.1.4 Vendor Shortage List

The following diagram illustrates the flow of information related to the completion of Vendor Shortage form:

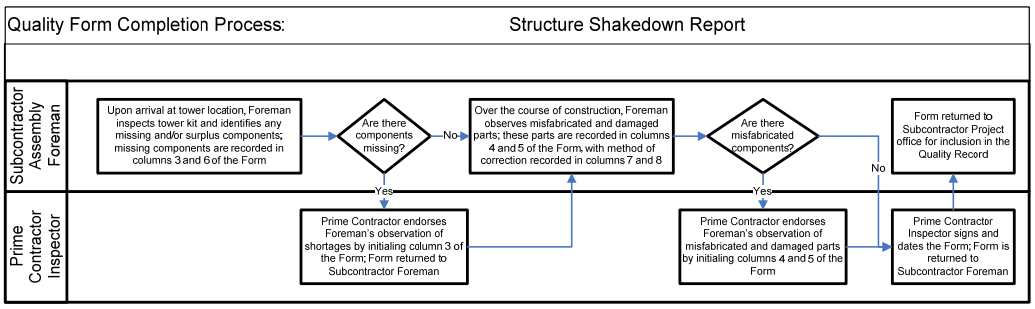


Process notes:

- Process assumes availability of Prime Contractor Representative for inspection of material and acceptance of Vendor Shortage Lists.

2.3.1.5 Structure Shakedown Report

The following diagram illustrates the flow of information related to the completion of Structure Shakedown form:



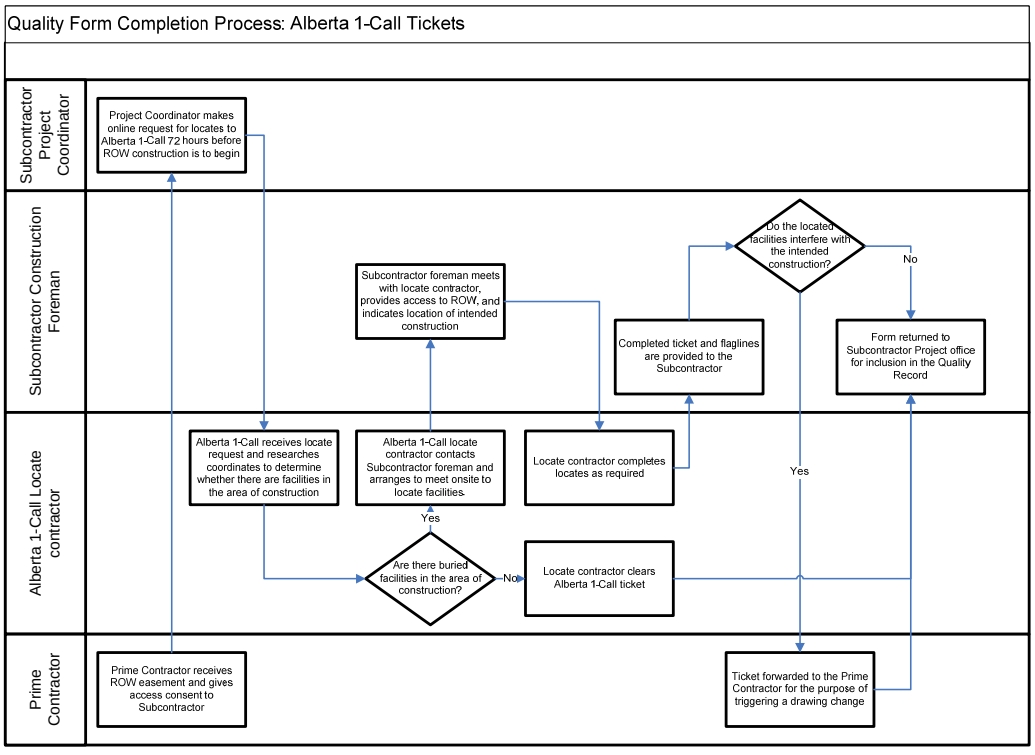
Process notes:

- Dependent upon the nature of the tower kit packaging, it may be beneficial to complete the initial survey for missing parts at the marshalling yard prior to delivery of the kit to the tower site.
- Observations of mis-fabrications are by necessity carried out over the course of construction; this is a result of the fact that many defects will be difficult or impossible to observe without actually attempting to assemble the tower.

2.3.2 Forms Pertaining to Structure Erection (Foundations)

2.3.2.1 Alberta 1-Call Tickets

Although the 1-Call Ticket is not a required element of the Prime Contractor's ITP, it will be included with the Quality Record.



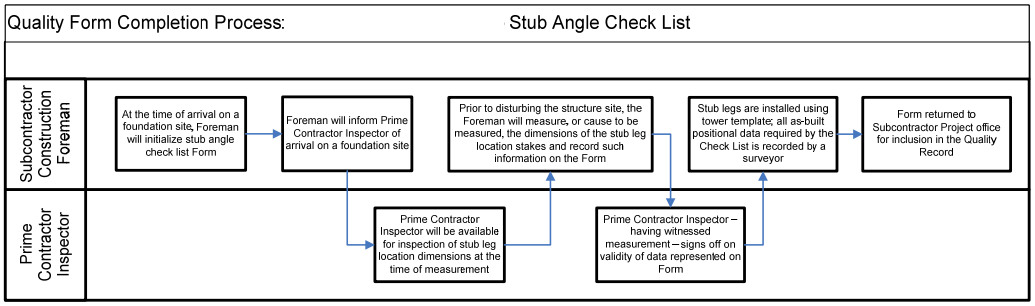
Process notes:

- In the event that it has been determined that located facilities interfere with the installation of a tower foundation, construction

at the tower site will be suspended pending a drawing change from the Prime Contractor.

2.3.2.2 Stub Angle Checklist

The following diagram illustrates the flow of information related to the completion of Stub Angle Checklist form:

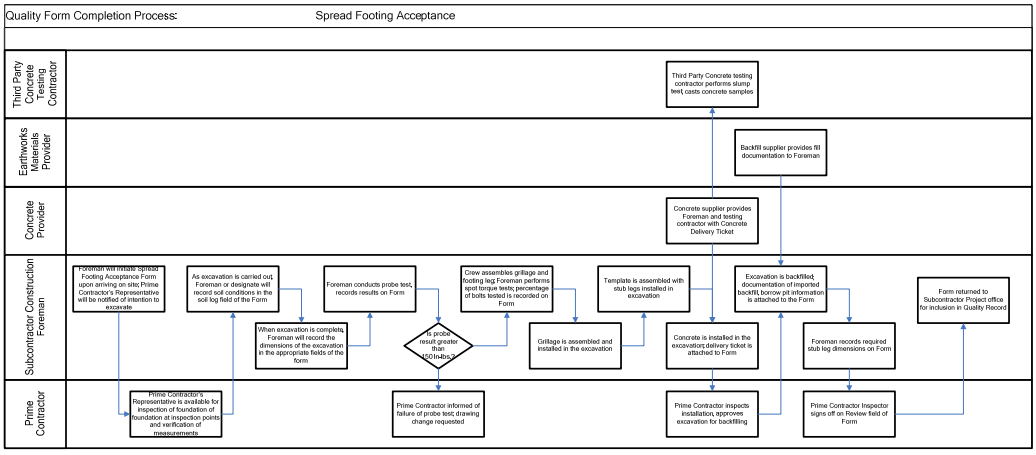


Process notes:

- (None)

2.3.2.3 Spread Footing Acceptance

The following diagram illustrates the flow of information related to the completion of Spread Footing Acceptance form:

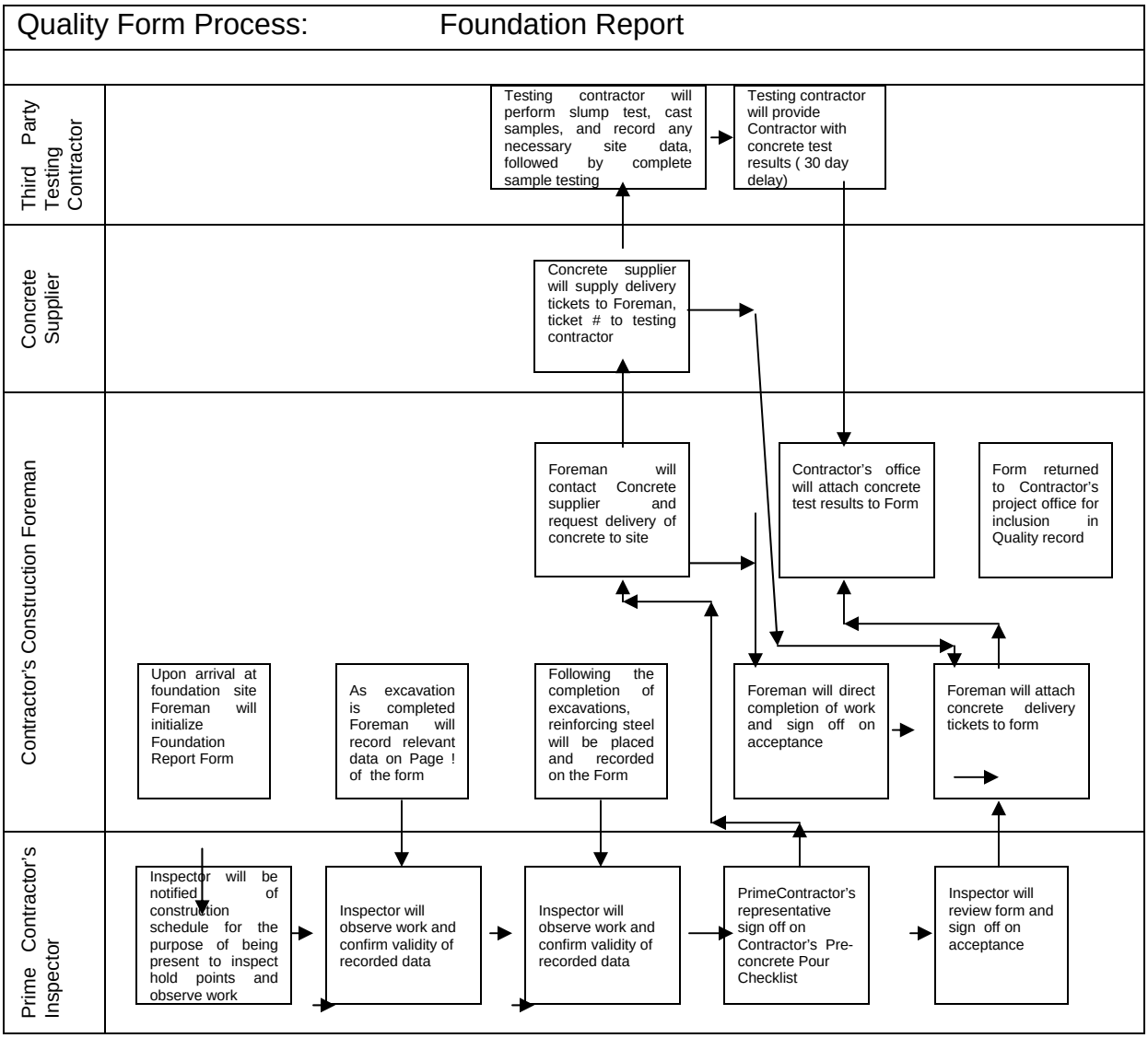


Process notes:

- (None)

2.3.2.4 Foundation Report for Structure

The following diagram illustrates the flow of information related to the completion of Foundation Report for Structure form:

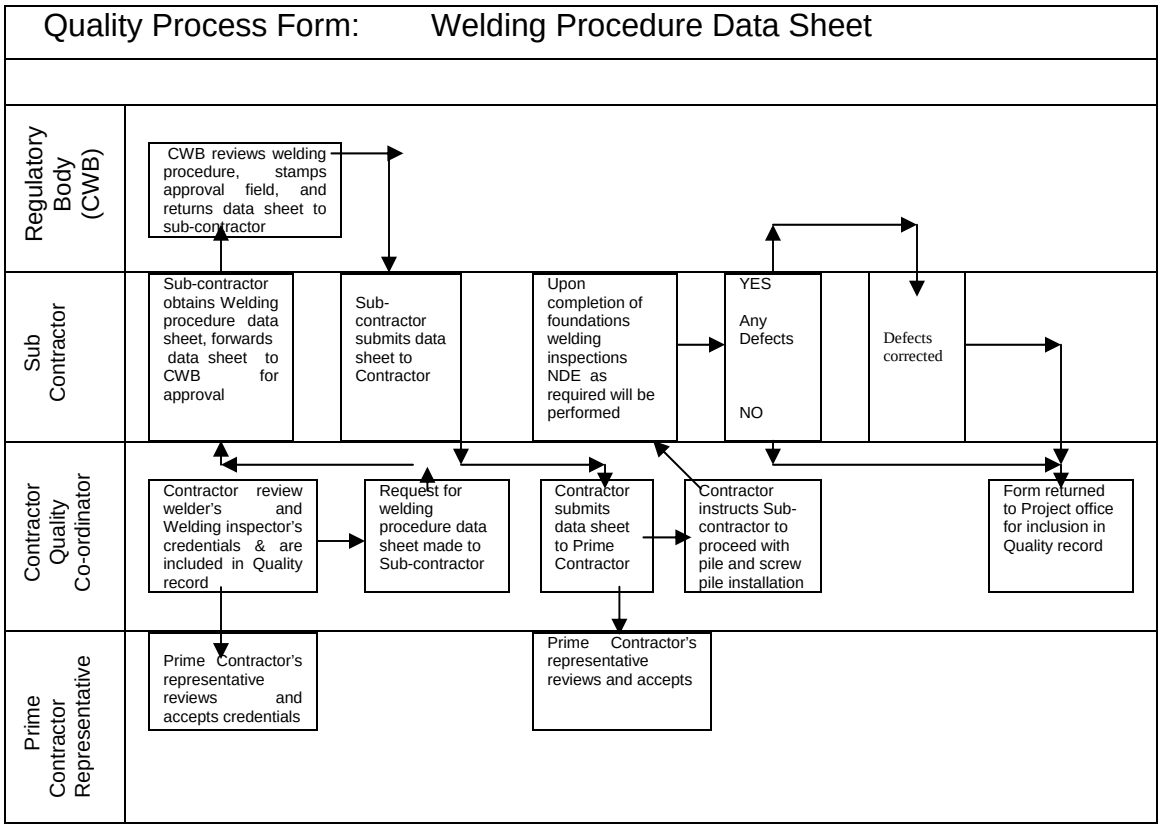


Process notes:

- None

2.3.2.5 Welding Procedure Data Sheet

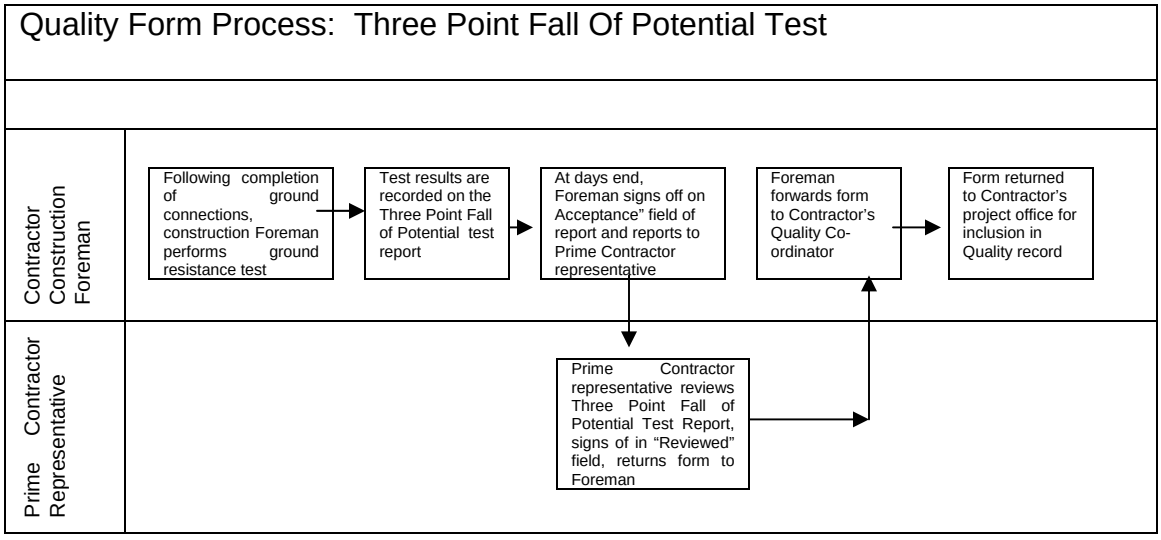
The following diagram illustrates the flow of information related to the completion of the Welding Procedure Data Sheet:



Process notes:

- Following completion of the Welding Procedure Data Sheet, it will be made readily available in the Project office

2.3.2.6 Three Point Fall of Potential Test Report

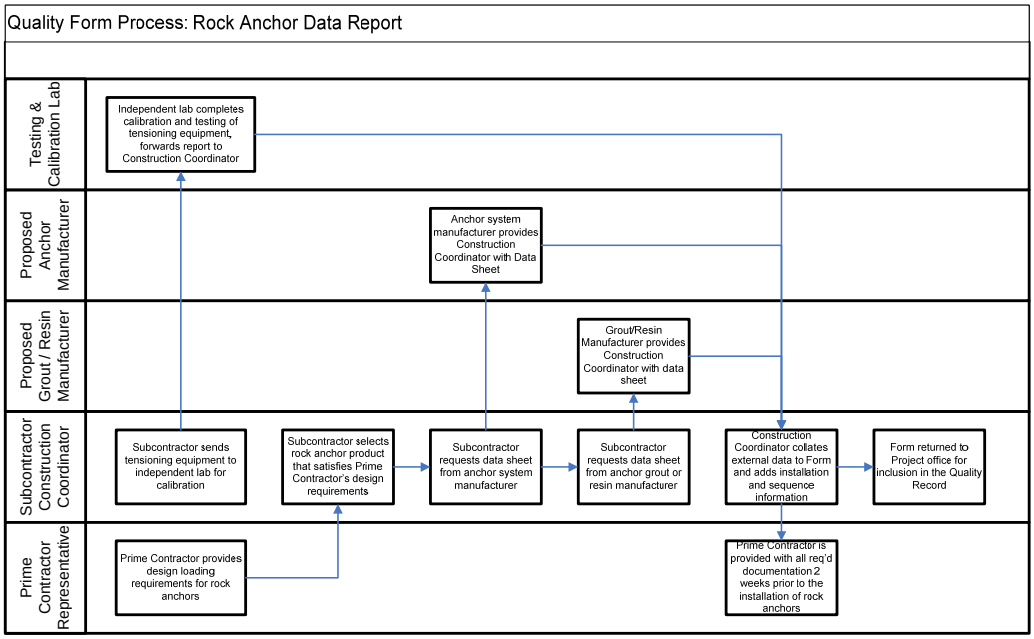


Process notes:

- Forms are to be completed and submitted on a daily basis.
- It is assumed that the Prime Contractor Representative will be available to provide supervision or spot-checks of testing process throughout the day for the purpose of confirming the validity of test results prior to signing the 'Reviewed field of the Form.

2.3.2.7 Rock Anchor Data Report

The following diagram illustrates the flow of information related to the completion of the Rock Anchor Data Report:

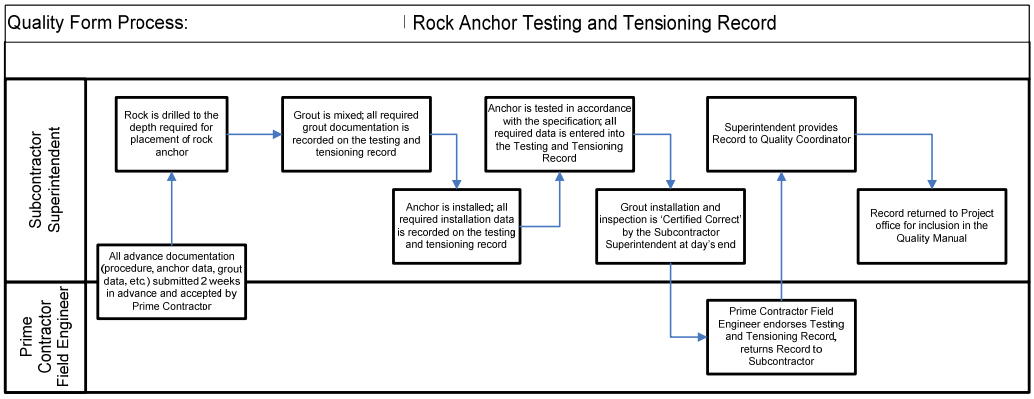


Process notes:

- Data report will consist essentially of a checklist indicating each piece of external documentation to be collected; these are to be collated to the report sheet when they are collected.
- Following submission of Rock Anchor Data Reports, they will be made available in the Project office for reference and/or inclusion subsequent Daily Rock Anchor Testing and Tensioning Reports.

2.3.2.8 Subcontractor's Daily Rock Anchor Testing and Tensioning Report

The following diagram illustrates the flow of information related to the completion of Rock Anchor form:



Process notes:

- ITP calls for only for testing of one anchor per day or every tenth anchor. The procedure outlined above applies only to those anchors specified for testing.

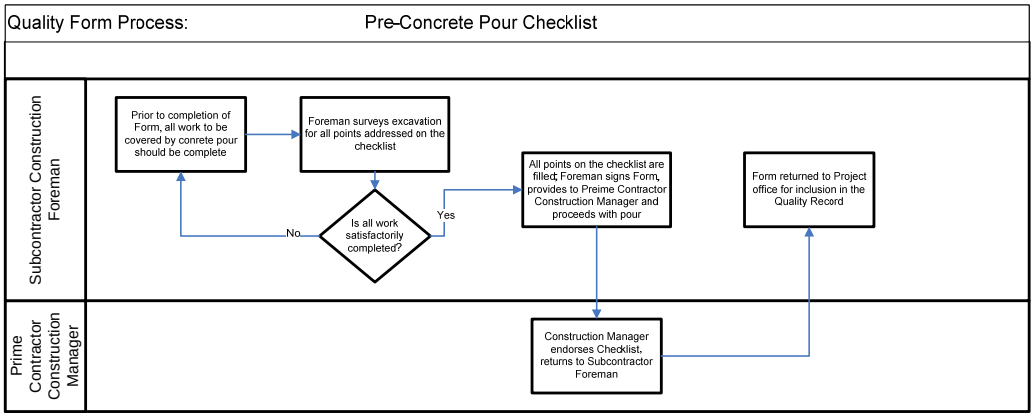
2.3.2.9 Pre-Concrete Pour Checklist

The following diagram illustrates the flow of information related to the completion of Pre-Concrete Pour Checklist form:

Valard
A QUANTA SERVICES COMPANY

Quality Program

Document Number: VCLP-02-7000-0-00	Revision Number: 1	Last Reviewed:
Project Quality Plan:	Originator:	Approved:

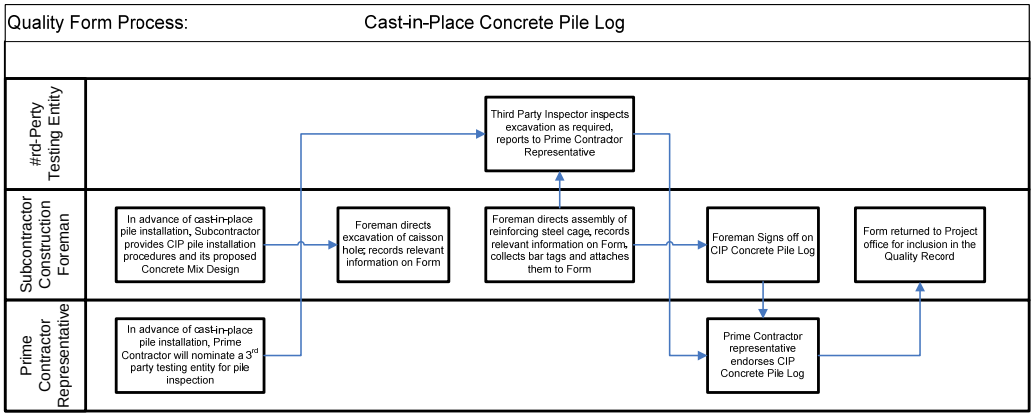


Process notes:

- All checklist points are to be evaluated in accordance with the specification.

2.3.2.10 Cast-in Place Concrete Pile Log

The following diagram illustrates the flow of information related to the completion of Cast-in-Place Concrete Pile form:

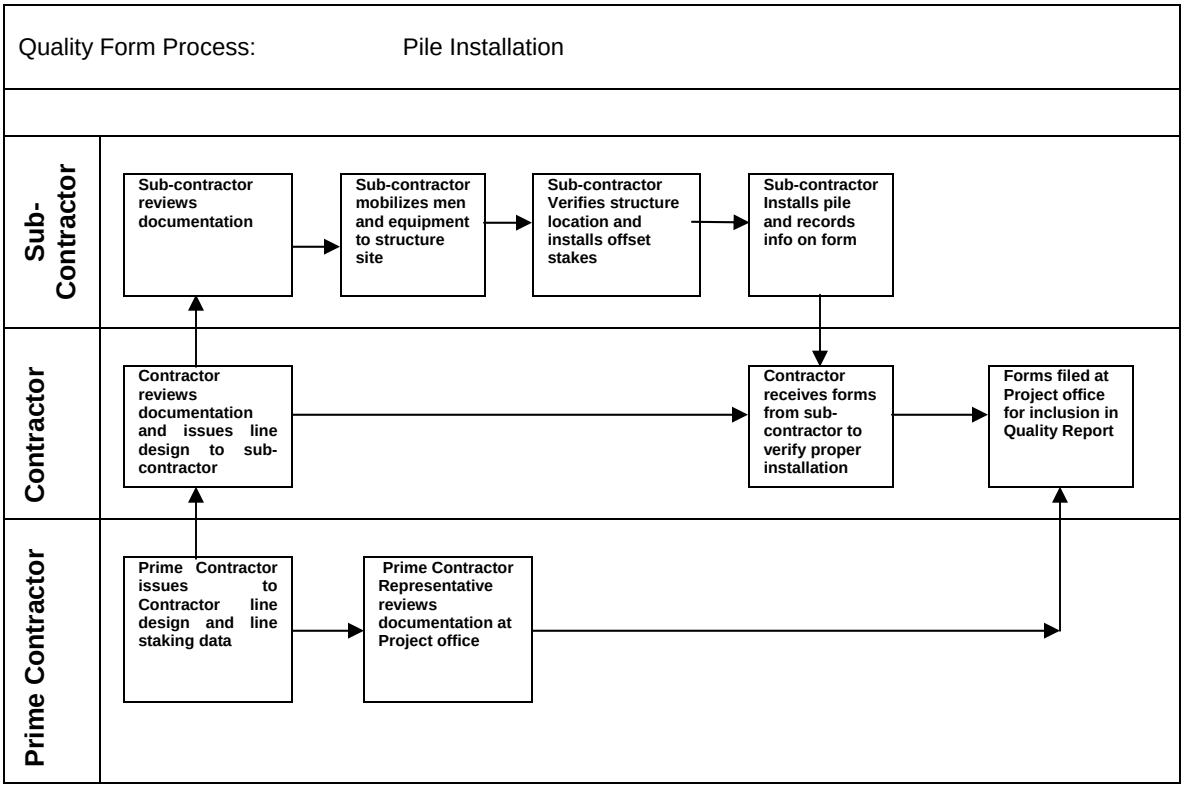


Process notes:

- 'Reinforcing Steel' field should be used to indicate the placement drawing number; bar tags taken from the reinforcing steel at the time of placement should be collected.
- Cast-in-place pile installation procedures will be provided to the Prime Contractor Two weeks in advance of installation of the first pile installed on the Project; this shall be deemed to be acceptable documentation of procedures for the entirety of CIP piles installed on the Project.
- It is expected that the Prime Contractor will nominate a single 3rd party testing entity at Project kick-off, and that this group will be available for efficient inspection of excavations as they come available.

2.3.2.11 Pile Installation

The following diagram illustrates the flow of information related to the completion of Cast-in-Place Concrete Pile form:



Process notes:

- none

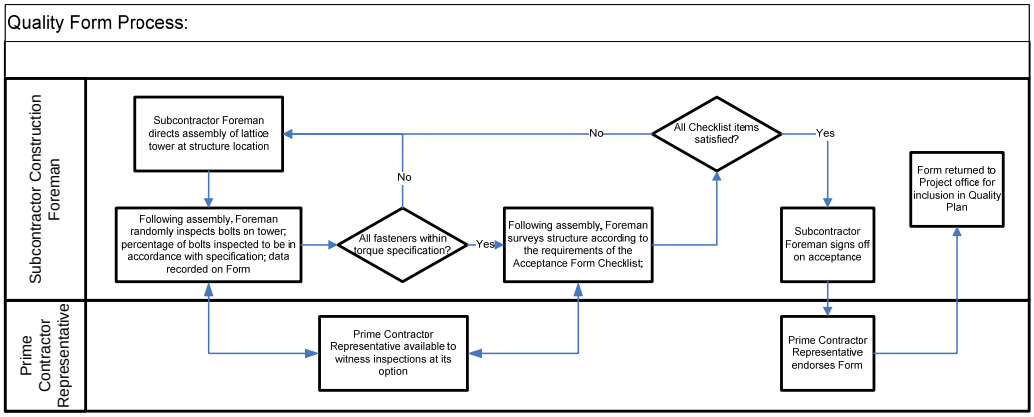
2.3.3 Forms Pertaining to Structure Erection

2.3.3.1 Structure Shake Down Report

- Note: The process associated with Structure Shakedown Report is included under Heading 2.3.1.5.

2.3.3.2 Tower Assembly Acceptance

The following diagram illustrates the flow of information related to the completion of Tower Assembly form:

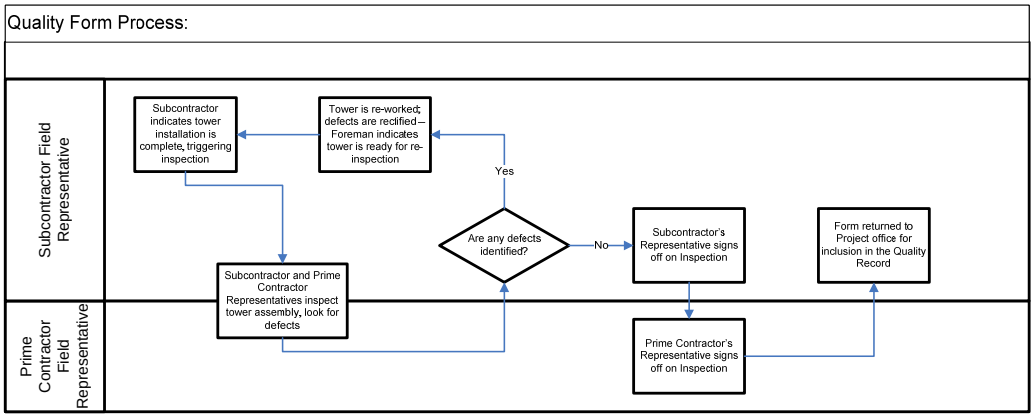


Process notes:

- (None)

2.3.3.3 Structure Assembly and Installation Inspection Report

The following diagram illustrates the flow of information related to the completion of Structure Assembly and Installation Inspection form:



Process notes:

- For the purpose of efficiency, the Subcontractor prefers that inspections should be completed immediately following tower erection.

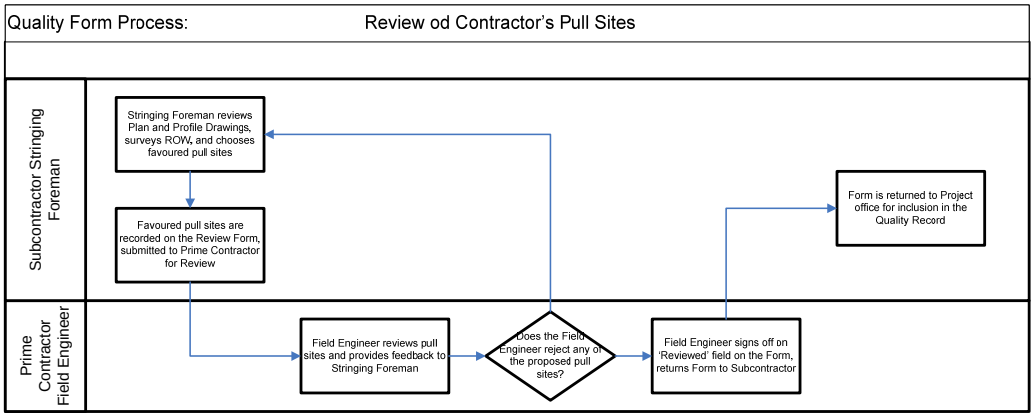
2.3.4 Forms Pertaining to Access and ROW issues

Note that in addition to the Form specified below, general ROW cleanup and conditioning is referenced in Tower Assembly Acceptance Form.

2.3.5 Forms Pertaining to Conductor Installation

2.3.5.1 Review of Contractor's Pull Sites

The following diagram illustrates the flow of information related to the completion of Pull Sites form:

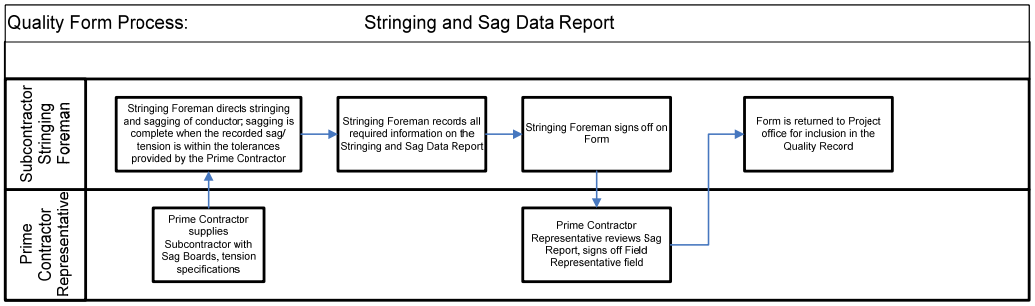


Process notes:

- It is expected that reviews of pull sites may be submitted and reviewed for discrete sections of line; this will be necessary for efficient execution of stringing work.
- Typically, pull sites will be chosen for the suitability of the ground and geography with respect to anchoring, accessibility for heavy stringing equipment, and to minimize wasted conductor.

2.3.5.2 Stringing and Sag Data Report

The following diagram illustrates the flow of information related to the completion of Stringing and Sag Data form:

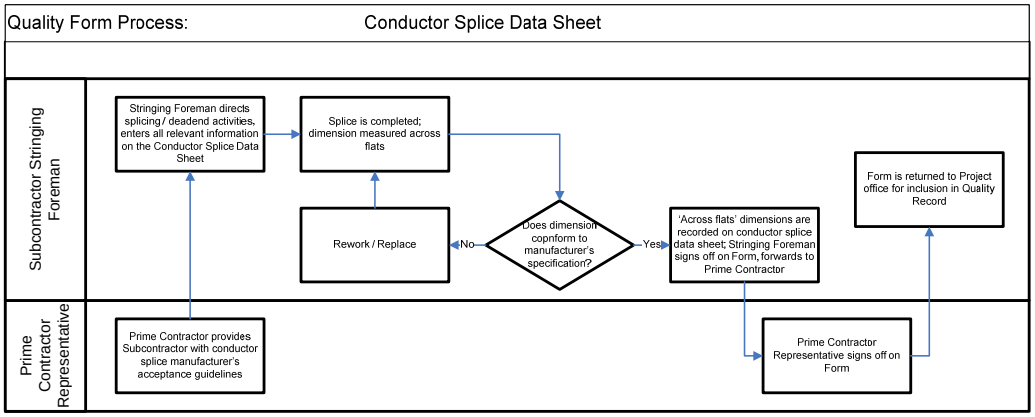


Process notes:

- (None)

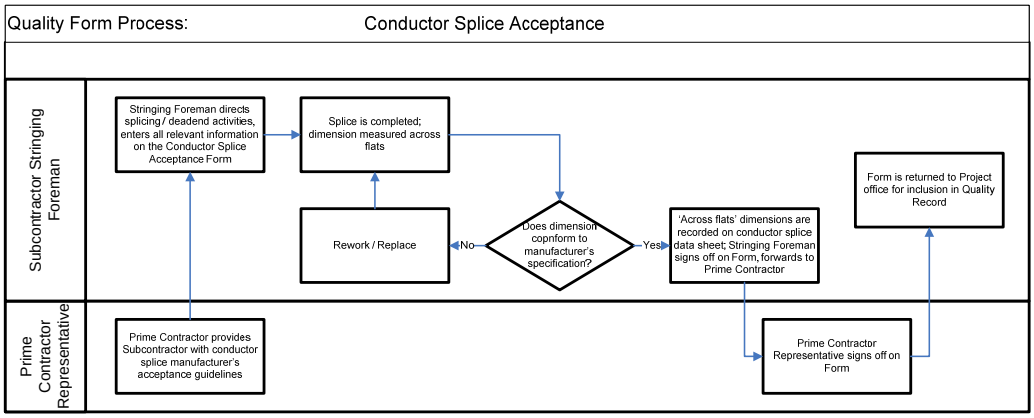
2.3.5.3 Conductor Splice Data Sheet

The following diagram illustrates the flow of information related to the completion of form:



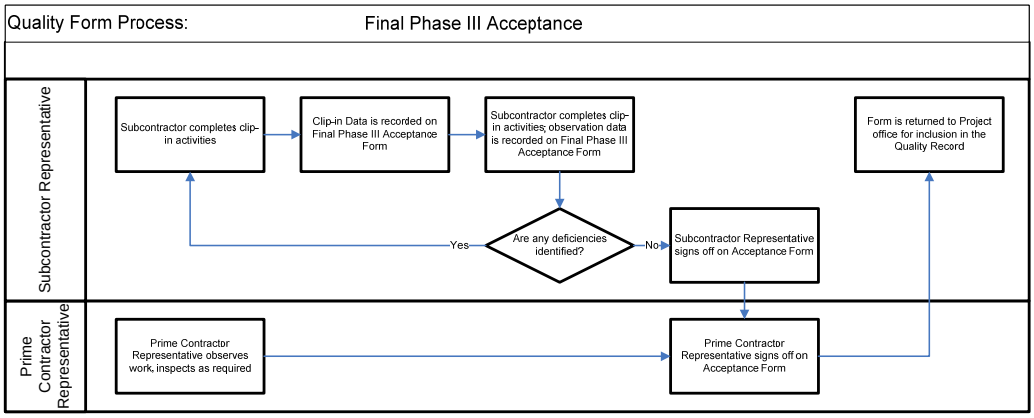
2.3.5.4 Conductor Splice Acceptance

The following diagram illustrates the flow of information related to the completion of Conductor Splice form:



2.3.5.5 Final Phase III Acceptance

The following diagram illustrates the flow of information related to the completion of form:



Process notes:

- (None)

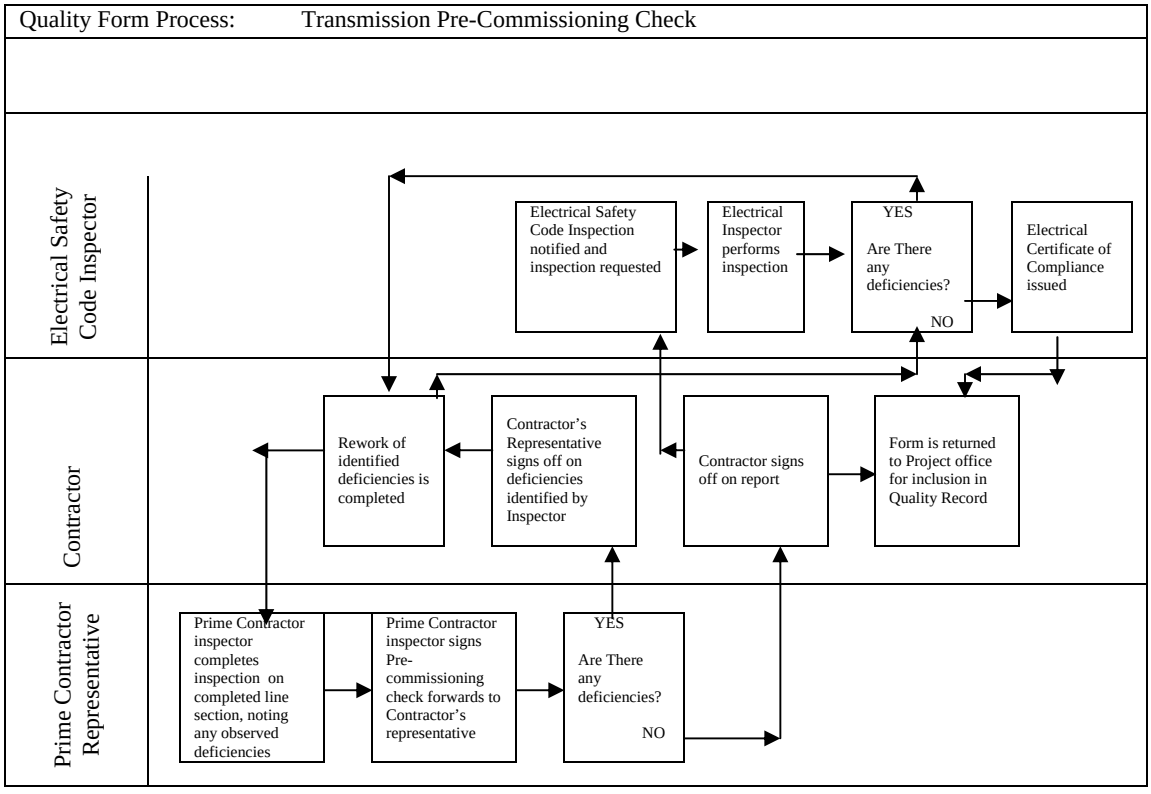
2.3.6 Forms Pertaining to Final Inspection and Commissioning

2.3.6.1 Ground Clearance Report

Note: This Form and the associated inspection will be completed by Valard Construction. These Forms will be submitted to the Prime Contractor for inclusion in the Quality Record.

2.3.6.2 Transmission Pre-Commissioning Check

The following diagram illustrates the flow of information related to the completion of Pre-Commission Check form:

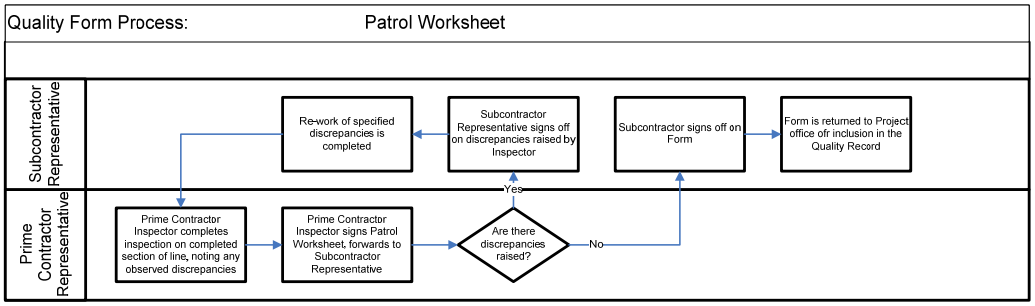


Process notes:

- Subcontractor Representative's acceptance of Inspector's specified discrepancies will be subject to evaluation and inspection of discrepancy.

2.3.6.3 Patrol Worksheet

The following diagram illustrates the flow of information related to the completion of Patrol Worksheet form:



Process notes:

- (None)

2.4 Collection of Quality Documentation

In all cases the collection of forms and additional documentation will proceed as follows:

1. The Form will be initialized by the Foreman, Supervisor, or coordinator directing the work.
2. All qualitative Form fields (i.e. checklist-style documentation) will be completed:
    a. In the field
    b. At the time of work completion
    c. By the tradesperson completing or directly supervising the work
3. All quantitative Form fields will be completed:
    a. In the field
    b. At the time of work completion
    c. By the Foreman or Supervisor directing the work
    d. Only by Foreman or Supervisor having personally performed the measurements represented or having directly observed the measuring process.
    e. Documentation will be presented to the Prime Contractor's representative for review and/or endorsement (as required by the Prime Contractor's ITP) following which it is to be returned to the Foreman or Supervisor responsible for the work.
    f. The Foreman or Supervisor will submit the Quality Form to the designated Quality Coordinator; the Quality Coordinator will be responsible for control and distribution of Quality Documentation.
4. All documentation shall be maintained by Valard Construction in a proper filing system. The Prime Contractor's Quality Staff shall be granted access to these files for the purpose of review.

2.5 Control of Quality Documentation

The Quality Record shall be collected and maintained in the Subcontractor's Project office. The following process will apply to its control:

1. Upon submission of a Quality document, it will be listed as complete in the Reporting Summary.
2. The Form will be stored in hardcopy at the Subcontractor's Project office.
3. The Form will be scanned and stored electronically on the Subcontractor's remote server.

2.6 Distribution of Quality Documentation

The following process is proposed to satisfy all elements of the Quality Plan:

e. All original documents shall be maintained by Valard Construction and shall be included in the turn over of documents at project completion.
g. The form will be copied in triplicate.
h. One copy of the Form will be entered into the Quality Record.
i. One copy of the Form will be forwarded to the Project Manager or a designated coordinator for the purpose of tracking progress.

3 Materials

Quality control with respect to materials is to be administered under two primary headings:

1. Materials Supplied by the Prime Contractor
2. Materials Supplied by the Subcontractor

3.1 Materials Supplied by the Prime Contractor

With respect to materials supplied by the Prime Contractor, the goals of the PQP are as follows:

1. To confirm the quantity and condition of material received from the Prime Contractor's suppliers
2. To confirm the conformity of received material to its type design
3. To quantitatively record deviations of the lattice tower materials from their type design for the purpose of calculating changes to the Contract

To the end of achieving the above, the following controls are to be implemented:

1. Visual Inspections
2. Quantity Checks
3. Vendor Shortage Reporting
4. Nonconforming Material Quarantine

3.1.1 Visual Inspections

Visual inspections will be conducted on all material received by the Subcontractor on behalf of the Prime Contractor at the time of receiving in the marshalling yard.

Visual inspections will be documented and will be subject to review and confirmation by the Prime Contractor's Materials Coordinator.

3.1.2 Quantity Checks

Quantity checks will be documented and will be subject to review and confirmation by the Prime Contractor's Materials Coordinator.

Shortages that become apparent as a result of quantity checks will trigger the generation of a Vendor Shortage List (see following section).

Quantity checks specifically addressing component checks for missing and misfabricated components of the steel lattice tower kits will be documented.

3.1.3 Vendor Shortage Reporting

Vendor shortages will be documented.

3.1.4 Quarantine

Upon taking possession of the respective marshalling yard, the Contractor will identify an area of the yard to be reserved for quarantined parts. This area will be clearly marked and segregated from the remainder of the yard by ropes or tape.

Upon identification of substandard, damaged, or broken parts or components, such components shall be clearly marked with a tag bearing the following information:

- Large bold notice: NONCONFORMING PART
- Discrepancy: Description of the identified problem with the part
- Supplier: Name of supplier
- Date: Date nonconformity was identified
- Initial: Initial of individual taking part out of circulation

Once parts have been deposited in the Quarantine area, tags will not be necessary.

3.2 Materials Supplied by the Subcontractor

With respect to materials supplied by the Subcontractor, the goals of the PQP are as follows:

1. To document the properties of received material for the internal requirements of the Subcontractor.
2. To document the properties of received material to assure the Prime Contractor of the Quality of such Material.

While the following Subcontractor-supplied materials are referenced in the ITP, no forms have been provided. As such, the Subcontractor will generate forms for the efficient tracking of these materials (Note: these forms are also referenced under headings 2.2 and 2.3):

- Borrow Pit documentation
- Road Crush
- Pit Run
- Sand
- Native Fill
- Concrete
- Reinforcing Steel
- Rock Anchors
- Grout

The information to be addressed in each of these forms is summarized in the table on the following page.

The following chart summarizes all Subcontractor supplied materials as specified in the Contract, along with proposed Quality controls:

Subcontractor Supplied Material	Product Controls	Submission Schedule	Comments
Earthwork Materials - Borrow Pits (General)	Borrow pit information to be submitted to Prime Contractor prior to provision of earthwork materials: -Address or coordinates of borrow pits -Summary of methods of excavation, mixing, screening, and transportation -Summary of the rated capacities of equipment used for borrow pit excavation and process -Summary of unusual mixing or excavating procedures -Summary of methods in use to control moisture and drainage -Information on disposition of oversized material -Information on the disposition of unsuitable material from stripping operations	Prior to use of borrow pit	
Road Crush	Information qualifying 'road crush' as conformant to Alberta Transportation Designation 4, Class 20: -Sieve analysis -Maximum density curve -Optimum Moisture curve	2 weeks prior to the commencement of material placement	
Pit Run	Information qualifying 'pit run' as conformant to Alberta Transportation Designation 6, Class 80: -Sieve analysis -Maximum density curve -Optimum Moisture curve	2 weeks prior to the commencement of material placement	
Sand	Information qualifying sand as conformant to SP-062200-4100-01 7.2.4: -Sieve analysis -Maximum density curve -Optimum Moisture curve	2 weeks prior to the commencement of material placement	
Native Fill	-Maximum density curve	2 weeks prior to the commencement of material placement	
	-Optimum Moisture curve		
Concrete	-Concrete mix design, formulated in accordance with the requirements of the design drawing	2 weeks prior to the commencement of material placement	
	-Concrete Delivery Tickets conforming to CSA A23.1 Section 5.2.4.5	Immediately following placement	
	Information gathered by third-party testing contractor: -Slump test results -Air content test results -Ambient temperature at time of delivery -Compressive strength test results	Immediately following availability of results	

Subcontractor Supplied Material	Product Controls	Submission Schedule	Comments
Reinforcing Steel	Mill test reports	Fastened to rebar at all times following delivery and prior to placement.	
	Reinforcing Steel Placing Drawings and Bar Lists		
	Bar tags featuring the following information: -Grade of steel -Mark number (as per bar list) -Rebar placing drawing number -Purchase order number -Shipping destination		
Screw Piles	Mill test reports	2 weeks prior to the commencement of material placement	
	Welding Inspection Reports		
	Bill of Lading		
Rock Anchors	Literature on chosen rock anchors inclusive of information on bar, centralizers, face plate, washer, and nut	2-weeks prior to the commencement of anchor placement	
	Information on the physical and chemical properties for each lot of steel rock anchors to be used.		
	Information on the proposed method of sealing fractures and voids in drill holes to prevent loss of grout		
	Certified statement from independent testing laboratory confirming the following properties: -Minimum cross-sectional area of the threaded portion of the bar -Minimum cross-sectional area of the unthreaded portion of the bar -Yield strength of the bar -Ultimate tensile strength of the bar		
	-Name of material -Manufacturer -Graph of unconfined compressive strength versus time -Gel time -Viscosity -Shelf life -Storage and handling requirements		
Grout	Published specification showing the following information: -Name of material -Manufacturer -7 & 28 day unconfined compressive strength -Composition -Shelf life -Storage and handling requirements	2-weeks prior to the commencement of anchor placement	

3.3 Audits

This section addresses only those audits associated Quality Assurance and Control for material.

3.3.1 General

Field-level audits will be instituted for the purpose of ensuring that Quality Assurance and Control measures are being implemented in accordance with the PQP. It is intended that an audit will be completed in approximately one day.

3.3.2 Procedure

The Subcontractor will compose a complete procedure for the completion of field-level audits. This procedure will implement the following elements:

1. Audits will include spot checks on documentation of new material arriving in the marshalling yard.
2. Audits will include an inspection of the measures used to identify the ‘Quarantine’ area of the marshalling yard.
3. Audits will include a review of collected borrow pit documentation.
4. Audits will include an observation of the received material inspection procedure.
5. Audits will include an inspection of reinforcement steel stored at the marshalling yard.
6. Audits will include a review of earthworks materials being installed at a structure location, complete with an inspection of the associated documentation.
7. The audit procedure will include a Form to be used for the purpose of documentation of the audit (referenced below).

3.3.3 Documentation

The audit documentation form will feature the following; where a field specifies ‘notes’, the field shall contain both a nonconformities column and a rectification column:

1. Information fields identifying:
    a. Date of audit
    b. Name of auditor
    c. Identification of marshalling yard audited
    d. Identification of Project office audited
2. Notes field for incoming material documentation
3. Notes field for quarantine area marking scheme
4. Notes field for borrow pit documentation.
5. Notes field for material receiving documentation
6. Notes field for reinforcing steel documentation
7. Notes field for installed earthworks material documentation

3.3.4 Frequency

Audits will be conducted on the following schedule (please note that this schedule will apply to :

- One audit will be conducted exactly 1 week following the first receipt of material.
- Following the initial audit, an additional two audits shall be conducted on two week intervals. These (three) audits correspond to the ‘setup’ period of the Project Quality Plan.
- After the ‘setup’ period, one audit will be conducted per month, on a random basis.

4 General Work Activities

This section describes Quality Control measures that are broad in application and that apply to multiple work activities.

4.1 Drawings

Under no circumstances will any of the Subcontractor's personnel, for the purpose of constructing or inspecting any element of the work represented in the Contract, consult drawings that are not marked "Issued for Construction".

4.2 Procedures

Where the Contract specifies that the Subcontractor must submit procedures for the work it completes, such documentation shall be collected prior to the start of work subject to the procedure requirement, and made available in the Project office.

Where specified procedure requirements are subject to certification (i.e. welding procedures) such procedures shall form a part of the Quality Record.

4.3 Certifications

Certification of procedures, where specified by the Contract, shall form a part of the Quality Record and be made available in the Project office.

Where Certifications are required as a part of the Quality record for a given work activity, copies of the certification are to be attached to the Quality Form associated with the work activity in question.

4.4 Trade Qualifications

Where the Contract specifies trade qualifications for a certain work activity (i.e. welding), such qualifications shall be documented in advance of the completion of work and be made available in the Project office.

4.5 Supervisory Qualifications

Several work elements of the Contract specify Supervision by a Qualified Supervisor. In order to document its conformance to the requirements of the Contract, it is the Subcontractors intent to implement a Supervisory Qualification Registry. This registry will be kept in the Project office and updated each time a new Supervisor is introduced or promoted on the Project.

4.5.1 Supervisory Qualification Registry

The Supervisory Qualification Registry shall consist of a chart listing the following information for each of the Subcontractor's Supervisors:

- Supervisor's name
- Check-boxes for each Contract work activity specifying Supervisory Qualifications
- Signature column for Quality Coordinator

The Supervisory Qualification Registry will form an element of the Quality Record.

4.5.2 Documentation

Documentation of any Supervisor's qualifications will be provided at the request of the Prime Contractor in the form of a resume.

4.6 Calibration & Testing of Tools & Instruments

4.6.1 General

Several work elements of the Contract specify Calibration or testing of installation tools and/or measurement instruments. In order to document its conformance to the requirements of the Contract, it is the Subcontractors intent to implement the following Quality Control measures:

- Collection and preservation of Calibration / Testing Records
- Tool Control Registry

4.6.2 Calibration / Testing Records

Prior to its use on the Project, any tool or measuring device specified in the Contract for calibration or testing will be tested (a) by the Subcontractor where its personnel and/or equipment are capable of completing such an inspection or calibration or (b) by an external calibration or testing laboratory.

Following testing or calibration of a tool or instrument, the following will apply:

- The testing or calibration certificate will be submitted to and preserved in the Project office.
    - The testing certificate will feature the instrument's serial number unit number
- A sticker or tag will be affixed to the tool or instrument indicating the date of its last calibration, and the date of its next calibration.
- An automated message will be initiated in Microsoft Outlook by the Quality Coordinator one month before the tool or instrument's next calibration.

Testing and calibration certificates will be preserved in the Project office and will form an element of the Quality Record.

4.6.3 Tool Control Registry

The tool control registry shall consist of a chart featuring the following columns:

- Tool unit number
- Description (2-4 words as required)
- Manufacturer
- Model Number
- Calibration Date
- Date of next calibration

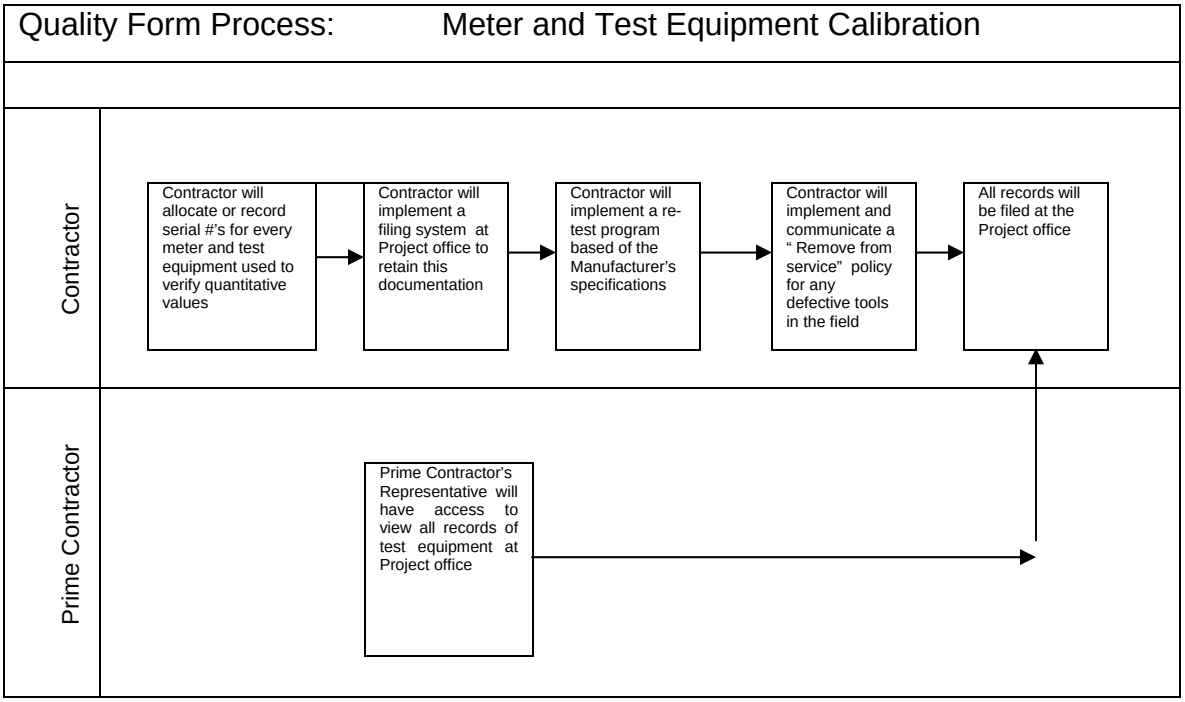
The Tool Control Registry shall form an element of the Quality Record.

4.6.4 Periodicity of Calibration / Inspection

With regard to periodicity, the period between calibrations of a given tool or instrument shall be determined from the following according to the following precedence:

1. Prime Contractor's requirements as specified in the Contract
2. Legislative requirements
3. Manufacturer's recommendations
4. 1 year (specified in the absence of any other recommendations)

Notwithstanding the above the shortest period specified by items (1), (2), and (3) shall take absolute precedence.



4.7 Audits (Work Activities)

This section addresses only those audits associated with Quality Assurance and Control for work activities.

4.7.1 General

Field-level audits will be instituted for the purpose of ensuring that Quality Assurance and Control measures are being implemented in accordance with the PQP. It is intended that an audit will be completed in approximately one day.

4.7.2 Procedure

The Subcontractor will compose a complete procedure for the completion of field-level audits on work activities. This procedure will implement the following elements:

1. Audits will include spot checks on documentation for material installed on the site.
2. Audits will include supervisory spot checks to ensure (a) that each work activity being completed is supervised by a supervisor listed on the Supervisory Qualification Registry, and (b) that Supervisor is qualified to supervise the work being completed.
3. Audits will include spot checks to ensure that any tools or measuring devices being used in the completion of work that are subject to testing or calibration are listed on the Tool Control Registry and further that any such tools carry a valid certificate of calibration or testing.
4. Audits will include an inspection of onsite documentation being completed for the purpose of documenting the completion of work and/or the inspection thereof.

5. Audits will include a review of the procedures documented in the Quality Record, and spot checks on affected activities to ensure that these activities are being completed in accordance with the governing procedure.
6. Audits will include a review for the purpose of identifying any related Quality issues, and reviewing the Project Quality Plan to ensure that it conforms to the requirements of the Contract.
7. The audit procedure will include a Form to be used for the purpose of documentation of the audit (referenced below).
8. The audit procedure will include reference to the identification of root causes and the correction thereof.

4.7.3 Documentation

The audit documentation form will feature the following; where a field specifies ‘notes’, the field shall contain both a nonconformities column and a rectification column:

1. Information fields identifying:
    a. Date of audit
    b. Name of auditor
    c. Identification of marshalling yard audited
    d. Identification of Project office audited
2. Notes field for installed material documentation
3. Notes field for supervisory qualification documentation
4. Notes field for tool and instrument and documentation
5. Notes field for work records documentation
6. Notes field for procedures documentation
7. Notes field for Contract conformity

4.7.4 Frequency

Audits will be conducted on the following schedule:

- One audit will be conducted exactly 1 week following the first completion of onsite work.
- Following the initial audit, an additional two audits shall be conducted on two week intervals. These (three) audits correspond to the ‘setup’ period of the Project Quality Plan.
- After the ‘setup’ period, one audit will be conducted per month, on a random basis.

- If a deficiency is identified , a formal notification report will be issued to the sub-contractor informing them of :
    1. The nature of the deficiency
    2. Potential severity or impact of deficiency
    3. Timeframe to Address Deficiency
        - Minor- 14 working days
        - Moderate- 7 working days
        - Major- 2 working days

4.8 Nonconformities

Nonconformity refers to an identified condition where a material or its associated documentation does not conform to the measures and procedures specified in the Project Quality Plan.

4.8.1 Stop Work Authority

Where a systematic nonconformity has been identified, the Quality Manager is empowered to halt any associated work until such time as he is satisfied with regard to the fact that the systematic nonconformity has been addressed or eliminated.

4.8.2 Nonconformity Reporting

'Nonconformity Reporting' as described in this section refers to the identification and tracking of material and construction nonconformities under conditions that are not explicitly addressed by the ITP.

The Contractor shall employ a nonconformity reporting Form for the purpose of logging nonconformities. Nonconformity Reports can be triggered on authority of coordinators in all management groups, construction Foremen and Supervisors, the Project Manager, or the Quality Manager. The following situations will trigger a Nonconformity Report:

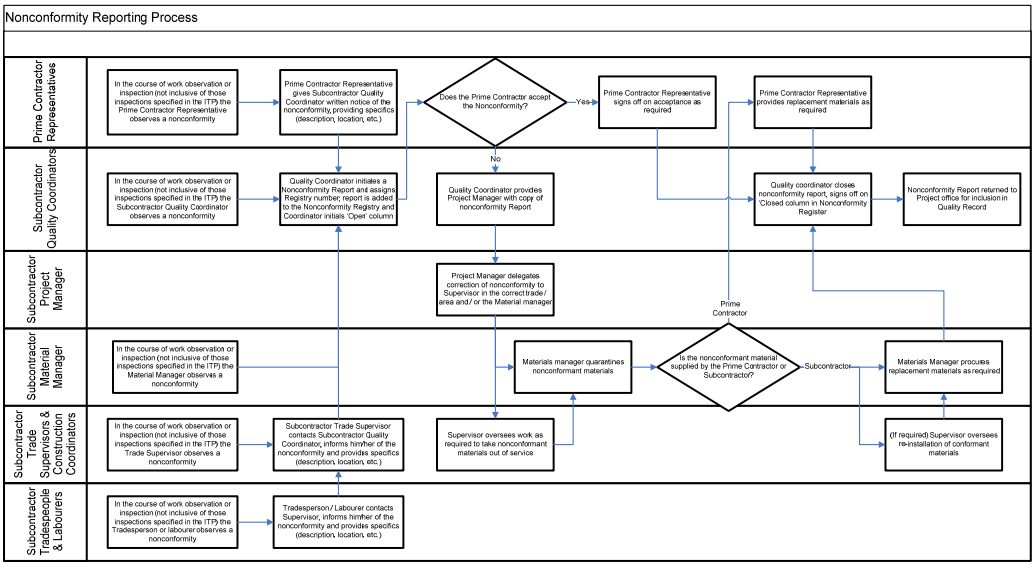
1. Nonconformity is identified in the course of an audit.
2. Nonconformity is observed by the material manager or a subordinate in the course of material distribution

3. Nonconformity is observed by a tradesperson or labourer in the field and reported to their Foreman or Supervisor
4. Nonconformity is observed by an agent of the Prime Contractor

All Non-conformances shall be copied to the Quality Manager as soon as they are initiated. All dispositions shall be submitted to the Quality Manager, and the Client's Quality Representative, prior to the remedial work commencing, for approval. No remedial work is to commence until this approval is obtained.

4.8.2.1 Procedure

The procedures to be followed in the identification and tracking of nonconformities is illustrated in the following diagram:



All non conformances shall be copied to the Quality Manager as soon as they are initiated.
All dispositions shall be submitted to the Quality Manager, and the Client's Quality Representative, prior to the remedial work commencing, for approval.

<u>No remedial work is to commence until this approval is obtained</u>

4.8.2.2 Nonconformity Control

The primary mechanisms of nonconformity control to be implemented are the Material Nonconformity Report Form and the Nonconformity Register.

Nonconformity Report Forms shall form an element of the Quality Record.

4.8.2.3 Nonconformity Report Form

The Nonconformity Report Form will feature the following information:

- Nonconformity Registry number
- Name of individual that observed the Nonconformity
- Name and signature of Quality Coordinator
- Description of Nonconformity
- Description of rectification
- Description of root causes

Nonconformity Report Forms are to be filled out only by the Quality Coordinator.

4.8.2.4 Nonconformity Register

The Nonconformity Register forms a part of the Quality Record.

The Nonconformity Register will consist of a grid wherein each row provides the information associated with a given Nonconformity Report. The columns of the Nonconformity Register will feature the following information for each Nonconformity Form:

- Nonconformity Registry Number
- Brief (2-3 words) Description
- ‘Open’ initial column
- ‘Closed’ initial column

5 Specific Work Activities

This section of the PQP directly addresses the manner in which Quality Control measures will be applied to specific work activities, as required by the Contract and Tender Documents and as directed by the PQP.

5.1 Construction of Access and Right-of-Way

The goals of the Project Quality Plan with respect to Construction access and ROW are as follows:

1. To ensure that access is constructed in accordance with the requirements of the Prime Contractor.
2. To promote and maintain the positive relationships of the Prime Contractor with Landowners along the ROW.
3. To ensure that gates and fencing are established in accordance with the requirements of the Prime Contractor.
4. To ensure that the ROW is restored in accordance with agreements between the Prime Contractor and affected landowners along the ROW.
5. To ensure that fence and access construction, as well as ROW restoration are documented for the purpose of assuring the Prime Contractor of the Quality of work completed.

Note: Control of access to the ROW is addressed in the Subcontractor's Access Plan.

Note: Environmental issues are addressed in the Subcontractor's environmental plan.

5.1.1 Access and Approaches

To ensure the conformance of constructed access roads and approaches, the Subcontractor Quality Coordinator, in cooperation with the Subcontractor Lands Manager will maintain a complete set of Plan and Profile drawings for each awarded section of ROW. In this set of Plan and Profile drawings, the following data will be recorded:

- Location and diagrams of every off-ROW access road or trail constructed by the Contractor
- An information box on each page indicating the status of the section of ROW

- Drawing amendments showing precisely which section of the ROW is addressed on the Plan and Profile drawing in question
- Information boxes for each access road or trail indicated on the Plan and Profile drawings indicating the status of the access facilities

When access to a section of ROW is granted by the Prime Contractor, the Subcontractor Lands Manager will mark all plan and profile drawings affected by the section of ROW to which access has been granted as 'Open'. The Land Manager will then affix a status label to the drawings for each off-ROW access trail. The status label will contain one of the following comments:

- Proposed – Entered in the status box when an access trail has been determined to be required for access to one or more structures.
- Approved – Entered in the status box when an access trail has been approved for construction or use.
- Abandoned – Entered in the status box when the use of an access trail is no longer required.

Where a proposed access trail conforms to the Prime Contractor's access plan or any amendments thereto, the trail will automatically be assigned 'Approved' status.

Typically, access trails will only be assigned 'Abandoned' status after all stringing activities have been completed, along with pre-commissioning reports.

5.1.2 ROW Restoration

To ensure the conformance of ROW restoration with the requirements of the Prime Contractor (i.e. conformance with the Prime Contractor's agreement with the Landowner) the Subcontractor Quality Coordinator in cooperation with the Subcontractor Lands Manager will maintain a complete set of Plan and Profile drawings for each awarded section of ROW. In this set of Plan and Profile drawings, the following data will be recorded:

- The status of each section with respect to ROW access
- 'Redline' Mark-ups of areas that have been disturbed, along with note-box labels describing the condition of the ROW.

The Subcontractor Lands Manager will be responsible for confirming the condition of the ROW. Following completion of construction and stringing activities, the lands manager will be responsible for directing and confirming the restoration of the ROW. Restoration of the ROW will be conducted in accordance with the requirements of the Contract.

If at any time over the course of ROW restoration a landowner directly expresses dissatisfaction with ROW restoration efforts, the Subcontractor will inform the Prime Contractor and continue with restoration activities under the Contract or any changes thereto.

Conformance of ROW restoration to the Contract will be demonstrated to the Prime Contractor by way of inspection. Documentation of the conformance of ROW restoration to the requirements of the Prime Contractor will be recorded.

5.2 Foundation Installation

The goals of the Project Quality Plan with respect to Foundation Installation are as follows:

1. To ensure that the positions of installed foundations conform to the positions described by the Prime Contractor's established markers.
2. To ensure that concrete employed in the construction of foundations conforms to the requirements of the Prime Contractor.
3. To ensure that the compaction of backfill materials and subsurface materials beneath the structure conform to the Prime Contractor's requirements.
4. To ensure that the placement of reinforcing steel is completed in accordance with the Prime Contractor's requirements
5. To ensure that soils not conforming to the Prime Contractor's expectations are observed and reported.
6. To assure the Prime Contractor that all foundation work completed by the Subcontractor is completed in accordance with the Prime Contractor's requirements.

5.2.1 Positional Tolerances

The following measures will instituted to ensure that towers are installed in accordance with the Prime Contractor's drawing package:

1. Upon arrival onsite the Subcontractor's personnel will establish offset stakes to allow space for the completion of work activities while preserving the locations of the Prime Contractor's stakes.
2. While foundation construction activities proceed, the offset stakes will be used to establish and confirm the positional dimensions of the foundation during the construction of forms and installation of caissons, and/or rock anchors.
3. Following the establishment of the lower elements of the foundation, a tower template will be used to confirm the location of the stub legs relative to each other. With the stub legs secured to the template, a (Subcontractor-employed) surveyor will confirm the location and orientation of the stub legs. The template and stub legs will then be secured with temporary works for the duration of tack welding or initial concrete setup.

For the purpose of assuring the Prime Contractor of the conformance of the positional dimensions of the installed tower to the tolerances provided by the Prime Contractor, the positional dimensions will be confirmed by the surveyor and recorded on Stub Angle Checklist Form. The site of the work will be available to the Prime Contractor for inspection at any time over the course of construction.

5.2.2 Concrete Testing

The following measures will be implemented to ensure that all concrete installed over the course of the Project satisfies the requirements of the Prime Contractor with respect to its physical properties:

1. The concrete mix design will be submitted to the Prime Contractor for review two weeks prior to the delivery of concrete to the site.
2. No concrete will be accepted onsite if delivery tickets are not provided. These tickets will be preserved in the Quality Record and attached to Foundation Report for Structure for the purpose of associating loads of concrete (and their associated test cylinders) with the structure locations at which they were deposited.
3. The Subcontractor will cooperate with the Prime Contractor's Third Party testing subcontractor with respect to the coordination of concrete testing (slump test, break test, compressive testing, etc.).

5.2.3 Compaction Testing

Compaction testing will be performed in accordance with the requirements of the Contract; associated documentation will be collected by the Subcontractor for inclusion in the Quality Record and attachment to any required Forms. All relevant documentation will also be forwarded to the Prime Contractor. In the event that compaction testing reveals incompetent soils, the Subcontractor's Supervisor will immediately notify the Prime Contractor's representative.

5.2.4 Forming and Placement of Reinforcing Steel

The following measures will be implemented for the purpose of ensuring that reinforcing steel is formed and placed in accordance with the requirements of the Prime Contractor:

1. The Subcontractor will submit CWB-approved welding procedures to the Prime Contractor for review 2 weeks prior to the completion of welding in the assembly and/or placement of reinforcing steel. In the completion of welding on any reinforcement steel installed on the Project, these welding procedures will be strictly adhered to (Note: Where welding is unnecessary in the assembly and placement of reinforcing steel, no such procedures will be submitted; the Subcontractor does not intend to weld together reinforcing steel except where it is specified by the Prime Contractor's documents).
2. The Subcontractor will submit bar placement diagrams to the Prime Contractor for review two weeks prior to the placement of reinforcing steel in a structure foundation (spread footing or cast-in-place caisson). For the generation of these drawings, the Subcontractor will require that the Prime Contractor distribute 'Issued for Construction' foundation drawings.
3. The Subcontractor will collect and archive mill test reports in the Quality Record at the time of receiving reinforcing steel at the Project marshalling yard. Mill test reports will be reviewed for the purpose of ensuring that received steel conforms to the requirements of the Prime Contractor with respect to the physical properties of the steel. In the event that a shipment of steel does not satisfy the requirement of the Prime Contractor, it will be returned to the supplier.
4. At the time of receiving, the Subcontractor will clearly label received reinforcing steel (or bundles thereof) with weather-proof bar tags referring the steel back to its mill test report. These tags will remain with the steel until such time as it is ready for installation at a foundation location.

For the purpose of assuring the Prime Contractor of the conformity of installed reinforcing steel to its requirements, at the time of installation, bar tags will be removed from the reinforcing steel and affixed to one of the following Quality Reports (dependent upon the foundation element installed):

1. Foundation Report for Structure
2. Cast-in-Place Concrete Pile Log

These forms, along with the associated bar tags, will be submitted to the Prime Contractor as an element of the Quality Record.

5.2.5 Subsurface Confirmation

The following measures will be adopted for the purpose of confirming that the subsurface conditions encountered in the course of excavation match the subsurface conditions predicted by the Prime Contractor, or for the purpose of ensuring that – in the case where subsurface formations do not conform to the predictions of the Prime Contractor – the Prime Contractor is informed of the nature of the subsurface condition:

1. The Subcontractor will observe the nature of excavated soils and record such information.

5.3 Tower Installation

The goals of the PQP with respect to tower installation are as follows:

1. To ensure the proper fit and engagement of tower members.
2. To confirm the length and type of bolts installed on towers are in accordance with the requirements of the Prime Contractor.
3. To prevent the installation of bent, deformed, or damaged members on towers.
4. To ensure that test devices used in the assembly and erection of towers are properly calibrated.
5. To ensure that towers are installed on plumb.
6. To assure the Prime Contractor of the Quality of all tower installations.

5.3.1 Fit and Engagement

For the purpose of ensuring the fit and engagement of installed steel lattice tower members the Subcontractor will adopt the following measures:

1. At the time of assembly of tower panes or box sections assembly personnel will inspect joined members to ensure that there are no gaps at bolted joints (or in the case of back-to-back L-beams with spacers, personnel will check to ensure uniformity of the gap).
2. At the time of setting of the lower section of the tower on the foundation stub legs, the Foreman will conduct a visual inspection of the joint between the lower tower members and the stub legs to ensure there is no gap between the members and the tower is not twisted at the stub.
3. At the time of complete tower assembly (i.e. assembly of panes and sections) installation personnel and Foreman will conduct a visual inspection of joint plates and associated seams to ensure there is no gap between the joined sections of tower.
4. Additional spot inspections of tower arms will occur at the time of conductor installation and spacer installation. Personnel involved in these activities will report any discrepancies to their Supervisor who will in turn trigger a nonconformity report.
5. Subcontractor Foremen / Supervisors will perform post-assembly inspections of towers for the purpose of identifying nonconformities.

The following documentation will be provided to the Prime Contractor for the purpose of assuring the fit and engagement of completed tower assemblies:

1. Tower Assembly Acceptance Form
2. Structure Assembly and Installation Inspection Report

5.3.2 Length and Type of Bolts

The Subcontractor will adopt the following measures to ensure the correct length and type of bolts:

1. Assembly personnel will be directed to assemble towers using only hardware provided in tower kits by the Prime Contractor.
2. Assembly personnel will be given information regarding the visual identification of properly chosen size of fastener both before and after installation. Information provided will cover the following points:
    a. Selecting the correct diameter of fastener

b. Selecting the correct length of fastener
c. Confirming the correct length of fastener (following installation)

3. At the time of tower inspections (whether following partial or complete assembly), supervisory personnel will be directed to examine installed fasteners to ensure they have been chosen properly and are of appropriate length.
4. The Subcontractor will cooperate with the Prime Contractor with respect to the coordination of inspections of towers (it is assumed the Prime Contractor will also be examining fasteners to confirm correct choice).
5. Fastener choice will be cited as a potential element to be observed in the submission of nonconformity Reports.

For the purpose of assuring the Prime Contractor that towers have been assembled using the correct fasteners, fastener choice shall form an element of the inspections associated with the following Forms:

1. Tower Assembly Acceptance Form
2. Structure Assembly and Installation Inspection Report

5.3.3 Bent, Deformed, or Damaged Items

For the purpose of identifying, eliminating, and/or correcting bent deformed or damaged tower members and/or fasteners, the following measures will be implemented:

1. Tower packages will be inspected both at the time of receiving and at the time of arrival onsite for assembly. Bent, deformed, or damaged members will be identified and logged on the structure shakedown report for notification of the Prime Contractor.
2. As towers are assembled, individual parts will be examined for fit and dimension. Bent, deformed, or damaged members will be identified and logged on the structure shakedown report for notification of the Prime Contractor.
3. In the event that the Subcontractor identifies bent, deformed or damaged items, it will make written application to the Prime Contractor to the Prime Contractor of its intentions for the members (rework, remanufacture, re-order, etc.) prior to proceeding.

4. Assembly personnel will be directed not to install bent or damaged members on towers.
5. At the time of tower inspections (whether following partial or complete assembly), supervisory personnel will be directed to examine tower members to ensure they are free of damage and defects.
6. The Subcontractor will cooperate with the Prime Contractor with respect to the coordination of inspections of towers (it is assumed the Prime Contractor will also be examining members to confirm that they are free of damage).
7. Member condition will be cited as a potential element to be observed in the submission of nonconformity Reports.

For the purpose of assuring the Prime Contractor that all towers have been assembled using only members that are straight and free of damage, member damage will be an element addressed in the inspections associated with the following Forms:

1. Structure Shakedown Report Form
2. Tower Assembly Acceptance Form
3. Structure Assembly and Installation Inspection Report

5.3.4 Installation Bolt Torque

Note: Because the two subjects are closely related and inspected in sequence, Installation Bolt Torque is addressed below along with Locking Devices.

5.3.5 Testing Tools and Calibration

In order to ensure that testing tools used in the assembly of towers conform to the requirements of the Contract, the following calibration schemes will be implemented:

1. Where power wrenches are used to torque bolts:
    a. Calibrated slip devices will be used to prevent over-torque situations.
    b. The Subcontractor will either procure the services of a testing laboratory to calibrate the slip devices daily, or it will purchase a standard and develop a testing rig for the purpose of calibrating slip devices on a daily basis.
2. Where manual wrenches are used to torque bolts:
    a. To prevent over-torque situations, power wrenches having a maximum torque output less than the minimum torque specified in the Contract (40 ft-lbs) will be used for initial installation of bolts on the structure
    b. Final torque installation will be completed using calibrated manual torque wrenches.
    c. The Subcontractor will either procure the services of a testing laboratory to calibrate the slip devices monthly, or it will purchase a standard and develop a testing rig for the purpose of calibrating torque wrenches on a monthly basis.

For the purpose of assuring the Prime Contractor of the conformity of its torque devices to the requirements of the Contract, the following documentation will be included in the Quality Record for submission to the Prime Contractor (ref. Section 4.5 of the PQP):

3. Calibration / Testing Records
4. Tool Control Registry
5. Labels applied to torque devices

5.3.6 Locking Devices (and Installation Bolt Torque)

In order to ensure that locking devices and torque devices are used in accordance with the requirements of the Contract the following measures will be adopted:

1. Copies of the torque charts for fasteners used in tower assembly as provided in the Contract will be distributed in the field (ideally these could form a part of the acceptance form or be printed on the back thereof).
2. Assembly personnel will receive training with respect to the use of power wrenches (with and without torque limiting devices) and manual torque wrenches.
3. Before the bolts to be installed in any given structure or surface thereof are secured at rated torque, all bolts on that structure or surface will be installed loosely, following which all bolts on the structure or surface will be installed to rated torque.
4. After each nut on the structure is torqued, the individual confirming the fastener torque will apply red permanent marker to the back side of the bolt.
5. After all bolts on a structure or surface are correctly torqued and the bottoms marked with red permanent ink, the structure will be inspected by the Foreman or Supervisor; the inspecting party will examine all fasteners for proper size and length, and torque-test 10% of the fasteners with a manual torque wrench. The inspection will then be recorded on the appropriate Quality Form.
6. Following the inspection of the structure or surface by the supervisor, each bolt will be deformed in the first thread emerging from its associated note using a punch/chisel and hammer (‘caulking’ or ‘corking’). After each bolt is deformed, the individual performing the corking will then apply black permanent ink to the back of the bolt.
7. Following corking (caulking) and marking, the supervisor will conduct a second inspection.

The installation and marking procedure described in steps 4-7 is routine for the Subcontractor’s tower assembly crews; it is referred to as the ‘Torque and Cork’ method.

For the purpose of assuring the Prime Contractor of the conformance of tower assemblies to the requirements of the Contract, the following Forms will be used to document the inspections conducted in the course of and following assembly:

1. Tower Assembly Acceptance Form
2. Structure Assembly and Installation Inspection Report

5.3.7 Plumb / Straightness of Erected Towers

Because of the rigid nature of lattice towers, tubular steel monopoles, and wood pole H-frames, the straightness of a tower is entirely dependent upon a level foundation. As such, ensure that a tower is plumb equates precisely to ensuring that the foundation is level. The following measures will be implemented for the purpose of ensuring that towers are installed in plumb in accordance with the requirements of the Contract:

1. Upon arrival onsite the Subcontractor's personnel will establish offset stakes to allow space for the completion of work activities while preserving the locations of the Prime Contractor's stakes.
2. While foundation construction activities proceed, the offset stakes will be used to establish and confirm the positional dimensions of the foundation during the construction of forms and installation of caissons, and/or rock anchors.
3. Following the establishment of the lower elements of the foundation, a tower template will be used to confirm the location of the stub legs relative to each other. With the stub legs secured to the template, a (Subcontractor-employed) surveyor will confirm the location and orientation of the stub legs (this process will be inclusive of confirming that the template is level). The template and stub legs will then be secured with temporary works for the duration of tack welding or initial concrete setup.

For the purpose of assuring the Prime Contractor of the conformance of tower assemblies with respect to plumb, each installation will be documented on a Stub Angle Checklist.

5.4 Installation of Conductors

The goals of the PQP with respect to the installation of conductors are as follows:

1. To ensure that splice and deadend connectors are installed in accordance with the Prime Contractor's requirements.
2. To ensure that conductors are installed at the sag specified by the Prime Contractor.
3. To ensure that conductor tie-ins are completed in accordance with the requirements of the Prime Contractor.
4. To assure the Prime Contractor of the Quality of all conductor installations.

5.4.1 Sleeves, Deadends, and Electrical Connectors

For the purpose of ensuring the conformance of sleeves, deadends, and connectors to the requirements of the Contract, the following measures will be adopted:

1. All personnel involved in conductor bonding will receive training in the use of compression-type splices and deadends.
2. Completed splices will be inspected in detail for defects; unsatisfactory splices will be cut out and replaced.
3. Compression-type splices will be inspected using go-no-go gauges 'across the flats'. Personnel will be provided with training in the use of go-no-go gauges.
4. At the option of the Prime Contractor, all implosive connectors will be installed in the presence of the Prime Contractor's Representative.
5. Implosive type sleeve connectors will be installed in accordance with Specifications.
6. Compression and implosive type connectors will be x-ray inspected at the Prime Contractor's option.

To assure the Prime Contractor of the conformance of deadends, sleeves, and connectors to the requirements of the Contract, splicing and connecting activities will be documented on the following Forms:

1. Conductor Splice Data Sheet
2. Conductor Splice Acceptance Form

To assure the Prime Contractor that the Subcontractor has properly accounted for all implosive sleeve connectors in its possession, the Subcontractor will document the storage and installation of implosive sleeve connectors on the following Forms:

1. Blasting Logs
2. Magazine Logs

5.4.2 Sag Verification

For the purpose of verifying the sag of installed conductors, the following measures will be implemented:

1. In advance of stringing / sagging operations, the Subcontractor's proposed butt down and pulling setup areas will be submitted to the Prime Contactor for review.
2. Butt-down locations will be chosen so as to minimize conductor waste.
3. The Subcontractor will submit a written request for sag data to the Prime Contractor.
4. Stringing sheaves will be chosen to conform to the requirements of:
    a. The Contract
    b. The conductor manufacturer
    c. IEEE standard 524
5. Stringing activities will be supervised by a qualified Supervisor with extensive experience in the tension stringing method of bundled conductor installation.
6. Stringing activities will be performed in conformance with the requirements.

For the purpose of assuring the Prime Contractor of the conformance of strung conductor to the requirements of the Contract, sagging activities will be documented in the following Forms:

1. Review of Contractor's Pull Sites Form
2. Stringing and Sag Data Reports

5.4.3 Ground Clearance Confirmation

As stated in the specification, ground clearance confirmation will be the responsibility of the Prime Contractor. The Subcontractor will cooperate with the Prime Contractor's Representative with respect to providing schedule information and confirming which sections of line are ready for ground clearance confirmation.

5.4.4 Conductor tie-ins

For the purpose of ensuring that conductor tie-ins are completed in accordance with the requirements of the Contract the following measures will be implemented:

1. Clipping personnel will receive training in the correct installation of tie-in hardware in accordance with specifications. This training will be inclusive of:
    a. Discussion of insulator handling and care
    b. Discussion of hardware alignment and installation
    c. Discussion of correct installation and orientation of cotter keys to allow for hotstick installation / removal.
2. Clipping personnel will be instructed in the correct installation of insulator string tie-ins with respect to offset distance.
3. Inspections will be conducted to ensure that conductor tie-in hardware is properly installed in accordance with the specification.

For the purpose of assuring the Prime Contractor that tying-in activities have been completed in accordance with the requirements of the Contract, the Subcontractor will document tying-in activities on Final Phase III Acceptance Form.

5.5 Final Inspections and Commissioning Patrols

The goals of the PQP with respect to final inspections and commissioning patrols are as follows:

1. To provide a final opportunity to ensure that all Quality-related properties of sections of the transmission line are confirmed prior to final handover of the line for commissioning.
2. To ensure that all commitments of the Subcontractor under the Contract have been satisfied prior to its closure of such Contract.
3. To assure the Prime Contractor of the overall Quality of all works constructed under the Contract prior to final handover of the transmission line.

Final inspections and patrols will be conducted and documented in accordance with Contract and in full cooperation with the Prime Contractor. These inspections will be documented in the following Forms:

1. Transmission Pre-Commissioning Check Form
2. Patrol Worksheet

(End of Document)

VALARD A QUANTA SERVICES COMPANY	Document Description						Sub-Contractor Controls	
	Created By:	A. Felczak			Doc. Number		Health, Safety & Environmental Policy 4.00	
	Date:	Sept. 23, 2003	Revision:	5	Revised by:	A. Felczak	Date:	Jan. 3, 2012

SECTION 4 – SUBCONTRACTOR CONTROLS

TABLE OF CONTENTS

4.1 SUBCONTRACTOR POLICY

It is the policy of Valard that all direct hire and subcontractor employees are entitled to work in a safe environment. To achieve this, every reasonable effort shall be to eliminate hazards and prevent incidents that cause injury to workers, environmental damage and property damage. This effort shall include controls applied both before awarding a subcontract and during the execution of the work.

Valard believes that taking proper precautions can prevent incidents. It is the duty of every subcontractor, in the performance of their subcontract, to cooperate with and comply fully with Valard's Health, Safety & Environmental Manual and Provincial/Federal Health, Safety & Environmental Regulations.

4.2 PRECONTRACT CONTROLS

All subcontractors are to be evaluated before being considered for a subcontract to ensure they are capable of meeting Valard's safety standards.

Subcontractors being evaluated must submit the following documentation to Valard.

- Copy of subcontractor's safety manual
- Completed copy of Form 4.5.2 Subcontractor Prequalification Questionnaire Form
- Copy of A WCB clearance letter. If the subcontractor is unable to provide the document, the client must approve them prior to them entering the worksite.

The Vice President of Health and Safety will review these documents for acceptability. The subcontractor can be rated as "approved", "approved with conditions" and "rejected". Subcontractors with a "rejected" rating may be considered only if there are no "approved" or "approved with conditions" rated contractors available.

Subcontractors are to be advised that they are responsible for screening any of their subcontractors they retain to ensure they are capable of meeting Valard's Safety standards.

Valard's Health, Safety and Environmental Department will review and evaluate subcontractor's 4.5.2 Prequalification Questionnaire Form by completing Form # 4.5.3 and will either approve their Manual or request that Valard's HS&E Manual be followed.

4.3 PRECONSTRUCTION CONTROLS

Before subcontractors are permitted to mobilize on site and begin work, the following steps must be taken:

- Subcontractor Policy Agreement Form #4.5.1 must be signed and forwarded to the Edmonton office.
- A copy of the subcontractor's safety manual must be submitted to the project Area Supervisor.
- WHMIS Material Safety Data Sheets are to be submitted to the Area Supervisor or the Safety Coordinator for every controlled product the subcontractor uses or stores on site. MSDS's are not valid if they are over three years old. (See Section 13 of this Manual)

All subcontractor personnel must complete CSTS (Construction Safety Training System, offered by the Alberta Construction Safety Association) if:

- The client requires it. Workers arriving for orientation must have a valid CSTS wallet card in their possession.
- Subcontractors are to ensure that they have an adequate number of employees trained in First Aid to meet the requirements of the OH&S First Aid Regulations.
- The subcontractor's Site Supervisor must attend a pre-job meeting and physically inspect the work site.
- Subcontractors must submit a Hazard Analysis for their scope of work. (See Section 6 of this manual)

4.4 CONSTRUCTION CONTROLS

Subcontractors in the process of performing work under the control of Valard must meet the following requirements:

- All work will be performed in accordance to the subcontractor's safety manual. If the standards set out in the subcontractor's manual is exceeded by Valard's Health, Safety & Environmental Manual, our clients Safety Manual and/or Legislation, the higher standard must be adhered to. Subcontractors without a manual or without elements included in Valard's manual shall follow Valard's manual.
- Workers arriving on a Valard's Site must receive Valard's Site Specific Orientation as per Section 8 of this manual and any applicable client required orientations.
- Subcontractors will be responsible for monitoring the performance of their employees and subcontractors and taking corrective action when necessary. (See Section 3 of this manual)
- All subcontractor employees will participate in a morning Tailboard (pre-task meeting) Valard and its subcontractors will hold joint meetings whenever practical. (See section 6 of this manual)
- All site subcontractor employees will participate in a monthly safety meeting. (See Section 8 of this manual)
- All subcontractors will perform a bi-weekly safety inspection and submit it to Valard's Foreman or Safety Coordinator. (See Section 9 of this manual)
- Subcontractors shall ensure that their employees have adequate Personal Protective Equipment available to them (See Section 10 of this manual)
- Subcontractors are required to report all incidents and near misses to Valard's Foreman and the Vice President of Health, Safety & Environment.
- Valard and their Subcontractors shall investigate as a minimum:
    1. Lost Time Incidents
    2. Medical Aid Incidents
    3. Incidents resulting in Modified Work
    4. Incidents that had potential for serious injury or property damage
- Valard and their subcontractors will provide the investigation of incidents results to the client if required.
- Subcontractors are to ensure their employees are familiar with site emergency procedures. (Both Valard's and the owner/clients if applicable).

- Valard may require a manpower roster within one hour of work commencing for the day for evacuation head count purposes.
- Subcontractors shall actively manage WCB claims and will provide Modified Work whenever possible.
- Subcontractors shall at all time maintain a substance abuse program equivalent while on the worksite as documented in the Construction Owners Association of Alberta Model. (See Section 16 of this manual). In cases where the client's Alcohol and Drug Policy differs from the Canadian Model then Valard will inform the subcontractor and will provide a copy of the client's Alcohol and Drug Policy and that this policy must be communicated to their employees and it must be adhered to while working on their worksite.
- Subcontractors shall maintain all of their tools and equipment as per manufactures specifications. All tools and equipment must be inspected at the start of the job and then on a monthly basis thereafter. The inspections must be recorded and forwarded to Valard's' Area Supervisor or Safety Advisor. All mobile equipment must be accompanied with a mechanic's report on its condition including a signed statement that all safety switches operate as per manufacturer's design. Cranes/ lifting devices require a Boom certificate dated within the past 12 months and recertified if it is expired before continuing work.
- On the last working day of the month, subcontractors are to submit their statistics for themselves and their subcontractors to the Area Supervisor or Safety Coordinator. The statistics must include:
    1. Number of First Aid Incidents
    2. Number of Medical Aid Incidents
    3. Number of Lost Time Incidents
    4. Number of Near Miss Incidents
    5. Number of Property Damage Incidents
    6. Number of Environmental Incidents
    7. Total Man Hours Worked
- Subcontractors are to provide or develop any necessary safe work practices and procedures. The practices and procedures must be applicable to the project.
- Subcontractors will be evaluated for compliance after a maximum of 30 days on site using Valard's Subcontractor's Site Safety Audit Form #4.5.4.
- All subcontractors will be evaluated after the specific project is completed using the following information;
    1. Monthly Health and Safety stat reports as required in Section 21 (monthly HS&E reports)
    2. Site Inspection reports
    3. Form 4.5.2 Subcontractor's pre-qual
    4. Form 4.5.3 Subcontractor's Pre-qual audit
    5. Form 4.5.4 Subcontractors site safety audit
- The following individuals are to be present during the projects subcontractors' evaluation meeting, Valard's Vice President of Health and Safety, Project Manager, site Superintendent, site Safety Advisor, Valard's person in charge of

subcontractors work and subcontractors project manager and site safety advisor if available.

- Subcontractors will be evaluated on the above 5 key result points and items that are identified as non compliance to Valard's HS&E requirements will be required to demonstrate a commitment to address these issues, will not be permitted to bid on work until they have shown until they satisfy the requirements.

4.5.1 SUBCONTRACTOR POLICY AGREEMENT FORM.

It is the policy of Valard Construction that all direct hire and subcontractor employees are entitled to work in a safe environment. To achieve this, every reasonable effort shall be to eliminate hazards and prevent incidents that cause injury to workers, environmental damage and property damage. This effort shall include controls applied both before awarding a subcontract and during the execution of the work.

Valard Construction believes that taking proper precautions can prevent incidents. It is the duty of every subcontractor, in the performance of their subcontract, to cooperate with Valard Construction and comply fully with Valard's Health, Safety & Environmental Manual and Provincial Health, Safety & Environmental Regulations.

I acknowledge and agree with the above policy and I will personally endeavour to ensure that the employees of my company comply with all of the above. I understand that non-compliance with these policies may result in the dismissal of individuals on site and/or the termination of my contract.

SIGNED BY:

_____ _____ _____
Senior Company Official Company Date

_____
Print Name + Title

_____ _____ _____
Site Supervisor Company Date

_____
Print Name

Additional required info:

- Services supplied:_____
- Liability Insurance Certificate:_____
- Phone #:_____ Fax #:_____
- GST #:_____
- List of Equipment c/w current certification attached.
- WCB Clearance Letter.

Note: All equipment must arrive with valid and current certification.

i.e. Cranes as well as boom trucks must have a boom inspection certificate within the last year. This includes all lifting equipment including manbaskets.

VALARD A QUANTA SERVICES COMPANY	Document Description				Sub-Contractor Controls		
	Created By:	A. Felczak	Doc. Number		Health, Safety & Environmental Policy 4.00		
	Date:	Sept. 23, 2003	Revision:	5	Revised by:	A. Felczak	Date: Jan. 3, 2012

4.5.2 SUB-CONTRACTOR PRE-QUALIFICATION QUESTIONAIRE FORM

Auditors	**Date:**

GENERAL

1.	**Company Name**	**Telephone**	**Fax**
	Street Address	**City**	**Province** / **Postal Code**

2. **Check classes of work**:

Concrete	☐	Painting	☐	Roofing	☐
Demolition	☐	Insulation	☐	Security	☐
Electrical	☐	Janitorial	☐	Sheet Metal	☐
Engineering	☐	Landscaping/Lawn Service	☐	Structural Steel	☐
Excavation	☐	Maintenance	☐	Other (list)	☐
Fencing	☐	Architectural Finishing	☐		☐
Fire Protection	☐	Mechanical	☐	_____	☐

3. **Workers Compensation Experience Rating:** **Industry code:** _____

Rating:	Year:	Partnership Discount/Surcharge
_____	20	_____
_____	20	_____
_____	20	_____

(copy of the past 3 years WCB Experience Rating attached)

4.

A.	Employee hours worked last three years (**excluding subcontractors**)	20	20	20
	Total Hours:			
B.	Employee hours worked last three years (**including subcontractors**)	20	20	20
	Total Hours:			

c) Provide the following data (excluding subcontractor) from the past three years:

	20		20		20	
	No.	Rate	No.	Rate	No.	Rate
Injury related fatality *Total x 200,000 = Rate* *Total Employee Hours*						
Injury involving Lost Time *Total x 200,000 = Rate* *Total Employee Hours*						
Injury related days total away from work *Total x 200,000 = Rate* *Total Employee Hours*						
Injuries involving medical treatment only *Total x 200,000 = Rate* *Total Employee Hours*						
Total Recordable Injuries including LTI & M.A. *Total x 200,000 = Rate* *Total Employee Hours*						
Total number of restricted work cases *Total x 200,000 = Rate* *Total Employee Hours*						
Total number of *days* of restricted work activity *Total x 200,000 = Rate* *Total Employee Hours*						

Notes: (1) Data should be the best available data applicable to the work in this region or area.

5.	Have you received any regulatory citations in the last three years?	☐ Yes	☐ No
	If yes, please attach copies.		

SAFETY & HEALTH MANAGEMENT

6.	Highest ranking safety/health professional in the company:		
	Title:	Telephone:	Fax:
7.	Do you have or do you provide:		
	a) Full-time Safety/Health Director	☐ Yes	☐ No
	b) Full-time Site Safety/Health Advisor	☐ Yes	☐ No
	At what time do you provide full-time safety person:		
	c) Are foremen trained and responsible for day-to-day safety activities?	☐ Yes	☐ No

INCIDENT REPORTING

9.	Do you have a procedure for the investigation, reporting, and follow-up of incidents, near misses, and occupation injuries?	☐ Yes	☐ No

VALARD A QUANTA SERVICES COMPANY	Document Description				Sub-Contractor Controls		
	Created By:	A. Felczak	Doc. Number		Health, Safety & Environmental Policy 4.00		
	Date:	Sept. 23, 2003	Revision:	5	Revised by:	A. Felczak	Date: Jan. 3, 2012

SAFETY & HEALTH PROGRAMS & PROCEDURES			
10.	**Do you have a written Safety and Health Program?**	☐ Yes	☐ No
	Does the program address the following key elements?		
	· Management commitment and expectations	☐ Yes	☐ No
	· Employee/partners participation	☐ Yes	☐ No
	· Accountabilities and responsibilities for managers, supervisors	☐ Yes	☐ No
	· Resources for meeting safety & health requirements	☐ Yes	☐ No
	· Periodic safety and health performance appraisals for all employee/partners	☐ Yes	☐ No
	· Hazard recognition and control	☐ Yes	☐ No
11.	**Does the program include work practices and procedures such as:**		
	a) Elevated Work	☐ Yes	☐ No
	b) Equipment Lockout and Tagout	☐ Yes	☐ No
	c) Confined Space Entry	☐ Yes	☐ No
	d) Hot Work	☐ Yes	☐ No
	e) Fall Protection	☐ Yes	☐ No
	f) Personal Protective Equipment	☐ Yes	☐ No
	g) Portable Electrical/Power Tools/Pneumatic	☐ Yes	☐ No
	h) Vehicle Safety	☐ Yes	☐ No
	i) Compressed Gas Cylinders	☐ Yes	☐ No
	j) Electrical Equipment Grounding Assurance	☐ Yes	☐ No
	k) Powered Industrial Vehicles (Cranes, Forklifts, JLG's, etc.)	☐ Yes	☐ No
	l) Housekeeping	☐ Yes	☐ No
	m) Excavation and Trenching/Stairways	☐ Yes	☐ No
	n) Unsafe Condition Reporting	☐ Yes	☐ No
	o) Emergency Planning	☐ Yes	☐ No
	p) Waste Disposal	☐ Yes	☐ No
	q) Scaffolding/Ladders/Stairways	☐ Yes	☐ No
12.	**Do you have written programs for the following**:		
	a) Hearing Conservation	☐ Yes	☐ No
	b) Respiratory Protection	☐ Yes	☐ No
	Where applicable, have employees been:		
	☐ Trained		
	☐ Fit Tested		
	☐ Medically approved		
	c) Hazard Communication	☐ Yes	☐ No
13.	**Do you have a substance abuse program?**	☐ Yes	☐ No
	If yes, does it include the following:		
	· Pre-employment Testing	☐ Yes	☐ No
	· Random Testing	☐ Yes	☐ No
	· Testing for Cause	☐ Yes	☐ No
	· Site Access	☐ Yes	☐ No
14.	Do your employees read, write, and understand English such that they can perform their job tasks safely without an interpreter? In no, provide a description of your plan to assure that they can safely perform their jobs.	☐ Yes	☐ No

15. Medical

a) Do you conduct medical examinations for:

- Hearing ☐ Yes ☐ No
- Pulmonary ☐ Yes ☐ No
- Respiratory ☐ Yes ☐ No

b) Describe how you will provide first aid and other medical services for your employees while on-site

Specify who will provide this service?

c) Do you have personnel trained to perform first aid and CPR? ☐ Yes ☐ No

16. Do you hold site safety and health meetings for:

Field Supervisors	☐ Yes	☐ No	Frequency
Employees	☐ Yes	☐ No	Frequency
New Hires	☐ Yes	☐ No	Frequency
Subcontractors	☐ Yes	☐ No	Frequency

17. Personal Protection Equipment (PPE)

a) Is applicable PPE provided for employees? ☐ Yes ☐ No

b) Do you have a program to assure that PPE is inspected and maintained? ☐ Yes ☐ No

18. Equipment and Materials:

a) Do you have a system for establishing applicable health, safety, and environmental specifications for acquisition of materials and equipment? ☐ Yes ☐ No

b) Do you conduct inspections on operating equipment (e.g. cranes, forklifts, JLG's) in compliance with regulatory requirements? ☐ Yes ☐ No

c) Do you maintain inspection and maintenance certification records for operating equipment which you own? ☐ Yes ☐ No

d) Do you verify inspection and maintain certification on rented or leased equipment? ☐ Yes ☐ No

19. Use of Subcontractors

a) Do you have a pre-qualification process for subcontractors? ☐ Yes ☐ No

b) Do you evaluate the ability of subcontractors to comply with applicable health and safety requirements as part of the selection process? ☐ Yes ☐ No

c) Do your subcontractors have a written Safety & Health Program? ☐ Yes ☐ No

d) Do you include subcontractors in:

- Safety & Health Orientation ☐ Yes ☐ No

Safety & Health Meetings

- Inspections ☐ Yes ☐ No
- Audits ☐ Yes ☐ No

20. Safety Audits

a) Who conducts audits and at what frequency

b) Do you conduct safety and health field audits? ☐ Yes ☐ No

c) Do you audit your safety and health programs (Policies & Procedures)? ☐ Yes ☐ No

d) Are corrections of deficiencies documented? ☐ Yes ☐ No

e) Do you have a corrective action process for addressing individual safety & health performance deficiencies ☐ Yes ☐ No

f) Attach a copy of the Certificate of Recognition if available

SAFETY & HEALTH TRAINING

21. Craft Training

a) Have employees been trained in appropriate job skills? ☐ Yes ☐ No

b) Are employees job skills certified where required by regulatory or industry consensus standards? ☐ Yes ☐ No

c) Do job descriptions exist for each employee task? ☐ Yes ☐ No

22. Safety & Health Orientation

	New Hires		Supervisors	
a) Do you have a Safety & Health Orientation Program for new hires and new supervisors?	☐ Yes	☐ No	☐ Yes	☐ No
b) Does the program provide instruction on the following:				
· New Worker Orientation	☐ Yes	☐ No	☐ Yes	☐ No
· Safe Work Practices	☐ Yes	☐ No	☐ Yes	☐ No
· Safety Supervision	☐ Yes	☐ No	☐ Yes	☐ No
· Toolbox Meetings	☐ Yes	☐ No	☐ Yes	☐ No
· Emergency Procedures	☐ Yes	☐ No	☐ Yes	☐ No
· First Aid Procedures	☐ Yes	☐ No	☐ Yes	☐ No
· Incident Investigation	☐ Yes	☐ No	☐ Yes	☐ No
· Fire Protection and Prevention	☐ Yes	☐ No	☐ Yes	☐ No
· Safety Intervention	☐ Yes	☐ No	☐ Yes	☐ No
· Hazard Communication/WHMIS	☐ Yes	☐ No	☐ Yes	☐ No
How long is the orientation program:	Hours			

23. Training Records

a) Do you have safety and health and crafts training records for your employees? ☐ Yes ☐ No

b) Do the training records include the following:

Employee identification ☐ Yes ☐ No

Date of training ☐ Yes ☐ No

Name of Trainer ☐ Yes ☐ No

Method used to verify understanding ☐ Yes ☐ No

c) How do you verify understanding of the training? (Check all that apply)

☐ Written Test
☐ Oral Test
☐ Performance Test
☐ Job Monitoring
☐ Other List:

VALARD A QUANTA SERVICES COMPANY	Document Description							Sub-Contractor Controls
	Created By:	A. Felczak			Doc. Number			Health, Safety & Environmental Policy 4.00
	Date:	Sept. 23, 2003	Revision:	5	Revised by:	A. Felczak	Date:	Jan. 3, 2012

ENCLOSURES

Include the following:

- ☐ WCB Rating
- ☐ Safety & Health Program (Overview)
- ☐ Safety & Health Incentive Program
- ☐ Accident/Incident Investigation Procedure
- ☐ Unsafe Condition Reporting Procedure
- ☐ Pre-qualification Form for subcontractors
- ☐ Safety & Health Orientation Outline
- ☐ Certificate Of Recognition

Name of Auditor (print) _____

Date: _____

Signed: _____

4.5.3 SUB-CONTRACTOR PRE-QUALIFICATION AUDIT FORM

Auditors	**Date:**

GENERAL

1	**Company Name**	**Telephone**		Fax
	Street Address	**City**	**Province**	**Postal Code**

WORK CLASSIFICATIONS

2 Check classes of work:

Boiler Work	☐	Heavy Hauling-Rigging	☐	Painting	☐	Other (List)	☐
Clerical	☐	HVAC	☐	Paving	☐	_____	☐
Concrete	☐	Inspection and Testing	☐	Piping	☐	_____	☐
Demolition	☐	Instrumentation	☐	Plumbing	☐	_____	☐
Electrical	☐	Insulation	☐	Remediation	☐	_____	☐
Engineering	☐	Janitorial	☐	Roofing	☐	_____	☐
Excavation	☐	Landscaping/Lawn Service	☐	Security	☐	_____	☐
Fencing	☐	Maintenance	☐	Sheet Metal	☐		
Fire Protection	☐	Manpower	☐	Structural Steel	☐		
Flooring	☐	Mechanical	☐	Tanks	☐		

SAFETY & HEALTH PROGRAMS AND PROCEDURES

3	Show the mechanism that is used to communicate the following from safety and health programs to the employees. View documentation from employee files.		
·	Management commitment and expectations	☐ Yes	☐ No
·	Employee participation	☐ Yes	☐ No
·	Accountability & responsibilities for managers, supervisors & employees	☐ Yes	☐ No
·	Resources for meeting safety & health requirements	☐ Yes	☐ No
·	Hazard recognition and control	☐ Yes	☐ No
·	View training documentation and procedures for the following:		
·	Elevated work	☐ Yes	☐ No
·	Equipment Lockout & Tagout	☐ Yes	☐ No
·	Confined Space Entry	☐ Yes	☐ No
·	Hot Work	☐ Yes	☐ No
·	Fall Protection	☐ Yes	☐ No
·	Personal Protective Equipment	☐ Yes	☐ No
·	Portable Electrical/Power Tools/Pneumatic	☐ Yes	☐ No
·	Vehicle Safety	☐ Yes	☐ No
·	Compressed Gas Cylinders	☐ Yes	☐ No
·	Powered Industrial Vehicles (Cranes, Forklifts, JLGs, etc.)	☐ Yes	☐ No

SAFETY & HEALTH PROGRAMS AND PROCEDURES – Continued

·	Housekeeping	☐ Yes	☐ No
·	Excavation and Trenching/Stairways	☐ Yes	☐ No
·	Unsafe Condition Reporting by Employees	☐ Yes	☐ No
·	Emergency Planning	☐ Yes	☐ No
·	Waste Disposal	☐ Yes	☐ No
·	Scaffolding/Ladders/Stairways	☐ Yes	☐ No

4. View training documentation for the following programs. Check that these exist for each applicable employee.

a)	Hearing Conservation	☐ Yes	☐ No
b)	Respiratory Protection	☐ Yes	☐ No

Where applicable, have employees been:

- ☐ Trained
- ☐ Fit Tested
- ☐ Medically Approved

c)	Hazard Communication	☐ Yes	☐ No
d)	Program to support the contractor requirements of a hazard assessment .	☐ Yes	☐ No

5. View contractor's documentation for communicating their substance abuse program. Does this include the following:

·	Pre-employment Testing	☐ Yes	☐ No
·	Random Testing	☐ Yes	☐ No
·	Testing for Cause	☐ Yes	☐ No

6. Are safety meetings held for the following:

·	Field Supervisors	☐ Yes	☐ No	Frequency
·	Employees	☐ Yes	☐ No	Frequency
·	New Hires	☐ Yes	☐ No	Frequency
·	Subcontractors	☐ Yes	☐ No	Frequency

Are the safety and health meetings documented? ☐ Yes ☐ No

7. Personal Protection Equipment (PPE)

a)	Is applicable PPE provided for Employees?	☐ Yes	☐ No
b)	View documentation for the program to assure that PPE is inspected and maintained	☐ Yes	☐ No

8.	Show mechanism that is used for a corrective action process for addressing individual safety and health performance deficiencies?	☐ Yes	☐ No

9. View the supporting documents that address the following material and equipment questions:

a)	System for establishing applicable health, safety, and environmental specifications for acquisition of materials and equipment?	☐ Yes	☐ No
b)	Checklist and procedure for inspections on operating equipment (e.g. cranes, forklifts, JLGs) in compliance with regulatory requirements?	☐ Yes	☐ No
c)	Inspection and maintenance certification records for operating equipment?	☐ Yes	☐ No

10. Subcontractors:

a)	View safety and health performance criteria in selection of subcontractors?	☐ Yes	☐ No
b)	Show the mechanism to evaluate the ability of subcontractors to comply with applicable health & safety requirements as part of the selection process.	☐ Yes	☐ No
c)	View the subcontractors pre-qualification records.	☐ Yes	☐ No
d)	View the supporting documentation that shows attendance of the following for subcontractors.	☐ Yes	☐ No
	· Safety & Health Orientation	☐ Yes	☐ No
	· Safety & Health Meeting	☐ Yes	☐ No
	· Inspections	☐ Yes	☐ No
	· Audits	☐ Yes	☐ No

View the following:

a)	Safety and health inspections?	☐ Yes	☐ No
b)	Safety and health program audits?	☐ Yes	☐ No
c)	Supporting documents for corrections of deficiencies?	☐ Yes	☐ No

SAFETY & HEALTH TRAINING

11. Craft Training

a)	Show craft specific training documentation for employees	☐ Yes	☐ No
b)	View certification where required by regulatory or industry consensus standards	☐ Yes	☐ No
c)	Show documentation that relates craft specific hazards and the relationship to tasks being performed in a highly hazardous environment	☐ Yes	☐ No

COMMENTS: _____

_____

_____

_____

_____

12. **Safety & Health Orientation**

		New Hires		Supervisors	
a)	View the Safety & Health Orientation Program for new hires and newly hired or promoted supervisors.	☐ Yes	☐ No	☐ Yes	☐ No
b)	Does program provide instruction on the following:				
	· New Worker Orientation	☐ Yes	☐ No	☐ Yes	☐ No
	· Safe Work Practices	☐ Yes	☐ No	☐ Yes	☐ No
	· Safety Supervision	☐ Yes	☐ No	☐ Yes	☐ No
	· Toolbox Meetings	☐ Yes	☐ No	☐ Yes	☐ No
	· Emergency Procedures	☐ Yes	☐ No	☐ Yes	☐ No
	· First Aid Procedures	☐ Yes	☐ No	☐ Yes	☐ No
	· Incident Investigation	☐ Yes	☐ No	☐ Yes	☐ No
	· Fire Protection and Prevention	☐ Yes	☐ No	☐ Yes	☐ No
	· Safety Intervention	☐ Yes	☐ No	☐ Yes	☐ No
	· Hazard Communication	☐ Yes	☐ No	☐ Yes	☐ No
c)	How long is the orientation program?			Hours	

COMMENTS: _____

_____

_____

13.	Training Records		
	a) View safety & Health & craft training records for your employees?	☐ Yes	☐ No
	b) Do the training records include the following:		
	· Employee Identification	☐ Yes	☐ No
	· Date of Training	☐ Yes	☐ No
	· Name of trainer	☐ Yes	☐ No
	· Method used to verify understanding	☐ Yes	☐ No

c) How is training verified? (Check all that apply)

☐ Written Test ☐ Job Monitoring

☐ Oral Test ☐ Other (List) _____

☐ Performance Test _____

COMMENTS: _____

_____

_____

Signature of Company Director: of Health and Safety _____

Dated: _____

DO NOT FILL OUT – INTERNAL USE ONLY

Contractor is:

☐ Acceptable for Approved Contractor List

☐ Conditionally acceptable for Approved Contractor List

☐ Conditions:

Name of Contractor: **Worksite Location:**

Contact:

Reviewer: _____ Date: _____

VALARD A QUANTA SERVICES COMPANY	Document Description				Sub-Contractor Controls			
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EVALUATION CRITERIA

Safety and Health Performance	**Acceptable**	**Needs Improvement**
Modified Work cases	☐	☐
Medical Aid cases	☐	☐
Lost Time Rate	☐	☐
Citations	☐	☐
Safety and Health Program	**Acceptable**	**Needs Improvement**
Safety & Health Staff	☐	☐
Safety & Health Program	☐	☐
Safety & Health Procedures	☐	☐
Substance Abuse Policy	☐	☐
English Comprehension	☐	☐
Safety Meetings	☐	☐
Subcontractor Programs	☐	☐
Inspections	☐	☐
Training	☐	☐
Requested Copies Provided	☐	☐
Contractor should be added to the approved contractors list:	☐ Yes	☐ No

Audited by: _____	Date: _____

4.5.4 SUBCONTRACTOR SITE SAFETY AUDIT CHECKLIST

Area:	Contractor Company Name:	Valard Representative:
Location:	Audit Date:	Contractor Representative:

ITEM

Rating:

0	Contractor meets none of the requirements of the category
5	Contractor meets some of the requirements of the category
10	Contractor meets all requirements of the category

PERSONAL PROTECTIVE EQUIPMENT Comments	Rating
1. **Is proper Personal Protective Equipment being used?**	
a) Head	
b) Eyes	
c) Hearing (If applicable)	
d) Respiratory (If applicable)	
e) Foot	
f) Goggles on hard hat (if applicable)	
g) Flame retardant garment (If applicable)	
h) Face	
i) Others	
SAFE WORK PROCEDURES	
1. Housekeeping?	
2. Fall Protection Used?	
3. Open holes/danger zone barricaded/lights at night?	
4. Lockout/Tagout procedures followed?	
5. Chemical labels displayed?	
6. Food consumed in lunch area only?	
7. Scaffold procedures followed (i.e. kick boards, railings, tagged)?	

RESUME

Dennis Chevrier

POSITION

Quality Manager

SUMMARY

- Dennis has over 43 years of experience and has been with Valard for the past 6 years.

EMPLOYMENT HISTORY

Valard LP
Calgary, AB
2006 - Present

Material Management Logistics/ QA

- Manage materials inventory, manage construction procedure on four substations on 415km of 115kV transmission line for DeBeers/Amec Victor Transmission Line Project in James Bay, ON.
- Inspector of final work for DeBeers project.
- Supervise crews installing poles and framing transmission structures on 115 kV circuits.

Comstock Canada
Burlington, ON
2004 - 2005

Assistant Superintendent / General Foreman

- Manage materials inventory, ordering and handling on new 230 kV circuit Brascan Power Project – Anjiami X Sault Ste. Marie.
- Assist the Senior Superintendent in the everyday operations in monitoring the production, quality and efficiencies of the +120 men on the project.
- In association with the Safety Dept., evaluate, develop, and implement job plans, and health and safety policies.
- Monitor the performance and production of contractors working for Comstock Canada.

Powertel Utilities Contractors
Whitefish, ON
2000 - 2003

Lineman/Supervisor

- Construct overhead distribution and transmission line on isolated/de-energized circuits.
- Supervise crews installing poles and framing transmission structures on 115 kV circuits.
- Use of live line techniques to change 115 kV insulators on towers

Caribbean Utilities Company
Grand Cayman, Cayman Islands
1998 - 1999

Line Manager

- Accountable for the everyday operations of a department of 35 employees constructing and maintaining the electrical system of a highly commercialized and recreational area of the Caribbean.
- Assess, develop and implement training requirements for the Lines Department.
- Prepare, scrutinize, and execute multi-million dollar capital, operations, maintenance and administrative budgets.

Ontario Hydro
Ontario
1995 - 1998

Custom Operations Manager

- Accountable for the safe and reliable source of electrical power to over 9,000 residential and industrial customers of Manitoulin Island and surrounding area.
- Manage a local work force of 30 employees consisting of clerical, forestry, lines and mechanical staff.
- Develop, present and monitor a health and safety program for the multi trade work force of this operations center.
- Develop, communicate and monitor environmental policies that adhere to or exceed legislative requirements (due diligence).

Ontario Hydro
Ontario
1979 - 1995

Area Line Supervisor

- Supervise a staff of highly trained employees in the construction, maintenance and inspection of rural lines serving over 35,000 heavy industrial, commercial, and residential customers and 400 kms of transmission circuits (Voltages from 115 kV – 500 kV) feeding the provincial grid system.

- Trained and experienced in the installation of implosive and standard compression sleeves of overhead conductors.
- Supervise the stringing of overhead transmission conductors (conventional and tension stringing) of various conductor sizes.
- Plan and conduct seminars on training and safety meetings for individual and group sessions.
- Evaluate, develop, write, and instruct new job procedure

Ontario Hydro
Ontario
1969 - 1979

Journeyman Lineman

- Construct and maintain overhead and underground distribution circuits on voltages from 12 kV to 44 kV. Work methods include the use of rubber gloves, live line tools, and insulated aerial devices.
- Construct and maintain transmission circuits on wood pole and steel tower structures on voltages from 115 kV to 500 kV. Work methods included the use of live line tools and insulated aerial devices.
- Perform helicopter patrols analyzing conditions of distribution and transmission circuits and preparing detailed reports.
- Instruct 4th year apprentices at the Ontario Hydro Training office in Orangeville.

LICENSES & CERTIFICATION

- Professional Development
- Job Planning
- Work Area Protection
- Utility Work Protection Code
- Live Line Tool Techniques
- High Voltage Electrical Awareness
- Standard First Aid and CPR (St. John's Ambulance)
- Bucket Rescue and Escape
- Pole Top Rescue
- Grounding and Bonding
- TDG
- Transportation of Regulated Waste
- WHMIS
- Fall Arrest
- Certified Health and Safety Member

RESUME

Guy Corbiere

POSITION

Conductor Superintendent

SUMMARY

- Guy has been a part of the Valard team for 6 years

EMPLOYMENT HISTORY

Valard Construction LP
Calgary, AB
2006 - Present

Supervisor - Hanna Region Transmission Development Project-ATCO Electric
- Supervisor of tension stringing activities for double circuit 240kV line
- Supervisor or sagging operations
- Co-ordinate tying in, dead ending and splicing activities

Supervisor - Debottlenecking Project-SNC Lavalin
- Supervisor of tension stringing activities for double circuit 240kV line
- Supervisor or sagging operations
- Co-ordinate tying in, dead ending and splicing activities

Supervisor - Bruce x Milton 500kV-Hydro One
- Supervisor of tension stringing activities for double circuit 500kV line
- Supervisor or sagging operations
- Co-ordinate tying in, dead ending and splicing activities

Foreman - Manitoba Hydro Transmission Project
- Direct assembly and erection activities on 240kV lattice tower line running from Snow Lake MB to The Pas, MB

Foreman - Kearl Oil Sands Substation
- Oversee the construction and tie in to constructed transmission and distribution lines.

LICENSES & CERTIFICATION

- Construction Safety Training System
- High Energy Joining Blasting Operations Permit
- Equal potential Bonding and Grounding Training
- Flagperson Training
- Radial Book Digger Training
- Transportation of Dangerous Goods
- WHMIS
- Journeyman Powerline Technician
- First Aid/CPR
- Fortis-Environmental Awareness Training
- Hydro One Electrical Awareness
- PME Training- Crawler Tractor/Dozer

RESUME

Lonnie Eirickson

POSITION

Construction Supervisor

SUMMARY

- Lonnie recently joined Valard last year and comes with over 22 years of experience and over 1000 km as Foreman, Lineman and Operator
- Power lines worked on: Transmission & Distribution – 500 kV, 230 kV, 138 kV, 115 kV, 72kV, 66kV and 25 kV

EMPLOYMENT HISTORY

Valard Construction LP
Calgary, AB
2011 - Present

Stringing Superintendent
- Topping towers, erection and stringing done by helicopter
- String wire, tension & slack, clamping in the wire, sagging, dead-end wire

Manitoba Hydro Herblett-Ralls TL
2010 – 2011

Construction Manager
- Aerial framing of wood structures
- Framing wood structures
- Aerial framing of wood structures
- Framing wood structures

Hydro One Networks Inc.
Ontario
2009 – 2010

Foreman and Construction Manager
- Bruce x Milton Reinforcement
- Canadian Projects-Lower and Upper Clowhom Transmission Line

ATCO
Peace Region, AB
2007

Foreman
- Foreman on various assembly, framing, setting, erection and stringing projects

Weyerhaeyser
2007

Foreman
- Foreman on 15kV Tie Line

CNRL Horizon
2006 – 2007

Foreman
- Foreman on substation and transmission project

ATCO
2003 – 2004

Foreman
- Foreman on Athabasca River Crossing, Transmission project

Manitoba Hydro
Glenboro, MB

Foreman
- Installing a Gulfport 230 kV line from Glenboro, MB to the USA border.

LICENSES & CERTIFICATION

- Journeyman Powerline Technician-Red Seal #J-10-96063
- Aerial Work Platform
- Cargo Securement
- CSTS 3.2
- First Aid / CPR
- Flagperson Tranining
- High Energy Joining
- Hours of Service
- OSSA Regional Orientation
- Pre & Post Trip Inspection
- Safe Use and Insattation of Xeconex
- Transportation of Dangerous Goods
- WHMIS

RESUME

Andy Felczak

POSITION

Vice President Health & Safety

SUMMARY

- Over 12 years of experience in Health and Safety
- Extensive Management, Leadership and Human Relations Experience

EMPLOYMENT HISTORY

Valard Construction LP
Edmonton, AB
2003 – Present

Health Safety and Environmental Manager

- Development and maintenance of the Health, Safety & Environmental Manual
- Developed a Behavioral Based Observation Program, Hazard Analysis Process, and At Home Safety Program
- Responsible for the implementation of a Modified Work process and a Recognition Program
- Responsible for WCB and regulatory updates, for British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Yukon, Northwest Territories and Nunavut
- Responsible for the Training and development of the workforce
- Responsible for the overall Health and Safety process, developed a HS&E Manual/Policies and Procedures and Safety Handbook
- Member of the COAA Safety Committee and ACSA

Bird Construction Co.
Edmonton, AB
2002 - 2003

Health Safety and Environmental Manager

- Development and maintenance of the Health, Safety & Environmental Manual
- Developed a behavioral based observation program, Hazard Analysis process as well as an At Home Safety Program
- Recipient of the following awards:
- COAA - Construction Owners Association of Alberta Award for HS&E Program development and implementation process
- ACSA- Alberta construction Association Award for outstanding achievement in the Health and Safety program- Developed, Incident Reporting and Observation database Programs to track trends
- Responsible for WCB, injury reduction and associated correspondence with British Columbia, Alberta, Saskatchewan and Ontario Boards
- Responsible for WCB, in British Columbia, Alberta, Saskatchewan and Ontario

Alliance Pipeline Ltd.
Calgary, AB
1999 - 2001

Safety Advisor Canadian/USA Operations

- The development and implementation of the Web based Health and Safety Manual System, a Safety Handbook and developed an Environmental program for the field personnel
- Developed a training/orientation program and performed audits for station preparedness
- Worked with the National Energy Board in ensuring that the Health Safety and Environment program met the NEB requirements
- Introduced a Behavior Based Safety Program
- Project Lead on the Web based Incident Reporting System developing team

Syncrude Canada Ltd.
Fort McMurray, AB
1997 - 1999

Project Safety Manager Liason for Kellogg Brown and Root

- Overall design, implementation, coordination and performance monitoring of safety programs for Syncrude's Debottleneck II Project being constructed by Kellogg Brown and RootDesigned and implemented the Safety Recognition program, which is based on a behavioral based safety

foundation.

- Adapted and designed the Total Safe Task Observation safety program for use on the site, and have conducted training of key management personnel in its principles
- Involved in decision-making and advisory role to provide safe work procedures and plans for the construction and startup of the plant
- Conducted ongoing analysis and review of incidents for the purpose of continually improving procedures, work practices and safety performance of the project. Played a key role in developing strategy management of the construction project
- Developed a Construction orientation book with an overview of the Syncrude plants. Responsible for WBC related issues and analyzing injuries with recommendations for area improvements
- Updated senior management on project's progress and successes

Syncrude Canada Ltd.
Fort McMurray, AB
1990 - 1997

Senior Loss Management Safety Specialist

- Supervising all construction activities in the Upgrading Area
- Overall responsibility for the implementation of the Environmental, Health, Safety and Loss Management Program, patterned after the DNV/ILCI program in Upgrading, which is a large-scale oil refinery with approximately 700 employees and 500 contractors
- Implemented several EHS and Loss Management issues such as Change Management, Task Analysis and Task Observations including the development of an Oracle based program for its use
- Revision, update and auditing of the Loss Management Standards to reflect and address the Company's redesigned organization
- Supervision of the Safety Specialists during turnarounds.
- Coordinated and lead accident/incident investigations, including appropriate follow-up to prevent reoccurrence of incidents
- As a chairman of Work Protection Code # 8 responsible for updating senior management including COO of changes

LICENSES & CERTIFICATION

- Occupational Health and Safety Program Instructor affiliated with the University of Alberta at Keyano College

ADDITIONAL EDUCATION / TRAINING

- WCB Claims Management Safety and Loss Management Trainer
- Leadership Development Course
- Process Hazards Analysis Leader's Course
- Analytical Troubleshooting Kepner-Tregoe
- Incident Command System Training
- Dupont Safety Management Course
- DNV Accredited Safety Auditor's Course
- DNV Modern Safety Management Course
- Practical Guide to Loss Management Course
- 3M Respirator Trainer the Trainer Instructor's Course
- Hazmat WHMIS Train the Trainer Course
- OH&S/Environmental Due Diligence Course
- Prime Contractor's Role Course
- Industrial Scientific Instrument Maintenance and Calibration Course
- Dale Carnegie Course
- Claims Management Course (WCB)
- Claims Appeal Process Course (WCB)

- Behavior Safety Management Course
- Fall Arrest Trainer Course
- Tap Root Investigation Training

PROFESSIONAL AFFLIATIONS

- President of the Alberta/NWT and National Board Member of the Canadian Society of Safety Engineering 1999-2005
- Chapter chair of Fort McMurray Chapter of Canadian Society of Safety Engineering 1992 - 1999
- Association of Canadian Registered Safety Professionals (CRSP Designation)
- American Society of Safety Engineers since 1995
- Alberta Construction Safety Association since 1992
- Construction Owners Association of Alberta since 2001
- Board of Canadian Registered Safety Professionals Board Of Governors

A QUANTA SERVICES COMPANY

RESUME

Peter Germann

POSITION

Materials Manager

SUMMARY

- Peter has been a part of the Valard team for 7 years

EMPLOYMENT HISTORY

Valard Construction LP
Calgary, AB
2005 - Present

Supervisor

- Northern Transmission Line, BC
- 400 Km, 1100 structure 1 cct tower line
- Initiate start up activities including: material yard layout and camp set up, develop resource plan for manpower and equipment for receiving, handling, and hauling activities
- Coordinate material deliveries to main yard and remote lay down yards
- Set up inventory management system and business processes developed on the BXM line including implementation of accounts payable and purchasing processes.

Materials Manager - Bruce to Milton, ON

- 400 Km, 720 structure 2 x cct 500 kV tower line
- Developed materials processes
- Purchased and implemented a materials management system
- Through standardizing processes and the system, the materials team was able to virtually eliminate material delays for construction crews due to material issues.
- A planning model was developed which coordinated materials activities with construction which resulted in balanced inventories, minimized hauling and unnecessary handling of materials

Hydro One
Ontario
1998- 2005

Manager of Customer and Business Services

- Refinement of business processes focused on unique elements of the customer community
- Project management targeted on the contractor community

Zone Coordinator

- Re implement lines scheduling to six Ops Centres and realign scheduling department to enable work flows as per current business process
- Review touch points with Field Business Centre staff to align the business flows with the scheduling processes
- Leadership role in the provincial coordinators forum in the development of:
  - Contract Management training for provincial lines
  - Contractor work flows
  - Consolidated contractor payment process and account redistribution, as well as process support for other zones as requested
  - Development of the scheduling technician duties to align with the Project Managers role
  - Development of H1 specific Project Management course for Scheduling Techs, UTS and ADET
  - Development of Estimating Technical training package targeted at zone needs
  - Implementation of Estimating Technician scheduling in Z2
  - Implementation of Meter Technician scheduling in Z2
  - Development of Project Manager role to leverage “lessons learned” from variance reviews on project work

Process Development Team Lead

- Responsible for continuing with the work begun by OPEX on the development and implementation of process specific to Provincial Lines. Main assignments were:
  - Develop and implement Lines Scheduling (projects/program) assuming work done previously by a team working parallel to OPEX and using systems previously selected by that team
  - Develop and implement Line Scheduling for demand work
  - Develop and implement the Estimating Tool and ensure compliance with the Distribution Service Code
  - Develop and implement materials processes for demand and project work
  - Work with Zones to develop issues teams and work through issues of a provincial nature and communicate solutions through key contact groups
  - Develop communication and change plans for leadership groups to assist in move staff through significant changes
  - Conduct regular issues meetings with the coordinators to work through scheduling related issues including fleet and materials

Operational Excellence (OPEX)

- The focus of this project was process re-engineering with two different job titles:
  - Provincial Line Representative on the New Connect Team resulting in the re-engineering of the New Connection Process based on customer feed back
  - Implementation Coordinator upon re-engineering of that division

Implementation Coordinator PEP Project

- Implementation of the Work/Asset Management Systems (Passport)
  - Alignment of training with the staff requirements and coordination of training sessions and related logistics
  - Project management- conduct daily meetings with the various development teams and work through issues, set priorities and status milestones
  - Develop a Help strategy for field staff and make it operational to coordinate with the system
  - Coordinate the deployment of the system to the field sites across the province

Implementation Coordinator Customer Service System

- Implement the newly developed Customer information system in the field
  - Communicate and change management issues pre and post implementation
  - Conduct mock- ups of conversion activities across the province
  - Coordinate field training and site support
  - Assist in the transitioning from project to live operation including sustainment activities
  - Safety Inspector during the ice storm to perform crew inspections and provide focus on the ever changing safety issues throughout the rebuild of the distribution system

LICENSES & CERTIFICATION

- Change Management Skills-Conestoga College
- Facilitation Skills-Conestoga College
- Effective Speaking-Conestoga College
- Management by Objectives and Results-Conestoga College
- First Line Supervision Motivation and Leadership- Conestoga College
- Hydro One Electrical Awareness
- Quanta (PISUP)
- Valard Construction Orientation
- Achieve Program
- Safety Meeting Effectiveness

- FLM Development Program
- Project Management
- Effective Supervision I, II, III.

EDUCATION & OTHER TRAINING

- Project Management (Generic and H1 Specific) - Conestoga College

RESUME

Nalin Mistry

POSITION

Project Controls/Scheduling and Planning

SUMMARY

- Dynamic, self-motivated & energetic professional, with bachelor's degree in engineering and having around 32 years of versatile experience in the field of Construction/Project/Contracts Management and Construction for the full project cycle, including procurement.
- OSPE - Ontario Society of Professional Engineers – Resident Associate Membership # 0140922.
- PMI Membership, Membership ID: 1747595.

EMPLOYMENT HISTORY

Valard Construction LP
Calgary, AB
2010 - Present

Project Manager / Quality Manager /Assistant Project Manager

- 160 Million (Electrical Portion only) – as Assistant Project Manager, Bruce to Milton Transmission Refurbishment Project, Hydro One Networks Inc.
- 9.4 Million (Electrical Portion only) – as Project Manager & Quality Manager, 230kV Transmission Line & Switchyard- Design, supply, installation & commissioning.
- 9 Million – as Quality Manager, HRTD Bundle T7 Transmission Line Construction, ATCO
- Coordination of the project regarding project aspects by acting at the interface of Client, Consultants and Construction team
- Review / follow-up / initiate incoming and outgoing correspondence between all concerned parties (Client, Consultants, Suppliers, Sub-Contractors, etc.)
- Risk Management
- Assist in Review & update of Construction Schedule
- Maintaining Logs (Change logs – RFI & CCN logs, Submittal log, Site Instruction log etc.)
- Change Order Management:- Identify & initiate Change Order Items with Clients for Contract Amendment
- Overseeing the entire Quality Management Program.
- Review progress, preparation of invoices & follow up for the payments

Varcon Construction Corporation
Pickering, ON
2010

Project Manager

- Rosebank Sanitary Sewage Pumping Station & Forcemain, Pickering, ON
- Woodstock Art Gallery Renovation, Woodstock, ON
- Coordination of the project regarding all project aspects by acting at the interface of Client, design consultants, Sub-contractors & other vendors & suppliers
- Review / follow-up / initiate all incoming and outgoing correspondence between all concerned parties (Client, Consultants, Suppliers, Sub-Contractors, etc.)
- Risk Management
- Participating on the entire Quality Management Program
- Review & update Construction Schedule
- Review, follow up and expedite all submittals & shop drawings
- Maintaining Logs (Change logs – RFI & CCN logs, Submittal log, Site Instruction log etc.)
- Technical and commercial comparison & negotiations with Vendors and suppliers, finalization of Letter of Intents, Sub-Contracts, Purchase Orders, expediting the material deliveries
- Change Order Management:- Identify, initiate and negotiate Change Order Items with Clients for Contract Amendment
- Review progress, preparation of invoices & follow up for the payments

North America Construction Ltd
Ontario
2008 - 2010

Project Manager

- 46.78 Million Water Treatment Plant Expansion, Thunder Bay, ON
- 58.54 Million Water Pollution Control Plant, Secondary Sewage Treatment Facilities Upgrade, Thunder Bay, ON
- Approx. 8.00 Million – as Cost Control Manager for Enbridge projects at Manitoba & Saskatchewan
- 271 Million – as Assistant Project Manager, Bruce to Milton Transmission Refurbishment Project, Hydro One Networks Inc.
- Coordination of the project regarding all project aspects by acting at the interface of Client, design consultants, Project Management Consultants, Sub-contractors & other vendors & suppliers
- Review / follow-up / initiate all incoming and outgoing correspondence between all concerned parties (Client, Consultants, Suppliers, Sub-Contractors, Lawyers etc.)
- Risk Management and Claim Management
- Working with Quality Manager towards successful implementation of Quality Management Program.
- Review of Construction Schedule, guide Scheduling Team for proper sequencing, forecast cost to completion
- Technical and commercial comparison & negotiations with Vendors and suppliers, finalization of Purchase Orders, expediting the material deliveries
- Change Order Management:- Identify, initiate and negotiate Change Order Items with Clients for Contract Amendment
- Review progress for preparation of invoices & follow up for the payments
- Dispute resolution as related to the Warranty & deficiency issues on Thunder Bay projects
- Take appropriate action on the Request for service (RFS) received for warranty/defects during the maintenance period
- Follow up suppliers and sub-contractors for material/parts/work related to the RFS

AMAN Building Corporation
Edmonton, AB
2007 - 2008

Project Manager

- Renovation – Aurora Charter School, Edmonton, Alberta, Canada
- PowerComm Inc. : Office & Warehouse building at Edmonton, Alberta, Canada
- Country Hills Toyota : Car show room expansion, Calgary, Alberta, Canada
- 102 Street Condominiums, Edmonton, Alberta, Canada
- Overseeing the projects as Single point contact
- Coordination of the project regarding all project aspects by acting at the interface of Client, design consultants, Sub-contractors & other vendors & suppliers
- Review / follow-up / initiate all incoming and outgoing correspondence between all concerned parties
- Attending pre-bid and regular Site Visits & Pre-award meetings, chair various progress meetings and preparation / review / finalization and approval of minutes of meetings
- Overseeing the entire Bid process, material & manpower pricing, direct/indirect overheads, finalization of technical & commercial bid packages, submission and negotiation with Clients
- Follow up, expedite & Review of contractor and sub-contractor submittals (drawings, data sheets, other submittals etc.) as per Contract schedules and check compliance with the specifications and the scope of works
- Preparation of Construction schedules, Expediting and tracking planned progress / schedule vis-à-vis actual and suggest remedial measures, if needed to ensure that all milestone are met as per the Contract
- Preparation of all Requests for quotations (RFQs), Purchase Requisitions (PRs), Draft Purchase Orders,
- Technical and commercial comparison & negotiations with Vendors and suppliers, finalization of Purchase Orders, expediting the material deliveries to meet overall schedule
- Change Order Management:- Identify, initiate and negotiate Change Order Items with Clients for Contract Amendment
- Review progress for preparation of invoices & follow up for the payments

Integrated Contracting Company Limit
Saudi Arabia

Project Manager

- BI-3178 and BI-3179 : SGP & UGP Sulfur Plants Upgrade, Saudi Aramco
- L/G Coalescer @ PP (Polypropylene) Plant at Tasnee Petrochemicals, Jubail

2003 - 2006

- K. O. Drums @ PDH (Propane Dehydrogenation) Plant, Tasnee Petrochemicals, Jubail
- Pre-Feasibility Studies for PET, Ammonia/Fertilizer Plants and Caustic Soda Plants
- Complete Bid Process (Technical & Commercial Proposals) for the following projects:
  - Saudi Aramco Req. # 3000096118: DR-1 Abqaiq Pump Station at Abqaiq GOSP5
  - Saudi Aramco Req. # 3000088594: Intrusion Detection & Assessment System Replacement (IDAS), Ras Tanura Terminal
  - Saudi Aramco LSPB BI-10-03093: Replace Pump Stations 4 & 5, Abqaiq Plants
  - Sharq 3rd Expansion Project, Jubail: Contract # 07/1795: Tender for Building Works
  - Tasnee Petrochemicals: Installation & Commissioning of Silane Feed Pumps
  - Tasnee Petrochemicals (Reference: MOC-2004-UTL-0028): Modification of 28 inch Sea Water Pump Minimum Flow Pipeline
  - Tasnee Petrochemicals (Reference: MOC-2004-UTL-0035): Modification of 72 Inch Sea Water Return Line Header
  - Dammam Port: Supply & Installation of Perimeter Security Fence, Surveillance Cameras, Intrusion Detection System & Lighting Units

Al-Othman Consultants
Saudi Arabia
1994 - 2001

Project Engineer, Construction Manager & Quality Auditor

- On & Off-site management of large residential & commercial construction projects
- Working with owners, architects & consultants regarding all project aspects, co-ordination between various contractors and agencies and expedite sub-contractors as needed
- Tracking construction progress and assured on time project completion
- Responsible for maintaining quality standards and specification compliance
- Overseeing the Quality Management Program
- Review, approval and implementation of all submittals, progress and final billing, contract and owner change orders & change order management
- Conducting weekly progress meetings, preparation of weekly & monthly progress reports
- Auditing of the system on a regular basis, issuance of NCRs and assist closing of the same
- Management meetings and reports & meetings with external auditors
- Instrumental in getting the company ISO 9001 certification
- Interaction with Clients, Architects and Consultants & co-ordination of activities between various sub-contractors
- Preparation of Pre-qualification documents & bid proposals, contract negotiations & finalization
- Execution of projects, scheduling, material & manpower management, finalization of rates for suppliers and sub-contractors
- Material submittals, preparations and follow up of invoices and change orders, change order management

Conwood Group of Companies
Mumbai, India
1992 - 1994

Chief Engineer

- On & Off-site management of large mid & high rise residential & commercial construction projects & co-ordination between various contractors and agencies
- Working with owner, architect & consultants regarding all project aspect, tracking construction progress and assured on time completion, responsible for maintaining quality standards and specification compliance
- Conducting weekly progress meetings at site with Contractors, Architects & Consultants, including making agenda, minutes of meetings & preparation of weekly & monthly progress reports and presenting the same in person to the Board of Directors
- Review, approval and implementation of all submittals, billing & change orders & change order management
- Expedite sub-contractors as needed
- Overseeing the project quality requirements and participate as necessary

LICENSES & CERTIFICATION

- Dynamic, self-motivated & energetic professional, with bachelor's degree in engineering and having around 32 years of versatile experience in the field of Construction/Project/Contracts Management and Construction for the full project cycle, including procurement.
- Basics of Supervising – CSAO, Participant ID 154591
- NAC Supervisory Training Course
- Internal Training for Primavera
- Safety training (for Saudi Aramco & SABIC at Saudi Arabia) including WHMIS at Toronto, Canada
- Training Certificate as Internal Quality Auditor, ISO 9001 (FAHSS/TUV)

EDUCATION & OTHER TRAINING

- B. Eng. Honors (Civil Engineering) - V.J.T.I., University of Bombay, India, May 1980

RESUME

Marc Ouimet

POSITION

Senior Manager Lands Forest and Environment

SUMMARY

- With over 22 years of experience managing the right-of-way and environmental aspects of linear projects
- Marc has been a part of the Valard team for over 3 years.

EMPLOYMENT HISTORY

Valard Construction LP
Calgary, AB
2009- Present

ROW Manager – OPG/Kiewit Lower Mattagami River Transmission Line

ROW Manager – Northwest Transmission Line for BC Hydro

Project Manager - Toronto Hydro Distribution

Project Manager - ATCO Wesley Creek to Meikle

- New double circuit 240kV Steel Tower Transmission Line operating at 144kV

Project Manager - SNC Lavalin SW River Foundations

- BP Noel 138kV TX Line

Ouimet Cunningham Consulting and Research
1990 - 2010

President

- Consultant to ATCO Electric 1986-2009
- 240kv double circuit Transmission lines : Britnel to Wesley Creek AE 1st Nations Consultation, Right of Way Construction Manager, Liase through Tower construction
- Rainbow Lake to Arc en Ciel 144kv Transmission Line 1st Nations Consultation and Approvals
- Wesley Creek to Meikle AE 1st Nations Consultation, Gov. Approvals, Right of Way Construction
- Consultation /Liason between AE and 1st Nations
- New Distribution lines supervisor Right of Way Group AE
- Distribution Maintenance Coordinator Right of Way Group AE
- Right of way Coordinator for Northlands Utilities 1998- current

LICENSES & CERTIFICATION

- Leadership for Safety Excellence
- Principles of Health & Safety Management
- Prime Contractor
- Risk Management
- Standard First Aid
- Utility Tree Worker
- Aerial Work Platform Program
- Advanced Boom Truck Safety for Utility Operators
- Class 5 License With Air Brake Endorsement Program
- Level 3 Alta Link Safety Certification
- Ground Disturbance Level II
- H2S
- ATV
- CSTS
- Crane operator (boom truck)
- Equipment operator
- Zoom boom operator
- Aerial platform operator (genie) (JLG)

- Bobcat
- 1st Nations Communications/Consultations

RESUME

Jody Rideout

POSITION

Project Manager

SUMMARY

- Jody has been a part of the Valard team for over 6 years.
- Experienced in Primavera Scheduling in both maintenance and development of schedules.

EMPLOYMENT HISTORY

Valard Construction LP
Calgary, AB
2006 – Present

Project Manager

ATCO NE LOOP Project

Yukon Energy Corp. 138kv TL Stage 2

British Petroleum Major Noel Project 138kV Transmission Line (Engineer, Procure & Construct)

- Managed all aspects of the job preparation including bidding, material ordering, scheduling, construction planning, cost analysis and subcontracts management.
- Continued to manage the project's needs with regard to material, costs, billing, contractual issues, subcontracts, construction, engineering, quality, safety, personnel, equipment and client, public & native relations.

Cloudworks 360kV Tap Rebuild (Procure & Construct)

- Managed all aspects of the dismantling and construction to redirect a 360kV transmission line in to a newly constructed substation including, material orders & management, cost tracking, billing, line design changes, development & monitoring of the safety program and monitoring of the quality program. Job consisted of steel towers, wood pole structures and monopole structures.

Clowhom Hydro Project Powerlines (Procure & Construct)

- Managed all aspects of the construction of two 138kV transmission lines in an isolated area with difficult terrain including, material orders & management, cost tracking, billing, development & monitoring of the safety program and monitoring of the quality program. The work also involved significant line design
- Changes and alternative construction methods that was coordinated with the clients engineering. Job consisted of two designs of wood pole, vertical standoff structures.

Dokie Wind Project Powerlines (Procure & Construct)

- Managed all aspects of the construction of a 230kV transmission line and 35kV collector system in an isolated area, over difficult terrain. Job consisted of wood pole, vertical standoff structures.
- Also acted as material and quality manager

Project Manager/Estimator

- Prepared Bid Proposals for various projects, finalizing cost and project details through to submitting the project bid.

Quality Control Supervisor

CNRL 260kV Transmission Line (Engineer, Procure & Construct)

- Ensured the quality of installed items for the 260kV Transmission Line and the two accompanying substations, finally developing the turnover package and providing the client with several complete packages before returning to university for the final year of a BSc.Eng.

Project Assistant
- Assisted with project bids and preparing project documents and plans

Project Assistant
Firebag 260kV Transmission Line (Engineer, Procure & Construct)
- Initially joined the project management team in the early stages of the Firebag 260kV Transmission Line Project to prepare construction, safety and quality plans, later transitioning o the onsite management team to kick start the project and manage contractual, construction and day-today project items.
- Managed the majority of aspects from commencement to completion of the contract and administration for the Fort St. John Area Reinforcement Project involving the construction of a 138 kV Transmission Line.

Comstock Canada Ltd.
Fort McMurray, AB

Progress Specialist (ACLS),
- Main responsibility was to assess man-hours and costs for Requests for Information and Engineering Change Notices with relation to work cost changes and Halliburton's Automated Craft Ledger System.
- Preformed various data analysis tasks
- Developed an Excel based complementary craft ledger system to assist ACLS group

Comstock Canada Ltd.
Wawa, ON

On Site Project Coordinator
- Tracked and documented progress which was presented to the client on a weekly basis.
- Developed an Excel based payroll system, and managed the explosives inventory and handling procedures and, with assistance, developed and created the majority of the work procedures catalogue for the project
- Also assisted in multiple areas of the project such as: materials management, helicopter flight management, camp management, computer, network, communication duties, and day to day operations and issues.

Comstock Canada Ltd.
Saint John, NB

Heavy Equipment Operator
- The majority of work consisted of operating a Nodwell 110 tracked vehicle and various other construction equipment.

LICENSES & CERTIFICATION

- WHMIS
- Alberta Construction Safety Association
- Construction Safety Training System
- Electrical & Utilities Safety Association of Ontario's Electrical Safety & Awareness / High Voltage
- Electrical & Utilities Safety Association of Ontario's Hydraulic Aerial Equipment Update
- Canada Safety Council ATV Training Course
- Level one First Aid
- OSSA
- H2S Alive,
- ATV Training,
- CSTS
- BP 4PAC
- Supervisor Training

ADDITIONAL EDUCATION / TRAINING

- University of New Brunswick, Fredericton, NB-Bachelor of Business Administration (BBA), 2002
- University of New Brunswick, Fredericton, NB-Bachelor of Science in Engineering (BSc.Eng), 2008

RESUME

Joe Rideout

POSITION

Structures Superintendent

SUMMARY

- Joe has over 40 years of experience as a lineman.

EMPLOYMENT HISTORY

Valard Construction LP
Calgary, AB
2006 - Present

Supervisor

- Supervised construction of 144kV Double Circuit Overhead Line Construction from Ring Creek to the future Arcenciel Substation.
- Supervised construction of 7L93/7L122 & 7L109/7L64 144 kV Double Circuit Steel Pole Line Construction between the Rainbow Lake Substation and future Arcenciel Substation.
- Yukon Energy, Pelly/Carmacks, Yukon: Construction of 135 kms. of 138 kV H-frame transmission line with extensive helicopter construction, 2008.
- Planned and supervised construction of 260 kV Transmission Line steel lattice towers at the Suncor Firebag site.
- Supervised construction involving the installation and removal of a temporary line and the installation of footing and self-supporting towers.

Comstock Canada Ltd.
Calgary, AB
2004

Superintendent

- Planned and coordinated all construction aspects of the Anjigami and Sault 230 kV Transmission Line.

Greens Construction
Calgary, AB
2002-2003

Superintendent

- Planned and coordinated all construction aspects of a 230kV steel tower transmission line, including the removal of an existing line.

Hi-Line Construction
Paynesville, MN
1999-2001

Superintendent

- Planned and coordinated all construction aspects of a 230kV steel tower transmission line, including the removal of an existing line.

Comstock Canada Ltd.
Calgary, AB
1987- 1998

Superintendent

- Worked on various projects throughout Canada, planning and coordinating all aspects of the construction process
- Worked in Newfoundland, Nova Scotia, Ontario, Manitoba and British Columbia on 138kV, 230kV and 500kV transmission lines with Comstock Canada.
- Worked in Newfoundland, Nova Scotia, Ontario, Manitoba and British Columbia on 138kV, 230kV and 500kV transmission lines with Comstock Canada.

F.A. Tucker
Nova Scotia
1978 - 1987

General Foreman/Superintendent

- Worked in Nova Scotia as a General Foreman on 346kV, 230 kV, 138 kV and 69kV Transmission Lines of varying configurations.
- Worked in Newfoundland and Prince Edward Island as a General Foreman and as a Superintendent on 230 kV and 138kV transmission lines.

BG Checo International Ltd.
New Found Land
1973 – 1978

Foreman

- Worked in Newfoundland on distribution and 138kV Transmission Lines

Fischback and Moore
New Found Land
1972

Lineman

- Worked at Churchill Falls on 735kV Transmission Line

Comstock Canada Ltd.
Calgary, AB
1972

Lineman

- Worked at Churchill Falls on 735kV Transmission Line

Dominion Bridge
New Found Land
1971

Lineman

- Worked at Churchill Falls on 735kV Transmission Line

LISCENSES & CERTIFICATION

- Alberta Construction Safety Association - Construction Safety Training System (CSTS)
- Electrical & Utilities Safety Association of Ontario's Electrical Safety & Awareness / High Voltage
- Electrical & Utilities Safety Association of Ontario's Hydraulic Aerial Equipment Update
- Canada Safety Council ATV Training Course
- Oil Sands Safety Association Regional Orientation (OSSA)
- Power Line Safety Hazards Program
- Power System Safety Protection Certificate

Valard
A QUANTA SERVICES COMPANY

RESUME

Mike Ries

POSITION

Project Manager

SUMMARY

- Mike Ries has 25 years of experience in the high voltage discipline from construction, operations, construction management and safety. He has experience in distribution, transmission, substation, and live line construction methods.

EMPLOYMENT HISTORY

Valard Construction LP
Calgary, AB
Present

Project Experience
Project Manager

- Responsible for the delivery of Project Requirements, Quality Assurance, Safety, and Client Interaction on the following Projects:
- BC Hydro Northwest Transmission Line – Project Manager on 350km of 287kV lattice steel line. July 2012 - present
- Hydro One Bruce X Milton 500kV, Milton Ontario. Project Manager on 180km 500kV double circuit tower line in Mid Western Ontario. January 2011- June 2012
- Project Supervisor
- Responsible for overall safety, daily coordination of men, equipment and schedules. Tracking of LEM's, time sheets, change orders and materials. Construction Management, Quality Assurance, Safety, and Client Interaction on the following Projects:
- Valard Construction, Milton, Ontario. Construction Management for Bruce X Milton 500kV project for Hydro One. May/09-current.
- BCTC/SNC-Lavalin, Harrison Lake, British Columbia. Construction Management for Upper Harrison Terminal Station Project. Construction of 360kV station and associated line work for the interconnection between IPP and BC Hydro. Aug/08- April/09
- Imperial Oil Resources, Cold Lake, Alberta. Construction Management for 11km 144kV and Safety Supervision for new substation. March08/July 08
- Albian Sands Expansion 1, Fort McMurray, Alberta
- 11km 260kV double circuit lattice tower Transmission Line, one Greenfield substation and addition to an existing facility.
- Oct.07/March08

SNC Lavalin ATP Transmission Inc
Calgary, AB

Construction Manager

- Responsible for project safety, construction management, quality assurance and quality control, client interaction and contract management on the following projects:
- Completed a transformer addition to an existing 138kV-25kV substation. Including circuit switchers, protection and controls.
- Encana/Hussar, 44km 138kV Transmission Line, Substation addition to an existing energized facility, and new substation.
- 889L JEEP, AltaLink, Red Deer, Alberta, Canada. Construction Manager for 2.4 km of 138 kV transmission line. Project involved the salvage of 2.4 km of 25 kV distribution replaced with 2.4 km of 138 kV with 25 kV underbuild, .5 km of 25 kV distribution underground and installation of deep ground wells.
- 50 Line Underground Conversions, AltaLink, Calgary, Alberta, Canada. Construction Manager for the conversion of 2.0 km of existing 138 kV overhead transmission line to underground. The project included the installation of a duct bank, splicing vaults, all cable installation and splicing, and five 140 m deep ground wells.
- 123L Rebuild, 14km of 69kV with 25kV under build, continued with another 12km of 69kV rebuild
- 911L Tower replacement, replace two 240kV towers on the banks of the Old Man River
- Three Sisters Mountain Village, 4.5km of 138kV double circuit underground, 3km 25kV underground installed on existing powerline ROW in Canmore, Alberta.

TransAlta Utilities	Power Lineman ▪ Responsible for the safe operations, maintenance, and construction of distribution and transmission lines ▪ Up to and including 500kV ▪ 25 kV rubber glove application ▪ Hot stick and bare hand methods up to 500 kV ▪ Implosive training ▪ Exit-entry from helicopters ▪ Cellular installation on high voltage towers
R.S Line Contractors	Power Lineman ▪ Responsible for the safe construction of distribution and transmission lines ▪ Distribution underground and overhead ▪ Transmission lines and tower assembly ▪ Construction of substations
Phel Patton Construction	Power Lineman ▪ Responsible for the safe construction of distribution and transmission lines ▪ Distribution underground and overhead ▪ Transmission lines ▪ Construction of substations
LICENSES & CERTIFICATION	▪ Safety – First Aid/CPR ▪ WHMIS ▪ PIC ▪ Fire Training ▪ High Energy Joining (Implo) ▪ Alberta Construction Safety Training System ▪ Transportation of Dangerous Goods ▪ Fall Protection & Tower Rescue ▪ Level 3 PSSP (BC Hydro) ▪ Class16 D/L (includes motorcycle)
ADDITIONAL EDUCATION / TRAINING	▪ 2006-2007 Pursuing the U of A Applied Sciences Occupational Health and Safety Certificate Program. University of Alberta, Edmonton, Alberta, Canada. ▪ Pursuing ACSA (Alberta Construction Safety Association) NCSO Designation ▪ Project Management Certificate, Northern Alberta Institute of Technology (NAIT), Edmonton, Alberta, Canada. ▪ The New Manager I & II, The Write Course for Managers, Red Deer College, Red Deer, Alberta ▪ Journeyman Power Line Technology Certificate Red Seal, Northern Alberta Institute of Technology (NAIT), Edmonton, Alberta, Canada.

RESUME

Bill Szumik

POSITION

Eastern Regional HS&E Manager

SUMMARY

Bill has over 40 years experience in all facets of the electrical utility sector with 20 years involved in large transmission station & lines project.

RELEVANT EXPERIENCE

Parkway TS 500kV New Station (Hydro One – 2005) – Toronto, ON
Greenfield construction of a new 500kV station. Installation of new structures, buss, transformers, breakers, etc.

Keephills TS 500kV Station Upgrade (AltaLink – 2010) – Alberta
Upgrades to existing buss and structure in a live 500kV station

Hawthorne TS 500kV (Hydro One – 2008) – Ottawa, ON
Installation of new structure, buss, breakers, etc. in a live 500kV station

Bruce x Milton Double Circuit 500kV Transmission Line (Hydro One – 20012)
Greenfield construction of new 2 x 500kV transmission line

EMPLOYMENT HISTORY

Valard Construction LP
Toronto, ON
2011 – Present

Eastern Regional Health, Safety and Environmental Manager – Eastern Canada

- Oversee the safety management of all project activities in Ontario
- Prepared the safety component for various project bids.
- Managed WSIB claims and costs for 300 plus staff without a lost time injury.
- Prepared and delivered numerous training programs such as; new employee training and site orientation, WHMIS, Transportation of Dangerous Goods, etc.
- Prepared and delivered over all monthly safety meetings for all groups.
- Vetted all Sub Contractors used on all projects.
- Continued to visit all worksites and corrected unsafe acts in a tactful manner.
- Liaised with all Project Owners in matters dealing with Safety.
- Developed and supervised a staff of 6 safety professionals.

Valard Construction LP.
Milton, ON
2010 – 2012

Health, Safety and Environmental Manager – Bruce by Milton

- Developed the safety management system for the largest transmission project in North America
- Authored various procedures and Job Safety Analysis's, for tower assembly, erection and stringing of conductors
- Managed WSIB claims and costs for 250 staff without a lost time injury
- Liaised with the Ministry of Labour (M0L) over the course of the project, including numerous site inspections by the MoL, without one order to comply being issued
- Prepared and delivered numerous training programs such as, new employee training and site orientation, WHMIS, Transportation of Dangerous Goods, etc.,
- Prepared and delivered over all monthly safety meetings
- Vetted all Sub Contractors used on this project
- Review various work plans for safety compliance
- Visit worksites and corrected unsafe acts in a tactful manner
- Liaised with Hydro One (project owner) in matters dealing with safety
- Oversaw a staff of 4 safety professionals.

Valard Construction LP
Southern Zone Alberta
2009 - 2010

Health, Safety and Environmental Manager

- Championed safety for the southern Alberta which led to a 50% reduction in safety incidents within 6 months.
- Developed and authored a Corporate "High Voltage Live Line Manual" of extremely high quality
- Developed over 35 work procedures for new tasks and revisit old ones for compliance to new legislative requirements
- Initiated new Corporate wide work procedures and incident reporting requirements
- Investigated incidents across Alberta and Manitoba for root causes and prepare reports which are forwarded in a timely manner to corporate, clients, and WCB.
- Prepared and delivered over 40 safety meetings to internal groups.
- Represented the company with various client/customer groups
- Reviewed various work plans for safety compliance
- Visited worksites and corrected unsafe acts in a tactful manner
- Became to "go to guy" for serious accident investigations and detailed comprehensive work procedures

Stantec/Alberci Constructors
Milton, ON
2008 - 2009

Safety Coordinator (part-time)

- Developed various administrative procedures for safety issues for the project management team.
- Reviewed various sub-contractors health and safety programs against best practices and provided a detailed assessment reports to the Vice President for Major Projects.
- Reviewed and analyzed the selected Project General Contractor's safe work procedures and provided feedback to the Vice President of Major Projects
- Developed various power point presentations dealing with the best safe construction practices for the erection of the 500kV circuit
- Provided expert safety advice to various project team members

Hydro One Engineering & Construction
2006 – 2008

Senior Health, Safety & Environment Advisor

- Worked aggressively within the Internal Responsibility System framework to ensure Corporate and Regulatory compliance and due diligence
- Lead Accident Investigator for serious incidents
- Championed for E&CS, Health, Safety and Environment Managed System based on OHSAS 18001 and ISO 14001
- Prepared monthly reports to the Executive Management Team on the safety scorecard, along with Identifying trends and suggesting solutions.
- Provided health & safety expertise to achieve occupational health & safety goals and objectives through participatory management.
- Technical Advisor to eleven (11) Joint Health & Safety Committees within a unionized setting
- Worked in a team environment to ensure environmental due diligence
- Worked with the internal rehabilitation group on WSIB case management to ensure safe and early return to work while minimizing costs
- Active participant or team leader for corporate committees dealing with instituting work procedures, safety management processes, etc.,

Hydro One Engineering & Construction Services
2001-2006

Health & Safety Coordinator

- Provided support and leadership to the E&CS group. Oversaw the safety aspects of large construction projects such as Parkway TS and the new 230kV transmission line from Niagara to Caledonia.

Hydro One Northern Territory and Engineering & Construction Services 1998-2001	Safety Analyst ▪ Safety support person for maintenance and construction forces in Northeastern Ontario and later for the Engineering & Construction Services ▪ Part of a team which developed Job Planning folders which were used by all maintenance and construction staff at Hydro One. ▪ Frequently provided expertise for job planning high hazard projects in live stations, such as Abitibi Canyon GS, unit 1 conversion from 25 cycle to 60 cycle.
Hydro One Transmission Projects 1995-1998	Safety Officer ▪ Safety Officer for Stations Central, Eastern, North East/West and Saunders GS providing the full range of conventional safety, such as WSIB management, Accident Investigation, JH&SC support, job planning and job safety analysis, etc. ▪ Championed the introduction of a Safety Management System.
Hydro One Nanticoke GS 1993-1995	Assistant Safety Officer ▪ Initially looked after Construction forces building the flash ash recovery system along with other minor construction projects. ▪ Within 6 months became the Acting Station Safety Officer providing support for not only 100 EPSCA trades but also 700 regular staff employed at the coal fired station ▪ Heavily involved in WSIB claims management and Safety Management Systems development and execution
Other Hydro One Work History 1972-1993	Line Trade ▪ Involved in all facets of distribution, construction and transmission maintenance including live line work on circuits up to 550kV. ▪ Team member in the first transmission line re-tensioning project in Northeastern Ontario using helicopters to lower workers onto towers. ▪ Took ever increasing supervisory roles, Sub-Foreman, Foreman, and General Foreman during this time frame, successfully completing projects with safety, productivity and costs as the prime drivers. Regional Safety Officer ▪ Provided and delivered the full range of safety related courses including First Aid, Fire Fighting, Equipment Handling e.g., Forklift, Confined Spaces, etc. ▪ Recognized signing authority with the Ministry of Transportation signing for driers licence upgrades to internal staff. ▪ Provided safety support to a large segment of distribution and transmission line forces in Northeastern Region. ▪ Team or lead investigator on numerous accident investigations using “System Safety” techniques. ▪ Developed and practiced a Job Safety Analysis format used for high hazard jobs which eventually evolved into job planning folders. ▪ Guest lecturer at many internal and public venues presenting safety related topics such as electrical safety, etc. ▪ Championed the introduction of a Safety Management System.

AFFILIATIONS

- Member of Technical Standards and Safety Association Provincial technical compliance committee

EDUCATION / TRAINING

- Bachelor of Arts – University of Waterloo (through correspondence)
- OHSAS 18001 Essentials Training – CSA
- OHSAS 18001 Internal Auditor – CSA
- Taproot Advanced Investigation Team Leader Course – System Improvements
- Managing Health & Safety on Construction Projects – Donahue LLP
- Contract Administration
- Certified JH&SC member
- Standard First Aid
- WHMIS
- Fire Safety
- Electrical Safety Awareness

Valard
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RESUME

David Torgerson

POSITION

Foundations & Civil Manager

SUMMARY

- Dave has been part of the Valard team for over 5 years and comes with over 20 years of experience.

EMPLOYMENT HISTORY

Valard Construction LP
Calgary, AB
2007 – Present

Construction Manager / Stringin Supervisor

- BXM Reinforcement Project Ontario 180 KM double circuit 500 KV 2010/2011
- Fluor Kearl Lake Project, Fort McMurray Alberta, 39 km 240 KV new construction 2009/2010
- BCTC Cloudworks, Harrison Lake BC, Construction 2 km 360 KV Salvage and Reroute for run of the river project Kiewit, 2009.
- First Nations Energy, Attawapiskat to Kasechewan, Ontario: Construction of 100 kms. of Aerial Fiber Optics, 2008
- Debeers, Victor Mine Project: Construction of 144 kms. of 115 kV Transmission Line through muskeg terrain, helicopter tower erection (Erickson Air Crane) 2008.
- Debeers, Victor Mine Project Construction Earthworks 115 KV Substation Kasechewan Ontario, 2007
- Lineman/operator on 50km of 138kV for the Fort St. John Reinforcement Project
- Debeers, Victor Mine Project: Construction of 170 kms. of 115 kV. Transmission line with numerous lake and river crossings through muskeg terrain, 2007
- Three Sister/ SNC Lavalin, Canmore Alberta: Construction of 5 km concrete duct bank and conductor installation double circuit 138 KV 2007
- IPP/Canadian Hydro Developers Squamish BC: Construction of 7km of 69 KV with extensive Helicopter Construction, and river crossings.
- ATCO, Dover Whitefish, Fort McMurray: Construction of 60 kms. of 240 kV double circuit transmission line with Athabasca river crossings, 2003 – 2004.

Manitoba Hydro.
Glenboro, MB
1999 - 2002

Construction Manager

- Construction of 230 kV transmission line from Glenboro Manitoba to the United States border

Arnason Industries
Manitoba
1998

Construction Manager

- Construction, Maintenance, and Logistics winter roads Northern Manitoba

Comstock Canada
Manitoba
1997

Construction Manager

- 135 km winter road construction and maintenance Ilford MB to Oxford House MB

Crocus Construction
Brandon, MB
1992 - 1996

Construction Manager

- Bridge pier resurfacing project, river diversion dewatering and maintenance of diversion
- Various bridge resurfacing projects, machinery moving and telecommunication cable installations.

LICENSES & CERTIFICATION

- Journeyman Power Lineman, Alberta
- Journeyman Power Lineman, Inter-Provincial
- Crane and Hoisting Branch 2 A Boom Truck
- HCSAS-Equipment Operator Evaluator Instructor # 373
- EUSA Electrical Awareness Training
- Supervisor Training CSAO
- WHIMIS
- OSSA Orientation
- Construction Safety Training System 3.2
- Flag Person
- First Aid/CPR
- ATV Training Card # 32041
- Working Effectively with Aboriginal Peoples Seminar Vancouver BC
- Leadership in Safety Workshop
- Aboriginal Awareness Kearl Lake Amec AB

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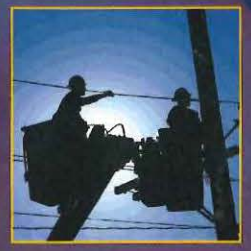
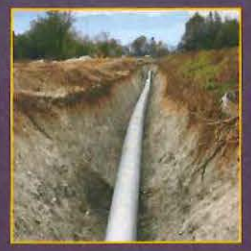
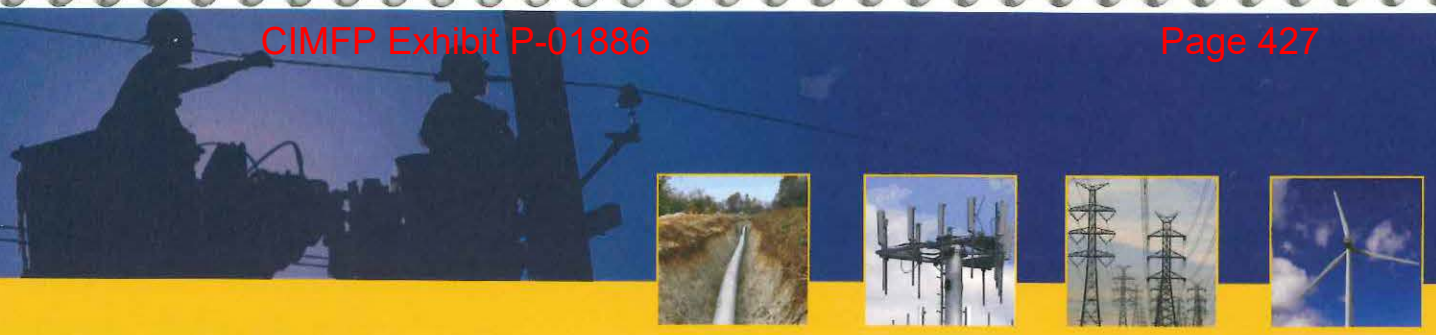




MasTec Transmission Services Canada, Ltd
Introduction Presentation

February 7, 2014

MasTec
Transmission Services Canada, LTD

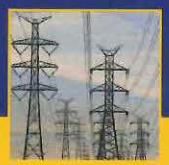


MasTec Overview

- Large Diversified Utility Supplier
- NYSE traded – MTZ, www.MasTec.com
- Top 5 North American Energy and Telecommunications Infrastructure company
- 14,000 plus employees
- Over 240 Office locations US and Canada

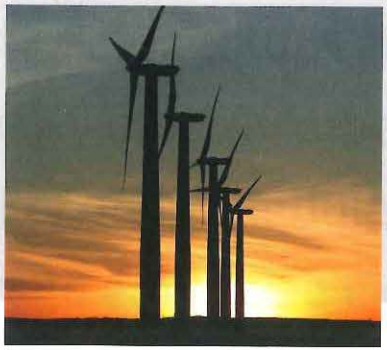
MasTec
Transmission Services Canada, LTD






Diverse and Growing Markets

Utilities	Communications	Government-Other
Wind Power	Wireless	Water & Sewer
Oil & Gas Pipelines	Wireline	Military Facility Upgrades
Electrical T&D	Install-to-the-home	Heavy/Civil
Alternative Energy	Cable	Road & Bridge



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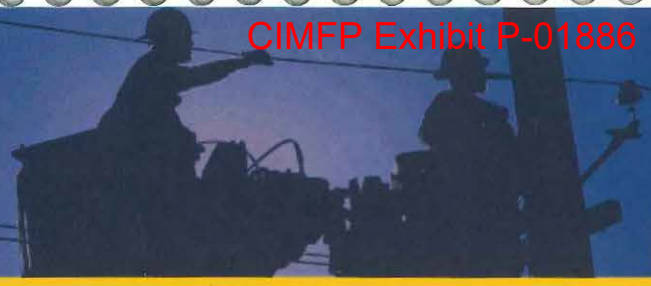


MasTec Transmission & Substation Group

- One of largest EPC providers for EHV transmission and substation infrastructure.
  - Industry leading transmission and substation engineering.
  - Strong supplier relationships for all major and minor transmission and substation materials.
  - Procurement and material inspection and management plans to support multiple year construction projects over long distances.
  - Well trained construction talent experienced in 230 - 765kV in remote terrain.
- Safety First Culture and Mentoring Program.
- Industry unique imbedded construction focused environmental services.
- Quality and Schedule Performance guarantees.
- Average employee experience of 20+ years for key management and supervision personnel.

MasTec
Transmission Services Canada, LTD

Execution Models

- Engineer, Procure, Construct
- Lump Sum / Firm Price
- Unit Rate
- Cost Plus / Rate Letter

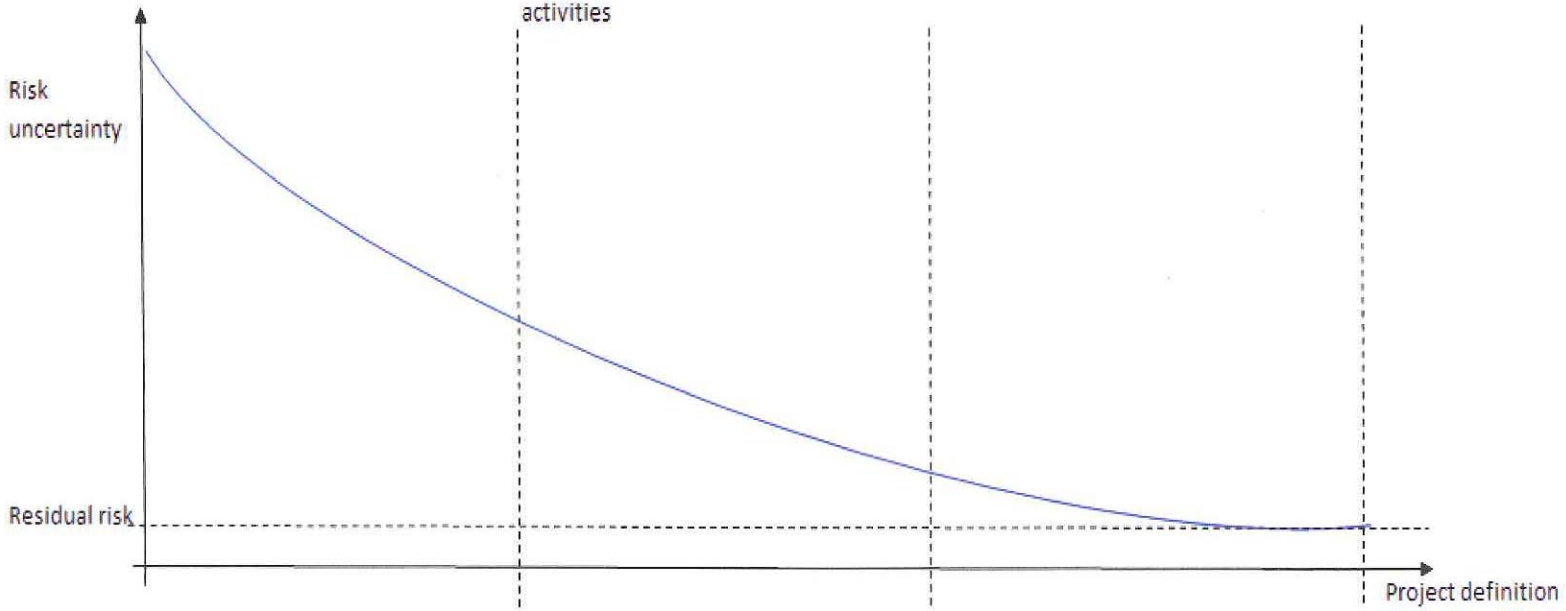
MasTec
Transmission Services Canada, LTD




Execution Models

Proposed Contracting Strategy

Phase 1	Phase 2	Phase 3
Functional specs. and DBM creation	Detailed design and qty definition	Construction execution, transition to O&M
Contract type: Time & Material with unit rates	Contract type: Unit prices per site sub-component and activities	Contract type: Lump sum + risk mgmt. provision



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General Project Organization

PROGRAM MANAGEMENT

MasTec
Transmission Services Canada, Ltd.

- Environmental — MasTec Transmission Services Canada, Ltd.
- Surveying / Geotech / Civil Work / ROW Access / Clearing — Local imbedded civil construction resources
- Foundations — Local Foundation Installation Specialists
- Helicopter Aided Construction — Erickson Air-Crane Incorporated; MasTec Transmission Services Canada, Ltd. MasTec Aviation
- Testing/Commissioning — MasTec Transmission Services Canada, Ltd.
- Safety — MasTec Transmission Services Canada, Ltd. — Local imbedded safety resources
- Line Construction Execution — Local Line Construction resources

MasTec
Transmission Services Canada, LTD

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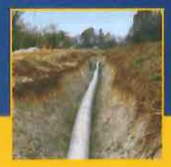
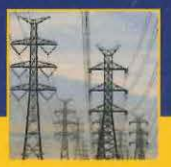
Transmission Line Construction Capabilities

- Environmental compliance and mitigation
- Access Roads / ROW clearing
- Complete foundations / grillage / screw piles
- Lattice and pole steel erection
- Helicopter aided tower erection
- Hardware and insulator assembly
- Conductor and OPGW stringing, clipping and sagging
- Helicopter conductor installation operations
- Process Driven QA/QC process
- All construction activities are bound by a Safety First culture and mentoring program

MasTec
Transmission Services Canada, LTD






Safety First Culture

The following Experience Modification Rating (EMR - USA), similar to Canada's TRIF rating demonstrates MasTec' commitment to a progressive and safety focused organization, including full support of management.

- 2009 1.00
- 2010 0.96
- 2011 0.81
- 2012 0.68
- 2013 0.68

MasTec
Transmission Services Canada, LTD

Safety First Culture

Forward looking, we would also ensure safe project execution by strictly adhering to best practices in Canada as follows:

- CAN/ULC S801: Standard on Electrical Utility Workplace Electrical Safety for Generation, Transmission and Distribution
- OHSAS 18001 Occupational Health & Safety Management System
- ISO 14001 Environmental Management Standard
- ISO 26000 Sustainable Development guiding principles

All Subcontractors will be required to follow our Safety Requirements ensuring strict standards for Safety Performance as part of Execution Strategy.

MasTec
Transmission Services Canada, LTD

Environmental Stewardship

POLICY STATEMENT

It is the policy of MasTec to comply with all National, Province, and local environmental rules and regulations and to provide an environmentally compliant workplace by integrating environmental management into all work and management practices.

MISSION STATEMENT

The mission of the team's environmental department is to bring environmental awareness, compliance, and excellence of service to all HV and EHV Projects.

MasTec
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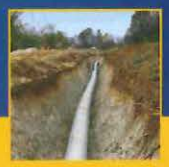


Foundations

- Perform all types of foundations, including grillage and drilled pier designs(both battered and vertical, lattice and monopole).
- Employing efficiency technology - increasing production.



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Foundations - Blasting

MasTec
Transmission Services Canada, LTD

Foundations – Drilling for Blasting

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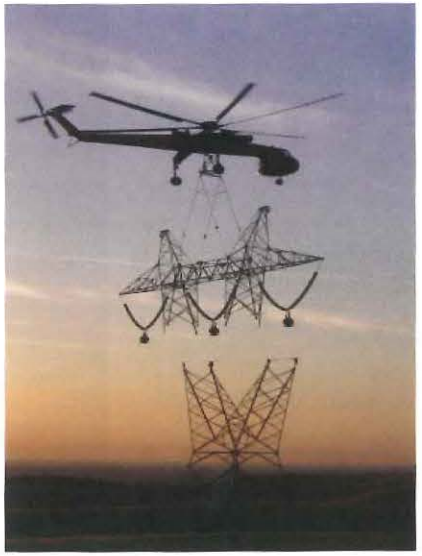
Transmission Services Canada, LTD




Steel Erection

- Perform all types of steel erection, including all lattice type towers, including remote access with helicopters.
- Erection of single and double circuit monopole and dead end towers, both weathered and galvanized, including substation structural steel.



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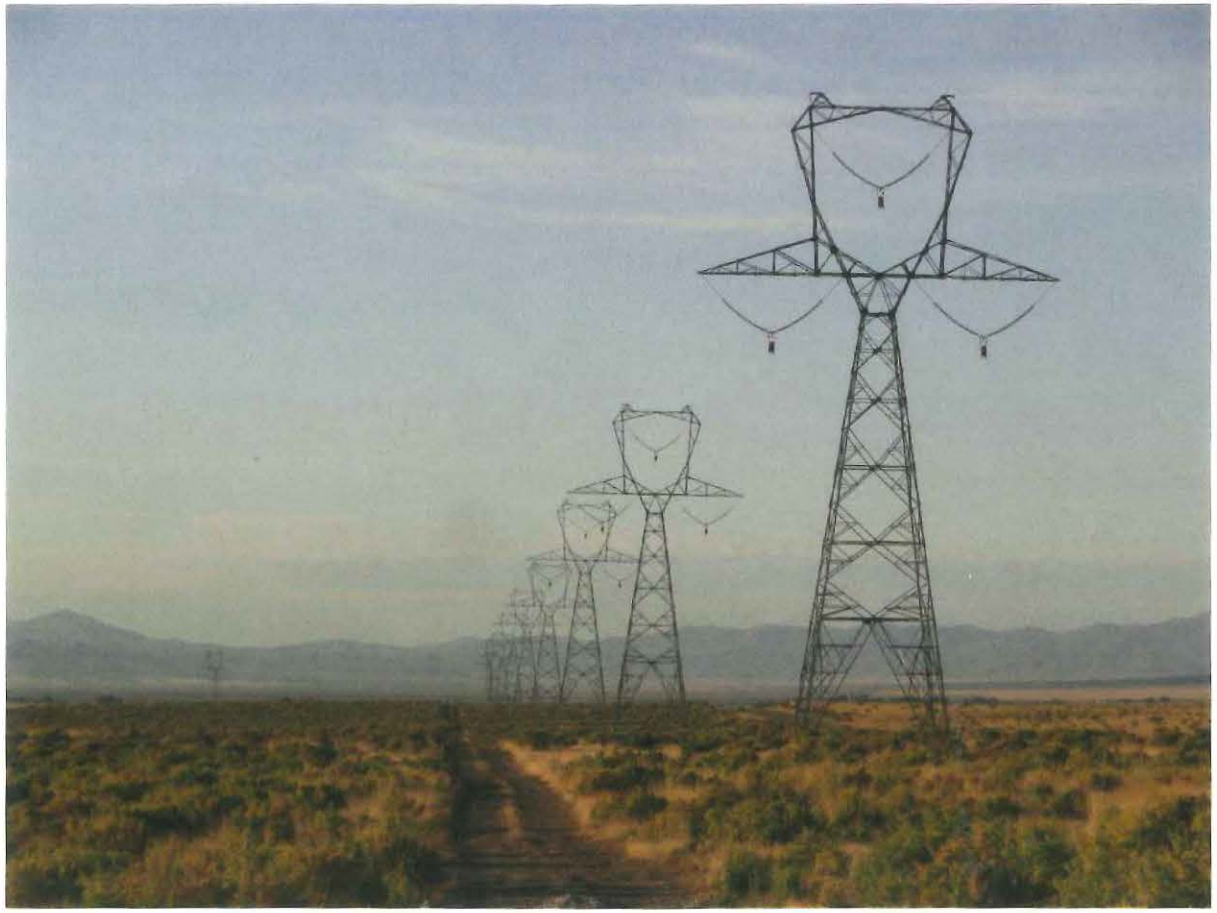
Steel Erection



500kV Lattice steel erection on the 110 Mile EPC Mona to Oquirrh Transmission Line in Utah

MasTec
Transmission Services Canada, LTD

Steel Erection

345kV steel erection on the 110 Mile EPC Mona to Oquirrh Transmission Line in Utah

MasTec
Transmission Services Canada, LTD

Sockline with a helicopter

MasTec
Transmission Services Canada, LTD




Conductor Installation

Full compliment of multi-bundled conductor and OPGW installation equipment, including wire pullers, tensioners, and stringing equipment.

MasTec
Transmission Services Canada, LTD




Material Management

- Strong relationships and experience with all major transmission line & substation equipment / material suppliers
- Establishment of laydown / fly yards
- Material stored or delivered to specific ROW locations
- QA/QC - Inspected upon receipt with return of damage material under warranty
- Shop inspections as required
- Material tracking and inventory program from manufacturer to installation
- Experience in safe handling and transport of explosives for blasting and implo connectors



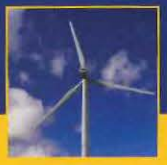
MasTec
Transmission Services Canada, LTD

QA/QC Process

- QA/QC is process driven to ensure quality is maintained throughout engineering and construction with integrated test points.
  - Development of a well defined scope-of-work
  - Assignment of qualified staff with appropriate experience level
  - Development of customized QA/QC Plan for each project
  - Customized plan review with designers and client team
  - Oversight by Senior Staff and Management

MasTec
Transmission Services Canada, LTD

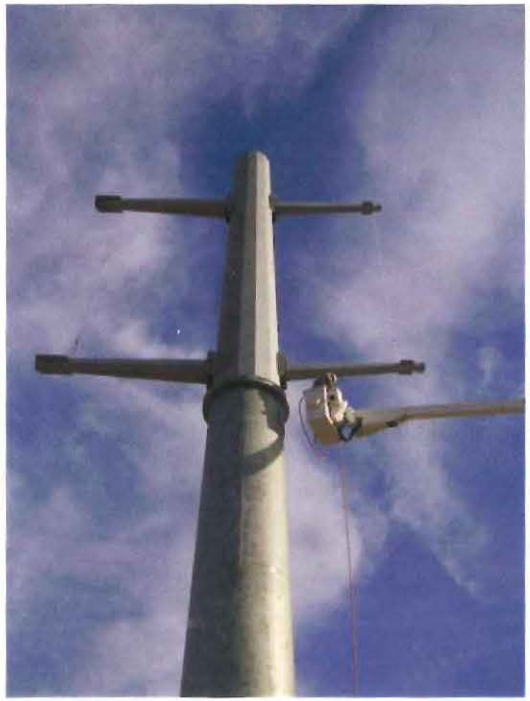


QA/QC Program

We strive to provide quality materials and exceptional labor for all construction activities. QA/QC personnel will be on site from the beginning to inspect materials as they are received, and file and report independent test data, through field installation. The inspection staff has the ability to direct field crews to stop work if deficiencies are found.

- Vendor / Supplier Facility Inspections
- Concrete Batch Plant Inspections
- Material Received Inspection Reports
- Material Damage Report
- Blasting Report
- Foundation Dimension Report
- Foundation Installation Report
- Foundation Excavation report
- Structure Assembly Report
- Structure Erection Report
- Insulator Installation Report
- Wire Stringing Report
- Wire Sagging Report
- Wire Clipping Report
- Corrective Action Report

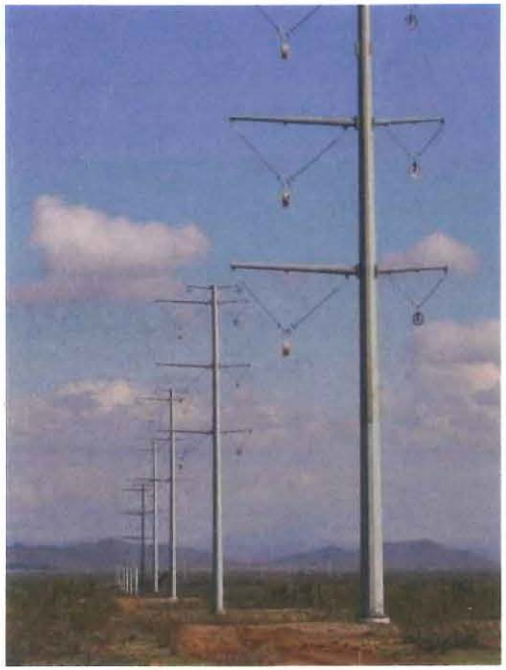


MasTec
Transmission Services Canada, LTD




Project Management Control Systems

- Project Managers responsibilities:
  - Risk Management Plan and Risk Matrix
  - Safety/ Auditing
  - Written scope definition – services and facilities
  - Challenge and Approval Process
  - Contracting – understanding key terms and conditions
  - Project Control – scheduling, cost analysis, etc.
  - Change Control
  - Kick Off Meeting
  - Project Execution Plan
  - Project Reviews
  - Project Reporting
  - Project Documentation
  - Lessons Learned
  - Project Closeout
  - Quality Assurance/ Quality Control
- Communication through a document management system
- Scheduling performed in Primavera P6



MasTec
Transmission Services Canada, LTD

Financial Capacity

- MasTec 2013 Revenues projected at $4.25B
- Capacity to bond in excess of $1B
- Letter of Credit Facilities
- Project level insurance with Builder's Risk capacity
- Parental Guarantees
- LD's and other financial disincentives are typical

MasTec
Transmission Services Canada, LTD




North America Experience

- **Engineer, Procure & Construct (EPC)**

  MidAmerican Energy Company / MVP 3 and 4 project / Double Circuit 345/161kV Tline and four substations.
  192 miles of transmission lines and four 345 substations. (Current)

  PacifiCorp / Mid American Holdings / Mona - Oquirrh 500/345kV Trans. Line and Sub Project
  35 miles of double circuit steel monopole circuit transmission across the Oquirrh mountains, 65 miles of single circuit 500KV Lattice circuit transmission, expansion of the existing 345kV Oquirrh substation. (Current)

  PacifiCorp / Mid American Holdings / Sigurd to Red Butte 345kV Transmission Line Project
  169 miles of single circuit steel h-frame and lattice transmission circuit transmission line. (Current)

  WAPA / Los Banos-Gates (Path-15) 500 kV Transmission Project
  85 miles executed in 14.5 months; exceeding even the most aggressive completion estimates and historical industry performance, all with unparalleled high performance metrics including safety, environmental stewardship, public relations and robustness of design.

- **A and E Services (EP)**

  PSE&G – Burlington and Camden Substation Projects
  Engineering and Project Management of Upgrade of 230kV 80kA breaker and half Burlington Substation and Upgrade of 230kV 80kA 20 breaker double bus Camden Substation. (Current)

  PSE&G – Hudson and Essex Substation Projects
  Engineering and Project Management of Upgrade of 230kV 80kA breaker and half Essex Substation and 230kV 80kA breaker and half Hudson Substation. (Current)

MasTec
Transmission Services Canada, LTD




North America Experience

- **Procure & Construct (PC)**

  BHE / Northeast Reliability Interconnect 345 kV Transmission Project
  83 miles, 345 kV Transmission Line – completed in 16 months

  AEP / LCRA Morgan Creek 345kV Transmission Project
  70 miles, 345kV Double Circuit Transmission line

- **Construct (C)**

  APS – HANG 2 Project
  112 mile 500kV Transmission Line near Yuma, AZ (Current)

  SRP – Pinal Central to Pinal West Transmission Project
  54 mile 500/230kV Transmission Line near Phoenix, AZ (Current)

  PPL – Susquehanna to Roseland Transmission Project
  70+ miles 500kV Transmission Line in Pennsylvania

  APS / Pinnacle Peak-Morgan 500/230 kV Transmission Project
  28 miles, 500/230 kV Transmission Line

  AEP – Barney Davis Project
  6 miles of double circuit rebuild in Corpus, Christi, TX

  ETT – Fort Lancaster Project
  112mile Transmission Line crossing Lake Amistad - Ozona to Del Rio, TX

  BPA / Schultz-Wautoma No. 1 500 kV Transmission Project
  62 miles, 500 kV Transmission Line

Constructed by EC Source / Info Source staff.

ATTACHMENT 8

NDA WITH QUANTA AND OPEN BOOK PRICING MODEL

CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT

THIS CONFIDENTIALITY AND NON-DISCLOSURE AGREEMENT (this "Agreement") is entered into this _14th__ day of November, 2013, by and between **Lower Churchill Management Corporation**, a body corporate constituted pursuant to the laws of the Province of Newfoundland and Labrador solely in its own right and not as agent of the Crown in right of the Province of Newfoundland and Labrador, and having its head office at the City of St. John's, Newfoundland and Labrador, Canada (the "Company"), and **Quanta Services, Inc.**, a Delaware corporation ("Quanta"). Quanta and the Company may be referred to herein individually as a "Party" and collectively as the "Parties".

WHEREAS, the Parties contemplate entering into discussions to explore a potential business relationship or transaction involving Quanta or certain of its subsidiaries and the Company and/or certain of its affiliates (a "Business Relationship"); and

WHEREAS, each Party ("Disclosing Party") is willing to provide confidential and proprietary information to the other Party ("Recipient") to assist Recipient in its consideration and evaluation of, and potentially entering into, a Business Relationship.

NOW, THEREFORE, in consideration of the premises hereof and the promises set forth below, the Parties agree as follows:

1. Confidential Information. For the purposes of this Agreement, the term "Confidential Information" means and includes information concerning the business and operations of Disclosing Party (including any business, commercial, technical, marketing, financial or other information, whether in electronic, oral or written form) provided by Disclosing Party or its Representatives (as defined below) to Recipient or its Representatives in connection with Recipient's evaluation of a Business Relationship. With respect to a particular Party, the term "Representatives" means and includes such Party's affiliates and their respective directors, officers, members, managers, employees, representatives (including, without limitation, financial advisors, legal counsel, consultants and accountants) and agents. Confidential Information shall also include all analyses, compilations, forecasts, schedules, studies, summaries, extracts or other notes or documents prepared by the Recipient or its Representatives which contain or reflect, or are generated from, any such information provided by Disclosing Party or its Representatives in connection with Recipient's evaluation of a Business Relationship.

2. Exceptions. Notwithstanding anything otherwise contained herein, Confidential Information shall not include information that (a) is at the time of such disclosure or thereafter becomes publicly available or generally known, other than as a result of a breach of this Agreement by Recipient or any of its Representatives, (b) is already known to Recipient or within its possession at the time of such information's disclosure by Disclosing Party, (c) becomes available to Recipient from a third party that is not known by Recipient to be in breach of a confidentiality obligation owed to Disclosing Party or any of its Representatives, (d) can be shown by Recipient to have been independently developed by it or its Representatives without use or reliance on the Confidential Information or (e) is approved for public disclosure in writing by Disclosing Party.

3. Restrictions on Use and Dissemination of Confidential Information. Recipient agrees not to use the Confidential Information for any purpose other than evaluating and potentially consummating a Business Relationship. Except to the extent required by law, regulation or rule (including of any governmental body, national stock exchange or other regulatory authority) or as otherwise provided herein, Recipient shall not, without the prior written consent of Disclosing Party, disclose the Confidential Information to any person or entity and will protect the confidentiality of such Confidential Information using the same standard of care as Recipient uses with its own confidential information (but no less than a reasonable standard of care); *provided, however*, that Recipient may furnish Confidential Information to its Representatives who need to have access to such Confidential Information for purposes of evaluating and potentially consummating a Business Relationship, provided that Recipient shall inform its

JRK

Representatives of the confidential nature of the information and shall be responsible for any breach of this Agreement by any such Representatives.

4. Ownership and Nature of Confidential Information. All Confidential Information shall be and remain the property of Disclosing Party, and no right or license is hereby or otherwise granted, directly or indirectly, to Recipient with respect to any Confidential Information other than the right to use the Confidential Information in accordance with the terms of this Agreement. Except for any representations or warranties set forth in a final, written definitive agreement, if any, regarding a Business Relationship between the Parties, no representation or warranty is made by Disclosing Party or any of its Representatives as to the accuracy or completeness of any information provided to Recipient.

5. Non-Disclosure of Business Relationship. In addition to the foregoing disclosure and use restrictions regarding Confidential Information, each Party agrees that, except to the extent as required by applicable law, regulation or stock exchange rule, it will keep confidential and will not (and will cause its Representatives to not), without the prior written consent of the other Party, make any public announcement concerning the other Party or the Business Relationship or disclose or confirm to any third party the contents, substance, status or existence of any discussions, negotiations or evaluations that are taking or have taken place related to a Business Relationship (including the existence and contents of this Agreement and the fact that Confidential Information has been exchanged between or made available to the Parties).

6. Non-Solicitation. Each Party agrees that, for a period of two (2) years from the date hereof, neither the Recipient nor any of its affiliates will solicit for hire any of the officers or other employees of the other Party or any of its subsidiaries other than (i) through a general solicitation for employees (including through the use of newspapers, trade journals, the internet, employment agencies or search firms) in the ordinary course of business consistent with past practice that is not specifically directed at any such persons and (ii) the hiring of any person who contacts the Recipient on his or her own initiative.

7. Return or Destruction of Confidential Information. Upon the written request by Disclosing Party, Recipient agrees to, at its option, either return to Disclosing Party or destroy all Confidential Information provided to Recipient by Disclosing Party, including all copies of the same, except for any such Confidential Information that exists only as part of regularly generated electronic backup data, the destruction of which is not reasonably practicable; *provided, however,* that Recipient and its Representatives may retain one copy of such material to the extent necessary to comply with applicable law, regulation or bona fide document retention policies. Any electronic backup data and other copy of Confidential Information retained by Recipient pursuant to the preceding sentence shall remain subject to all restrictions and obligations contained in this Agreement. Upon written request by Disclosing Party, the fact of any such destruction shall be certified in writing by Recipient to Disclosing Party.

8. Required Disclosure. If Recipient or any of its Representatives is required by oral questions, interrogatories, requests for information or documents, subpoena, civil investigation, order, demand or similar legal or administrative process of any court or other governmental or regulatory authority to disclose any Confidential Information, (a) Recipient shall promptly notify (other than where prohibited by applicable law or where such disclosure is required as a result of an examination by a regulatory or governmental agency that is required to keep such information confidential) Disclosing Party of such requirement so that Disclosing Party may seek an appropriate protective order or other relief or waive compliance with the provisions of this Agreement and (b) Recipient or its Representative may disclose such Confidential Information, but only that portion which is legally required to be disclosed.

9. Business Relationship; Nature of Agreement. Both Parties acknowledge and agree that unless and until a final, written definitive agreement regarding a Business Relationship between the Parties or their respective affiliates has been executed and delivered, neither Party is under a commitment

J.R.K.

to enter into any agreement, discussions or negotiations with the other Party or to conclude or further pursue or proceed with such a Business Relationship or any other type of business relationship by virtue of this Agreement or any disclosure of Confidential Information, and neither Party will be under any legal obligation of any kind whatsoever with respect to such Business Relationship, except for the matters specifically agreed to herein. Both Parties further acknowledge and agree that each Party reserves the right, in its sole discretion and at any time, to reject any and all proposals made by the other Party or any of its Representatives or any other party with regard to a Business Relationship and to terminate any discussions or negotiations related to a Business Relationship at any time without liability to the other Party other than the obligation to comply with the terms of this Agreement. Nothing in this Agreement nor any disclosure of Confidential Information hereunder creates any agency, joint venture or partnership relation between the Parties or prohibits or restricts the right of either Party to enter into any business relationship with a third party or use in its services and products any ideas, concepts, methods, expressions, know-how or techniques related to the scope of the other Party's services or products that are not unique to the Confidential Information.

10. Remedies. Each Party agrees that, due to the unique nature of the Confidential Information, a breach of this Agreement may cause irreparable harm that cannot be adequately compensated with monetary damages and that, in addition to any other rights or remedies that may be available to Disclosing Party at law or in equity, Disclosing Party will be entitled to seek injunctive or other equitable relief as a remedy for any such breach.

11. Securities Laws. Each Party understands, and will communicate to its Representatives who have knowledge of the potential Business Relationship, that applicable securities laws restrict the purchase or sale of securities by any person who is in possession of material, nonpublic information from the issuer of such securities and on the communication of such information to any other person when it is reasonably foreseeable that such other person is likely to purchase or sell such securities in reliance upon such information.

12. Term. Unless sooner terminated in a writing mutually signed by the Parties, this Agreement will remain in effect for a period of two (2) years from the date hereof; *provided, however*, that, with respect to any Confidential Information disclosed prior to such termination date, the obligations hereunder with respect to such Confidential Information will survive such termination for a period of two (2) years from the date of disclosure of such Confidential Information.

13. Export Restrictions. Disclosing Party's Confidential Information is subject to all applicable export and import control and customs laws and regulations of the United States, including any associated embargo and sanction regulations, and Recipient agrees that it will not, directly or indirectly, export or re-export such information or any product, equipment or material embodying or made by use of such information to any prohibited destination or country (including the release to nationals of any prohibited country regardless of where such nationals are located) in violation of such laws and regulations.

14. No Waiver. No failure or delay by either Party hereto in exercising any right, power or privilege hereunder shall operate as a waiver thereof, nor shall any single or partial exercise or waiver thereof preclude any other or further exercise thereof or the exercise of any right, power or privilege whatsoever hereunder.

15. Waiver; Amendment. Neither this Section nor any other provision in this Agreement can be waived or amended except by written consent of the Parties, which consent shall specifically refer to this Section (or such other provision) and explicitly make such waiver or amendment.

J.A.K.

16. Assignment. This Agreement may not be assigned by either Party without the prior written consent of the other Party. This Agreement will inure to the benefit of and be binding upon the parties and their respective successors and permitted assigns.

17. Costs and Expenses. Each Party agrees that it shall be solely responsible for all costs and expenses incurred by such Party or its Representatives in connection with this Agreement and its review of the Confidential Information and evaluation of a Business Relationship.

18. Severability. Any provision of this Agreement that is prohibited or unenforceable in any jurisdiction shall to the extent permitted by applicable law, as to such jurisdiction, be ineffective to the extent of such prohibition or unenforceability without invalidating the remaining provisions hereof and any such prohibition or unenforceability in any jurisdiction shall not invalidate or render unenforceable such provision in any other jurisdiction.

19. Entire Agreement. This Agreement contains the entire understanding and agreement between the Parties with respect to the matters set forth herein and supersedes any and all prior and contemporaneous agreements and understandings between the Parties, whether written or oral, relating thereto. Except as set forth in this Agreement, neither Party will have any obligation or liability, express or implied by law, with respect to trade secrets or proprietary information of the other Party.

20. Notice. All notices, requests, demands, declarations and other communications required hereunder or given pursuant hereto shall be in writing and shall become effective (a) if given by facsimile, when transmitted and receipt has been confirmed, (b) if given by registered or certified mail, three business days after being deposited with the U.S. Postal Service, postage prepaid, (c) if given by courier, when delivered by such courier or (d) if personally delivered, when so delivered in person, addressed as follows:

(i) If to the Company:

Lower Churchill Management Corporation,
Hydro Place, 500 Columbus Drive
P.O. Box 12800, St. John's, Newfoundland
Canada A1B 0C9
Attention: Lance Clarke
Facsimile: (709) 737-1800

(ii) If to Quanta:

Quanta Services, Inc.
2800 Post Oak Blvd., Suite 2600
Houston, Texas 77056-6175
Attention: General Counsel
Facsimile: (713) 629-7639

or at such other address as either Party may from time to time designate for itself by written notice to the other Party.

21. Governing Law. . This Agreement shall be construed and the relations between the Parties determined in accordance with the applicable laws of the Province of Newfoundland and Labrador and Canada, including any limitation periods, and reference to such applicable laws shall not, by application of conflict of laws rules or otherwise, require the application of the applicable laws in force in any jurisdiction other than Newfoundland and Labrador. The Parties hereby irrevocably attorn to the exclusive jurisdiction of the courts of the Province of Newfoundland and Labrador and Canada for the resolution of any dispute arising hereunder.

22. Headings. Section headings herein are included for convenience of reference only and shall not constitute a part of this Agreement for any other purpose.

23. Counterparts; Signatures. This Agreement may be executed in two or more counterparts, each of which shall constitute an original and all of which together shall constitute one and the same

instrument. It will not be necessary in making proof of this Agreement or the terms of this Agreement to produce or account for more than one such counterpart. Each Party agrees that it will be bound by its own facsimile or scanned signature and that it accepts the facsimile or scanned signature of the other Party to this Agreement.

IN WITNESS WHEREOF, the undersigned have executed this Agreement as of the date first above written.

LOWER CHURCHILL MANAGEMENT CORPORATION

By: _____
Name: Gilbert Bennett
Title: Vice President

QUANTA SERVICES, INC.

By: _____
Name: B.J. Ducey
Title: Vice President

JRK

Open Book Estimate Development Model

05-November-2013

Boundless Energy

nalcor energy

Confidential and Commercially Sensitive

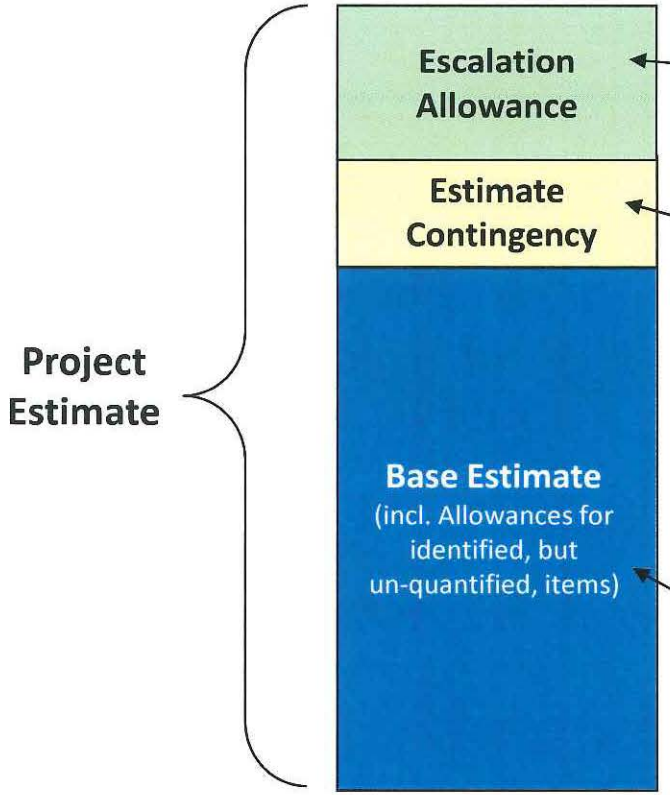
Purpose

- Leverage Nalcor's estimating framework as a collaboration model to develop an open book estimate for the HVdc TL.

Nalcor's Estimating Approach

- Adopt industry recommended practice
  - Association for Advancement of Cost Engineering (AACE) International
- Focus on key cost drivers
- Fully engage project team
- Understand and apply lessons learnt from other projects
- Gather external and independent input

Cost Estimate Components

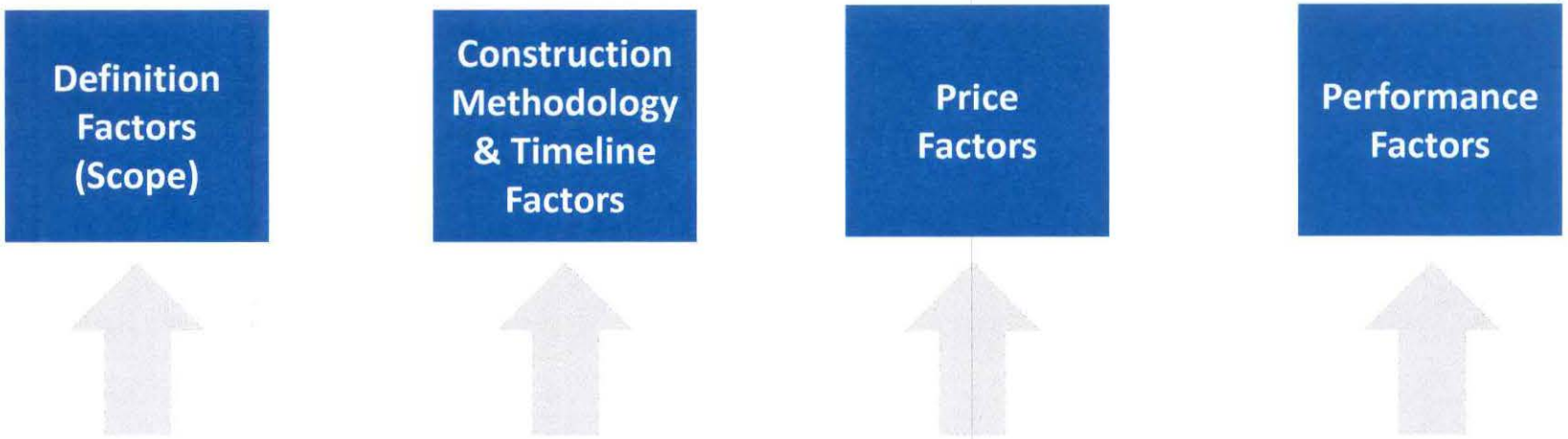


Escalation Allowance
Provision for changes in price levels driven by economic conditions. Includes inflation. Estimated using economic indices weighted against base estimate components.

Estimate Contingency
Provision made for variations to the basis of an estimate of time or cost that are likely to occur, that cannot be specifically identified at the time the estimate is prepared but, experience shows, will likely occur. It is not meant to cover scope changes outside the Project's parameters, events such as strikes or natural disasters, escalation or foreign currency impact, or changes that alter the basis upon which the control point for management of change as been established as captured in key project documents (e.g. basis of design, project execution plan).

Base Estimate
Reflects most likely costs for known and defined scope associated with project's specifications and execution plan as produced by the estimator.

The Estimators Consider 4 Elements



Each Element has Extensive Information Set

Definition Factors (Scope) + **Construction Methodology & Timeline Factors** + **Price Factors** + **Performance Factors** = **Base Estimate**

- ❑ Design Criteria & Specifications
- ❑ General Arrangements & Layouts
- ❑ Design Drawings for major components – towers and hardware
- ❑ MF rock and concrete quantities from 3D CAD
- ❑ Master Equipment List
- ❑ Cable List
- ❑ Material Take-offs for Construction Bulks
- ❑ Equipment Specifications
- ❑ Geotech surveys
- ❑ WBS & Cost Codes

- ❑ Construction Philosophies
- ❑ Construction Execution Plan
- ❑ Constructability Reviews
- ❑ Construction Schedule
- ❑ Logistics and Access, incl. freight forwarding & marshaling yards
- ❑ Contract Package Dictionary
- ❑ Org. Design and Staff Plans
- ❑ Construction Equip. Types
- ❑ Labor Demand
- ❑ Labor Demarcation
- ❑ In-directs Strategies
- ❑ Site Services
- ❑ Pre-Fabrication Plans
- ❑ Crane & Access Studies
- ❑ Support Facilities
- ❑ Material Sourcing Strategies
- ❑ Seasonality Constraints
- ❑ Permit Register

- ❑ Labor Agreement
- ❑ Construction Equip. Rates
- ❑ Bid Analysis – T/G, SOBI Cable, Tower Steel, Accommodations, Road
- ❑ Budgetary Quotes – various equipment
- ❑ Site Services Costs – catering, air transport
- ❑ Construction Bulks Prices – Rebar, Cement, Diesel, etc.
- ❑ Helicopters and Aircrane
- ❑ Contracting Market Intelligence – overhead and profit
- ❑ Foreign Exchange Rates

- ❑ Crew Make-up and Assignments
- ❑ Task durations
- ❑ Workface Restrictions
- ❑ Labor Productivity & Benchmarks
- ❑ Mobilization Constraints
- ❑ Work Front Stacking
- ❑ Seasonality Impacts
- ❑ Equipment Productivity
- ❑ In-Directs Usage
- ❑ Offsite Fabrication

- ❑ Estimate organized by Project, Physical Component and by Contract Package
- ❑ Documented Basis of Estimate
- ❑ Foreign Currency Demand
- ❑ Person hours
- ❑ Trade demands
- ❑ Cash flows

Negotiating Principles

- **Both parties believe that direct negotiations can get to a win-win endpoint for Nalcor and Valard/Quanta.**
- **Both parties subscribe to collaboratively developing an open book price model with closed book execution**
  - Will build up trust between the parties and allow for the mutual discovery of cost saving/sharing opportunities
  - Will allow Valard/Quanta to incent supervisory and workforce performance
  - The contract price structure is expected to be a combination of fixed price and unit rates for foundations - Substantially similar to the current AC contract.
- **Both parties will have "skin in the game" exemplified by the appropriate sharing and allocation of project risks.**
  - A risk matrix will be collaboratively developed
- **Transparency is required by both parties (Nalcor's budget and Valard/Quanta's estimating inputs)**
  - Nalcor must be able to explain to its Board of Directors how and why we got to the proposed agreement and why it's a great thing for its customers and shareholders
  - Valard/Quanta must be able to explain to its Board of Directors why this is a fair contract for the amount of resources, market conditions and risk involved

Negotiating Principles

- **Each party must show value to respective Boards in order to demonstrate the validity of the negotiating process**
  - Safety
  - Cost (1 contractor vs. multiple contractors for multiple sections/segment; leveraging resources from Phase 1 award; leveraging resources (e.g. facilities, equipment, personnel) from Nalcor, etc.)
  - Schedule
  - Risk Management (minimizing surprises and effectively managing project contingency)
  - Capability to complete the overhead portion of the DC Link
- **Nalcor needs assurances that there is a cap on their risks**
  - We will accomplish this objective through lump sum pricing with targets/unit prices for areas where there are significant unknowns
- **Nalcor needs assurances that there will be a commitment from Valard/Quanta for labor and supervisory/management staff on the project.**
  - Nalcor is aware that Valard/Quanta has the capability but it is concerned about the capacity to deliver with so many other projects
- **Nalcor needs off ramps from 2 perspectives:**
  - Valard/Quanta's failure to perform
  - Failure to come to agreement during direct negotiations

Negotiating Principles

- **Valard/Quanta needs assurances that its price model and estimate will not be shared with competitors.**
  - Valard/Quanta will propose an NDA to Nalcor for these assurances
- **Valard/Quanta needs assurances that if direct negotiations fail to result in an award then Valard/Quanta will be allowed to bid on all segments of each section and will be treated fairly in the process.**
- **In the expectation that we are able to come to an agreement, each party is committed to do what we can in parallel (such as the exchange and refinement of contract documents) to expedite the process**
  - We will use the contract documents from The AC Line as a starting point for contract development.
- **December 1st – Visibility into viability of process.**
  - Nalcor needs to feel comfortable by December 1st, that it is highly likely that an agreement can be made through this process

Negotiating Principles

- Schedule –
  - Flyover
    - Who should be Valard's contact for logistics?
  - Other important dates that we need to be working towards
- Issues or Questions with the process
  - Personnel involve - who all is involved?
  - Schedule
  - Vegetation Clearing Scope of Work and Pricing of this Scope of Work
  - Other Technical Questions
  - Other – Issues or Questions.

ATTACHMENT 9

VALARD'S 16-DECEMBER-2013 PRELIMINARY EXECUTION PLAN

Valard Presentation 16/12/2013
Rideout, Jody
to:
JasonKean@lowerchurchillproject.ca
12/21/2013 06:40 PM
Cc:
"Budzinski, Adam"
Hide Details
From: "Rideout, Jody" <JRideout@valard.com>
To: "JasonKean@lowerchurchillproject.ca" <JasonKean@lowerchurchillproject.ca>,

Cc: "Budzinski, Adam" <ABudzinski@valard.com>
History: This message has been replied to and forwarded.

2 Attachments

Nalcor-HVDC-16Dec2013.ppt ATT00001.htm

Jason,

The presentation file we presented with on Monday is attached. I've made a couple minor adjustments to reflect discussions with Mark that hadn't taken place due to the weather.

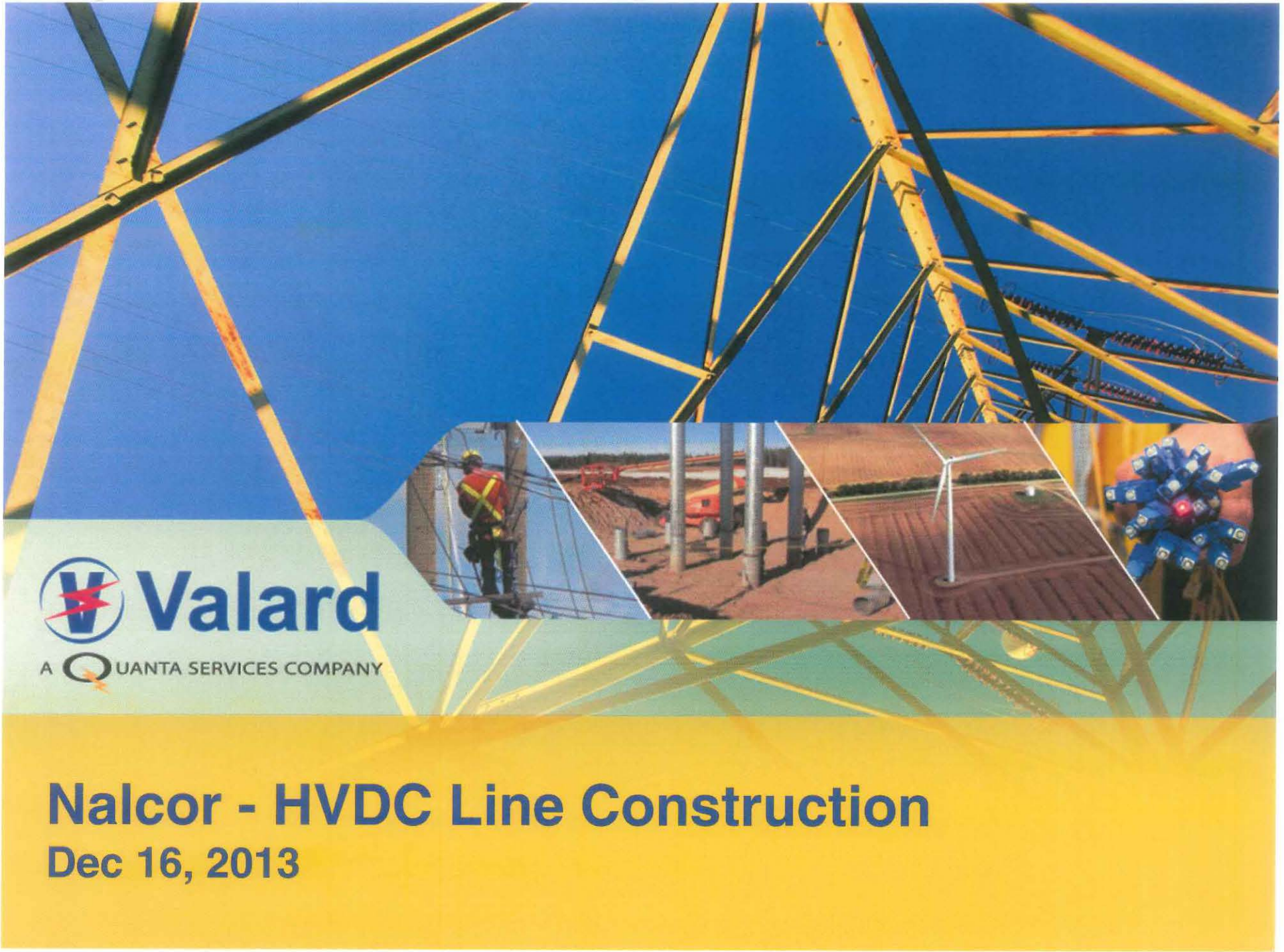
I trust, you'll provide this to whomever needs it.

An email with organization charts will follow.

Thanks,

Jody

Jody Rideout | Director, Major Projects | **Valard Construction LP**
Suite 200 | 3595 - 114 Ave SE | Calgary, AB T2Z 3X2 | www.valard.com
Main: 403.279.1003 | Fax: 403.236.1303 | Cell: 403.700.3411
Email: jrideout@valard.com
Quanta Services, Inc. (NYSE: PWR) | www.quantaservices.com



Nalcor - HVDC Line Construction

Dec 16, 2013

Valard
A QUANTA SERVICES COMPANY

Agenda

- Execution Plan
- Management Structure
- The Quanta Team
- Estimate Assumptions



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Execution Strategy

- Year round progress across 3 distinct spreads
- Separate management team per spread
- 6 camps deployed to 11 total locations
- Contiguous work fronts = maximum efficiency
- Resource leveled plan reduces camps & indirects
- 18 – 24 month construction window per spread
- Access and clearing begin April 2014 (spread 1)
- All line construction completed by March 2017

Schedule Overview

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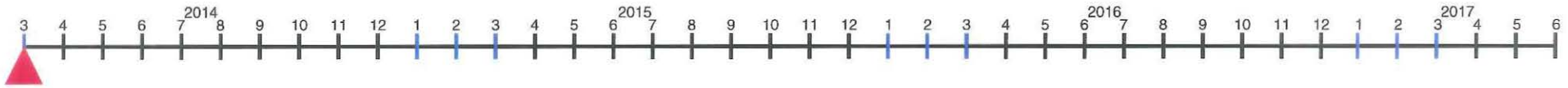
TIMELINE



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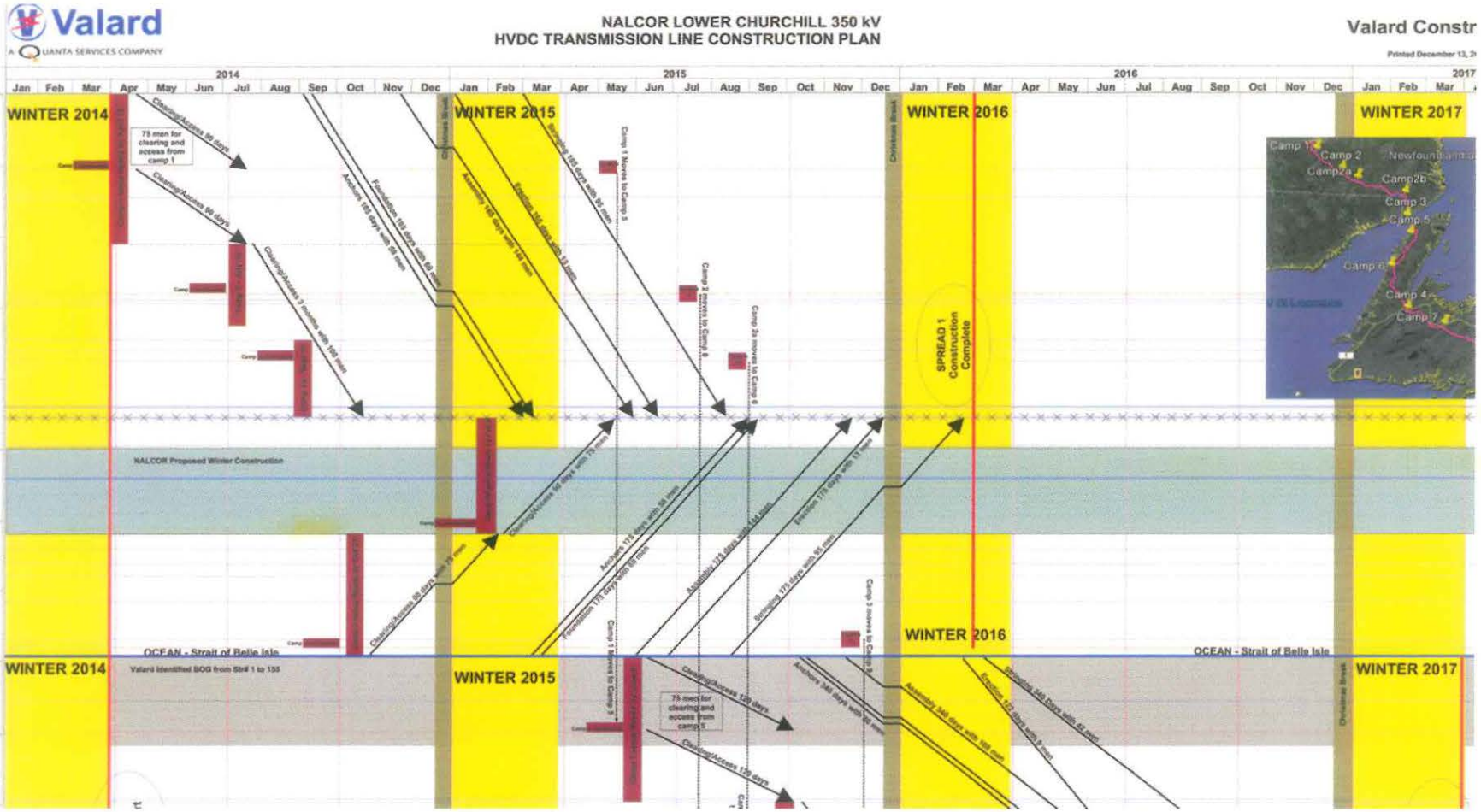
Execution Plan - Tilos



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Execution Plan

- Reduced Work-Fronts
- Reduction of Camp Resources & Overheads
- Management Efficiencies
- Management Consistencies
- Construction Efficiencies

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Execution Plan

- LRM – Fewer, Higher Production Crews
- Quality Program
- Leverage Manpower/Resources Deployed To NL
  - CMs, Supervisors, Directors
  - Opportunity to Grow Skilled Positions
- Safety

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Execution Plan

- Time Off Coverage

Project Organization

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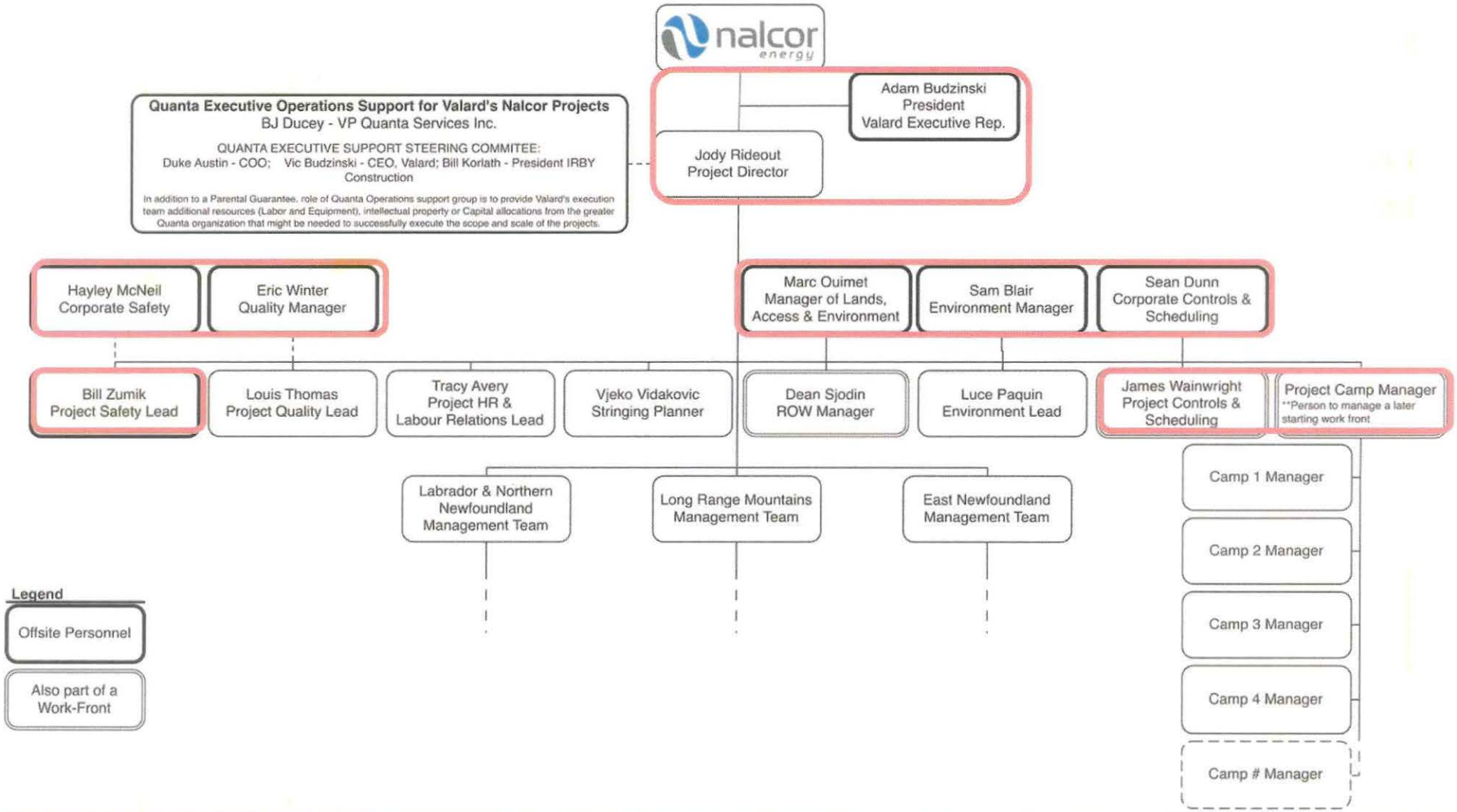

Project Organization
Work-Front 1 & 2

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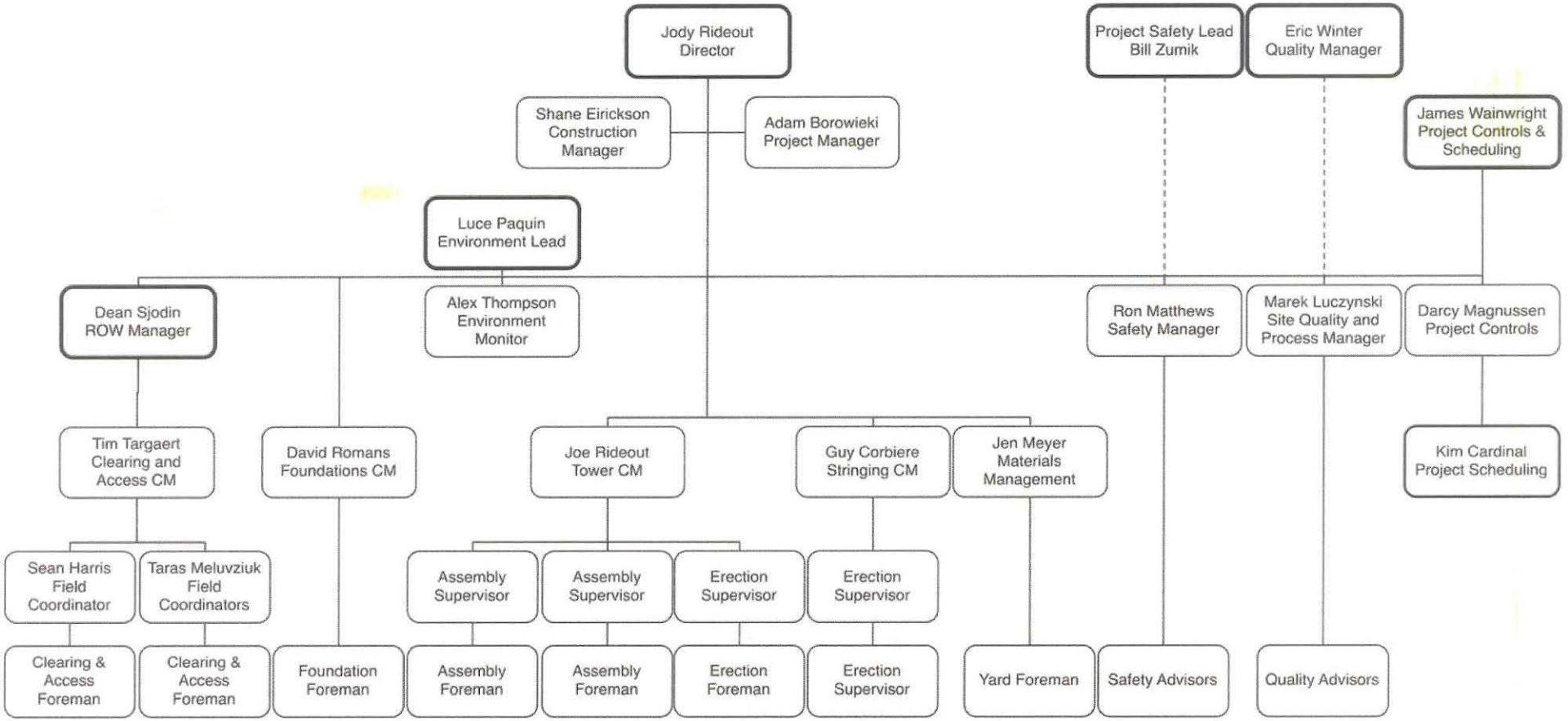

Project Organization
Work-Front 1 & 2

Valard
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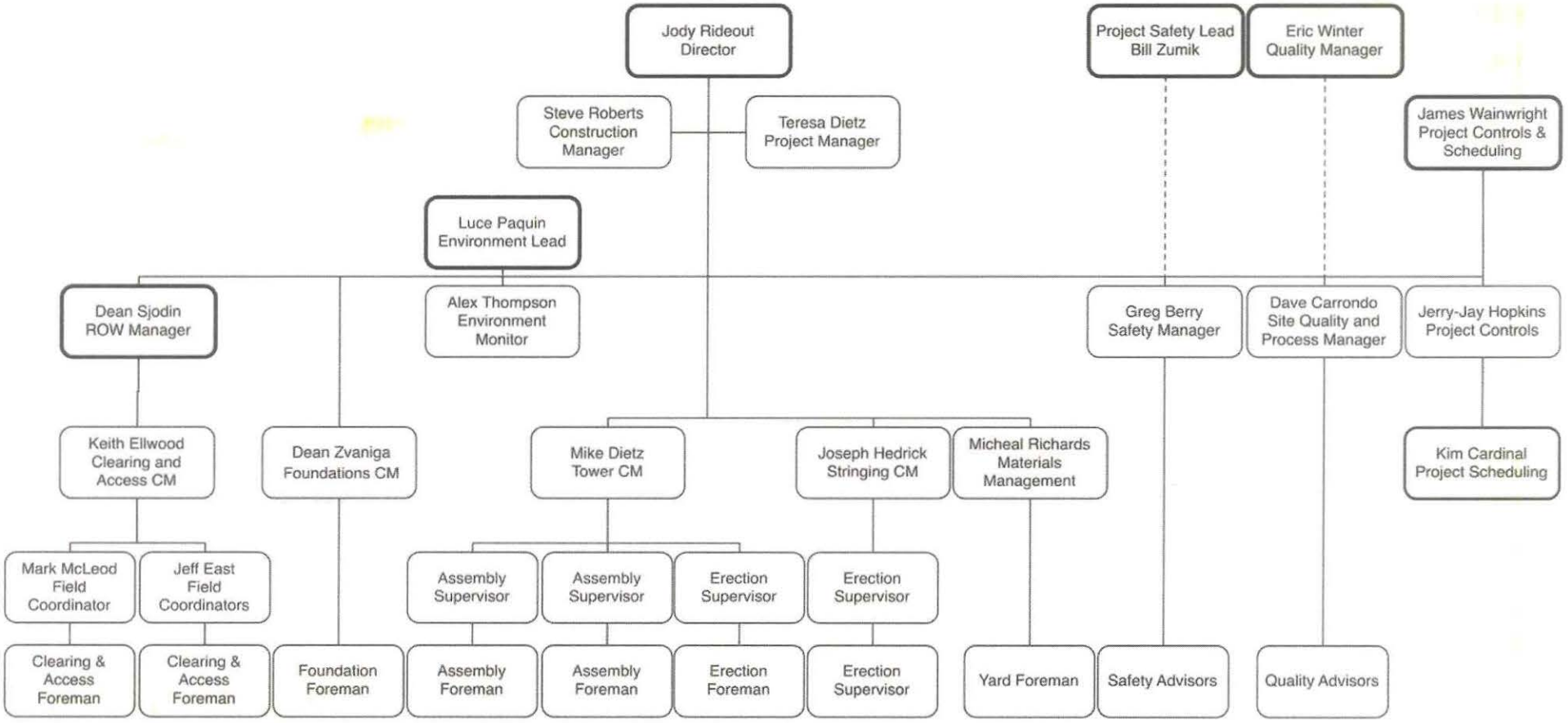

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Execution Plan

- **MARC** – KEY HIGHLIGHTS FROM CLEARING PLAN
- **DEAN** – KEY HIGLIGHTS FROM ACCESS PLAN

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Integrated Quanta Team

- Quanta Executive Support Steering Committee
- Project Director located full time in NL, Regular trips to all Spreads
- Valard & Quanta Executive (Vic/Adam) Support


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Quanta Services Capacity

- 17 EHV projects currently underway
- Over $3 billion USD - total Value of EHV projects
- Canada's largest powerline workforce (Valard)
- Additional capacity – Irby, Allteck, and McGregor



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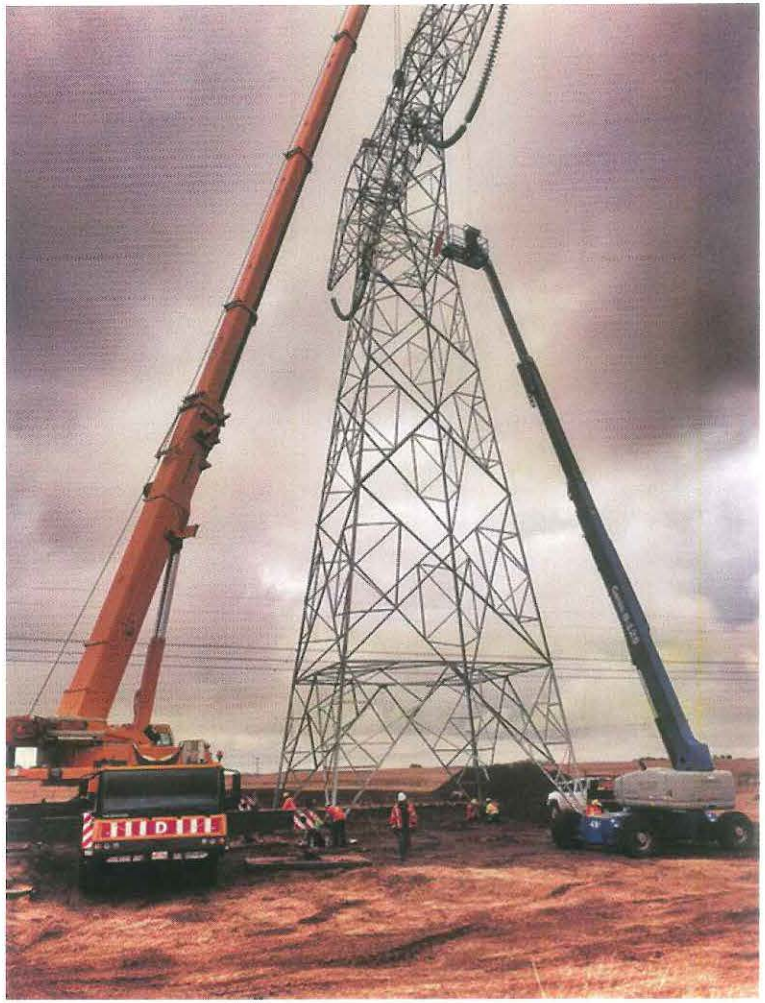
Total Workforce

IRBY CONSTRUCTION, A QUANTA SERVICES COMPANY	891
Alteck, Powerful Infrastructure Solutions, A QUANTA SERVICES COMPANY	316
McGREGOR CONSTRUCTION 2000 LTD., A QUANTA SERVICES COMPANY	242
Valard, A QUANTA SERVICES COMPANY	2,037
	3,486



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Valard Major Projects

BC Hydro – NTL Project

428 men – available spring 2014

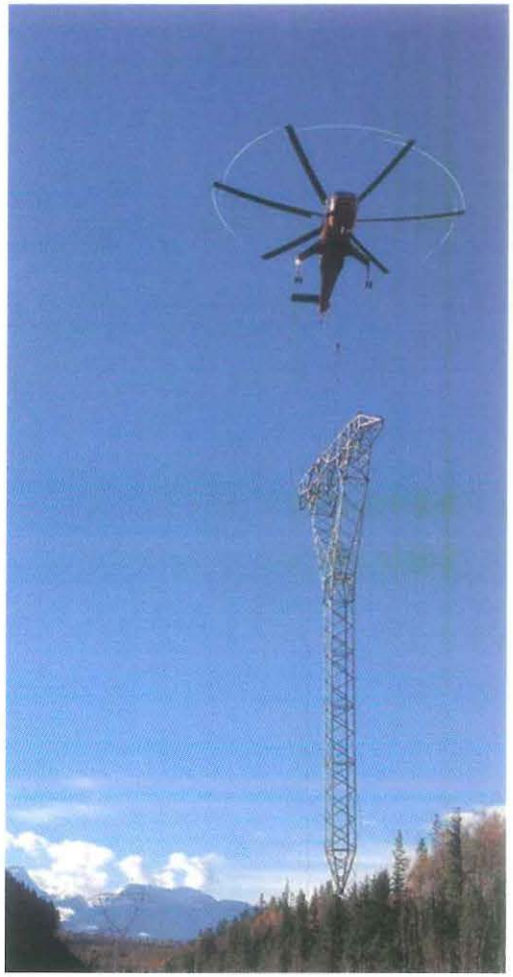
ATCO Electric - EATL Project

458 men – available summer 2014

Sask Power - I1K Project

143 men – available fall 2014

*1,029 total men per Dec 9, 2013 HR Report (NTL, EATL, and I1K)



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Estimate & Key Planning Assumptions

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Proposal Highlights

- Execution Plan
- Org Charts
- Estimate
- Estimate Details
- Tilos Schedule
- E.P.P.
- Key Assumptions

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Next Steps

- Execution Plan and Schedule Adjustment
- Detailed Estimate Walk Through
- Muskrat Falls AC Line Mobilization
- Path Forward – confirm timelines

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Comments and Questions

Valard Org Charts 16/12/2013

Rideout, Jody to: JasonKean@lowerchurchillproject.ca 12/21/2013 06:29 PM

Cc: "Budzinski, Adam"

History: This message has been forwarded.

4 attachments

East NL Spread Org Chart.pdf Lab and Nor NL Spread Org Chart.pdf Lead Org Chart.pdf ATT00001.txt

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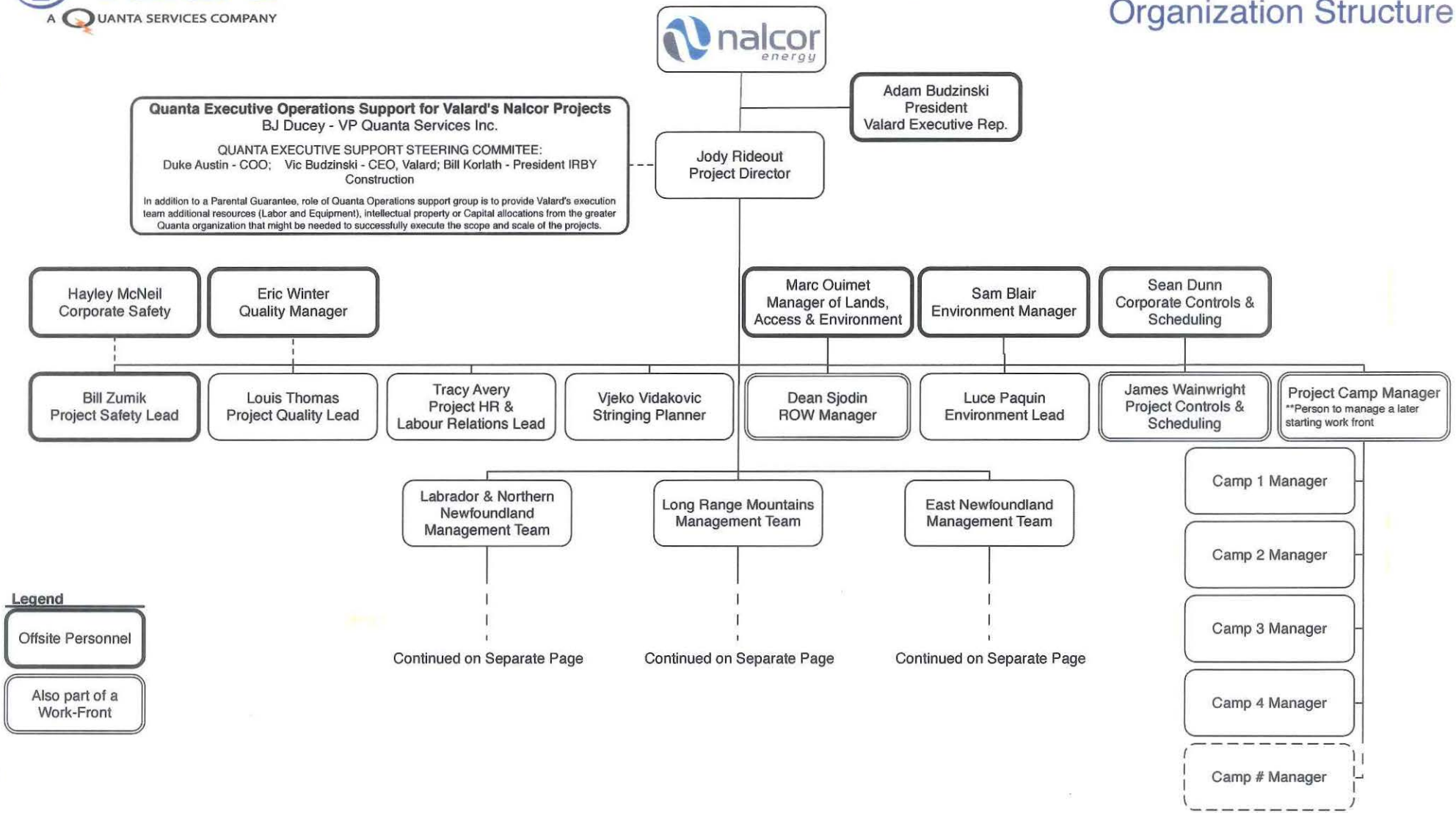
CT0327: Lower Churchill Project 350 kV HVdc Line Construction Organization Structure



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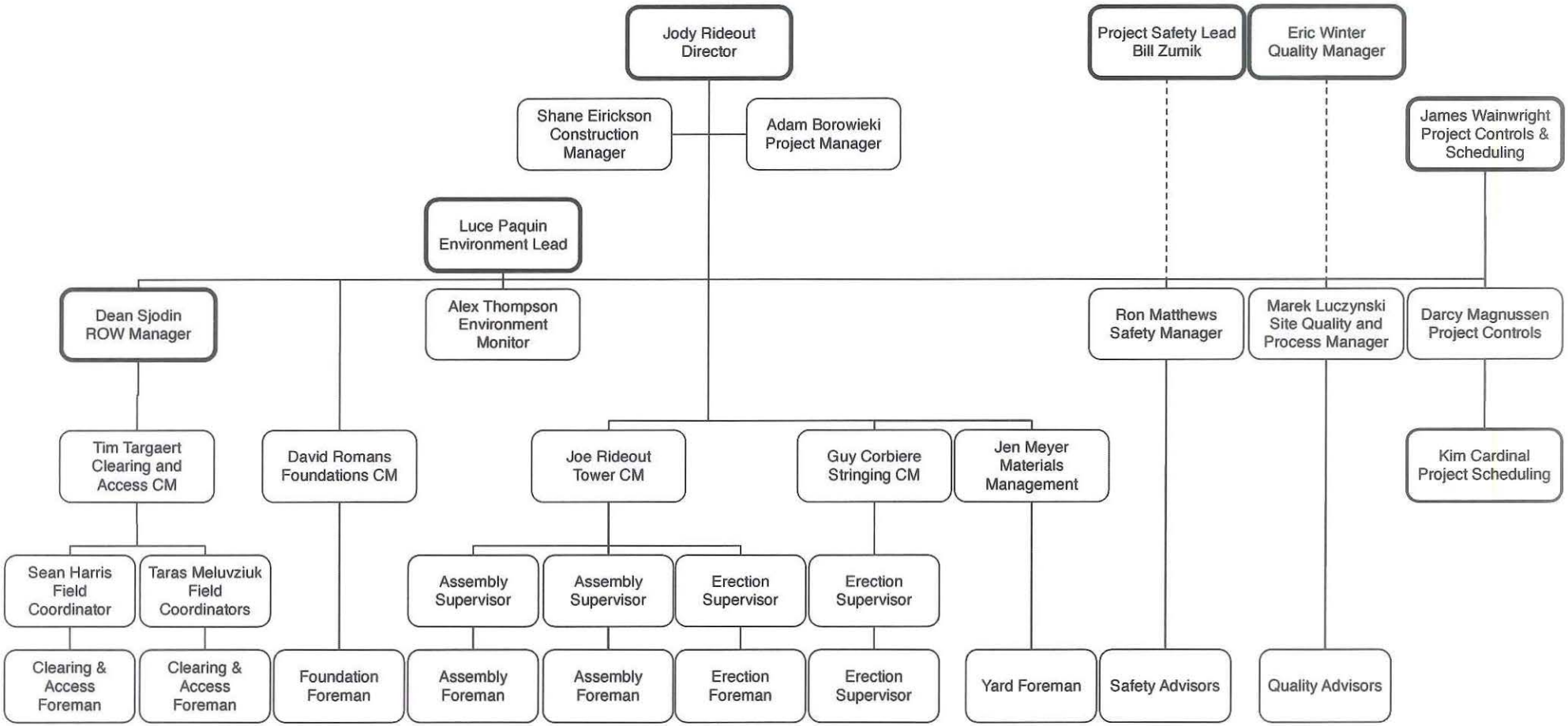
CT0327: Lower Churchill Project 350 kV HVdc Line Construction
Labrador & Northern Newfoundland Work Front Organization Structure



Valard
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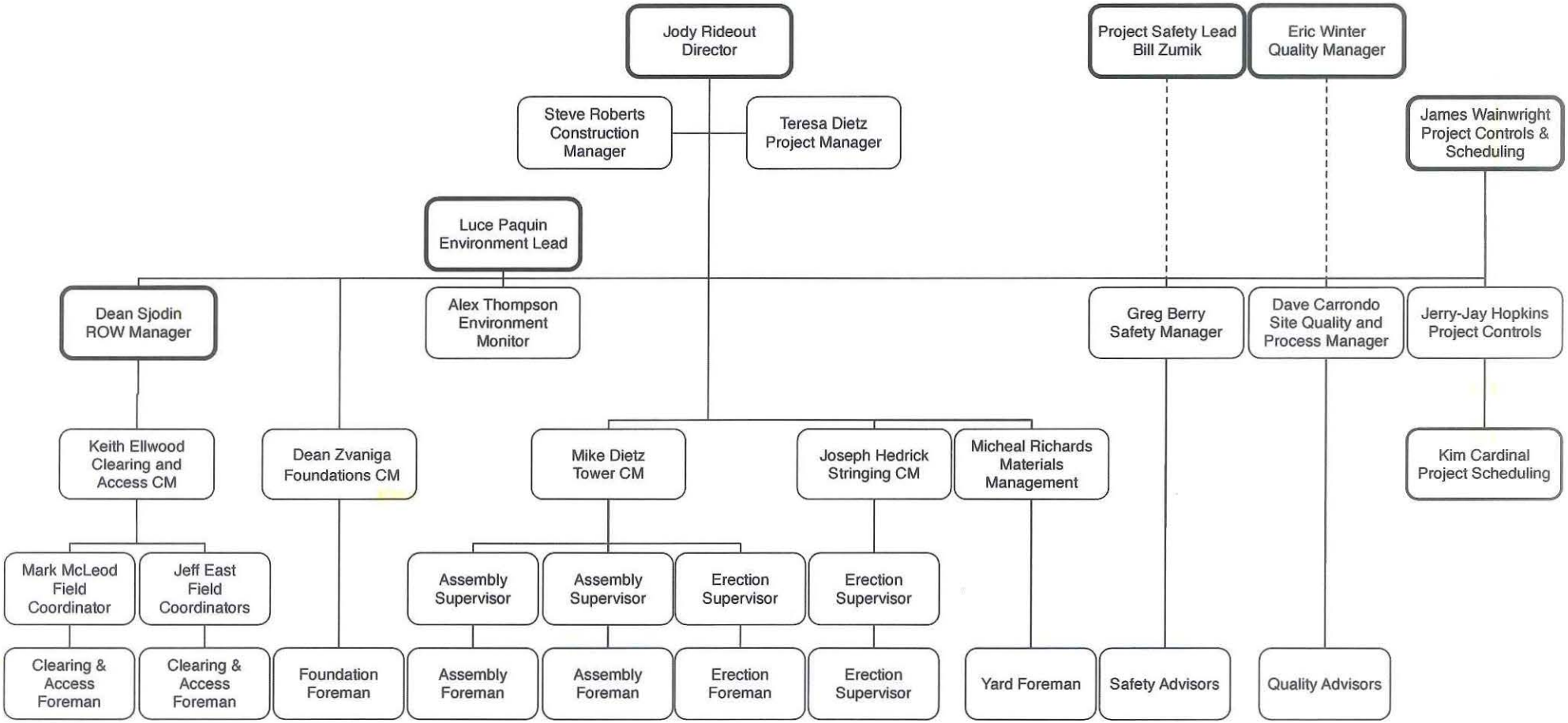
CT0327: Lower Churchill Project 350 kV HVdc Line Construction
Mid to Eastern Newfoundland Work Front Organization Structure



RE: Actions for HVDC contract - Tilos Schedule
Dunn, Sean
to:
JasonKean@lowerchurchillproject.ca
12/23/2013 03:51 PM
Cc:
"Budzinski, Adam", "Ducey, BJ", "Rosychuk, Dean"
Hide Details
From: "Dunn, Sean" <SDunn@valard.com>
To: "JasonKean@lowerchurchillproject.ca" <JasonKean@lowerchurchillproject.ca>,
Cc: "Budzinski, Adam" <ABudzinski@valard.com>, "Ducey, BJ" <BDucey@QuantaServices.com>, "Rosychuk, Dean" <DRosychuk@valard.com>
History: This message has been replied to and forwarded.

2 Attachments

NALCOR Combined Dec23_3.pdf

Hi Jason,

Please find attached the updated Tilos schedule showing both the AC and DC lines.

Thank you,

Sean

Valard
Sean Dunn, P.Eng., PMP | Corporate Controls Manager | Valard Construction LP
4209 - 99 Street | Edmonton, AB T6E 5V7 | www.valard.com
Main: 780.436.9876 | Fax: 780.577.4835 | Cell: 587.985.6680
email: sdunn@valard.com
Quanta Services, Inc. (NYSE: PWR) | www.quantaservices.com

From: JasonKean@lowerchurchillproject.ca [mailto:JasonKean@lowerchurchillproject.ca]
Sent: Sunday, December 15, 2013 10:11 AM
To: Dunn, Sean
Cc: Budzinski, Adam; Ducey, BJ
Subject: RE: Actions for HVDC contract - Tilos Schedule

Thanks Sean.

Adam,
It would be useful to have the AC TL overlaid on this Tilos schedule. Is it possible to do this for tomorrow?

Jason

Jason R. Kean, P. Eng., MBA, PMP
Deputy General Project Manager
PROJECT DELIVERY TEAM
Lower Churchill Project
t. **709 737-1321** c. **709 727-9129** f. **709 754-0787**

Deputy General Project Manager
PROJECT DELIVERY TEAM
Lower Churchill Project
t. **709 737-1321** c. **709 727-9129** f. **709 754-0787**
e. JasonKean@lowerchurchillproject.ca
w. muskratfalls.nalcorenergy.com

You owe it to yourself, and your family, to make it home safely every day. What have you done today so that nobody gets hurt?

From: Keenan Healey/LCP/NLHydro
To: "Ducey, BJ" <BDucey@QuantaServices.com>,
Cc: Claude Daneau/LCP/NLHydro@NLHYDRO, David Haley/LCP/NLHydro@NLHYDRO, Jason Kean/NLHydro@NLHYDRO, Kyle Tucker/NLHydro@NLHYDRO, Lance Clarke/NLHydro@NLHYDRO, Nick Ternasky/NLHydro@NLHYDRO, "Mongrain, Normand" <Normand.Mongrain@snclavalin.com>, Pat Hussey/NLHydro@NLHYDRO, Richard Donica/NLHydro@NLHYDRO
Date: 12/12/2013 12:27 PM
Subject: Actions for HVdc contract

Hi BJ,

Please find attached the updated action list - can you please distribute to your team for the completion of the Valard specific items.

Cheers,
Keenan

Keenan Healey
Area Manager - Overhead HVdc Transmission
PROJECT DELIVERY TEAM
Lower Churchill Project
t. **709-752-3461 x55067** c. **709-730-1527**
e. KeenanHealey@lowerchurchillproject.ca
w. muskratfalls.nalcorenergy.com

You owe it to yourself, and your family, to make it home safely every day. What have you done today so that nobody gets hurt?

[attachment "Nalcor Valard Take aways 12-Dec-2013.xlsx" deleted by Jason Kean/NLHydro] [attachment "image001.png" deleted by Jason Kean/NLHydro] [attachment "NALCOR DC LINE DEC13 TILOS Schedule.pdf" deleted by Jason Kean/NLHydro]

NALCOR AC and DC TRANSMISSION LINE CONSTRUCTION PLAN

Valard Construction LP

Printed December 23, 2015 at 11:06 MST

Elevation Profile

SPREAD 3 | SPREAD 2 | SPREAD 1

Camp 9(3) | Camp 8 (2) | Camp 7 (AC) | Camp 4 | Camp 6 (2a) | Camp 5 (1) | Camp 3 | Camp 2b | Camp 2a | Camp 2 | Camp 1

Winter 2014 | Winter 2015 | Winter 2016 | Winter 2017

April 2014 Project start

AVERAGE PRODUCTIVITY RATES

Clearing/Access = 1.0 Km/day (per crew)
Anchors = 1.0 Structures/day (per crew)
Foundations = 1.5 Structures/day (per crew)
Assembly = 0.4 Structures/day (per crew)
Erection = 4.0 Structures/day (per crew)
Stringing = 2.5 Km/month (per crew)

Manpower Loading DC

Total Manpower Loading DC and AC

Manpower Loading AC

Camp 1 | Camp 2 | Camp 3

January 2014 Project Start

Line Inspected Ready for Energization August 1, 2016

Construction Complete September, 2016

SPREAD 3 Construction Complete

SPREAD 2 Construction Complete

SPREAD 1 Construction Complete

ENERGIZED JUNE 2017

ENERGIZED JUNE 2017

SPREAD 3 | SPREAD 2 | SPREAD 1

ATTACHMENT 10

VALARD'S 24-FEBRUARY-2014 PROPOSAL

Ori								
Section 1	$	460,683,884			Target		Difference	
Section 2	$	269,563,937						
Section 3	$	452,238,713						
Original Total	$	1,182,486,535						
Section 1	$	358,242,263						
Section 2	$	216,327,268						
Section 3	$	334,623,821						
Revised	$	909,193,351	$ 831,833	per km	$ 720,000,000	$ 658,737	$ 189,193,351	

Line Cost Reductions	Potential Savings						
Tower Assembly Cost Review	$ 13,000,000		Labour only cost				
Review of Stringing Production	$ 5,500,000	Section 1	$ 109,513,383.77	Section 1 Craft MH	1,062,151		
Reduce Equipment Costs	$ 11,000,000	Section 2	$70,455,237.53	Craft MH For Camp1	192,618	70 km of 360 km	
Labrador Hauling	$ 4,000,000	Section 3	$105,575,556.96	Man Days	17,511		
Newfoundland Hauling	$ 4,000,000		$ 285,544,178.26	Total Project Labour Cost =	$ 4,377,684	at $250 / ManDay	
3% Labour Rate Reduction	$ 8,566,325		$ 8,566,325.35	3% of Total			
Free Issue Camp Nalcor @ MF	$ 4,500,000						
Camp Setup	$ 500,000		17510.7374				
Reduction in Indirects	$ 4,000,000						
Foundation Design Potential	$ 20,000,000						
Total Savings	$ 75,066,325						
	$ 834,127,026	$ 762,456.15	/km				

$855 excl-foundation

→ offering $820 million (4% margin)

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Nalcor 350kV HVdc Clarifications and Assumptions

1. Camp Permits Provided early
2. 39 month schedule
3. Foundation uplift testing not included.
4. Material density / strength testing not included. (grout / concrete break tests, Proctor and compaction tests)
5. Anchor test to failure not included.
6. Foundation uplift testing not included.
7. Material density / strength testing not included. (grout / concrete break tests, Proctor and compaction tests)
8. Anchor test to failure not included.
9. Rock anchor pull testing to failure not included.
10. Portland cement based grout / concrete assumed for all locations.
11. Rates are valid for 2014. Yearly rate escalation, based on the IBEW project union agreement, is assumed for 2015 through to completion.
12. Flagging the right of way is based on offsets from IFC coordinates or receipt of right of way alignment coordinates.
13. Legal survey of the right of way is out of scope (exposing survey statutory monuments). This would require a sub contract to a local commissioned land surveyor and we have excluded this from our scope.
14. Valard assumes the receipt of stamped IFC coordinates prior to commencement of the project (time of access).
15. H-pile foundation pricing is based on the conceptual design and is to be validated once a site specific geotechnical report is completed. The intent is to tie the pricing to the conceptual designs provided and any deviation from these may impact pricing.

Valard

A QUANTA SERVICES COMPANY

16. We suggest implementing an H-pile pricing structure similar to the final pricing structure used on the Nalcor HVac project that has various lengths and a splice rate, as this would allow for flexibility when the design is validated.

17. Anchor pull testing pricing is based on the availability of a suitable reaction surface being available.

18. All referenced contract documents not supplied to date are assumed to be equivalent to similar documents provided with the 315kVac RFP.

19. Bridge costs include site plan, engineer, supply & install - assume that abutments can be installed using local timber.

20. Corduroy road cost only includes supply and installation of corduroy based on maximum haul of 450m and branches left on.

21. All drilling and blasting for road construction to be at a cost of $35/m3.

22. Assumed that the entire ROW and permit availability is conducive to road installation.

23. Preliminary Geotechnical investigation by others.

24. Pricing for item –I2: Design and supply of micropile option as replacement for H-pile design shall be provided upon provision of Geotechnical data.

25. Optional Pricing for culverts larger than 600 mm diameter has not been provided as temporary bridges will be more economical.

26. Optional Pricing for mulching has not been provided as mulching has been included in the clearing price in all areas where mulching is desirable.

PDF Copies of Pricing Information from Presentation
Malainey, Joe
to:
JasonKean@lowerchurchillproject.ca
01/13/2014 03:52 AM
Cc:
"Budzinski, Victor", "Budzinski, Adam", "Ducey, BJ", "Rideout, Jody", "Murphy, Gary"
Hide Details
From: "Malainey, Joe" <JMalainey@valard.com> Sort List...
To: "JasonKean@lowerchurchillproject.ca" <JasonKean@lowerchurchillproject.ca>,
Cc: "Budzinski, Victor" <VBudzinski@valard.com>, "Budzinski, Adam" <ABudzinski@valard.com>, "Ducey, BJ" <BDucey@QuantaServices.com>, "Rideout, Jody" <JRideout@valard.com>, "Murphy, Gary" <gmurphy@QuantaServices.com>
History: This message has been forwarded.

3 Attachments

NALCOR 350 kV HVdc Line Construction front 1-Jan 10.pdf

NALCOR 350 kV HVdc Line Construction Front 2-Jan 10.pdf

NALCOR 350 kV HVdc Line Construction front 3-Jan 10.pdf

Hello Jason:
We have completed our review of the documents, corrected a few minor errors and have compiled the pricing information for all 3 sections.
The completed pricing documents are attached.
We reiterate our position on confidentiality of this information. This information is released to Nalcor with the understanding that this information shall not be shared with anyone from SNC.
The documents attached expose much of our proprietary bidding process. As SNC is responsible for procuring a significant portion of the transmission line and substation construction work in Alberta, the release of this information to SNC will put us at a great disadvantage.

We also request that, in the spirit of openness and cooperation, any available tower assembly drawings be forwarded to Valard in order that we may verify our tower assembly and installation pricing.

Regards,
Joe

Valard
Joe Malainey P. Eng | Project Manager | **Valard LP**
Suite 200, 3595-114th Ave SE | Calgary, AB T2Z 3X2
www.valard.com
Main: 403.279.1003 | Fax: 403.236.1303 | Cell: 403.510.7617
email: jmalainey@valard.com
Quanta Services, Inc. (NYSE: PWR) | www.quantaservices.com

LOWER CHURCHILL PROJECT CT0327 CONSTRUCTION OF 350kV HVdc TRANSMISSION LINE: SEGMENT 1

Valard Construction LP

Rev 00, 01-Nov-2013

SCHEDULE OF PRICE BREAKDOWN

Item No.	Description	Unit of Measure	Estimated Quantity	Unit Manhours(hrs)	Equipment($)	Material ($)	Labour($)	Total Unit Price($)	Subtotal Price ($)
S1-A	**General Works (S1-Ax)**								
	Mobilization and Demobilization								
S1-A1	Initial Mobilization	LS	1	$ -	$ -	$ -	$ -	$ 2,000,000.00	$ 2,000,000.00
S1-A2	Final Demobilization	LS	1	$ -	$ -	$ -	$ -		$ -
	Accommodation Camp								
S1-A3	Accommodation Camp Installation	LS	1	$ 283,223.07	$ 19,080,272.38	$ 12,461,085.39	$ 25,391,427.11	$ 56,932,784.88	$ 56,932,784.88
S1-A4	Boarding and Lodging for Company/Engineer with 3 meals per day	person-day	24,000	$ 34,302.86	$ 2,173,440.00	$ 927,360.00	$ 2,899,440.00	$ 250.01	$ 6,000,240.00
S1-A5	Meals for Company/Engineer visitors	meal	2,000	$ 476.52	$ 30,200.00	$ 12,880.00	$ 40,280.00	$ 41.68	$ 83,360.00
	Performance Security								
S1-A6	Parent Guarantee Article 7.4	LS	1	$ -	$ -	$ -	$ -	$ -	$ -
S1-A7	Letter Of Credit Article 7.6	LS	1	$ -	$ -	$ -	$ -	$ -	$ -
S1-A8	Performance Bonding Article 7.1	LS	1	$ -	$ -	$ -	$ -	$ -	$ -
S1-A9	Labour and Materials Bonding Article 7.2	LS	1	$ -	$ -	$ -	$ -	$ -	$ -
	Sub-total (S1-Ax): General Works			**318,002.45**	**$ 21,283,912.38**	**$ 13,401,325.39**	**$ 28,331,147.11**	**$ 58,933,076.57**	**$ 65,016,384.88**
S1-B	**Right-of-Way Clearing - Direct Costs (S1-Bx)**								
	Right-Of-Way Clearing								
S1-B1	ROW Clearing	Ha	2,207	$ 267,992.86	$ 21,573,425.00	$ -	$ 21,573,425.00	$ 19,550.00	$ 43,146,850.00
S1-B2	Removal of selected danger trees	EA	1,000	$ 1,304.35	$ 105,000.00	$ -	$ 105,000.00	$ 210.00	$ 210,000.00
S1-B3	Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2	LM	1,358	$ 2,155.96	$ 57,850.80	$ 347,104.80	$ 173,552.40	$ 426.00	$ 578,508.00
S1-B4	Supply and Installation of Bridge - 3 m	EA	141	$ 17,182.73	$ 461,070.00	$ 2,766,420.00	$ 1,383,210.00	$ 32,700.00	$ 4,610,700.00
S1-B5	Supply and Installation of Bridge - 4 m	EA	2	$ 324.97	$ 8,720.00	$ 52,320.00	$ 26,160.00	$ 43,600.00	$ 87,200.00
S1-B6	Supply and Installation of Bridge - 5 m	EA	15	$ 3,046.58	$ 81,750.00	$ 490,500.00	$ 245,250.00	$ 54,500.00	$ 817,500.00
S1-B7	Supply and Installation of Bridge - 6 m	EA	5	$ 1,218.63	$ 32,700.00	$ 196,200.00	$ 98,100.00	$ 65,400.00	$ 327,000.00
S1-B8	Supply and Installation of Bridge - 7 m	EA	1	$ 284.35	$ 7,630.00	$ 45,780.00	$ 22,890.00	$ 76,300.00	$ 76,300.00
S1-B9	Supply and Installation of Bridge - 8 m	EA	4	$ 1,299.88	$ 34,880.00	$ 209,280.00	$ 104,640.00	$ 87,200.00	$ 348,800.00
S1-B10	Supply and Installation of Bridge - 10 m	EA	3	$ 1,218.63	$ 32,700.00	$ 196,200.00	$ 98,100.00	$ 109,000.00	$ 327,000.00
S1-B11	Supply and Installation of Bridge - 13 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B12	Supply and Installation of Bridge - 14 m	EA	1	$ 568.70	$ 15,260.00	$ 91,560.00	$ 45,780.00	$ 152,600.00	$ 152,600.00
S1-B13	Supply and Installation of Bridge - 15 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B14	Supply and Installation of Bridge - 16 m	EA	1	$ 649.94	$ 17,440.00	$ 104,640.00	$ 52,320.00	$ 174,400.00	$ 174,400.00
S1-B15	Supply and Installation of Bridge - 25 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B16	Supply and Installation of Bridge - 35 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B17	Supply and Installation of Bridge - 50 m	EA	1	$ 2,031.06	$ 54,500.00	$ 327,000.00	$ 163,500.00	$ 545,000.00	$ 545,000.00
S1-B18	Supply and Installation of Bridge - 60 m	EA	1	$ 2,437.27	$ 65,400.00	$ 392,400.00	$ 196,200.00	$ 654,000.00	$ 654,000.00
S1-B19	Supply and Installation of Bridge - 65 m	EA	1	$ 2,640.37	$ 70,850.00	$ 425,100.00	$ 212,550.00	$ 708,500.00	$ 708,500.00
S1-B20	Installation of Corduroy Road	LM	4,915	$ 2,554.26	$ 68,515.10	$ 411,238.05	$ 205,594.45	$ 139.44	$ 685,347.60
S1-B21	Installation of Access Road - Access Class 3	KM	415	$ 124,809.32	$ 3,349,050.00	$ 20,094,300.00	$ 10,047,150.00	$ 80,700.00	$ 33,490,500.00
S1-B22	Installation of Access Road - Access Trail	KM	20	$ 6,014.91	$ 161,400.00	$ 968,400.00	$ 484,200.00	$ 80,700.00	$ 1,614,000.00
S1-B23	Installation of Access Road - Bypass Trail	KM	6	$ 1,804.47	$ 48,420.00	$ 290,520.00	$ 145,260.00	$ 80,700.00	$ 484,200.00
S1-B24	Installation of Access Road - Ice Bridge	LM	35	$ 939.13	$ 25,200.00	$ 151,200.00	$ 75,600.00	$ 7,200.00	$ 252,000.00
	Sub-total (S1-Bx) : Right-of-Way Clearing - Direct Costs			**440,478.35**	**$ 26,271,760.90**	**$ 27,560,162.85**	**$ 35,458,481.85**	**$ 2,972,825.44**	**$ 89,290,405.60**
S1-B	**Right-of-Way Clearing for Wood Pole Electrode Line- Direct Costs (S1-Bx)**								
	Right-Of-Way Clearing								
S1-B25	ROW Clearing	Ha	18	$ 2,185.71	$ 175,950.00	$ -	$ 175,950.00	$ 19,550.00	$ 351,900.00
S1-B26	Removal of selected danger trees	EA	42	$ 54.78	$ 4,410.00	$ -	$ 4,410.00	$ 210.00	$ 8,820.00
S1-B27	Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2	LM	11	$ 17.46	$ 468.60	$ 2,811.60	$ 1,405.80	$ 426.00	$ 4,686.00
S1-B28	Supply and Installation of Bridge - 3 m	EA	1	$ 121.86	$ 3,270.00	$ 19,620.00	$ 9,810.00	$ 32,700.00	$ 32,700.00
S1-B29	Supply and Installation of Bridge - 4 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B30	Supply and Installation of Bridge - 5 m	EA	1	$ 203.11	$ 5,450.00	$ 32,700.00	$ 16,350.00	$ 54,500.00	$ 54,500.00
S1-B31	Supply and Installation of Bridge - 6 m	EA	1	$ 243.73	$ 6,540.00	$ 39,240.00	$ 19,620.00	$ 65,400.00	$ 65,400.00
S1-B32	Supply and Installation of Bridge - 7 m	EA	1	$ 284.35	$ 7,630.00	$ 45,780.00	$ 22,890.00	$ 76,300.00	$ 76,300.00
S1-B33	Supply and Installation of Bridge - 8 m	EA	1	$ 324.97	$ 8,720.00	$ 52,320.00	$ 26,160.00	$ 87,200.00	$ 87,200.00
S1-B34	Supply and Installation of Bridge - 10 m	EA	1	$ 406.21	$ 10,900.00	$ 65,400.00	$ 32,700.00	$ 109,000.00	$ 109,000.00
S1-B35	Supply and Installation of Bridge - 13 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B36	Supply and Installation of Bridge - 14 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B37	Supply and Installation of Bridge - 15 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B38	Supply and Installation of Bridge - 16 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B39	Supply and Installation of Bridge - 25 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B40	Supply and Installation of Bridge - 35 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B41	Supply and Installation of Bridge - 50 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B42	Supply and Installation of Bridge - 60 m	EA	1	$ 2,437.27	$ 65,400.00	$ 392,400.00	$ 196,200.00	$ 654,000.00	$ 654,000.00
S1-B43	Supply and Installation of Bridge - 65 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B44	Installation of Corduroy Road	LM	20	$ 10.39	$ 278.80	$ 1,673.40	$ 836.60	$ 139.44	$ 2,788.80
S1-B45	Installation of Access Road - Access Class 3	KM	2	$ 601.49	$ 16,140.00	$ 96,840.00	$ 48,420.00	$ 80,700.00	$ 161,400.00
S1-B46	Installation of Access Road - Access Trail	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B47	Installation of Access Road - Bypass Trail	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
	tal (S1-Bx) : Right-of-Way Clearing for Wood Pole Electrode Line - Direct Costs			**6,891.34**	**$ 305,157.40**	**$ 748,785.00**	**$ 554,752.40**	**$ 1,180,125.44**	**$ 1,608,694.80**
S1-C	**Tower Foundation Construction (S1-Cx)**								
	Guy Wire Anchors								
S1-C1	Installation of Guy Wire Anchor in soil as per design drawings and technical specification	LM	32,500	$ 93,361.08	$ 4,694,300.00	$ 1,703,650.00	$ 8,830,900.00	$ 468.58	$ 15,228,850.00
S1-C2	Installation of Guy Wire Anchor in rock as per design drawings and technical specification	LM	31,500	$ 83,954.65	$ 4,213,440.00	$ 1,483,965.00	$ 7,935,795.00	$ 432.80	$ 13,633,200.00
S1-C2	Testing of Guy Wire Anchor up to 550kN as per design drawings and technical specification	Ea	2,892	$ 8,202.69	$ 1,243,964.88	$ -	$ 1,854,581.76	$ 1,071.42	$ 3,098,546.64
S1-C2	Testing of Guy Wire Anchorup to 900kN as per design drawings and technical specification	Ea	1,572	$ 4,458.72	$ 676,180.08	$ -	$ 1,008,092.16	$ 1,071.42	$ 1,684,272.24
	Grillage Foundations								
S1-C3	Assembly and Installation of Foundation Types A1-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A1.	EA	36	$ 2,083.50	$ 248,085.00	$ 4,869.00	$ 275,307.12	$ 14,673.92	$ 528,261.12
S1-C4	Assembly and Installation of Foundation Types A2-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A2.	EA	17	$ 1,432.52	$ 168,229.45	$ 3,870.22	$ 189,652.00	$ 21,279.51	$ 361,751.67
S1-C5	Assembly and Installation of Foundation Types A3-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A3.	EA	1	$ 70.54	$ 8,351.92	$ 183.07	$ 9,326.56	$ 17,861.55	$ 17,861.55
S1-C6	Assembly and Installation of Foundation Types A4-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A4.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C7	Assembly and Installation of Foundation Types B1-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types B1.	EA	2	$ 189.25	$ 22,126.18	$ 523.14	$ 25,072.70	$ 23,861.01	$ 47,722.02
S1-C8	Assembly and Installation of Foundation Types B2-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types B2.	EA	40	$ 3,746.82	$ 453,817.60	$ 8,675.20	$ 494,547.60	$ 23,926.01	$ 957,040.40
S1-C9	Assembly and Installation of Foundation Types A1-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A1.	EA	196	$ 8,765.61	$ 1,059,560.32	$ 12,073.60	$ 1,158,207.12	$ 11,376.74	$ 2,229,841.04
S1-C10	Assembly and Installation of Foundation Types A2-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A2.	EA	98	$ 7,080.42	$ 864,728.48	$ 11,748.24	$ 934,653.44	$ 18,480.92	$ 1,811,130.16
S1-C11	Assembly and Installation of Foundation Types A3-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A3.	EA	6	$ 292.30	$ 35,227.32	$ 490.92	$ 38,638.50	$ 12,392.79	$ 74,356.74
S1-C12	Assembly and Installation of Foundation Types A4-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A4.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C13	Assembly and Installation of Foundation Types B1-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types B1.	EA	13	$ 788.52	$ 92,928.03	$ 1,668.68	$ 104,425.62	$ 15,309.41	$ 199,022.33
S1-C14	Assembly and Installation of Foundation Types B2-1A (250 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types B2.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C15	Assembly and Installation of Foundation Types C1-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types C1.	EA	28	$ 2,606.92	$ 312,031.44	$ 6,407.52	$ 344,322.44	$ 23,670.05	$ 662,761.40

Item No.	Description	Unit of Measure	Estimated Quantity	Unit Manhours(hrs)	Equipment($)	Material ($)	Labour($)	Total Unit Price($)	Subtotal Price ($)
S1-C16	Assembly and Installation of Foundation Types C2-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types C2.	EA	32	$ 3,385.56	$ 407,108.80	$ 8,970.24	$ 446,932.16	$ 26,969.10	$ 863,011.20
S1-C17	Assembly and Installation of Foundation Types D1-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types D1.	EA	56	$ 6,095.97	$ 727,023.92	$ 16,979.20	$ 805,140.00	$ 27,663.27	$ 1,549,143.12
S1-C18	Assembly and Installation of Foundation Types D2-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types D2.	EA	28	$ 3,250.61	$ 390,004.44	$ 9,295.72	$ 429,080.68	$ 29,585.03	$ 828,380.84
S1-C19	Assembly and Installation of Foundation Types E1-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types E1.	EA	24	$ 2,971.09	$ 352,722.96	$ 8,815.68	$ 392,581.44	$ 31,421.67	$ 754,120.08
S1-C20	Uplift testing per leg for Types C1-1, or D2-1, or E1-1 (100 kPa) as per technical specification for Tower Types C1, or D2, or E1.	EA	6	$ -	$ -	$ -	$ -	$ -	$ -
S1-C21	Downward, uplift, and lateral load testing per leg for Types C1-3, or D2-3, or E1-3 as per technical specification for Tower Types C1, or D2, or E1.	EA	6	$ -	$ -	$ -	$ -	$ -	$ -
	Rock Foundations								
S1-C22	Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A1	EA	253	$ 23,784.35	$ 2,564,903.88	$ 289,889.93	$ 3,129,425.31	$ 23,653.04	$ 5,984,219.12
S1-C23	Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A2	EA	125	$ 13,678.97	$ 1,458,370.00	$ 209,881.25	$ 1,797,388.75	$ 27,725.12	$ 3,465,640.00
S1-C24	Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A3	EA	7	$ 658.06	$ 70,965.72	$ 8,020.67	$ 86,584.89	$ 23,653.04	$ 165,571.28
S1-C25	Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A4	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C26	Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0074 for Tower Type B1	EA	17	$ 1,839.94	$ 195,020.09	$ 28,543.85	$ 241,811.40	$ 27,375.02	$ 465,375.34
S1-C27	Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type B2	EA	43	$ 6,616.22	$ 678,906.79	$ 72,062.41	$ 874,110.45	$ 37,792.55	$ 1,625,079.65
S1-C28	Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A1 (Weak Surface Rock)	EA	22	$ 1,416.37	$ 149,627.72	$ 20,110.42	$ 186,492.46	$ 16,192.30	$ 356,230.60
S1-C29	Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A2 (Weak Surface Rock)	EA	11	$ 761.48	$ 79,475.99	$ 16,776.21	$ 99,760.76	$ 17,819.36	$ 196,012.96
S1-C30	Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A3 (Weak Surface Rock)	EA	1	$ 66.95	$ 7,022.85	$ 1,244.21	$ 8,791.08	$ 17,058.14	$ 17,058.14
S1-C31	Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A4 (Weak Surface Rock)	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C32	Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type B1 (Weak Surface Rock)	EA	3	$ 209.99	$ 21,873.33	$ 4,875.27	$ 27,490.14	$ 18,079.58	$ 54,238.74
S1-C33	Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A1 (Sound Surface Rock)	EA	191	$ 11,155.11	$ 1,162,733.51	$ 174,595.01	$ 1,467,661.19	$ 14,685.81	$ 2,804,989.71
S1-C34	Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A2 (Sound Surface Rock)	EA	94	$ 5,945.39	$ 612,076.30	$ 143,360.34	$ 777,974.08	$ 16,312.88	$ 1,533,410.72
S1-C35	Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A3 (Sound Surface Rock)	EA	6	$ 365.86	$ 37,855.20	$ 7,465.26	$ 47,989.44	$ 15,551.65	$ 93,309.90
S1-C36	Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A4 (Sound Surface Rock)	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C37	Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type B1 (Sound Surface Rock)	EA	13	$ 832.27	$ 85,507.11	$ 21,126.17	$ 108,817.02	$ 16,573.10	$ 215,450.30
S1-C38	Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type B2 (surface rock)	EA	32	$ 4,888.33	$ 502,514.88	$ 53,627.84	$ 645,726.72	$ 37,558.42	$ 1,201,869.44
S1-C39	Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C1	EA	28	$ 4,109.29	$ 419,613.32	$ 46,924.36	$ 542,727.92	$ 36,045.20	$ 1,009,265.60
S1-C40	Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C2	EA	36	$ 5,550.30	$ 569,243.52	$ 60,331.32	$ 733,317.48	$ 37,858.12	$ 1,362,892.32
S1-C41	Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D1	EA	60	$ 8,992.36	$ 913,523.40	$ 100,552.20	$ 1,188,196.80	$ 36,704.54	$ 2,202,272.40
S1-C42	Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D2	EA	36	$ 5,611.41	$ 573,940.44	$ 60,331.32	$ 741,567.60	$ 38,217.76	$ 1,375,839.36
S1-C43	Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type E1	EA	24	$ 3,630.89	$ 368,018.88	$ 40,220.88	$ 479,862.00	$ 37,004.24	$ 888,101.76
S1-C44	Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C1 (surface rock)	EA	28	$ 4,109.29	$ 419,613.32	$ 46,924.36	$ 542,727.92	$ 36,045.20	$ 1,009,265.60
S1-C45	Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C2 (surface rock)	EA	28	$ 4,316.90	$ 442,744.96	$ 46,924.36	$ 570,358.04	$ 37,858.12	$ 1,060,027.36
S1-C46	Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D1 (surface rock)	EA	52	$ 7,793.38	$ 791,720.28	$ 87,145.24	$ 1,029,770.56	$ 36,704.54	$ 1,908,636.08
S1-C47	Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D2 (surface rock)	EA	28	$ 4,364.43	$ 446,398.12	$ 46,924.36	$ 576,774.80	$ 38,217.76	$ 1,070,097.28
S1-C48	Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type E1 (surface rock)	EA	16	$ 2,420.60	$ 245,345.92	$ 26,813.92	$ 319,908.00	$ 37,004.24	$ 592,067.84
S1-C49	Installation and Testing of 25M Mechanical Rock Anchor as per design drawings and technical specification	LM	10,443	$ 12,202.14	$ 1,078,030.89	$ 220,765.02	$ 1,560,601.92	$ 273.81	$ 2,859,397.83
S1-C50	Installation and Testing of 29M Mechanical Rock Anchor as per design drawings and technical specification	LM	618	$ 753.79	$ 67,176.60	$ 16,976.46	$ 96,624.30	$ 292.52	$ 180,777.36
S1-C51	Installation and Testing of 32M Mechanical Rock Anchor as per design drawings and technical specification	LM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C52	Installation and Testing of 43M Mechanical Rock Anchor as per design drawings and technical specification	LM	22,944	$ 33,472.90	$ 2,914,576.32	$ 950,340.48	$ 4,255,882.56	$ 353.94	$ 8,120,799.36
S1-C53	Installation and Testing of 57M Mechanical Rock Anchor as per design drawings and technical specification	LM	296	$ 478.72	$ 41,540.64	$ 17,239.04	$ 60,739.20	$ 403.78	$ 119,518.88
S1-C54	Installation and Testing of 64M Mechanical Rock Anchor as per design drawings and technical specification	LM	40	$ 69.42	$ 5,973.60	$ 2,739.20	$ 8,780.40	$ 437.33	$ 17,493.20
	H-Pile Foundations								
S1-C55	Design, Assembly and Installation of Foundation Type A1-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A1 including supply and installation of steep cap.	EA	7	$ 1,284.08	$ 112,181.72	$ 98,594.79	$ 120,882.51	$ 47,379.86	$ 331,659.02
S1-C56	Design, Assembly and Installation of Foundation Type A2-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A2 including supply and installation of steep cap.	EA	3	$ 550.32	$ 48,077.88	$ 42,254.91	$ 51,806.79	$ 47,379.86	$ 142,139.58
S1-C57	Design, Assembly and Installation of Foundation Type A3-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A3 including supply and installation of steep cap.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C58	Design, Assembly and Installation of Foundation Type A4-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A4 including supply and installation of steep cap.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C59	Design, Assembly and Installation of Foundation Type B1-3 as per Dwg 505573-4622-42DD-0037 for Tower Type B1 including supply and installation of steep cap.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C60	Design, Assembly and Installation of Foundation Type B2-3 as per Dwg 505573-4622-42DD-0046 for Tower Type B2 including supply and installation of steep cap.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C61	Design, Assembly and Installation of Foundation Type C1-3 as per Dwg 505573-4622-42DD-0046 for Tower Type C1 including supply and installation of steel cap.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C62	Design, Assembly and Installation of Foundation Type C2-3 as per Dwg 505573-4622-42DD-0046 for Tower Type C2 including supply and installation of steel cap.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C63	Design, Assembly and Installation of Foundation Type D1-3 per Dwg 505573-4622-42DD-0046 for Tower Type D1 including supply and installation of steel cap.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C64	Design, Assembly and Installation of Foundation Type D2-3 as per Dwg 505573-4622-42DD-0046 for Tower Type D2 including supply and installation of steel cap.	EA	4	$ 3,777.37	$ 287,223.40	$ 263,639.80	$ 311,345.72	$ 215,552.23	$ 862,208.92
S1-C65	Design, Assembly and Installation of Foundation Type E1-3 as per Dwg 505573-4622-42DD-0046 for Tower Type E1 including supply and installation of steel cap.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C66	Rock anchor to be installed with S1-C60 to S1-C65 item above as per the design drawings and technical specifications (length in bog not considered)	LM	240	$ 689.44	$ 34,665.60	$ 12,580.80	$ 65,212.80	$ 468.58	$ 112,459.20
S1-C67	Supply, and installation of H-Piles, HP 360 x 108, Grade 350AT	LM	1,680	$ 1,920.12	$ 209,630.40	$ 551,224.80	$ 214,704.00	$ 580.69	$ 975,559.20
	Bog and Poor Soil								
S1-C68	Supply and Installation of Cribs for excavation protection of tower types A1, A2, A3, A4, B1, B2, C1, C2, D1, D2, E1 for any type of Foundation as per Dwg 505573-4622-42DD-0069 and 505573-4622-42DD-0071	M2	10,000	$ 23,700.00	$ 2,661,300.00	$ 2,543,700.00	$ 3,189,400.00	$ 839.44	$ 8,394,400.00
	Earthwork								
S1-C69	Transportation of native backfill	KM	2,000	$ 444.44	$ 72,300.00	$ -	$ 57,380.00	$ 64.84	$ 129,680.00
S1-C70	Supply and transportation of approved fill from an alternate source/processed material/road gravel	M3 * KM	20,000	$ 8,472.22	$ 944,600.00	$ 1,035,000.00	$ 863,800.00	$ 142.17	$ 2,843,400.00

Item No.	Description	Unit of Measure	Estimated Quantity	Unit Manhours(hrs)	Equipment($)	Material ($)	Labour($)	Total Unit Price($)	Subtotal Price ($)
S1-C71	Rock blasting/preparation	M3	1,100	$ 6,600.00	$ 789,140.00	$ -	$ 875,402.00	$ 1,513.22	$ 1,664,542.00
	Sub-total (S1-Cx): Tower Foundation Construction			**437,608.50**	**$ 36,133,118.44**	**$ 10,651,911.89**	**$ 50,372,379.39**	**$ 1,296,744.36**	**$ 101,940,228.60**
S1-D	**Tower Assembly and Erection (S1-Dx)**								
	Assembly and Erection of Suspension Tower Type "A1"								
S1-D1	Assembly and Erection of Suspension Tower Type "A1 + 0" as per dwg. 505573-4622-43DD-0042	EA	40	$ 11,928.72	$ 840,927.60	$ -	$ 1,633,339.20	$ 61,856.67	$ 2,474,266.80
S1-D2	Assembly and Erection of Suspension Tower Type "A1 + 1.5" as per dwg. 505573-4622-43DD-0042	EA	29	$ 8,847.52	$ 622,647.69	$ -	$ 1,211,560.84	$ 63,248.57	$ 1,834,208.53
S1-D3	Assembly and Erection of Suspension Tower Type "A1 + 3" as per dwg. 505573-4622-43DD-0042	EA	46	$ 14,212.19	$ 999,255.70	$ -	$ 1,946,288.98	$ 64,033.58	$ 2,945,544.68
S1-D4	Assembly and Erection of Suspension Tower Type "A1 + 4.5" as per dwg. 505573-4622-43DD-0042	EA	31	$ 9,790.72	$ 811,275.89	$ -	$ 1,216,913.68	$ 65,425.47	$ 2,028,189.57
S1-D5	Assembly and Erection of Suspension Tower Type "A1 + 6" as per dwg. 505573-4622-43DD-0042	EA	138	$ 43,746.22	$ 3,070,045.98	$ -	$ 5,991,442.50	$ 65,662.96	$ 9,061,488.48
S1-D6	Assembly and Erection of Suspension Tower Type "A1 + 7.5" as per dwg. 505573-4622-43DD-0042	EA	79	$ 25,413.46	$ 1,781,611.95	$ -	$ 3,480,804.78	$ 66,612.87	$ 5,262,416.73
S1-D7	Assembly and Erection of Suspension Tower Type "A1 + 9" as per dwg. 505573-4622-43DD-0042	EA	116	$ 37,742.69	$ 2,643,833.72	$ -	$ 5,169,729.08	$ 67,358.30	$ 7,813,562.80
S1-D8	Assembly and Erection of Suspension Tower Type "A1 + 10.5" as per dwg. 505573-4622-43DD-0042	EA	77	$ 25,597.28	$ 2,118,725.07	$ -	$ 3,178,087.22	$ 68,789.77	$ 5,296,812.29
S1-D9	Assembly and Erection of Suspension Tower Type "A1 + 12" as per dwg. 505573-4622-43DD-0042	EA	147	$ 49,360.43	$ 4,084,790.43	$ -	$ 6,127,186.38	$ 69,469.23	$ 10,211,976.81
S1-D10	Assembly and Erection of Suspension Tower Type "A1 + 13.5" as per dwg. 505573-4622-43DD-0042	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D11	Assembly and Erection of Suspension Tower Type "A1 + 15" as per dwg. 505573-4622-43DD-0042	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D12	Assembly and Erection of Suspension Tower Type "A1 + 16.5" as per dwg. 505573-4622-43DD-0042	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D13	Assembly and Erection of Suspension Tower Type "A1 + 18" as per dwg. 505573-4622-43DD-0042	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
	Assembly and Erection of Suspension Tower Type "A2"								
S1-D14	Assembly and Erection of Suspension Tower Type "A2 + 0" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D15	Assembly and Erection of Suspension Tower Type "A2 + 1.5" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D16	Assembly and Erection of Suspension Tower Type "A2 + 3" as per dwg. 505573-4622-43DD-0044	EA	1	$ 448.03	$ 31,962.75	$ -	$ 61,314.68	$ 93,277.43	$ 93,277.43
S1-D17	Assembly and Erection of Suspension Tower Type "A2 + 4.5" as per dwg. 505573-4622-43DD-0044	EA	30	$ 13,802.13	$ 982,419.60	$ -	$ 1,889,126.10	$ 95,718.19	$ 2,871,545.70
S1-D18	Assembly and Erection of Suspension Tower Type "A2 + 6" as per dwg. 505573-4622-43DD-0044	EA	61	$ 28,165.60	$ 2,004,183.67	$ -	$ 3,855,148.76	$ 96,054.63	$ 5,859,332.43
S1-D19	Assembly and Erection of Suspension Tower Type "A2 + 7.5" as per dwg. 505573-4622-43DD-0044	EA	76	$ 36,034.20	$ 2,558,416.12	$ -	$ 4,932,748.84	$ 98,567.96	$ 7,491,164.96
S1-D20	Assembly and Erection of Suspension Tower Type "A2 + 9" as per dwg. 505573-4622-43DD-0044	EA	77	$ 37,177.61	$ 2,635,673.81	$ -	$ 5,089,679.21	$ 100,329.26	$ 7,725,353.02
S1-D21	Assembly and Erection of Suspension Tower Type "A2 + 10.5" as per dwg. 505573-4622-43DD-0044	EA	56	$ 27,712.78	$ 1,960,790.16	$ -	$ 3,794,331.52	$ 102,770.03	$ 5,755,121.68
S1-D22	Assembly and Erection of Suspension Tower Type "A2 + 12" as per dwg. 505573-4622-43DD-0044	EA	34	$ 16,869.89	$ 1,193,363.28	$ -	$ 2,309,788.98	$ 103,033.89	$ 3,503,152.26
S1-D23	Assembly and Erection of Suspension Tower Type "A2 + 13.5" as per dwg. 505573-4622-43DD-0044	EA	9	$ 4,577.19	$ 323,161.38	$ -	$ 626,763.60	$ 105,547.22	$ 949,924.98
S1-D24	Assembly and Erection of Suspension Tower Type "A2 + 15" as per dwg. 505573-4622-43DD-0044	EA	3	$ 1,589.94	$ 112,456.62	$ -	$ 217,607.58	$ 110,021.40	$ 330,064.20
S1-D25	Assembly and Erection of Suspension Tower Type "A2 + 16.5" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D26	Assembly and Erection of Suspension Tower Type "A2 + 18" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D27	Assembly and Erection of Suspension Tower Type "A2 + 19.5" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
	Assembly and Erection of Suspension Tower Type "A3"								
S1-D28	Assembly and Erection of Suspension Tower Type "A3 + 0" as per dwg. 505573-4622-43DD-0050	EA	4	$ 1,332.00	$ 96,202.28	$ -	$ 182,007.04	$ 69,552.33	$ 278,209.32
S1-D29	Assembly and Erection of Suspension Tower Type "A3 + 1.5" as per dwg. 505573-4622-43DD-0050	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D30	Assembly and Erection of Suspension Tower Type "A3 + 3" as per dwg. 505573-4622-43DD-0050	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D31	Assembly and Erection of Suspension Tower Type "A3 + 4.5" as per dwg. 505573-4622-43DD-0050	EA	2	$ 704.94	$ 50,637.22	$ -	$ 96,357.04	$ 73,497.13	$ 146,994.26
S1-D32	Assembly and Erection of Suspension Tower Type "A3 + 6" as per dwg. 505573-4622-43DD-0050	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D33	Assembly and Erection of Suspension Tower Type "A3 + 7.5" as per dwg. 505573-4622-43DD-0050	EA	4	$ 1,440.08	$ 103,242.24	$ -	$ 196,868.00	$ 75,027.56	$ 300,110.24
S1-D34	Assembly and Erection of Suspension Tower Type "A3 + 9" as per dwg. 505573-4622-43DD-0050	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D35	Assembly and Erection of Suspension Tower Type "A3 + 10.5" as per dwg. 505573-4622-43DD-0050	EA	1	$ 371.97	$ 26,588.77	$ -	$ 50,859.76	$ 77,448.53	$ 77,448.53
S1-D36	Assembly and Erection of Suspension Tower Type "A3 + 12" as per dwg. 505573-4622-43DD-0050	EA	2	$ 749.40	$ 53,533.78	$ -	$ 102,471.52	$ 78,002.65	$ 156,005.30
S1-D37	Assembly and Erection of Suspension Tower Type "A3 + 13.5" as per dwg. 505573-4622-43DD-0050	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D38	Assembly and Erection of Suspension Tower Type "A3 + 15" as per dwg. 505573-4622-43DD-0050	EA	4	$ 1,548.03	$ 110,273.72	$ -	$ 211,711.04	$ 80,496.19	$ 321,984.76
S1-D39	Assembly and Erection of Suspension Tower Type "A3 + 16.5" as per dwg. 505573-4622-43DD-0050	EA	3	$ 1,172.35	$ 83,443.20	$ -	$ 160,341.00	$ 81,261.40	$ 243,784.20
	Assembly and Erection of Suspension Tower Type "A4"								
S1-D40	Assembly and Erection of Suspension Tower Type "A4 + 0" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D41	Assembly and Erection of Suspension Tower Type "A4 + 1.5" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D42	Assembly and Erection of Suspension Tower Type "A4 + 3" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D43	Assembly and Erection of Suspension Tower Type "A4 + 4.5" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D44	Assembly and Erection of Suspension Tower Type "A4 + 6" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D45	Assembly and Erection of Suspension Tower Type "A4 + 7.5" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D46	Assembly and Erection of Suspension Tower Type "A4 + 9" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D47	Assembly and Erection of Suspension Tower Type "A4 + 10.5" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D48	Assembly and Erection of Suspension Tower Type "A4 + 12" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D49	Assembly and Erection of Suspension Tower Type "A4 + 13.5" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D50	Assembly and Erection of Suspension Tower Type "A4 + 15" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D51	Assembly and Erection of Suspension Tower Type "A4 + 16.5" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D52	Assembly and Erection of Suspension Tower Type "A4 + 18" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D53	Assembly and Erection of Suspension Tower Type "A4 + 19.5" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
	Assembly and Erection of Suspension Tower Type "B1"								
S1-D54	Assembly and Erection of Suspension Tower Type "B1 + 0" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D55	Assembly and Erection of Suspension Tower Type "B1 + 1.5" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D56	Assembly and Erection of Suspension Tower Type "B1 + 3" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D57	Assembly and Erection of Suspension Tower Type "B1 + 4.5" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D58	Assembly and Erection of Suspension Tower Type "B1 + 6" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D59	Assembly and Erection of Suspension Tower Type "B1 + 7.5" as per dwg. 505573-4622-43DD-0002	EA	5	$ 3,115.48	$ 212,435.50	$ -	$ 427,252.30	$ 127,937.56	$ 639,687.80
S1-D60	Assembly and Erection of Suspension Tower Type "B1 + 9" as per dwg. 505573-4622-43DD-0002	EA	6	$ 3,804.79	$ 259,235.64	$ -	$ 521,807.34	$ 130,173.83	$ 781,042.98
S1-D61	Assembly and Erection of Suspension Tower Type "B1 + 10.5" as per dwg. 505573-4622-43DD-0002	EA	11	$ 7,187.43	$ 489,073.86	$ -	$ 985,795.80	$ 134,079.06	$ 1,474,869.66
S1-D62	Assembly and Erection of Suspension Tower Type "B1 + 12" as per dwg. 505573-4622-43DD-0002	EA	9	$ 6,000.17	$ 407,937.69	$ -	$ 822,996.81	$ 136,770.50	$ 1,230,934.50
S1-D63	Assembly and Erection of Suspension Tower Type "B1 + 13.5" as per dwg. 505573-4622-43DD-0002	EA	11	$ 7,567.54	$ 515,863.04	$ -	$ 1,037,538.04	$ 141,218.28	$ 1,553,401.08

Item No.	Description	Unit of Measure	Estimated Quantity	Unit Manhours(hrs)	Equipment($)	Material ($)	Labour($)	Total Unit Price($)	Subtotal Price ($)
S1-D64	Assembly and Erection of Suspension Tower Type "B1 + 15" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D65	Assembly and Erection of Suspension Tower Type "B1 + 16.5" as per dwg. 505573-4622-43DD-0002	EA	1	$ 711.20	$ 48,410.66	$ -	$ 97,517.64	$ 145,928.30	$ 145,928.30
S1-D66	Assembly and Erection of Suspension Tower Type "B1 + 18" as per dwg. 505573-4622-43DD-0002	EA	1	$ 722.17	$ 49,125.26	$ -	$ 99,026.12	$ 148,151.38	$ 148,151.38
S1-D67	Assembly and Erection of Suspension Tower Type "B1 + 19.5" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D68	Assembly and Erection of Suspension Tower Type "B1 + 21" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D69	Assembly and Erection of Suspension Tower Type "B1 + 22.5" as per dwg. 505573-4622-43DD-0002	EA	1	$ 777.33	$ 52,902.91	$ -	$ 106,563.39	$ 159,466.30	$ 159,466.30
S1-D70	Assembly and Erection of Suspension Tower Type "B1 + 24" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D71	Assembly and Erection of Suspension Tower Type "B1 + 25.5" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D72	Assembly and Erection of Suspension Tower Type "B1 + 27" as per dwg. 505573-4622-43DD-0002	EA	1	$ 828.21	$ 56,586.22	$ -	$ 113,464.40	$ 170,050.62	$ 170,050.62
	Assembly and Erection of Medium Angle Tower Type "B2"								
S1-D73	Assembly and Erection of Medium Angle Tower Type "B2" Basic Body as per dwg. 505573-4622-43DD-0058	EA	28	$ 18,519.20	$ 1,403,254.44	$ -	$ 2,547,503.56	$ 141,098.50	$ 3,950,758.00
S1-D74	Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058	EA	3	$ 516.39	$ 38,128.29	$ -	$ 71,094.54	$ 36,407.61	$ 109,222.83
S1-D75	Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D76	Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	8	$ 72.40	$ 5,345.52	$ -	$ 9,967.20	$ 1,914.09	$ 15,312.72
S1-D77	Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	20	$ 253.38	$ 18,709.20	$ -	$ 34,885.20	$ 2,679.72	$ 53,594.40
S1-D78	Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	16	$ 357.65	$ 25,973.76	$ -	$ 49,281.60	$ 4,703.46	$ 75,255.36
S1-D79	Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	24	$ 634.18	$ 46,826.16	$ -	$ 87,312.72	$ 5,589.12	$ 134,138.88
S1-D80	Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	28	$ 827.00	$ 61,062.96	$ -	$ 113,858.64	$ 6,247.20	$ 174,921.60
S1-D81	Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	8	$ 280.34	$ 20,699.60	$ -	$ 38,596.80	$ 7,412.05	$ 59,296.40
S1-D82	Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	8	$ 357.99	$ 27,512.00	$ -	$ 49,360.16	$ 9,609.02	$ 76,872.16
	Assembly and Erection of Medium Angle Tower Type "C1"								
S1-D83	Assembly and Erection of Medium Angle Tower Type "C1" Basic Body as per dwg. 505573-4622-43DD-0004	EA	21	$ 15,654.31	$ 1,193,710.98	$ -	$ 2,156,175.84	$ 159,518.42	$ 3,349,886.82
S1-D84	Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D85	Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D86	Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	40	$ 560.31	$ 40,692.00	$ -	$ 77,207.60	$ 2,947.49	$ 117,899.60
S1-D87	Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	4	$ 78.44	$ 5,696.88	$ -	$ 10,809.04	$ 4,126.48	$ 16,505.92
S1-D88	Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	16	$ 409.82	$ 29,762.72	$ -	$ 56,470.40	$ 5,389.57	$ 86,233.12
S1-D89	Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	8	$ 254.29	$ 18,467.68	$ -	$ 35,039.76	$ 6,688.43	$ 53,507.44
S1-D90	Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	8	$ 314.90	$ 22,869.04	$ -	$ 43,390.80	$ 8,282.48	$ 66,259.84
S1-D91	Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	8	$ 368.02	$ 26,727.12	$ -	$ 50,710.88	$ 9,679.75	$ 77,438.00
S1-D92	Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
	Assembly and Erection of Medium Angle Tower Type "C2"								
S1-D93	Assembly and Erection of Medium Angle Tower Type "C2" Basic Body as per dwg. 505573-4622-43DD-0012	EA	24	$ 16,412.77	$ 1,281,988.56	$ -	$ 2,258,602.80	$ 147,524.64	$ 3,540,591.36
S1-D94	Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012	EA	4	$ 649.70	$ 48,087.88	$ -	$ 89,437.16	$ 34,381.26	$ 137,525.04
S1-D95	Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D96	Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	40	$ 656.33	$ 48,578.80	$ -	$ 90,350.40	$ 3,473.23	$ 138,929.20
S1-D97	Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	12	$ 275.66	$ 20,403.12	$ -	$ 37,947.12	$ 4,862.52	$ 58,350.24
S1-D98	Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	16	$ 512.08	$ 37,901.76	$ -	$ 70,492.16	$ 6,774.62	$ 108,393.92
S1-D99	Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	4	$ 160.21	$ 11,858.36	$ -	$ 22,054.96	$ 8,478.33	$ 33,913.32
S1-D100	Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	12	$ 613.39	$ 45,400.80	$ -	$ 84,439.44	$ 10,820.02	$ 129,840.24
S1-D101	Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	4	$ 239.15	$ 17,700.60	$ -	$ 32,920.76	$ 12,655.34	$ 50,621.36
S1-D102	Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	8	$ 545.93	$ 40,407.36	$ -	$ 75,152.32	$ 14,444.96	$ 115,559.68
	Assembly and Erection of Dead-End Tower Type "D1"								
S1-D103	Assembly and Erection of Dead-End Tower Type "D1" Basic Body as per dwg. 505573-4622-43DD-0043	EA	42	$ 35,311.67	$ 2,690,297.82	$ -	$ 4,864,245.12	$ 179,870.07	$ 7,554,542.94
S1-D104	Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D105	Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D106	Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	88	$ 1,116.71	$ 81,100.80	$ -	$ 153,875.92	$ 2,670.19	$ 234,976.72
S1-D107	Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	20	$ 355.32	$ 25,804.60	$ -	$ 48,960.60	$ 3,738.26	$ 74,765.20
S1-D108	Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	16	$ 399.07	$ 28,982.24	$ -	$ 54,989.60	$ 5,248.24	$ 83,971.84
S1-D109	Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	4	$ 135.89	$ 9,868.60	$ -	$ 18,724.28	$ 7,148.22	$ 28,592.88
S1-D110	Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	28	$ 1,125.23	$ 81,718.84	$ -	$ 155,050.00	$ 8,456.03	$ 236,768.84
S1-D111	Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	8	$ 382.92	$ 27,808.88	$ -	$ 52,763.52	$ 10,071.55	$ 80,572.40
S1-D112	Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	4	$ 254.04	$ 18,449.12	$ -	$ 35,004.60	$ 13,363.43	$ 53,453.72
	Assembly and Erection of Dead-End Tower Type "D2"								
S1-D113	Assembly and Erection of Dead-End Tower Type "D2" Basic Body as per dwg. 505573-4622-43DD-0045	EA	24	$ 20,066.20	$ 1,573,859.04	$ -	$ 2,763,726.00	$ 180,732.71	$ 4,337,585.04
S1-D114	Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D115	Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D116	Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	32	$ 923.17	$ 68,073.60	$ -	$ 127,107.52	$ 6,099.41	$ 195,181.12
S1-D117	Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	16	$ 615.44	$ 45,382.40	$ -	$ 84,738.24	$ 8,132.54	$ 130,120.64
S1-D118	Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	28	$ 1,382.92	$ 101,975.72	$ -	$ 190,409.80	$ 10,442.34	$ 292,385.52
S1-D119	Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	12	$ 692.89	$ 51,093.24	$ -	$ 95,401.68	$ 12,207.91	$ 146,494.92
S1-D120	Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D121	Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D122	Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	8	$ 714.41	$ 52,680.24	$ -	$ 98,365.04	$ 18,880.66	$ 151,045.28
	Assembly and Erection of Dead-End Tower Type "E1"								
S1-D123	Assembly and Erection of Dead-End Tower Type "E1" Basic Body as per dwg. 505573-4622-43DD-0007	EA	16	$ 16,053.19	$ 1,219,541.76	$ -	$ 2,210,908.80	$ 214,403.16	$ 3,430,450.56
S1-D124	Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D125	Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D126	Assembly and Erection of +0 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	20	$ 596.36	$ 43,310.20	$ -	$ 82,175.00	$ 6,274.26	$ 125,485.20
S1-D127	Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	12	$ 477.09	$ 34,648.20	$ -	$ 65,739.96	$ 8,365.68	$ 100,388.16
S1-D128	Assembly and Erection of +3 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	8	$ 418.46	$ 30,390.00	$ -	$ 57,660.72	$ 11,006.34	$ 88,050.72

Item No.	Description	Unit of Measure	Estimated Quantity	Unit Manhours(hrs)	Equipment($)	Material ($)	Labour($)	Total Unit Price($)	Subtotal Price ($)
S1-D129	Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	12	$ 763.08	$ 55,417.68	$ -	$ 105,147.36	$ 13,380.42	$ 160,565.04
S1-D130	Assembly and Erection of +6 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	4	$ 312.58	$ 22,701.08	$ -	$ 43,072.16	$ 16,443.31	$ 65,773.24
S1-D131	Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	8	$ 725.63	$ 52,698.32	$ -	$ 99,987.76	$ 19,085.76	$ 152,686.08
S1-D132	Assembly and Erection of +9 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
	Sub-total (S1-Dx) : Tower Assembly & Erection			573,395.76	$ 42,244,601.38	$ -	$ 77,545,554.71	$ 4,738,567.85	$ 119,790,156.09
S1-E	**Installation of Wires and OPGW (S1-Ex)**								
S1-E1	Installation of Counterpoise wire, connection with tower grounding	KM	397	$ 15,869.50	$ 1,624,631.19	$ -	$ 2,226,030.61	$ 9,699.40	$ 3,850,661.80
S1-E2	Installation of ground rods at crossing obstacles in soil and rock	EA	200	$ 200.00	$ 21,512.00	$ -	$ 28,114.00	$ 248.13	$ 49,626.00
S1-E3	Tower Footing resistance measurement	EA	397	$ 397.00	$ 14,026.01	$ -	$ 54,718.51	$ 173.16	$ 68,744.52
S1-E4	S1 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles	KM	250	$ 82,542.77	$ 11,735,082.50	$ -	$ 11,517,910.00	$ 93,011.97	$ 23,252,992.50
S2-E4	S2 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles	KM	147	$ 62,141.07	$ 8,788,245.06	$ -	$ 8,646,290.10	$ 118,602.28	$ 17,434,535.16
S3-E4	S3 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S4-E4	S4 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S5-E4	S5 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-E5	Installation of Conductor on Steel Towers - 1192.5 kcmil 54/19 ACSR Grackle Conductor, complete for both electrodes	KM	285	$ 51,978.57	$ 6,469,434.45	$ -	$ 7,257,909.75	$ 48,166.12	$ 13,727,344.20
S1-E6	Installation of Conductor on Steel Towers - 1590.0 kcmil 54/19 ACSR Falcon Conductor, complete for both electrodes	KM	99	$ 26,131.39	$ 3,225,039.84	$ -	$ 3,638,565.81	$ 69,329.35	$ 6,863,605.65
S1-E7	Installation of Conductor on Wood Poles - 1192.5 kcmil 54/19 ACSR Grackle Conductor, complete for both electrodes	KM	18	$ 2,836.57	$ 291,224.52	$ -	$ 380,299.68	$ 37,306.90	$ 671,524.20
S1-E8	Installation of Conductor on Wood Poles - 1590.0 kcmil 54/19 ACSR Falcon Conductor, complete for both electrodes	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-E9	Installation of ADSS on Wood Poles	KM	18	$ 1,186.83	$ 128,663.46	$ -	$ 161,097.30	$ 16,097.82	$ 289,760.76
S1-E10	ADSS splicing and tests including loss analysis	EA	6	$ 211.20	$ 17,532.90	$ -	$ 26,626.02	$ 7,359.82	$ 44,158.92
S1-E11	ADSS end to end test	LS	1	$ 48.00	$ 3,899.27	$ -	$ 5,552.64	$ 9,451.91	$ 9,451.91
S1-E12	S1 - Installation of OPGW	KM	250	$ 18,423.28	$ 2,549,012.50	$ -	$ 2,472,245.00	$ 20,085.03	$ 5,021,257.50
S2-E12	S2 - Installation of OPGW	KM	165	$ 14,440.56	$ 2,039,852.10	$ -	$ 1,933,752.15	$ 24,082.45	$ 3,973,604.25
S3-E12	S3 - Installation of OPGW	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S4-E12	S4 - Installation of OPGW	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S5-E12	S5 - Installation of OPGW	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-E13	OPGW Continuity tests before and after stringing	LS	2	$ 3,187.20	$ 258,911.22	$ -	$ 368,695.14	$ 313,803.18	$ 627,606.36
S1-E14	OPGW splicing and tests including loss analysis	EA	89	$ 3,560.00	$ 294,775.12	$ -	$ 444,370.77	$ 8,305.01	$ 739,145.89
S1-E15	OPGW end to end test	LS	2	$ 384.00	$ 31,194.14	$ -	$ 44,421.10	$ 37,807.62	$ 75,615.24
	Sub-total (S1-Ex) : Installation of Wires and OPGW			283,537.95	$ 37,493,036.28	$ -	$ 39,206,598.58	$ 813,530.15	$ 76,699,634.86
S1-F	**Miscellaneous Tower Attachments and Accessories (S1-Fx)**								
S1-F1	Install 18" Aerial marker cones	EA	15	$ 60.00	$ 5,109.15	$ -	$ 8,312.40	$ 894.77	$ 13,421.55
	Sub-total (S1-Fx) : Miscellaneous Tower Attachment and Accessories			60.00	$ 5,109.15	$ -	$ 8,312.40	$ 894.77	$ 13,421.55
S1-G	**Framing and Setting of Wood Poles (S1-Gx)**								
S1-G1	Framing and Setting of Single Pole Tangent (0 - 1 deg) as per Drawing 505573-4633-4ZDD-0011	EA	241	$ 13,358.29	$ 664,468.33	$ 22,172.00	$ 1,469,540.88	$ 8,946.81	$ 2,156,181.21
S1-G2	Framing and Setting of Single Pole Light angle (1 - 10 deg) with Guys as per Drawing 505573-4633-4ZDD-0012	EA	13	$ 928.57	$ 55,070.86	$ 1,196.00	$ 108,147.26	$ 12,647.24	$ 164,414.12
S1-G3	Framing and Setting of Single Pole Heavy angle (10 - 30 deg) with Guys as per Drawing 505573-4633-4ZDD-0020	EA	7	$ 871.00	$ 62,371.47	$ 644.00	$ 109,804.31	$ 24,688.54	$ 172,819.78
S1-G4	Framing and Setting of Single Pole Dead-end (30 - 90 deg) with Guys as per Drawing 505573-4633-4ZDD-0021	EA	11	$ 2,369.71	$ 182,515.74	$ 1,012.00	$ 311,521.43	$ 45,004.47	$ 495,049.17
S1-G5	Framing and Setting of Single Pole Floating Dead-end (0 - 1 deg) with Guys as per Drawing 505573-4633-4ZDD-0013	EA	9	$ 1,362.86	$ 96,083.91	$ 828.00	$ 174,913.11	$ 30,202.78	$ 271,825.02
S1-G6	Framing and Setting of Two Pole Dead-end to tap to HVdc Tower in Labrador as per Drawing 505573-4633-4ZDD-0061	EA	1	$ 256.43	$ 20,680.31	$ 92.00	$ 34,046.21	$ 54,818.52	$ 54,818.52
	Sub-total (S1-Gx) : Framing and Setting of Wood Poles			19,146.86	$ 1,081,190.62	$ 25,944.00	$ 2,207,973.20	$ 176,308.36	$ 3,315,107.82
S1-I	**Optional Pricing (S1-Ix)**								
S1-I1	Perform Geotechnical Investigation and Identify Foundation Type as per Design Drawings and Technical Specifications	LS	2	$ -	$ -	$ -	$ -	$ -	$ -
S1-I2	Design and supply of micropile option as replacement for H-pile design	EA	2	$ -	$ -	$ -	$ -	$ -	$ -
S1-I3	Optional cost for mulching given area instead of salvaging	Ha	2,207	$ -	$ -	$ -	$ -	$ -	$ -
S1-I4	Installation of Access Road - Alternative	KM	79	$ -	$ -	$ -	$ -	$ -	$ -
S1-I5	Slack Span Connections - Installation of all Conductor and OPGW from Terminal Tower to the Substation Gantry	LS	2	$ 472.00	$ 57,796.66	$ -	$ 66,015.34	$ 61,906.00	$ 123,812.00
S1-I6	Slack Span Connections - Installation of all Conductor and OPGW/ADSS from Terminal Wood Pole to the Electrode Compound Gantry	LS	1	$ 152.00	$ 14,482.39	$ -	$ 20,795.43	$ 35,277.82	$ 35,277.82
S1-I7	Supply and Installation of Culvert - 1000 mm	LM	44	$ -	$ -	$ -	$ -	$ -	$ -
S1-I8	Supply and Installation of Culvert - 1200 mm	LM	44	$ -	$ -	$ -	$ -	$ -	$ -
S1-I9	Supply and Installation of Culvert - 1600 mm	LM	44	$ -	$ -	$ -	$ -	$ -	$ -
S1-I10	Supply and Installation of Culvert - 2000 mm	LM	44	$ -	$ -	$ -	$ -	$ -	$ -
S1-I11	Supply and Installation of Culvert - 2400 mm	LM	44	$ -	$ -	$ -	$ -	$ -	$ -
S1-I12	Supply and Installation of Culvert - 3000 mm	LM	44	$ -	$ -	$ -	$ -	$ -	$ -
S1-I13	Assembly and Installation of Foundation Type A1-1/1A, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.79	$ -	$ 1.06	$ 1.85	$ 1.85
S1-I14	Assembly and Installation of Foundation Type A2-1/1A, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.95	$ -	$ 1.27	$ 2.22	$ 2.22
S1-I15	Assembly and Installation of Foundation Type A3-1/1A, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.95	$ -	$ 1.27	$ 2.22	$ 2.22
S1-I16	Assembly and Installation of Foundation Type A4-1/1A, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.95	$ -	$ 1.27	$ 2.22	$ 2.22
S1-I17	Assembly and Installation of Foundation Type B1-1/1A, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.79	$ -	$ 1.06	$ 1.85	$ 1.85
S1-I18	Assembly and Installation of Foundation Type B2-1/1A, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.95	$ -	$ 1.27	$ 2.22	$ 2.22
S1-I19	Assembly and Installation of Foundation Type C1-1, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.79	$ -	$ 1.06	$ 1.85	$ 1.85
S1-I20	Assembly and Installation of Foundation Type C2-1, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.95	$ -	$ 1.27	$ 2.22	$ 2.22
S1-I21	Assembly and Installation of Foundation Type D1-1, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.79	$ -	$ 1.06	$ 1.85	$ 1.85
S1-I22	Assembly and Installation of Foundation Type D2-1, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.95	$ -	$ 1.27	$ 2.22	$ 2.22
S1-I23	Assembly and Installation of Foundation Type E1-1, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.87	$ -	$ 1.16	$ 2.03	$ 2.03
S1-I24	Assembly and Installation of Foundation Type A1-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.79	$ -	$ 1.06	$ 1.85	$ 1.85
S1-I25	Assembly and Installation of Foundation Type A2-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.95	$ -	$ 1.27	$ 2.22	$ 2.22
S1-I26	Assembly and Installation of Foundation Type A3-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.95	$ -	$ 1.27	$ 2.22	$ 2.22
S1-I27	Assembly and Installation of Foundation Type A4-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.95	$ -	$ 1.27	$ 2.22	$ 2.22
S1-I28	Assembly and Installation of Foundation Type B1-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.79	$ -	$ 1.06	$ 1.85	$ 1.85
S1-I29	Assembly and Installation of Foundation Type B2-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.95	$ -	$ 1.27	$ 2.22	$ 2.22
S1-I30	Assembly and Installation of Foundation Type C1-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.79	$ -	$ 1.06	$ 1.85	$ 1.85
S1-I31	Assembly and Installation of Foundation Type C2-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.95	$ -	$ 1.27	$ 2.22	$ 2.22
S1-I32	Assembly and Installation of Foundation Type D1-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.79	$ -	$ 1.06	$ 1.85	$ 1.85
S1-I33	Assembly and Installation of Foundation Type D2-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.95	$ -	$ 1.27	$ 2.22	$ 2.22
S1-I34	Assembly and Installation of Foundation Type E1-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.87	$ -	$ 1.16	$ 2.03	$ 2.03
S1-I35	Assembly and Erection of Tower Type A1, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.64	$ -	$ 4.04	$ 6.68	$ 6.68
S1-I36	Assembly and Erection of Tower Type A2, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.83	$ -	$ 4.19	$ 7.02	$ 7.02

Item No.	Description	Unit of Measure	Estimated Quantity	Unit Manhours(hrs)	Equipment($)	Material ($)	Labour($)	Total Unit Price($)	Subtotal Price ($)
S1-I37	Assembly and Erection of Tower Type A3, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.83	$ -	$ 4.19	$ 7.02	$ 7.02
S1-I38	Assembly and Erection of Tower Type A4, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.64	$ -	$ 4.04	$ 6.68	$ 6.68
S1-I39	Assembly and Erection of Tower Type B1, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.64	$ -	$ 4.04	$ 6.68	$ 6.68
S1-I40	Assembly and Erection of Tower Type B2, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.87	$ -	$ 4.22	$ 7.09	$ 7.09
S1-I41	Assembly and Erection of Tower Type C1, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.86	$ -	$ 4.25	$ 7.11	$ 7.11
S1-I42	Assembly and Erection of Tower Type C2, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.93	$ -	$ 4.31	$ 7.24	$ 7.24
S1-I43	Assembly and Erection of Tower Type D1, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.86	$ -	$ 4.25	$ 7.11	$ 7.11
S1-I44	Assembly and Erection of Tower Type D2, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.94	$ -	$ 4.31	$ 7.25	$ 7.25
S1-I45	Assembly and Erection of Tower Type E1, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.91	$ -	$ 4.29	$ 7.20	$ 7.20
S1-I46	Survey Cost	LS	1	$ 1,536.95	$ 1,719,175.75	$ 85,958.79	$ 1,060,158.37	$ 2,865,292.91	$ 2,865,292.91
	Sub-total (S1-Ix) : Optional Pricing			**624.53**	**$ 72,329.46**	**$ -**	**$ 86,882.94**	**$ 97,306.40**	**$ 3,024,505.31**
	TOTAL VALUE THIS PROPOSAL (Tax Excluded):								**460,698,539.51**

FOR THE LOWER CHURCHILL PROJECT - MUSKRAT FALLS	
This Appendix forms part of the Proposal submitted by:	
Name of Bidder:	
Request For Proposal no: 505573-CT0327	
Signature:	
Date of Proposal:	

Notes:

VH00

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)

Project Estimate - Valard Construction Ltd.

Man-Hour Estimate; Primary Structures and equipment

External Data Input	
Link from Other Page	
Link for Other Page	

Indirect Cost Percentage: 0.28
Hours Per Day: 11.00 Travel Time
Project Dates:

Segment 1 1
Segment 2 3
Segment 3 1.5

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
		2	3	4	5	6	7	8.00	9	10	11	12	13	14	15	16
V-H00	**S1-A General Works (S1-Ax)**															
V-H01	**Mobilization and Demobilization**															
V::A01	**S1-A1 Initial Mobilization**	**Total structure count:**	**1**	**LS**			$ -				$ -	$ -	$ -	$ -	$ -	
	S1-A1 Initial Mobilization															
		each	1			$ -	$ -	$ -	1	$ -						
		each	1			$ -	$ -	$ -	1	$ -						
		each	1			$ -	$ -	$ -	1	$ -						
		each	1			$ -	$ -	$ -	1	$ -						
		each	1			$ -	$ -	$ -	1	$ -						
		each	1			$ -	$ -	$ -	1	$ -						
		0					$ -	$ -		$ -						
V::A02	**S1-A2 Final Demobilization**	**Total structure count:**	**1**	**LS**			$ -				$ -	$ -	$ -	$ -	$ -	
	S1-A2 Final Demobilization															
		each	1			$ -	$ -	$ -	1	$ -						
		each	1			$ -	$ -	$ -	1	$ -						
		each	1			$ -	$ -	$ -	1	$ -						
		each	1			$ -	$ -	$ -	1	$ -						
		each	1			$ -	$ -	$ -	1	$ -						
		each	1			$ -	$ -	$ -	1	$ -						
							$ -	$ -		$ -						
V::A03	**S1-A3 Accommodation Camp Installation**	**Total structure count:**	**1**	**LS**			**$ 5,330,837.35**				**$ 5,330,837.35**	**$ 49,879,838.80**	**$ 55,210,676.15**	**$ 49,879,838.80**		
	S1-A3 Accommodation Camp Installation															
	5 Camps	0 moves														
	Permitting and Supervise Installation (Supervisory)	each	1	29	500.00	$ 167.19	$ 83,596.03	$ 83,596.03	1	$ 83,596.03						
	Site Preparation (Camp Site Preparation)	each	1	28	1500.00	$ 965.54	$ 1,448,305.52	$ 1,448,305.52	1	$ 1,448,305.52						
	Install Radio System (OPGW Splice)	each	1	42	5000.00	$ 297.67	$ 1,488,370.39	$ 1,488,370.39	1	$ 1,488,370.39						
	Set up Camp (Camp Setup)	each	1	45	1100.00	$ 2,100.51	$ 2,310,565.41	$ 2,310,565.41	1	$ 2,310,565.41						
		each	1			$ -	$ -	$ -	1	$ -						
		each	1			$ -	$ -	$ -	1	$ -						
	Camp Move (Camp Haul)	each	1	46	0.00	$ 241.83	$ -	$ -	1	$ -						
							$ 5,330,837.35	$ 5,330,837.35		$ 5,330,837.35						
V::A04	**S1-A4 Boarding and Lodging for Company/Engineer with 3 meals per day**	**Total structure count:**	**24000**	**person-day**			**$ -**				**$ -**	**$ 250.01**	**$ 250.01**	**$ 6,000,309.00**		
	S1-A4 Boarding and Lodging for Company/Engineer with 3 meals per day															
		each	24000			$ -	$ -	$ -	24000	$ -						
		each	24000			$ -	$ -	$ -	24000	$ -						
		each	24000			$ -	$ -	$ -	24000	$ -						
		each	24000			$ -	$ -	$ -	24000	$ -						
		each	24000			$ -	$ -	$ -	24000	$ -						
		each	24000			$ -	$ -	$ -	24000	$ -						
							$ -	$ -		$ -						

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::A05	**S1-A5 Meals for Company/Engineer visitors** S1-A5 Meals for Company/Engineer visitors	**Total structure count:**	**2000**	**meal**			**$ -**		**$ -**	**$ 41.68**	**$ 41.68**	**$ 83,354.29**
		each	2000		$ -	$ -	$ -	2000	$ -			
		each	2000		$ -	$ -	$ -	2000	$ -			
		each	2000		$ -	$ -	$ -	2000	$ -			
		each	2000		$ -	$ -	$ -	2000	$ -			
		each	2000		$ -	$ -	$ -	2000	$ -			
		each	2000		$ -	$ -	$ -	2000	$ -			
						$ -	$ -		$ -			
V::A06	**S1-A6 Parent Guarantee Article 7.4** S1-A6 Parent Guarantee Article 7.4	**Total structure count:**	**1**	**LS**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::A07	**S1-A7 Letter Of Credit Article 7.6** S1-A7 Letter Of Credit Article 7.6	**Total structure count:**	**1**	**LS**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::A08	**S1-A8 Performance Bonding Article 7.1** S1-A8 Performance Bonding Article 7.1	**Total structure count:**	**1**	**LS**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::A09	**S1-A9 Labour and Materials Bonding Article 7.2** S1-A9 Labour and Materials Bonding Article 7.2	**Total structure count:**	**1**	**LS**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H04	**S1-B Right-of-Way Clearing - Direct Costs (S1-Bx)**											
V::B01	**S1-B1 ROW Clearing** S1-B1 ROW Clearing	**Total structure count:** **2207**		**Ha**			$ -		$ -	$ 19,550.00	$ 19,550.00	$ 43,146,850.00
		each 2207			$ -	$ -	$ -	2207	$ -			
		each 2207			$ -	$ -	$ -	2207	$ -			
		each 2207			$ -	$ -	$ -	2207	$ -			
		each 2207			$ -	$ -	$ -	2207	$ -			
		each 2207			$ -	$ -	$ -	2207	$ -			
		each 2207			$ -	$ -	$ -	2207	$ -			
		each 2207			$ -	$ -	$ -	2207	$ -			
		each 2207			$ -	$ -	$ -	2207	$ -			
		each 2207			$ -	$ -	$ -	2207	$ -			
						$ -	$ -		$ -			
V::B02	**S1-B2 Removal of selected danger trees** S1-B2 Removal of selected danger trees	**Total structure count:** **1000**		**EA**			$ -		$ -	$ 210.00	$ 210.00	$ 210,000.00
		each 1000			$ -	$ -	$ -	1000	$ -			
		each 1000			$ -	$ -	$ -	1000	$ -			
		each 1000			$ -	$ -	$ -	1000	$ -			
		each 1000			$ -	$ -	$ -	1000	$ -			
		each 1000			$ -	$ -	$ -	1000	$ -			
		each 1000			$ -	$ -	$ -	1000	$ -			
		each 1000			$ -	$ -	$ -	1000	$ -			
		each 1000			$ -	$ -	$ -	1000	$ -			
		each 1000			$ -	$ -	$ -	1000	$ -			
						$ -	$ -		$ -			
V::B03	**S1-B3 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized** S1-B3 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2	**Total structure count:** **1358**		**LM**			$ -		$ -	$ 426.01	$ 426.01	$ 578,516.15
		each 1358			$ -	$ -	$ -	1358	$ -			
		each 1358			$ -	$ -	$ -	1358	$ -			
		each 1358			$ -	$ -	$ -	1358	$ -			
		each 1358			$ -	$ -	$ -	1358	$ -			
		each 1358			$ -	$ -	$ -	1358	$ -			
		each 1358			$ -	$ -	$ -	1358	$ -			
		each 1358			$ -	$ -	$ -	1358	$ -			
		each 1358			$ -	$ -	$ -	1358	$ -			
		each 1358			$ -	$ -	$ -	1358	$ -			
						$ -	$ -		$ -			
V::B04	**S1-B4 Supply and Installation of Bridge - 3 m** S1-B4 Supply and Installation of Bridge - 3 m	**Total structure count:** **141**		**EA**			$ -		$ -	$ 32,700.00	$ 32,700.00	$ 4,610,700.00
		each 141			$ -	$ -	$ -	141	$ -			
		each 141			$ -	$ -	$ -	141	$ -			
		each 141			$ -	$ -	$ -	141	$ -			
		each 141			$ -	$ -	$ -	141	$ -			
		each 141			$ -	$ -	$ -	141	$ -			
		each 141			$ -	$ -	$ -	141	$ -			
		each 141			$ -	$ -	$ -	141	$ -			
		each 141			$ -	$ -	$ -	141	$ -			
		each 141			$ -	$ -	$ -	141	$ -			
		each 141			$ -	$ -	$ -	141	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B05	**S1-B5 Supply and Installation of Bridge - 4 m** S1-B5 Supply and Installation of Bridge - 4 m	**Total structure count:**	2	**EA**			$ -		$ -	$ 43,600.00	$ 43,600.00	$ 87,200.00
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
						$ -	$ -		$ -			
V::B06	**S1-B6 Supply and Installation of Bridge - 5 m** S1-B6 Supply and Installation of Bridge - 5 m	**Total structure count:**	15	**EA**			$ -		$ -	$ 54,500.00	$ 54,500.00	$ 817,500.00
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
						$ -	$ -		$ -			
V::B07	**S1-B7 Supply and Installation of Bridge - 6 m** S1-B7 Supply and Installation of Bridge - 6 m	**Total structure count:**	5	**EA**			$ -		$ -	$ 65,400.00	$ 65,400.00	$ 327,000.00
		each	5		$ -	$ -	$ -	5	$ -			
		each	5		$ -	$ -	$ -	5	$ -			
		each	5		$ -	$ -	$ -	5	$ -			
		each	5		$ -	$ -	$ -	5	$ -			
		each	5		$ -	$ -	$ -	5	$ -			
		each	5		$ -	$ -	$ -	5	$ -			
		each	5		$ -	$ -	$ -	5	$ -			
		each	5		$ -	$ -	$ -	5	$ -			
		each	5		$ -	$ -	$ -	5	$ -			
		each	5		$ -	$ -	$ -	5	$ -			
		each	5		$ -	$ -	$ -	5	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B08	**S1-B8 Supply and Installation of Bridge - 7 m** S1-B8 Supply and Installation of Bridge - 7 m	**Total structure count:**	**1**	**EA**			**$ -**		**$ -**	**$ 76,300.00**	**$ 76,300.00**	**$ 76,300.00**
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::B09	**S1-B9 Supply and Installation of Bridge - 8 m** S1-B9 Supply and Installation of Bridge - 8 m	**Total structure count:**	**4**	**EA**			**$ -**		**$ -**	**$ 87,200.00**	**$ 87,200.00**	**$ 348,800.00**
		each	4		$ -	$ -	$ -	4	$ -			
		each	4		$ -	$ -	$ -	4	$ -			
		each	4		$ -	$ -	$ -	4	$ -			
		each	4		$ -	$ -	$ -	4	$ -			
		each	4		$ -	$ -	$ -	4	$ -			
		each	4		$ -	$ -	$ -	4	$ -			
		each	4		$ -	$ -	$ -	4	$ -			
		each	4		$ -	$ -	$ -	4	$ -			
		each	4		$ -	$ -	$ -	4	$ -			
		each	4		$ -	$ -	$ -	4	$ -			
		each	4		$ -	$ -	$ -	4	$ -			
						$ -	$ -		$ -			
V::B10	**S1-B10 Supply and Installation of Bridge - 10 m** S1-B10 Supply and Installation of Bridge - 10 m	**Total structure count:**	**3**	**EA**			**$ -**		**$ -**	**$ 109,000.00**	**$ 109,000.00**	**$ 327,000.00**
		each	3		$ -	$ -	$ -	3	$ -			
		each	3		$ -	$ -	$ -	3	$ -			
		each	3		$ -	$ -	$ -	3	$ -			
		each	3		$ -	$ -	$ -	3	$ -			
		each	3		$ -	$ -	$ -	3	$ -			
		each	3		$ -	$ -	$ -	3	$ -			
		each	3		$ -	$ -	$ -	3	$ -			
		each	3		$ -	$ -	$ -	3	$ -			
		each	3		$ -	$ -	$ -	3	$ -			
		each	3		$ -	$ -	$ -	3	$ -			
		each	3		$ -	$ -	$ -	3	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B11	**S1-B11 Supply and Installation of Bridge - 13 m** S1-B11 Supply and Installation of Bridge - 13 m	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 141,700.00**	**$ 141,700.00**	**$ -**
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B12	**S1-B12 Supply and Installation of Bridge - 14 m** S1-B12 Supply and Installation of Bridge - 14 m	**Total structure count:**	**1**	**EA**			**$ -**		**$ -**	**$ 152,600.00**	**$ 152,600.00**	**$ 152,600.00**
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::B13	**S1-B13 Supply and Installation of Bridge - 15 m** S1-B13 Supply and Installation of Bridge - 15 m	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 163,500.00**	**$ 163,500.00**	**$ -**
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B14	**S1-B14 Supply and Installation of Bridge - 16 m** S1-B14 Supply and Installation of Bridge - 16 m	**Total structure count:**	1	**EA**			$ -		$ -	$ 174,400.00	$ 174,400.00	$ 174,400.00
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::B15	**S1-B15 Supply and Installation of Bridge - 25 m** S1-B15 Supply and Installation of Bridge - 25 m	**Total structure count:**	0	**EA**			$ -		$ -	$ 272,500.00	$ 272,500.00	$ -
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B16	**S1-B16 Supply and Installation of Bridge - 35 m** S1-B16 Supply and Installation of Bridge - 35 m	**Total structure count:**	0	**EA**			$ -		$ -	$ 381,500.00	$ 381,500.00	$ -
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B17	**S1-B17 Supply and Installation of Bridge - 50 m** S1-B17 Supply and Installation of Bridge - 50 m	**Total structure count:**	1	**EA**			$ -		$ -	$ 545,000.00	$ 545,000.00	$ 545,000.00
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B18	**S1-B18 Supply and Installation of Bridge - 60 m** S1-B18 Supply and Installation of Bridge - 60 m	**Total structure count:**	**1**	**EA**			**$ -**		**$ -**	**$ 654,000.00**	**$ 654,000.00**	**$ 654,000.00**
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::B19	**S1-B19 Supply and Installation of Bridge - 65 m** S1-B19 Supply and Installation of Bridge - 65 m	**Total structure count:**	**1**	**EA**			**$ -**		**$ -**	**$ 708,500.00**	**$ 708,500.00**	**$ 708,500.00**
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::B20	**S1-B20 Installation of Corduroy Road** S1-B20 Installation of Corduroy Road	**Total structure count:**	**4915**	**LM**			**$ -**		**$ -**	**$ 139.45**	**$ 139.45**	**$ 685,391.84**
		each	4915		$ -	$ -	$ -	4915	$ -			
		each	4915		$ -	$ -	$ -	4915	$ -			
		each	4915		$ -	$ -	$ -	4915	$ -			
		each	4915		$ -	$ -	$ -	4915	$ -			
		each	4915		$ -	$ -	$ -	4915	$ -			
		each	4915		$ -	$ -	$ -	4915	$ -			
		each	4915		$ -	$ -	$ -	4915	$ -			
		each	4915		$ -	$ -	$ -	4915	$ -			
		each	4915		$ -	$ -	$ -	4915	$ -			
						$ -	$ -		$ -			
V::B21	**S1-B21 Installation of Access Road - Access Class 3** S1-B21 Installation of Access Road - Access Class 3	**Total structure count:**	**415**	**KM**			**$ -**		**$ -**	**$ 80,700.00**	**$ 80,700.00**	**$ 33,490,500.00**
		each	415		$ -	$ -	$ -	415	$ -			
		each	415		$ -	$ -	$ -	415	$ -			
		each	415		$ -	$ -	$ -	415	$ -			
		each	415		$ -	$ -	$ -	415	$ -			
		each	415		$ -	$ -	$ -	415	$ -			
		each	415		$ -	$ -	$ -	415	$ -			
		each	415		$ -	$ -	$ -	415	$ -			
		each	415		$ -	$ -	$ -	415	$ -			
		each	415		$ -	$ -	$ -	415	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B22	**S1-B22 Installation of Access Road - Access Trail** S1-B22 Installation of Access Road - Access Trail	**Total structure count:**	**20**	**KM**			**$ -**		**$ -**	**$ 80,700.00**	**$ 80,700.00**	**$ 1,614,000.00**
		each	20			$ -	$ -	20	$ -			
		each	20			$ -	$ -	20	$ -			
		each	20			$ -	$ -	20	$ -			
		each	20			$ -	$ -	20	$ -			
		each	20			$ -	$ -	20	$ -			
		each	20			$ -	$ -	20	$ -			
		each	20			$ -	$ -	20	$ -			
		each	20			$ -	$ -	20	$ -			
						$ -	$ -		$ -			
V::B23	**S1-B23 Installation of Access Road - Bypass Trail** S1-B23 Installation of Access Road - Bypass Trail	**Total structure count:**	**6**	**KM**			**$ -**		**$ -**	**$ 80,700.00**	**$ 80,700.00**	**$ 484,200.00**
		each	6			$ -	$ -	6	$ -			
		each	6			$ -	$ -	6	$ -			
		each	6			$ -	$ -	6	$ -			
		each	6			$ -	$ -	6	$ -			
		each	6			$ -	$ -	6	$ -			
		each	6			$ -	$ -	6	$ -			
		each	6			$ -	$ -	6	$ -			
		each	6			$ -	$ -	6	$ -			
						$ -	$ -		$ -			
V::B24	**S1-B24 Installation of Access Road - Ice Bridge** S1-B24 Installation of Access Road - Ice Bridge	**Total structure count:**	**35**	**LM**			**$ -**		**$ -**	**$ 7,200.00**	**$ 7,200.00**	**$ 252,000.00**
		each	35			$ -	$ -	35	$ -			
		each	35			$ -	$ -	35	$ -			
		each	35			$ -	$ -	35	$ -			
		each	35			$ -	$ -	35	$ -			
		each	35			$ -	$ -	35	$ -			
		each	35			$ -	$ -	35	$ -			
		each	35			$ -	$ -	35	$ -			
		each	35			$ -	$ -	35	$ -			
		each	35			$ -	$ -	35	$ -			
						$ -	$ -		$ -			
V-H06	**S1-B Right-of-Way Clearing for Wood Pole Electrode Line- Direct Costs (S1-Bx)**											
V::B25	**S1-B25 ROW Clearing** S1-B25 ROW Clearing	**Total structure count:**	**18**	**Ha**			**$ -**		**$ -**	**$ 19,550.00**	**$ 19,550.00**	**$ 351,900.00**
		each	18			$ -	$ -	18	$ -			
		each	18			$ -	$ -	18	$ -			
		each	18			$ -	$ -	18	$ -			
		each	18			$ -	$ -	18	$ -			
		each	18			$ -	$ -	18	$ -			
		each	18			$ -	$ -	18	$ -			
		each	18			$ -	$ -	18	$ -			
		each	18			$ -	$ -	18	$ -			
		each	18			$ -	$ -	18	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B26	**S1-B26 Removal of selected danger trees** S1-B26 Removal of selected danger trees	**Total structure count:**	**42**	**EA**			**$ -**		**$ -**	**$ 210.00**	**$ 210.00**	**$ 8,820.00**
		each	42		$ -	$ -	$ -	42	$ -			
		each	42		$ -	$ -	$ -	42	$ -			
		each	42		$ -	$ -	$ -	42	$ -			
		each	42		$ -	$ -	$ -	42	$ -			
		each	42		$ -	$ -	$ -	42	$ -			
		each	42		$ -	$ -	$ -	42	$ -			
		each	42		$ -	$ -	$ -	42	$ -			
		each	42		$ -	$ -	$ -	42	$ -			
		each	42		$ -	$ -	$ -	42	$ -			
						$ -	$ -		$ -			
V::B27	**S1-B27 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized** S1-B27 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2	**Total structure count:**	**11**	**LM**			**$ -**		**$ -**	**$ 426.01**	**$ 426.01**	**$ 4,686.07**
		each	11		$ -	$ -	$ -	11	$ -			
		each	11		$ -	$ -	$ -	11	$ -			
		each	11		$ -	$ -	$ -	11	$ -			
		each	11		$ -	$ -	$ -	11	$ -			
		each	11		$ -	$ -	$ -	11	$ -			
		each	11		$ -	$ -	$ -	11	$ -			
		each	11		$ -	$ -	$ -	11	$ -			
		each	11		$ -	$ -	$ -	11	$ -			
		each	11		$ -	$ -	$ -	11	$ -			
		each	11		$ -	$ -	$ -	11	$ -			
		each	11		$ -	$ -	$ -	11	$ -			
		each	11		$ -	$ -	$ -	11	$ -			
						$ -	$ -		$ -			
V::B28	**S1-B28 Supply and Installation of Bridge - 3 m** S1-B28 Supply and Installation of Bridge - 3 m	**Total structure count:**	**1**	**EA**			**$ -**		**$ -**	**$ 32,700.00**	**$ 32,700.00**	**$ 32,700.00**
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			

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Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total		Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B29	**S1-B29 Supply and Installation of Bridge - 4 m**	**Total structure count:**		**0**	**EA**			**$ -**		**$ -**	**$ 43,600.00**	**$ 43,600.00**	**$ -**
	S1-B29 Supply and Installation of Bridge - 4 m												
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			
V::B30	**S1-B30 Supply and Installation of Bridge - 5 m**	**Total structure count:**		**1**	**EA**			**$ -**		**$ -**	**$ 54,500.00**	**$ 54,500.00**	**$ 54,500.00**
	S1-B30 Supply and Installation of Bridge - 5 m												
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ -	$ -		$ -			
V::B31	**S1-B31 Supply and Installation of Bridge - 6 m**	**Total structure count:**		**1**	**EA**			**$ -**		**$ -**	**$ 65,400.00**	**$ 65,400.00**	**$ 65,400.00**
	S1-B31 Supply and Installation of Bridge - 6 m												
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B32	**S1-B32 Supply and Installation of Bridge - 7 m**	**Total structure count:**	1	EA			$ -		$ -	$ 76,300.00	$ 76,300.00	$ 76,300.00
	S1-B32 Supply and Installation of Bridge - 7 m											
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::B33	**S1-B33 Supply and Installation of Bridge - 8 m**	**Total structure count:**	1	EA			$ -		$ -	$ 87,200.00	$ 87,200.00	$ 87,200.00
	S1-B33 Supply and Installation of Bridge - 8 m											
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::B34	**S1-B34 Supply and Installation of Bridge - 10 m**	**Total structure count:**	1	EA			$ -		$ -	$ 109,000.00	$ 109,000.00	$ 109,000.00
	S1-B34 Supply and Installation of Bridge - 10 m											
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::B35	**S1-B35 Supply and Installation of Bridge - 13 m**	**Total structure count:**	0	EA			$ -		$ -	$ 141,700.00	$ 141,700.00	$ -
	S1-B35 Supply and Installation of Bridge - 13 m											
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total		Crew No.	Crew Cost Hours per unit	 Hourly Rate	 Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			
V::B36	**S1-B36 Supply and Installation of Bridge - 14 m** S1-B36 Supply and Installation of Bridge - 14 m	**Total structure count:**		**0**	**EA**			$ -		$ -	**$ 152,600.00**	**$ 152,600.00**	**$ -**
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			
V::B37	**S1-B37 Supply and Installation of Bridge - 15 m** S1-B37 Supply and Installation of Bridge - 15 m	**Total structure count:**		**0**	**EA**			$ -		$ -	**$ 163,500.00**	**$ 163,500.00**	**$ -**
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			
V::B38	**S1-B38 Supply and Installation of Bridge - 16 m** S1-B38 Supply and Installation of Bridge - 16 m	**Total structure count:**		**0**	**EA**			$ -		$ -	**$ 174,400.00**	**$ 174,400.00**	**$ -**
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total		Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B39	**S1-B39 Supply and Installation of Bridge - 25 m**	**Total structure count:**		**0**	**EA**			**$ -**		**$ -**	**$ 272,500.00**	**$ 272,500.00**	**$ -**
	S1-B39 Supply and Installation of Bridge - 25 m												
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			
V::B40	**S1-B40 Supply and Installation of Bridge - 35 m**	**Total structure count:**		**0**	**EA**			**$ -**		**$ -**	**$ 381,500.00**	**$ 381,500.00**	**$ -**
	S1-B40 Supply and Installation of Bridge - 35 m												
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			
V::B41	**S1-B41 Supply and Installation of Bridge - 50 m**	**Total structure count:**		**0**	**EA**			**$ -**		**$ -**	**$ 545,000.00**	**$ 545,000.00**	**$ -**
	S1-B41 Supply and Installation of Bridge - 50 m												
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B42	**S1-B42 Supply and Installation of Bridge - 60 m**	**Total structure count:**	1	EA			$ -		$ -	$ 654,000.00	$ 654,000.00	$ 654,000.00
	S1-B42 Supply and Installation of Bridge - 60 m											
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::B43	**S1-B43 Supply and Installation of Bridge - 65 m**	**Total structure count:**	0	EA			$ -		$ -	$ 708,500.00	$ 708,500.00	$ -
	S1-B43 Supply and Installation of Bridge - 65 m											
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B44	**S1-B44 Installation of Corduroy Road**	**Total structure count:**	20	LM			$ -		$ -	$ 139.45	$ 139.45	$ 2,788.98
	S1-B44 Installation of Corduroy Road											
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B45	**S1-B45 Installation of Access Road - Access Class 3** S1-B45 Installation of Access Road - Access Class 3	**Total structure count:**	**2**	**KM**			**$ -**		**$ -**	**$ 80,700.00**	**$ 80,700.00**	**$ 161,400.00**
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
						$ -	$ -		$ -			
V::B46	**S1-B46 Installation of Access Road - Access Trail** S1-B46 Installation of Access Road - Access Trail	**Total structure count:**	**0**	**KM**			**$ -**		**$ -**	**$ 80,700.00**	**$ 80,700.00**	**$ -**
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B47	**S1-B47 Installation of Access Road - Bypass Trail** S1-B47 Installation of Access Road - Bypass Trail	**Total structure count:**	**0**	**KM**			**$ -**		**$ -**	**$ 80,700.00**	**$ 80,700.00**	**$ -**
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H07	**S1-C Tower Foundation Construction (S1-Cx)**											
V-H08	**Guy Wire Anchors**											
V::C01	**S1-C1 Installation of Guy Wire Anchor in soil as per design drawings and** **Total structure count:**	**32500**		**LM**			$ -		$ -	**$ 468.58**	**$ 468.58**	**$ 15,228,983.19**
	S1-C1 Installation of Guy Wire Anchor in soil as per design drawings and technical specification											
		each	32500			$ -	$ -	$ -	32500	$ -		
		each	32500			$ -	$ -	$ -	32500	$ -		
		each	32500			$ -	$ -	$ -	32500	$ -		
		each	32500			$ -	$ -	$ -	32500	$ -		
		each	32500			$ -	$ -	$ -	32500	$ -		
		each	32500			$ -	$ -	$ -	32500	$ -		
		each	32500			$ -	$ -	$ -	32500	$ -		
		each	32500			$ -	$ -	$ -	32500	$ -		
		each	32500			$ -	$ -	$ -	32500	$ -		
		each	32500			$ -	$ -	$ -	32500	$ -		
		each	32500			$ -	$ -	$ -	32500	$ -		
		each	32500			$ -	$ -	$ -	32500	$ -		
		each	32500			$ -	$ -	$ -	32500	$ -		
							$ -	$ -		$ -		
V::C02	**S1-C2 Installation of Guy Wire Anchor in rock as per design drawings and** **Total structure count:**	**31500**		**LM**			$ -		$ -	**$ 432.81**	**$ 432.81**	**$ 13,633,365.65**
	S1-C2 Installation of Guy Wire Anchor in rock as per design drawings and technical specification											
		each	31500			$ -	$ -	$ -	31500	$ -		
		each	31500			$ -	$ -	$ -	31500	$ -		
		each	31500			$ -	$ -	$ -	31500	$ -		
		each	31500			$ -	$ -	$ -	31500	$ -		
		each	31500			$ -	$ -	$ -	31500	$ -		
		each	31500			$ -	$ -	$ -	31500	$ -		
		each	31500			$ -	$ -	$ -	31500	$ -		
		each	31500			$ -	$ -	$ -	31500	$ -		
		each	31500			$ -	$ -	$ -	31500	$ -		
		each	31500			$ -	$ -	$ -	31500	$ -		
		each	31500			$ -	$ -	$ -	31500	$ -		
		each	31500			$ -	$ -	$ -	31500	$ -		
							$ -	$ -		$ -		
V::C02-1	**S1-C2 Testing of Guy Wire Anchor up to 550kN as per design drawings and** **Total structure count:**	**2892**		**Ea**			**$ 168,440.61**		**$ 58.24**	**$ 994.35**	**$ 1,052.60**	**$ 2,875,669.95**
	S1-C2 Testing of Guy Wire Anchor up to 550kN as per design drawings and technical specification											
Supervise installation	Supervisory	each	2892	29	0.25	$ 167.19	$ 41.80	$ 120,879.86	2892	$ 41.80		
Placement survey	Foundation Survey ($250/h)	each	2892	18	0.05	$ 328.91	$ 16.45	$ 47,560.75	2892	$ 16.45		
		each	2892			$ -	$ -	$ -	2892	$ -		
		each	2892			$ -	$ -	$ -	2892	$ -		
		each	2892			$ -	$ -	$ -	2892	$ -		
		each	2892			$ -	$ -	$ -	2892	$ -		
		each	2892			$ -	$ -	$ -	2892	$ -		
		each	2892			$ -	$ -	$ -	2892	$ -		
		each	2892			$ -	$ -	$ -	2892	$ -		
		each	2892			$ -	$ -	$ -	2892	$ -		
							$ 58.24	$ 168,440.61		$ 58.24		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description		Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C02-2	**S1-C2 Testing of Guy Wire Anchorup to 900kN as per design drawings and** S1-C2 Testing of Guy Wire Anchorup to 900kN as per design drawings and technical specification	**Total structure count:**	**1572**		**Ea**			**$ 91,559.00**		**$ 58.24**	**$ 994.35**	**$ 1,052.60**	**$ 1,563,123.50**
	Supervise installation	Supervisory	each	1572	29	0.25	$ 167.19	$ 41.80	$ 65,706.48	1572	$ 41.80			
	Placement survey	Foundation Survey ($250/h)	each	1572	18	0.05	$ 328.91	$ 16.45	$ 25,852.52	1572	$ 16.45			
			each	1572			$ -	$ -	$ -	1572	$ -			
			each	1572			$ -	$ -	$ -	1572	$ -			
			each	1572			$ -	$ -	$ -	1572	$ -			
			each	1572			$ -	$ -	$ -	1572	$ -			
			each	1572			$ -	$ -	$ -	1572	$ -			
			each	1572			$ -	$ -	$ -	1572	$ -			
			each	1572			$ -	$ -	$ -	1572	$ -			
			each	1572			$ -	$ -	$ -	1572	$ -			
			each	1572			$ -	$ -	$ -	1572	$ -			
								$ 58.24	$ 91,559.00		$ 58.24		
V-H09	**Grillage Foundations**												
V::C03	**S1-C3 Assembly and Installation of Foundation Types A1-1 (100 kPa) as per** S1-C3 Assembly and Installation of Foundation Types A1-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A1.	**Total structure count:**	**36**		**EA**			**$ 391,702.28**		**$ 10,880.62**	**$ 278.62**	**$ 11,159.24**	**$ 10,030.42**
	Steel Weight (lb) = 4718	Granular (m3) = 3	Excavation (m3) = 279	Backfill (m3) = 276									
	Haul	Foundation Haul	each	36	17	1.97	$ 441.04	$ 867.00	$ 31,211.99	36	$ 867.00		
	Excavate	Found Excavation	each	36	19	3.10	$ 1,143.76	$ 3,545.17	$ 127,626.14	36	$ 3,545.17		
	Assemble and Install	Grillage Installation	each	36	20	3.10	$ 1,002.72	$ 3,105.27	$ 111,789.76	36	$ 3,105.27		
	Backfill & Compact	Backfill and Compact	each	36	21	3.10	$ 959.25	$ 2,973.26	$ 107,037.22	36	$ 2,973.26		
	Cleanup	Site Cleanup	each	36	22	2.00	$ 194.96	$ 389.92	$ 14,037.17	36	$ 389.92		
			each	36			$ -	$ -	$ -	36	$ -		
								$ 10,880.62	$ 391,702.28		$ 10,880.62		
V::C04	**S1-C4 Assembly and Installation of Foundation Types A2-1 (100 kPa) as per** S1-C4 Assembly and Installation of Foundation Types A2-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A2.	**Total structure count:**	**17**		**EA**			**$ 267,402.25**		**$ 15,729.54**	**$ 468.98**	**$ 16,198.52**	**$ 7,972.60**
	Steel Weight (lb) = 9259	Granular (m3) = 4	Excavation (m3) = 364	Backfill (m3) = 360									
	Haul	Foundation Haul	each	17	17	3.86	$ 441.04	$ 1,701.59	$ 28,927.00	17	$ 1,701.59		
	Excavate	Found Excavation	each	17	19	4.05	$ 1,143.76	$ 4,627.68	$ 78,670.55	17	$ 4,627.68		
	Install	Grillage Installation	each	17	20	5.12	$ 1,002.72	$ 5,129.22	$ 87,196.80	17	$ 5,129.22		
	Backfill & Compact	Backfill and Compact	each	17	21	4.05	$ 959.25	$ 3,881.13	$ 65,979.25	17	$ 3,881.13		
	Cleanup	Site Cleanup	each	17	22	2.00	$ 194.96	$ 389.92	$ 6,628.66	17	$ 389.92		
			each	17			$ -	$ -	$ -	17	$ -		
			each	17			$ -	$ -	$ -	17	$ -		
			each	17			$ -	$ -	$ -	17	$ -		
								$ 15,729.54	$ 267,402.25		$ 15,729.54		
V::C05	**S1-C5 Assembly and Installation of Foundation Types A3-1 (100 kPa) as per** S1-C5 Assembly and Installation of Foundation Types A3-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A3.	**Total structure count:**	**1**		**EA**			**$ 13,215.51**		**$ 13,215.51**	**$ 377.13**	**$ 13,592.64**	**$ 377.13**
	Steel Weight (lb) = 6724	Granular (m3) = 4	Excavation (m3) = 325	Backfill (m3) = 321									
	Haul	Foundation Haul	each	1	17	2.80	$ 441.04	$ 1,235.68	$ 1,235.68	1	$ 1,235.68		
	Excavate	Found Excavation	each	1	19	3.61	$ 1,143.76	$ 4,128.27	$ 4,128.27	1	$ 4,128.27		
	Install	Grillage Installation	each	1	20	3.99	$ 1,002.72	$ 3,999.35	$ 3,999.35	1	$ 3,999.35		
	Backfill & Compact	Backfill and Compact	each	1	21	3.61	$ 959.25	$ 3,462.29	$ 3,462.29	1	$ 3,462.29		
	Cleanup	Site Cleanup	each	1	22	2.00	$ 194.96	$ 389.92	$ 389.92	1	$ 389.92		
			each	1			$ -	$ -	$ -	1	$ -		
			each	1			$ -	$ -	$ -	1	$ -		
			each	1			$ -	$ -	$ -	1	$ -		
								$ 13,215.51	$ 13,215.51		$ 13,215.51		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C06	**S1-C6 Assembly and Installation of Foundation Types A4-1 (100 kPa) as per** **Total structure count:**	**0**		**EA**			**$ -**		**$ 15,729.54**	**$ 468.98**	**$ 16,198.52**	**$ -**
	S1-C6 Assembly and Installation of Foundation Types A4-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A4.											
	Steel Weight (lb) = 9259 Granular (m3) = 4 Excavation (m3) = 364 Backfill (m3) = 360											
	Haul (Foundation Haul)	each	0	17	3.86	$ 441.04	$ 1,701.59	$ -	0	$ -		
	Excavate (Found Excavation)	each	0	19	4.05	$ 1,143.76	$ 4,627.68	$ -	0	$ -		
	Install (Grillage Installation)	each	0	20	5.12	$ 1,002.72	$ 5,129.22	$ -	0	$ -		
	Backfill & Compact (Backfill and Compact)	each	0	21	4.05	$ 959.25	$ 3,881.13	$ -	0	$ -		
	Cleanup (Site Cleanup)	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
							$ 15,729.54	$ -		$ -		
V::C07	**S1-C7 Assembly and Installation of Foundation Types B1-1 (100 kPa) as per** **Total structure count:**	**2**		**EA**			**$ 35,255.91**		**$ 17,627.96**	**$ 538.82**	**$ 18,166.78**	**$ 1,077.65**
	S1-C7 Assembly and Installation of Foundation Types B1-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types B1.											
	Steel Weight (lb) = 11155 Granular (m3) = 5 Excavation (m3) = 394 Backfill (m3) = 389											
	Haul (Foundation Haul)	each	2	17	4.65	$ 441.04	$ 2,050.01	$ 4,100.02	2	$ 2,050.01		
	Excavate (Found Excavation)	each	2	19	4.38	$ 1,143.76	$ 5,011.13	$ 10,022.26	2	$ 5,011.13		
	Install (Grillage Installation)	each	2	20	5.96	$ 1,002.72	$ 5,974.17	$ 11,948.35	2	$ 5,974.17		
	Backfill & Compact (Backfill and Compact)	each	2	21	4.38	$ 959.25	$ 4,202.72	$ 8,405.45	2	$ 4,202.72		
	Cleanup (Site Cleanup)	each	2	22	2.00	$ 194.96	$ 389.92	$ 779.84	2	$ 389.92		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
							$ 17,627.96	$ 35,255.91		$ 17,627.96		
V::C08	**S1-C8 Assembly and Installation of Foundation Types B2-1 (100 kPa) as per** **Total structure count:**	**40**		**EA**			**$ 709,866.44**		**$ 17,746.66**	**$ 446.78**	**$ 18,193.44**	**$ 17,871.26**
	S1-C8 Assembly and Installation of Foundation Types B2-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types B2.											
	Steel Weight (lb) = 8424 Granular (m3) = 4 Excavation (m3) = 355 Backfill (m3) = 350											
	Haul (Foundation Haul)	each	40	17	5.01	$ 441.04	$ 2,209.60	$ 88,384.13	40	$ 2,209.60		
	Excavate (Found Excavation)	each	40	19	4.94	$ 1,143.76	$ 5,650.95	$ 226,038.09	40	$ 5,650.95		
	Install (Grillage Installation)	each	40	20	4.74	$ 1,002.72	$ 4,756.86	$ 190,274.22	40	$ 4,756.86		
	Backfill & Compact (Backfill and Compact)	each	40	21	4.94	$ 959.25	$ 4,739.33	$ 189,573.15	40	$ 4,739.33		
	Cleanup (Site Cleanup)	each	40	22	2.00	$ 194.96	$ 389.92	$ 15,596.85	40	$ 389.92		
		each	40			$ -	$ -	$ -	40	$ -		
		each	40			$ -	$ -	$ -	40	$ -		
		each	40			$ -	$ -	$ -	40	$ -		
							$ 17,746.66	$ 709,866.44		$ 17,746.66		
V::C09	**S1-C9 Assembly and Installation of Foundation Types A1-1A (250 kPa) as per** **Total structure count:**	**196**		**EA**			**$ 1,666,614.18**		**$ 8,503.13**	**$ 126.90**	**$ 8,630.04**	**$ 24,872.91**
	S1-C9 Assembly and Installation of Foundation Types A1-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A1.											
	Steel Weight (lb) = 2866 Granular (m3) = 1 Excavation (m3) = 200 Backfill (m3) = 199											
	Haul (Foundation Haul)	each	196	17	2.19	$ 441.04	$ 967.72	$ 189,673.92	196	$ 967.72		
	Excavate (Found Excavation)	each	196	19	2.22	$ 1,143.76	$ 2,540.17	$ 497,873.65	196	$ 2,540.17		
	Install (Grillage Installation)	each	196	20	2.27	$ 1,002.72	$ 2,279.97	$ 446,874.12	196	$ 2,279.97		
	Backfill & Compact (Backfill and Compact)	each	196	21	2.22	$ 959.25	$ 2,130.39	$ 417,555.62	196	$ 2,130.39		
	Cleanup (Site Cleanup)	each	196	22	3.00	$ 194.96	$ 584.88	$ 114,636.86	196	$ 584.88		
		each	196			$ -	$ -	$ -	196	$ -		
		each	196			$ -	$ -	$ -	196	$ -		
		each	196			$ -	$ -	$ -	196	$ -		
							$ 8,503.13	$ 1,666,614.18		$ 8,503.13		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C10	**S1-C10 Assembly and Installation of Foundation Types A2-1A (250 kPa) as per** **Total structure count:**	**98**		**EA**			**$ 1,350,640.85**		**$ 13,782.05**	**$ 246.96**	**$ 14,029.01**	**$ 24,202.19**
	S1-C10 Assembly and Installation of Foundation Types A2-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A2.											
	Steel Weight (lb) = 5512 Granular (m3) = 2 Excavation (m3) = 263 Backfill (m3) = 261											
	Haul (Foundation Haul)	each	98	17	3.80	$ 441.04	$ 1,674.41	$ 164,092.49	98	$ 1,674.41		
	Excavate (Found Excavation)	each	98	19	3.93	$ 1,143.76	$ 4,491.68	$ 440,184.16	98	$ 4,491.68		
	Install (Grillage Installation)	each	98	20	3.45	$ 1,002.72	$ 3,458.97	$ 338,979.20	98	$ 3,458.97		
	Backfill & Compact (Backfill and Compact)	each	98	21	3.93	$ 959.25	$ 3,767.07	$ 369,172.72	98	$ 3,767.07		
	Cleanup (Site Cleanup)	each	98	22	2.00	$ 194.96	$ 389.92	$ 38,212.29	98	$ 389.92		
		each	98			$ -	$ -	$ -	98	$ -		
		each	98			$ -	$ -	$ -	98	$ -		
		each	98			$ -	$ -	$ -	98	$ -		
							$ 13,782.05	$ 1,350,640.85		$ 13,782.05		
V::C11	**S1-C11 Assembly and Installation of Foundation Types A3-1A (250 kPa) as per** **Total structure count:**	**6**		**EA**			$ 55,437.84		**$ 9,239.64**	**$ 168.54**	**$ 9,408.18**	**$ 1,011.26**
	S1-C11 Assembly and Installation of Foundation Types A3-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A3.											
	Steel Weight (lb) = 3483 Granular (m3) = 2 Excavation (m3) = 223 Backfill (m3) = 222											
	Haul (Foundation Haul)	each	6	17	2.45	$ 441.04	$ 1,081.16	$ 6,486.98	6	$ 1,081.16		
	Excavate (Found Excavation)	each	6	19	2.48	$ 1,143.76	$ 2,835.45	$ 17,012.72	6	$ 2,835.45		
	Install (Grillage Installation)	each	6	20	2.55	$ 1,002.72	$ 2,555.07	$ 15,330.42	6	$ 2,555.07		
	Backfill & Compact (Backfill and Compact)	each	6	21	2.48	$ 959.25	$ 2,378.03	$ 14,268.19	6	$ 2,378.03		
	Cleanup (Site Cleanup)	each	6	22	2.00	$ 194.96	$ 389.92	$ 2,339.53	6	$ 389.92		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
							$ 9,239.64	$ 55,437.84		$ 9,239.64		
V::C12	**S1-C12 Assembly and Installation of Foundation Types A4-1A (250 kPa) as per** **Total structure count:**	**0**		**EA**			**$ -**		**$ 11,017.48**	**$ 246.96**	**$ 11,264.44**	**$ -**
	S1-C12 Assembly and Installation of Foundation Types A4-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A4.											
	Steel Weight (lb) = 5512 Granular (m3) = 2 Excavation (m3) = 263 Backfill (m3) = 261											
	Haul (Foundation Haul)	each	0	17	2.30	$ 441.04	$ 1,012.85	$ -	0	$ -		
	Excavate (Found Excavation)	each	0	19	2.93	$ 1,143.76	$ 3,347.92	$ -	0	$ -		
	Install (Grillage Installation)	each	0	20	3.45	$ 1,002.72	$ 3,458.97	$ -	0	$ -		
	Backfill & Compact (Backfill and Compact)	each	0	21	2.93	$ 959.25	$ 2,807.82	$ -	0	$ -		
	Cleanup (Site Cleanup)	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
							$ 11,017.48	$ -		$ -		
V::C13	**S1-C13 Assembly and Installation of Foundation Types B1-1A (250 kPa) as per** **Total structure count:**	**13**		**EA**			**$ 147,831.88**		**$ 11,371.68**	**$ 264.42**	**$ 11,636.11**	**$ 3,437.50**
	S1-C13 Assembly and Installation of Foundation Types B1-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types B1.											
	Steel Weight (lb) = 5754 Granular (m3) = 2 Excavation (m3) = 272 Backfill (m3) = 270											
	Haul (Foundation Haul)	each	13	17	2.40	$ 441.04	$ 1,057.42	$ 13,746.40	13	$ 1,057.42		
	Excavate (Found Excavation)	each	13	19	3.02	$ 1,143.76	$ 3,457.54	$ 44,948.00	13	$ 3,457.54		
	Install (Grillage Installation)	each	13	20	3.56	$ 1,002.72	$ 3,567.05	$ 46,371.60	13	$ 3,567.05		
	Backfill & Compact (Backfill and Compact)	each	13	21	3.02	$ 959.25	$ 2,899.76	$ 37,696.90	13	$ 2,899.76		
	Cleanup (Site Cleanup)	each	13	22	2.00	$ 194.96	$ 389.92	$ 5,068.98	13	$ 389.92		
		each	13			$ -	$ -	$ -	13	$ -		
		each	13			$ -	$ -	$ -	13	$ -		
		each	13			$ -	$ -	$ -	13	$ -		
							$ 11,371.68	$ 147,831.88		$ 11,371.68		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C14	**S1-C14 Assembly and Installation of Foundation Types B2-1A (250 kPa) as per Total structure count:**		**0**	**EA**			**$ -**		**$ 17,526.14**	**$ 446.78**	**$ 17,972.92**	**$ -**
	S1-C14 Assembly and Installation of Foundation Types B2-1A (250 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types B2.											
	Steel Weight (lb) = 8424 Granular (m3) = 4 Excavation (m3) = 355 Backfill (m3) = 350											
	Haul (Foundation Haul)	each	0	17	4.51	$ 441.04	$ 1,989.08	$ -	0	$ -		
	Excavate (Found Excavation)	each	0	19	4.94	$ 1,143.76	$ 5,650.95	$ -	0	$ -		
	Install (Grillage Installation)	each	0	20	4.74	$ 1,002.72	$ 4,756.86	$ -	0	$ -		
	Backfill & Compact (Backfill and Compact)	each	0	21	4.94	$ 959.25	$ 4,739.33	$ -	0	$ -		
	Cleanup (Site Cleanup)	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
							$ 17,526.14	$ -		$ -		
V::C15	**S1-C15 Assembly and Installation of Foundation Types C1-1 (100 kPa) as per Total structure count:**		**28**	**EA**			**$ 490,968.52**		**$ 17,534.59**	**$ 471.41**	**$ 18,006.00**	**$ 13,199.40**
	S1-C15 Assembly and Installation of Foundation Types C1-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types C1.											
	Steel Weight (lb) = 8752 Granular (m3) = 4 Excavation (m3) = 365 Backfill (m3) = 361											
	Haul (Foundation Haul)	each	28	17	3.65	$ 441.04	$ 1,608.41	$ 45,035.37	28	$ 1,608.41		
	Excavate (Found Excavation)	each	28	19	5.06	$ 1,143.76	$ 5,782.97	$ 161,923.09	28	$ 5,782.97		
	Install (Grillage Installation)	each	28	20	4.89	$ 1,002.72	$ 4,903.25	$ 137,290.95	28	$ 4,903.25		
	Backfill & Compact (Backfill and Compact)	each	28	21	5.06	$ 959.25	$ 4,850.05	$ 135,801.32	28	$ 4,850.05		
	Cleanup (Site Cleanup)	each	28	22	2.00	$ 194.96	$ 389.92	$ 10,917.80	28	$ 389.92		
		each	28			$ -	$ -	$ -	28	$ -		
		each	28			$ -	$ -	$ -	28	$ -		
		each	28			$ -	$ -	$ -	28	$ -		
							$ 17,534.59	$ 490,968.52		$ 17,534.59		
V::C16	**S1-C16 Assembly and Installation of Foundation Types C2-1 (100 kPa) as per Total structure count:**		**32**	**EA**			**$ 638,335.92**		**$ 19,948.00**	**$ 577.46**	**$ 20,525.46**	**$ 18,478.65**
	S1-C16 Assembly and Installation of Foundation Types C2-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types C2.											
	Steel Weight (lb) = 10252 Granular (m3) = 5 Excavation (m3) = 409 Backfill (m3) = 404											
	Haul (Foundation Haul)	each	32	17	5.27	$ 441.04	$ 2,324.94	$ 74,398.19	32	$ 2,324.94		
	Excavate (Found Excavation)	each	32	19	5.55	$ 1,143.76	$ 6,342.48	$ 202,959.47	32	$ 6,342.48		
	Install (Grillage Installation)	each	32	20	5.56	$ 1,002.72	$ 5,571.35	$ 178,283.16	32	$ 5,571.35		
	Backfill & Compact (Backfill and Compact)	each	32	21	5.55	$ 959.25	$ 5,319.30	$ 170,217.62	32	$ 5,319.30		
	Cleanup (Site Cleanup)	each	32	22	2.00	$ 194.96	$ 389.92	$ 12,477.48	32	$ 389.92		
		each	32			$ -	$ -	$ -	32	$ -		
		each	32			$ -	$ -	$ -	32	$ -		
		each	32			$ -	$ -	$ -	32	$ -		
							$ 19,948.00	$ 638,335.92		$ 19,948.00		
V::C17	**S1-C17 Assembly and Installation of Foundation Types D1-1 (100 kPa) as per Total structure count:**		**56**	**EA**			**$ 1,144,474.80**		**$ 20,437.05**	**$ 624.60**	**$ 21,061.65**	**$ 34,977.53**
	S1-C17 Assembly and Installation of Foundation Types D1-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types D1.											
	Steel Weight (lb) = 11023 Granular (m3) = 6 Excavation (m3) = 428 Backfill (m3) = 422											
	Haul (Foundation Haul)	each	56	17	4.59	$ 441.04	$ 2,025.70	$ 113,439.22	56	$ 2,025.70		
	Excavate (Found Excavation)	each	56	19	5.76	$ 1,143.76	$ 6,584.19	$ 368,714.63	56	$ 6,584.19		
	Install (Grillage Installation)	each	56	20	5.90	$ 1,002.72	$ 5,915.22	$ 331,252.56	56	$ 5,915.22		
	Backfill & Compact (Backfill and Compact)	each	56	21	5.76	$ 959.25	$ 5,522.01	$ 309,232.80	56	$ 5,522.01		
	Cleanup (Site Cleanup)	each	56	22	2.00	$ 194.96	$ 389.92	$ 21,835.59	56	$ 389.92		
		each	56			$ -	$ -	$ -	56	$ -		
		each	56			$ -	$ -	$ -	56	$ -		
		each	56			$ -	$ -	$ -	56	$ -		
							$ 20,437.05	$ 1,144,474.80		$ 20,437.05		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units / Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C18	**S1-C18 Assembly and Installation of Foundation Types D2-1 (100 kPa) as per** **Total structure count:**		**28**	**EA**			**$ 611,654.24**		**$ 21,844.79**	**$ 683.89**	**$ 22,528.69**	**$ 19,148.99**
	S1-C18 Assembly and Installation of Foundation Types D2-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types D2.											
	Steel Weight (lb) = 11685 Granular (m3) = 6 Excavation (m3) = 452 Backfill (m3) = 445											
	Haul (Foundation Haul)	each	28	17	5.87	$ 441.04	$ 2,588.28	$ 72,471.96	28	$ 2,588.28		
	Excavate (Found Excavation)	each	28	19	6.02	$ 1,143.76	$ 6,883.54	$ 192,739.14	28	$ 6,883.54		
	Install (Grillage Installation)	each	28	20	6.19	$ 1,002.72	$ 6,209.97	$ 173,879.29	28	$ 6,209.97		
	Backfill & Compact (Backfill and Compact)	each	28	21	6.02	$ 959.25	$ 5,773.07	$ 161,646.05	28	$ 5,773.07		
	Cleanup (Site Cleanup)	each	28	22	2.00	$ 194.96	$ 389.92	$ 10,917.80	28	$ 389.92		
		each	28			$ -	$ -	$ -	28	$ -		
		each	28			$ -	$ -	$ -	28	$ -		
		each	28			$ -	$ -	$ -	28	$ -		
							$ 21,844.79	$ 611,654.24		$ 21,844.79		
V::C19	**S1-C19 Assembly and Installation of Foundation Types E1-1 (100 kPa) as per** **Total structure count:**		**24**	**EA**			**$ 556,271.64**		**$ 23,177.98**	**$ 756.68**	**$ 23,934.67**	**$ 18,160.37**
	S1-C19 Assembly and Installation of Foundation Types E1-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types E1.											
	Steel Weight (lb) = 13448 Granular (m3) = 7 Excavation (m3) = 480 Backfill (m3) = 473											
	Haul (Foundation Haul)	each	24	17	5.60	$ 441.04	$ 2,471.35	$ 59,312.51	24	$ 2,471.35		
	Excavate (Found Excavation)	each	24	19	6.33	$ 1,143.76	$ 7,244.73	$ 173,873.63	24	$ 7,244.73		
	Install (Grillage Installation)	each	24	20	6.98	$ 1,002.72	$ 6,995.98	$ 167,903.41	24	$ 6,995.98		
	Backfill & Compact (Backfill and Compact)	each	24	21	6.33	$ 959.25	$ 6,076.00	$ 145,823.97	24	$ 6,076.00		
	Cleanup (Site Cleanup)	each	24	22	2.00	$ 194.96	$ 389.92	$ 9,358.11	24	$ 389.92		
		each	24			$ -	$ -	$ -	24	$ -		
		each	24			$ -	$ -	$ -	24	$ -		
		each	24			$ -	$ -	$ -	24	$ -		
							$ 23,177.98	$ 556,271.64		$ 23,177.98		
V::C20	**S1-C20 Uplift testing per leg for Types C1-1, or D2-1, or E1-1 (100 kPa) as per** **Total structure count:**		**6**	**EA**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-C20 Uplift testing per leg for Types C1-1, or D2-1, or E1-1 (100 kPa) as per technical specification for Tower Types C1, or D2, or E1.											
	Not included	each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
							$ -	$ -		$ -		
V::C21	**S1-C21 Downward, uplift, and lateral load testing per leg for Types C1-3, or D2-** **Total structure count:**		**6**	**EA**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-C21 Downward, uplift, and lateral load testing per leg for Types C1-3, or D2-3, or E1-3 as per technical specification for Tower Types C1, or D2, or E1.											
	Not included	each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
							$ -	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H10	**Rock Foundations**											
V::C22	**S1-C22 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573- Total structure count:**		**253**	**EA**			$ 4,157,954.48		$ 16,434.60	$ 1,909.69	$ 18,344.29	$ 483,151.57
	S1-C22 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A1											
	Pad: 1.9m x 1.9m x 0.4m Concrete (m3) = 1.66 / Steel Weight (lb) 1778 / Grout (l) 30.6 / Rebar (kg) 56.7 / Excavation (m3) 154.3 / BackFill Vol(m3) 152.6 / #Anchor Holes 4.00 / Hole Depth (m) 3.0 / Hole Dia. (mm) 50.0											
	Haul (Foundation Haul)	each	253	17	1.54	$ 441.04	$ 679.65	$ 171,951.65	253	$ 679.65		
	Excavate (Found Excavation)	each	253	19	2.21	$ 1,143.76	$ 2,532.30	$ 640,671.51	253	$ 2,532.30		
	Prepare Rock Surface (Found Excavation)	each	253	19	2.50	$ 1,143.76	$ 2,859.40	$ 723,427.92	253	$ 2,859.40		
	Rock drill Setup (Rock Foundations)	each	253	36	1.00	$ 920.20	$ 920.20	$ 232,811.55	253	$ 920.20		
	Install Footing, Form and Pour base (Concrete Foundations)	each	253	24	4.39	$ 935.63	$ 4,104.74	$ 1,038,498.65	253	$ 4,104.74		
	Backfill & Compact (Backfill and Compact)	each	253	21	3.70	$ 959.25	$ 3,544.95	$ 896,872.95	253	$ 3,544.95		
	Cleanup (Site Cleanup)	each	253	22	2.00	$ 194.96	$ 389.92	$ 98,650.09	253	$ 389.92		
	Heat and Hoard (Concrete Foundations)	each	253	24	1.50	$ 935.63	$ 1,403.44	$ 355,070.17	253	$ 1,403.44		
		each	253			$ -	$ -	$ -	253	$ -		
		each	253			$ -	$ -	$ -	253	$ -		
		each	253			$ -	$ -	$ -	253	$ -		
							$ 16,434.60	$ 4,157,954.48		$ 16,434.60		
V::C23	**S1-C23 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573- Total structure count:**		**125**	**EA**			$ 2,355,091.65		$ 18,840.73	$ 2,798.41	$ 21,639.14	$ 349,801.25
	S1-C23 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A2											
	Pad: 2.3m x 2.3m x 0.4m Concrete (m3) = 2.43 / Steel Weight (lb) 2107 / Grout (l) 100.1 / Rebar (kg) 75.8 / Excavation (m3) 168.0 / BackFill Vol(m3) 165.6 / #Anchor Holes 4.00 / Hole Depth (m) 5.0 / Hole Dia. (mm) 70.0											
	Haul (Foundation Haul)	each	125	17	1.48	$ 441.04	$ 651.87	$ 81,483.83	125	$ 651.87		
	Excavate (Found Excavation)	each	125	19	2.37	$ 1,143.76	$ 2,707.17	$ 338,396.62	125	$ 2,707.17		
	Prepare Rock Surface (Found Excavation)	each	125	19	3.50	$ 1,143.76	$ 4,003.16	$ 500,394.80	125	$ 4,003.16		
	Rock drill Setup (Rock Foundations)	each	125	36	1.00	$ 920.20	$ 920.20	$ 115,025.47	125	$ 920.20		
	Install Footing, Form and Pour base (Concrete Foundations)	each	125	24	5.43	$ 935.63	$ 5,081.59	$ 635,198.46	125	$ 5,081.59		
	Backfill & Compact (Backfill and Compact)	each	125	21	3.84	$ 959.25	$ 3,683.38	$ 460,422.37	125	$ 3,683.38		
	Cleanup (Site Cleanup)	each	125	22	2.00	$ 194.96	$ 389.92	$ 48,740.16	125	$ 389.92		
	Heat and Hoard (Concrete Foundations)	each	125	24	1.50	$ 935.63	$ 1,403.44	$ 175,429.93	125	$ 1,403.44		
		each	125			$ -	$ -	$ -	125	$ -		
		each	125			$ -	$ -	$ -	125	$ -		
		each	125			$ -	$ -	$ -	125	$ -		
							$ 18,840.73	$ 2,355,091.65		$ 18,840.73		
V::C24	**S1-C24 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573- Total structure count:**		**7**	**EA**			**$ 115,042.22**		**$ 16,434.60**	**$ 1,909.69**	**$ 18,344.29**	**$ 13,367.83**
	S1-C24 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A3											
	Pad: 1.9m x 1.9m x 0.4m Concrete (m3) = 1.66 / Steel Weight (lb) 1778 / Grout (l) 30.6 / Rebar (kg) 56.7 / Excavation (m3) 154.3 / BackFill Vol(m3) 152.6 / #Anchor Holes 4.00 / Hole Depth (m) 3.0 / Hole Dia. (mm) 50.0											
	Haul (Foundation Haul)	each	7	17	1.54	$ 441.04	$ 679.65	$ 4,757.56	7	$ 679.65		
	Excavate (Found Excavation)	each	7	19	2.21	$ 1,143.76	$ 2,532.30	$ 17,726.09	7	$ 2,532.30		
	Prepare Rock Surface (Found Excavation)	each	7	19	2.50	$ 1,143.76	$ 2,859.40	$ 20,015.79	7	$ 2,859.40		
	Rock drill Setup (Rock Foundations)	each	7	36	1.00	$ 920.20	$ 920.20	$ 6,441.43	7	$ 920.20		
	Install Footing, Form and Pour base (Concrete Foundations)	each	7	24	4.39	$ 935.63	$ 4,104.74	$ 28,733.16	7	$ 4,104.74		
	Backfill & Compact (Backfill and Compact)	each	7	21	3.70	$ 959.25	$ 3,544.95	$ 24,814.67	7	$ 3,544.95		
	Cleanup (Site Cleanup)	each	7	22	2.00	$ 194.96	$ 389.92	$ 2,729.45	7	$ 389.92		
	Heat and Hoard (Concrete Foundations)	each	7	24	1.50	$ 935.63	$ 1,403.44	$ 9,824.08	7	$ 1,403.44		
		each	7			$ -	$ -	$ -	7	$ -		
		each	7			$ -	$ -	$ -	7	$ -		
		each	7			$ -	$ -	$ -	7	$ -		
							$ 16,434.60	$ 115,042.22		$ 16,434.60		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)	Units	Crew No.	Crew Cost			Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
	Description	Total		Hours per unit	Hourly Rate	Unit Cost						
V::C25	**S1-C25 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-** **Total structure count:**		**0**	**EA**			**$ -**		**$ 18,928.94**	**$ 2,798.41**	**$ 21,727.35**	**$ -**
	S1-C25 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A4											
	Pad: 2.3m x 2.3m x 0.4m Concrete (m3) =	Steel Weight (lb)	Grout (l)	Rebar (kg)	Excavation (m3)	BackFill Vol(m3)	#Anchor Holes	Hole Depth (m)	Hole Dia. (mm)			
	2.43	2107	100.1	75.8	168.0	165.6	4.00	5.0	70.0			
	Haul	Foundation Haul		each	0	17	1.68	$ 441.04	$ 740.08	$ -	0	$ -
	Excavate	Found Excavation		each	0	19	2.37	$ 1,143.76	$ 2,707.17	$ -	0	$ -
	Prepare Rock Surface	Found Excavation		each	0	19	3.50	$ 1,143.76	$ 4,003.16	$ -	0	$ -
	Rock drill Setup	Rock Foundations		each	0	36	1.00	$ 920.20	$ 920.20	$ -	0	$ -
	Install Footing, Form and Pour base	Concrete Foundations		each	0	24	5.43	$ 935.63	$ 5,081.59	$ -	0	$ -
	Backfill & Compact	Backfill and Compact		each	0	21	3.84	$ 959.25	$ 3,683.38	$ -	0	$ -
	Cleanup	Site Cleanup		each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -
	Heat and Hoard	Concrete Foundations		each	0	24	1.50	$ 935.63	$ 1,403.44	$ -	0	$ -
				each	0			$ -	$ -	$ -	0	$ -
				each	0			$ -	$ -	$ -	0	$ -
				each	0			$ -	$ -	$ -	0	$ -
									$ 18,928.94	$ -		$ -
V::C26	**S1-C26 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-** **Total structure count:**		**17**	**EA**			**$ 315,793.84**		**$ 18,576.11**	**$ 2,798.41**	**$ 21,374.52**	**$ 47,572.97**
	S1-C26 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0074 for Tower Type B1											
	Pad: 2.3m x 2.3m x 0.4m Concrete (m3) =	Steel Weight (lb)	Grout (l)	Rebar (kg)	Excavation (m3)	BackFill Vol(m3)	#Anchor Holes	Hole Depth (m)	Hole Dia. (mm)			
	2.43	2107	100.1	75.8	168.0	165.6	4.00	5.0	70.0			
	Haul	Foundation Haul		each	17	17	0.88	$ 441.04	$ 387.25	$ 6,583.17	17	$ 387.25
	Excavate	Found Excavation		each	17	19	2.37	$ 1,143.76	$ 2,707.17	$ 46,021.94	17	$ 2,707.17
	Prepare Rock Surface	Found Excavation		each	17	19	3.50	$ 1,143.76	$ 4,003.16	$ 68,053.69	17	$ 4,003.16
	Rock drill Setup	Rock Foundations		each	17	36	1.00	$ 920.20	$ 920.20	$ 15,643.46	17	$ 920.20
	Install Footing, Form and Pour base	Concrete Foundations		each	17	24	5.43	$ 935.63	$ 5,081.59	$ 86,386.99	17	$ 5,081.59
	Backfill & Compact	Backfill and Compact		each	17	21	3.84	$ 959.25	$ 3,683.38	$ 62,617.44	17	$ 3,683.38
	Cleanup	Site Cleanup		each	17	22	2.00	$ 194.96	$ 389.92	$ 6,628.66	17	$ 389.92
	Heat and Hoard	Concrete Foundations		each	17	24	1.50	$ 935.63	$ 1,403.44	$ 23,858.47	17	$ 1,403.44
				each	17			$ -	$ -	$ -	17	$ -
				each	17			$ -	$ -	$ -	17	$ -
				each	17			$ -	$ -	$ -	17	$ -
									$ 18,576.11	$ 315,793.84		$ 18,576.11
V::C27	**S1-C27 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-** **Total structure count:**		**43**	**EA**			**$ 1,137,528.96**		**$ 26,454.16**	**$ 2,793.12**	**$ 29,247.28**	**$ 120,104.16**
	S1-C27 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type B2											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) =	Steel Weight (lb)	Grout (l)	Rebar (kg)	Excavation (m3)	BackFill Vol(m3)	#Anchor Holes	Hole Depth (m)	Hole Dia. (mm)			
	2.43	4527	300.2	163.4	224.6	222.2	10.00	6.0	70.0			
	Haul	Foundation Haul		each	43	17	2.89	$ 441.04	$ 1,272.96	$ 54,737.23	43	$ 1,272.96
	Excavate	Found Excavation		each	43	19	3.00	$ 1,143.76	$ 3,426.56	$ 147,342.08	43	$ 3,426.56
	Prepare Rock Surface	Found Excavation		each	43	19	4.50	$ 1,143.76	$ 5,146.92	$ 221,317.47	43	$ 5,146.92
	Rock drill Setup	Rock Foundations		each	43	36	1.00	$ 920.20	$ 920.20	$ 39,568.76	43	$ 920.20
	Install Footing, Form and Pour base	Concrete Foundations		each	43	24	10.27	$ 935.63	$ 9,607.40	$ 413,118.14	43	$ 9,607.40
	Backfill & Compact	Backfill and Compact		each	43	21	4.47	$ 959.25	$ 4,286.76	$ 184,330.77	43	$ 4,286.76
	Cleanup	Site Cleanup		each	43	22	2.00	$ 194.96	$ 389.92	$ 16,766.62	43	$ 389.92
	Heat and Hoard	Concrete Foundations		each	43	24	1.50	$ 935.63	$ 1,403.44	$ 60,347.89	43	$ 1,403.44
				each	43			$ -	$ -	$ -	43	$ -
				each	43			$ -	$ -	$ -	43	$ -
				each	43			$ -	$ -	$ -	43	$ -
									$ 26,454.16	$ 1,137,528.96		$ 26,454.16

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C28	**S1-C28 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-** **Total structure count:**		**22**	**EA**			**$ 243,921.18**		**$ 11,087.33**	**$ 1,523.52**	**$ 12,610.85**	**$ 33,517.44**
	S1-C28 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A1 (Weak Surface Rock)											
	Pad: 1.2m x 1.2m x 0.8m Concrete (m3) = 1.32	Steel Weight (lb) 153	Grout (l) 6.0	Rebar (kg) 34.5	Excavation (m3) 5.0	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0			
	Haul (Foundation Haul)			each	22	17	1.06	$ 441.04	$ 469.22	$ 10,322.74	22	$ 469.22
	Excavate (Found Excavation)			each	22	19	0.56	$ 1,143.76	$ 635.64	$ 13,984.18	22	$ 635.64
	Prepare Rock Surface (Found Excavation)			each	22	19	2.50	$ 1,143.76	$ 2,859.40	$ 62,906.78	22	$ 2,859.40
	Rock drill Setup (Rock Foundations)			each	22	36	1.00	$ 920.20	$ 920.20	$ 20,244.48	22	$ 920.20
	Install Footing, Form and Pour base (Concrete Foundations)			each	22	24	2.66	$ 935.63	$ 2,491.01	$ 54,802.25	22	$ 2,491.01
	Backfill & Compact (Backfill and Compact)			each	22	21	2.00	$ 959.25	$ 1,918.49	$ 42,206.82	22	$ 1,918.49
	Cleanup (Site Cleanup)			each	22	22	2.00	$ 194.96	$ 389.92	$ 8,578.27	22	$ 389.92
	Heat and Hoard (Concrete Foundations)			each	22	24	1.50	$ 935.63	$ 1,403.44	$ 30,875.67	22	$ 1,403.44
				each	22			$ -	$ -	$ -	22	$ -
				each	22			$ -	$ -	$ -	22	$ -
				each	22			$ -	$ -	$ -	22	$ -
									$ 11,087.33	$ 243,921.18		$ 11,087.33
V::C29	**S1-C29 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-** **Total structure count:**		**11**	**EA**			**$ 127,021.73**		**$ 11,547.43**	**$ 2,541.85**	**$ 14,089.27**	**$ 27,960.30**
	S1-C29 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A2 (Weak Surface Rock)											
	Pad: 1.55m x 1.55m x 0.8m Concrete (m3) = 2.21	Steel Weight (lb) 304	Grout (l) 6.0	Rebar (kg) 49.8	Excavation (m3) 6.4	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0			
	Haul (Foundation Haul)			each	11	17	1.13	$ 441.04	$ 496.89	$ 5,465.78	11	$ 496.89
	Excavate (Found Excavation)			each	11	19	0.57	$ 1,143.76	$ 653.83	$ 7,192.08	11	$ 653.83
	Prepare Rock Surface (Found Excavation)			each	11	19	2.50	$ 1,143.76	$ 2,859.40	$ 31,453.39	11	$ 2,859.40
	Rock drill Setup (Rock Foundations)			each	11	36	1.00	$ 920.20	$ 920.20	$ 10,122.24	11	$ 920.20
	Install Footing, Form and Pour base (Concrete Foundations)			each	11	24	3.11	$ 935.63	$ 2,905.26	$ 31,957.86	11	$ 2,905.26
	Backfill & Compact (Backfill and Compact)			each	11	21	2.00	$ 959.25	$ 1,918.49	$ 21,103.41	11	$ 1,918.49
	Cleanup (Site Cleanup)			each	11	22	2.00	$ 194.96	$ 389.92	$ 4,289.13	11	$ 389.92
	Heat and Hoard (Concrete Foundations)			each	11	24	1.50	$ 935.63	$ 1,403.44	$ 15,437.83	11	$ 1,403.44
				each	11			$ -	$ -	$ -	11	$ -
				each	11			$ -	$ -	$ -	11	$ -
				each	11			$ -	$ -	$ -	11	$ -
									$ 11,547.43	$ 127,021.73		$ 11,547.43
V::C30	**S1-C30 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-** **Total structure count:**		**1**	**EA**			**$ 11,325.92**		**$ 11,325.92**	**$ 2,073.68**	**$ 13,399.60**	**$ 2,073.68**
	S1-C30 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A3 (Weak Surface Rock)											
	Pad: 1.4m x 1.4m x 0.8m Concrete (m3) = 1.80	Steel Weight (lb) 179	Grout (l) 6.0	Rebar (kg) 36.1	Excavation (m3) 5.8	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0			
	Haul (Foundation Haul)			each	1	17	1.07	$ 441.04	$ 473.90	$ 473.90	1	$ 473.90
	Excavate (Found Excavation)			each	1	19	0.56	$ 1,143.76	$ 645.75	$ 645.75	1	$ 645.75
	Prepare Rock Surface (Found Excavation)			each	1	19	2.50	$ 1,143.76	$ 2,859.40	$ 2,859.40	1	$ 2,859.40
	Rock drill Setup (Rock Foundations)			each	1	36	1.00	$ 920.20	$ 920.20	$ 920.20	1	$ 920.20
	Install Footing, Form and Pour base (Concrete Foundations)			each	1	24	2.90	$ 935.63	$ 2,714.81	$ 2,714.81	1	$ 2,714.81
	Backfill & Compact (Backfill and Compact)			each	1	21	2.00	$ 959.25	$ 1,918.49	$ 1,918.49	1	$ 1,918.49
	Cleanup (Site Cleanup)			each	1	22	2.00	$ 194.96	$ 389.92	$ 389.92	1	$ 389.92
	Heat and Hoard (Concrete Foundations)			each	1	24	1.50	$ 935.63	$ 1,403.44	$ 1,403.44	1	$ 1,403.44
				each	1			$ -	$ -	$ -	1	$ -
				each	1			$ -	$ -	$ -	1	$ -
				each	1			$ -	$ -	$ -	1	$ -
									$ 11,325.92	$ 11,325.92		$ 11,325.92

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C31	**S1-C31 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-** **Total structure count:**		**0**	**EA**			**$ -**		**$ 11,547.43**	**$ 2,541.85**	**$ 14,089.27**	**$ -**
	S1-C31 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A4 (Weak Surface Rock)											
	Pad: 1.55m x 1.55m x 0.8m Concrete (m3) = 2.21	Steel Weight (lb) 304	Grout (l) 6.0	Rebar (kg) 49.8	Excavation (m3) 6.4	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	0	17	1.13	$ 441.04	$ 496.89	$ -	0	$ -	
	Excavate	Found Excavation	each	0	19	0.57	$ 1,143.76	$ 653.83	$ -	0	$ -	
	Prepare Rock Surface	Found Excavation	each	0	19	2.50	$ 1,143.76	$ 2,859.40	$ -	0	$ -	
	Rock drill Setup	Rock Foundations	each	0	36	1.00	$ 920.20	$ 920.20	$ -	0	$ -	
	Install Footing, Form and Pour base	Concrete Foundations	each	0	24	3.11	$ 935.63	$ 2,905.26	$ -	0	$ -	
	Backfill & Compact	Backfill and Compact	each	0	21	2.00	$ 959.25	$ 1,918.49	$ -	0	$ -	
	Cleanup	Site Cleanup	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -	
	Heat and Hoard	Concrete Foundations	each	0	24	1.50	$ 935.63	$ 1,403.44	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
								$ 11,547.43	$ -		$ -	
V::C32	**S1-C32 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-** **Total structure count:**		**3**	**EA**			**$ 34,854.49**		**$ 11,618.16**	**$ 2,708.48**	**$ 14,326.64**	**$ 8,125.44**
	S1-C32 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type B1 (Weak Surface Rock)											
	Pad: 1.6m x 1.6m x 0.8m Concrete (m3) = 2.36	Steel Weight (lb) 305	Grout (l) 6.0	Rebar (kg) 50.2	Excavation (m3) 6.7	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	3	17	1.13	$ 441.04	$ 497.05	$ 1,491.15	3	$ 497.05	
	Excavate	Found Excavation	each	3	19	0.57	$ 1,143.76	$ 656.61	$ 1,969.84	3	$ 656.61	
	Prepare Rock Surface	Found Excavation	each	3	19	2.50	$ 1,143.76	$ 2,859.40	$ 8,578.20	3	$ 2,859.40	
	Rock drill Setup	Rock Foundations	each	3	36	1.00	$ 920.20	$ 920.20	$ 2,760.61	3	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	3	24	3.18	$ 935.63	$ 2,973.05	$ 8,919.14	3	$ 2,973.05	
	Backfill & Compact	Backfill and Compact	each	3	21	2.00	$ 959.25	$ 1,918.49	$ 5,755.48	3	$ 1,918.49	
	Cleanup	Site Cleanup	each	3	22	2.00	$ 194.96	$ 389.92	$ 1,169.76	3	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	3	24	1.50	$ 935.63	$ 1,403.44	$ 4,210.32	3	$ 1,403.44	
			each	3			$ -	$ -	$ -	3	$ -	
			each	3			$ -	$ -	$ -	3	$ -	
			each	3			$ -	$ -	$ -	3	$ -	
								$ 11,618.16	$ 34,854.49		$ 11,618.16	
V::C33	**S1-C33 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-** **Total structure count:**		**191**	**EA**					**$ 1,900,193.14**	**$ 9,948.66**	**$ 1,523.52**	**$ 11,472.18**	**$ 290,992.32**
	S1-C33 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A1 (Sound Surface Rock)											
	Pad: 1.2m x 1.2m x 0.8m Concrete (m3) = 1.32	Steel Weight (lb) 181	Grout (l) 6.0	Rebar (kg) 47.1	Excavation (m3) 5.0	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	191	17	1.08	$ 441.04	$ 474.30	$ 90,592.06	191	$ 474.30	
	Excavate	Found Excavation	each	191	19	0.56	$ 1,143.76	$ 635.64	$ 121,408.08	191	$ 635.64	
	Prepare Rock Surface	Found Excavation	each	191	19	1.50	$ 1,143.76	$ 1,715.64	$ 327,687.11	191	$ 1,715.64	
	Rock drill Setup	Rock Foundations	each	191	36	1.00	$ 920.20	$ 920.20	$ 175,758.92	191	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	191	24	2.66	$ 935.63	$ 2,491.01	$ 475,783.17	191	$ 2,491.01	
	Backfill & Compact	Backfill and Compact	each	191	21	2.00	$ 959.25	$ 1,918.49	$ 366,431.91	191	$ 1,918.49	
	Cleanup	Site Cleanup	each	191	22	2.00	$ 194.96	$ 389.92	$ 74,474.97	191	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	191	24	1.50	$ 935.63	$ 1,403.44	$ 268,056.93	191	$ 1,403.44	
			each	191			$ -	$ -	$ -	191	$ -	
			each	191			$ -	$ -	$ -	191	$ -	
			each	191			$ -	$ -	$ -	191	$ -	
								$ 9,948.66	$ 1,900,193.14		$ 9,948.66	

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C34	**S1-C34 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-** **Total structure count:**		**94**	**EA**			**$ 978,423.33**		**$ 10,408.76**	**$ 2,541.85**	**$ 12,950.60**	**$ 238,933.43**
	S1-C34 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A2 (Sound Surface Rock)											
	Pad: 1.55m x 1.55m x 0.8m Concrete (m3) = 2.21	Steel Weight (lb) 332	Grout (l) 6.0	Rebar (kg) 62.4	Excavation (m3) 6.4	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0				
	Haul (Foundation Haul)			each	94	17	1.14	$ 441.04	$ 501.98	$ 47,185.94	94	$ 501.98
	Excavate (Found Excavation)			each	94	19	0.57	$ 1,143.76	$ 653.83	$ 61,459.59	94	$ 653.83
	Prepare Rock Surface (Found Excavation)			each	94	19	1.50	$ 1,143.76	$ 1,715.64	$ 161,270.10	94	$ 1,715.64
	Rock drill Setup (Rock Foundations)			each	94	36	1.00	$ 920.20	$ 920.20	$ 86,499.15	94	$ 920.20
	Install Footing, Form and Pour base (Concrete Foundations)			each	94	24	3.11	$ 935.63	$ 2,905.26	$ 273,094.43	94	$ 2,905.26
	Backfill & Compact (Backfill and Compact)			each	94	21	2.00	$ 959.25	$ 1,918.49	$ 180,338.22	94	$ 1,918.49
	Cleanup (Site Cleanup)			each	94	22	2.00	$ 194.96	$ 389.92	$ 36,652.60	94	$ 389.92
	Heat and Hoard (Concrete Foundations)			each	94	24	1.50	$ 935.63	$ 1,403.44	$ 131,923.30	94	$ 1,403.44
				each	94			$ -	$ -	$ -	94	$ -
				each	94			$ -	$ -	$ -	94	$ -
				each	94			$ -	$ -	$ -	94	$ -
									$ 10,408.76	$ 978,423.33		$ 10,408.76
V::C35	**S1-C35 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-** **Total structure count:**		**6**	**EA**			**$ 61,123.49**		**$ 10,187.25**	**$ 2,073.68**	**$ 12,260.93**	**$ 12,442.08**
	S1-C35 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A3 (Sound Surface Rock)											
	Pad: 1.4m x 1.4m x 0.8m Concrete (m3) = 1.80	Steel Weight (lb) 207	Grout (l) 6.0	Rebar (kg) 48.7	Excavation (m3) 5.8	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0				
	Haul (Foundation Haul)			each	6	17	1.09	$ 441.04	$ 478.99	$ 2,873.95	6	$ 478.99
	Excavate (Found Excavation)			each	6	19	0.56	$ 1,143.76	$ 645.75	$ 3,874.49	6	$ 645.75
	Prepare Rock Surface (Found Excavation)			each	6	19	1.50	$ 1,143.76	$ 1,715.64	$ 10,293.84	6	$ 1,715.64
	Rock drill Setup (Rock Foundations)			each	6	36	1.00	$ 920.20	$ 920.20	$ 5,521.22	6	$ 920.20
	Install Footing, Form and Pour base (Concrete Foundations)			each	6	24	2.90	$ 935.63	$ 2,714.81	$ 16,288.88	6	$ 2,714.81
	Backfill & Compact (Backfill and Compact)			each	6	21	2.00	$ 959.25	$ 1,918.49	$ 11,510.95	6	$ 1,918.49
	Cleanup (Site Cleanup)			each	6	22	2.00	$ 194.96	$ 389.92	$ 2,339.53	6	$ 389.92
	Heat and Hoard (Concrete Foundations)			each	6	24	1.50	$ 935.63	$ 1,403.44	$ 8,420.64	6	$ 1,403.44
				each	6			$ -	$ -	$ -	6	$ -
				each	6			$ -	$ -	$ -	6	$ -
				each	6			$ -	$ -	$ -	6	$ -
									$ 10,187.25	$ 61,123.49		$ 10,187.25
V::C36	**S1-C36 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-** **Total structure count:**		**0**	**EA**			**$ -**		**$ 10,408.76**	**$ 2,541.85**	**$ 12,950.60**	**$ -**
	S1-C36 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A4 (Sound Surface Rock)											
	Pad: 1.55m x 1.55m x 0.8m Concrete (m3) = 2.21	Steel Weight (lb) 332	Grout (l) 6.0	Rebar (kg) 62.4	Excavation (m3) 6.4	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0				
	Haul (Foundation Haul)			each	0	17	1.14	$ 441.04	$ 501.98	$ -	0	$ -
	Excavate (Found Excavation)			each	0	19	0.57	$ 1,143.76	$ 653.83	$ -	0	$ -
	Prepare Rock Surface (Found Excavation)			each	0	19	1.50	$ 1,143.76	$ 1,715.64	$ -	0	$ -
	Rock drill Setup (Rock Foundations)			each	0	36	1.00	$ 920.20	$ 920.20	$ -	0	$ -
	Install Footing, Form and Pour base (Concrete Foundations)			each	0	24	3.11	$ 935.63	$ 2,905.26	$ -	0	$ -
	Backfill & Compact (Backfill and Compact)			each	0	21	2.00	$ 959.25	$ 1,918.49	$ -	0	$ -
	Cleanup (Site Cleanup)			each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -
	Heat and Hoard (Concrete Foundations)			each	0	24	1.50	$ 935.63	$ 1,403.44	$ -	0	$ -
				each	0			$ -	$ -	$ -	0	$ -
				each	0			$ -	$ -	$ -	0	$ -
									$ 10,408.76	$ -		$ -

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C37	**S1-C37 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-** **Total structure count:**		**13**	**EA**			**$ 136,233.39**		**$ 10,479.49**	**$ 2,708.48**	**$ 13,187.97**	**$ 35,210.24**
	S1-C37 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type B1 (Sound Surface Rock)											
	Pad: 1.6m x 1.6m x 0.8m Concrete (m3) = 2.36	Steel Weight (lb) 332	Grout (l) 6.0	Rebar (kg) 62.8	Excavation (m3) 6.7	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	13	17	1.14	$ 441.04	$ 502.14	$ 6,527.78	13	$ 502.14	
	Excavate	Found Excavation	each	13	19	0.57	$ 1,143.76	$ 656.61	$ 8,535.97	13	$ 656.61	
	Prepare Rock Surface	Found Excavation	each	13	19	1.50	$ 1,143.76	$ 1,715.64	$ 22,303.31	13	$ 1,715.64	
	Rock drill Setup	Rock Foundations	each	13	36	1.00	$ 920.20	$ 920.20	$ 11,962.65	13	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	13	24	3.18	$ 935.63	$ 2,973.05	$ 38,649.60	13	$ 2,973.05	
	Backfill & Compact	Backfill and Compact	each	13	21	2.00	$ 959.25	$ 1,918.49	$ 24,940.39	13	$ 1,918.49	
	Cleanup	Site Cleanup	each	13	22	2.00	$ 194.96	$ 389.92	$ 5,068.98	13	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	13	24	1.50	$ 935.63	$ 1,403.44	$ 18,244.71	13	$ 1,403.44	
			each	13			$ -	$ -	$ -	13	$ -	
			each	13			$ -	$ -	$ -	13	$ -	
			each	13			$ -	$ -	$ -	13	$ -	
								$ 10,479.49	$ 136,233.39		$ 10,479.49	
V::C38	**S1-C38 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-** **Total structure count:**		**32**	**EA**			**$ 840,870.15**		**$ 26,277.19**	**$ 2,793.12**	**$ 29,070.31**	**$ 89,379.84**
	S1-C38 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type B2 (surface rock)											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4441	Grout (l) 199.0	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 6.0	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	32	17	2.85	$ 441.04	$ 1,257.13	$ 40,228.27	32	$ 1,257.13	
	Excavate	Found Excavation	each	32	19	3.00	$ 1,143.76	$ 3,426.56	$ 109,649.92	32	$ 3,426.56	
	Prepare Rock Surface	Found Excavation	each	32	19	4.50	$ 1,143.76	$ 5,146.92	$ 164,701.38	32	$ 5,146.92	
	Rock drill Setup	Rock Foundations	each	32	36	1.00	$ 920.20	$ 920.20	$ 29,446.52	32	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	32	24	10.10	$ 935.63	$ 9,446.25	$ 302,280.13	32	$ 9,446.25	
	Backfill & Compact	Backfill and Compact	each	32	21	4.47	$ 959.25	$ 4,286.76	$ 137,176.39	32	$ 4,286.76	
	Cleanup	Site Cleanup	each	32	22	2.00	$ 194.96	$ 389.92	$ 12,477.48	32	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	32	24	1.50	$ 935.63	$ 1,403.44	$ 44,910.06	32	$ 1,403.44	
			each	32			$ -	$ -	$ -	32	$ -	
			each	32			$ -	$ -	$ -	32	$ -	
			each	32			$ -	$ -	$ -	32	$ -	
								$ 26,277.19	$ 840,870.15		$ 26,277.19	
V::C39	**S1-C39 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-** **Total structure count:**		**28**	**EA**			**$ 703,736.11**		**$ 25,133.43**	**$ 2,793.12**	**$ 27,926.55**	**$ 78,207.36**
	S1-C39 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C1											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4441	Grout (l) 199.0	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 6.0	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	28	17	2.85	$ 441.04	$ 1,257.13	$ 35,199.74	28	$ 1,257.13	
	Excavate	Found Excavation	each	28	19	3.00	$ 1,143.76	$ 3,426.56	$ 95,943.68	28	$ 3,426.56	
	Prepare Rock Surface	Found Excavation	each	28	19	3.50	$ 1,143.76	$ 4,003.16	$ 112,088.44	28	$ 4,003.16	
	Rock drill Setup	Rock Foundations	each	28	36	1.00	$ 920.20	$ 920.20	$ 25,765.71	28	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	28	24	10.10	$ 935.63	$ 9,446.25	$ 264,495.12	28	$ 9,446.25	
	Backfill & Compact	Backfill and Compact	each	28	21	4.47	$ 959.25	$ 4,286.76	$ 120,029.34	28	$ 4,286.76	
	Cleanup	Site Cleanup	each	28	22	2.00	$ 194.96	$ 389.92	$ 10,917.80	28	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	28	24	1.50	$ 935.63	$ 1,403.44	$ 39,296.30	28	$ 1,403.44	
			each	28			$ -	$ -	$ -	28	$ -	
			each	28			$ -	$ -	$ -	28	$ -	
			each	28			$ -	$ -	$ -	28	$ -	
								$ 25,133.43	$ 703,736.11		$ 25,133.43	

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C40	**S1-C40 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-** **Total structure count:**		**36**	**EA**			**$ 954,133.94**		**$ 26,503.72**	**$ 2,793.12**	**$ 29,296.84**	**$ 100,552.32**
	S1-C40 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C2											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4551	Grout (l) 199.0	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 6.0	Hole Dia. (mm) 57.0				
	Haul	Foundation Haul	each	36	17	2.90	$ 441.04	$ 1,277.39	$ 45,986.06	36	$ 1,277.39		
	Excavate	Found Excavation	each	36	19	3.00	$ 1,143.76	$ 3,426.56	$ 123,356.16	36	$ 3,426.56		
	Prepare Rock Surface	Found Excavation	each	36	19	4.50	$ 1,143.76	$ 5,146.92	$ 185,289.05	36	$ 5,146.92		
	Rock drill Setup	Rock Foundations	each	36	36	1.00	$ 920.20	$ 920.20	$ 33,127.34	36	$ 920.20		
	Install Footing, Form and Pour base	Concrete Foundations	each	36	24	10.32	$ 935.63	$ 9,652.53	$ 347,490.92	36	$ 9,652.53		
	Backfill & Compact	Backfill and Compact	each	36	21	4.47	$ 959.25	$ 4,286.76	$ 154,323.43	36	$ 4,286.76		
	Cleanup	Site Cleanup	each	36	22	2.00	$ 194.96	$ 389.92	$ 14,037.17	36	$ 389.92		
	Heat and Hoard	Concrete Foundations	each	36	24	1.50	$ 935.63	$ 1,403.44	$ 50,523.82	36	$ 1,403.44		
			each	36			$ -	$ -	$ -	36	$ -		
			each	36			$ -	$ -	$ -	36	$ -		
			each	36			$ -	$ -	$ -	36	$ -		
								$ 26,503.72	$ 954,133.94		$ 26,503.72		
V::C41	**S1-C41 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-** **Total structure count:**		**60**	**EA**			**$ 1,537,907.70**		**$ 25,631.79**	**$ 2,793.12**	**$ 28,424.91**	**$ 167,587.20**
	S1-C41 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D1											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4683	Grout (l) 215.6	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 6.5	Hole Dia. (mm) 57.0				
	Haul	Foundation Haul	each	60	17	2.95	$ 441.04	$ 1,301.70	$ 78,101.93	60	$ 1,301.70		
	Excavate	Found Excavation	each	60	19	3.00	$ 1,143.76	$ 3,426.56	$ 205,593.60	60	$ 3,426.56		
	Prepare Rock Surface	Found Excavation	each	60	19	3.50	$ 1,143.76	$ 4,003.16	$ 240,189.51	60	$ 4,003.16		
	Rock drill Setup	Rock Foundations	each	60	36	1.00	$ 920.20	$ 920.20	$ 55,212.23	60	$ 920.20		
	Install Footing, Form and Pour base	Concrete Foundations	each	60	24	10.58	$ 935.63	$ 9,900.05	$ 594,003.07	60	$ 9,900.05		
	Backfill & Compact	Backfill and Compact	each	60	21	4.47	$ 959.25	$ 4,286.76	$ 257,205.72	60	$ 4,286.76		
	Cleanup	Site Cleanup	each	60	22	2.00	$ 194.96	$ 389.92	$ 23,395.28	60	$ 389.92		
	Heat and Hoard	Concrete Foundations	each	60	24	1.50	$ 935.63	$ 1,403.44	$ 84,206.36	60	$ 1,403.44		
			each	60			$ -	$ -	$ -	60	$ -		
			each	60			$ -	$ -	$ -	60	$ -		
			each	60			$ -	$ -	$ -	60	$ -		
								$ 25,631.79	$ 1,537,907.70		$ 25,631.79		
V::C42	**S1-C42 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-** **Total structure count:**		**36**	**ea**			**$ 963,919.96**		**$ 26,775.55**	**$ 2,793.12**	**$ 29,568.67**	**$ 100,552.32**
	S1-C42 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D2											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4683	Grout (l) 215.6	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 6.5	Hole Dia. (mm) 57.0				
	Haul	Foundation Haul	each	36	17	2.95	$ 441.04	$ 1,301.70	$ 46,861.16	36	$ 1,301.70		
	Excavate	Found Excavation	each	36	19	3.00	$ 1,143.76	$ 3,426.56	$ 123,356.16	36	$ 3,426.56		
	Prepare Rock Surface	Found Excavation	each	36	19	4.50	$ 1,143.76	$ 5,146.92	$ 185,289.05	36	$ 5,146.92		
	Rock drill Setup	Rock Foundations	each	36	36	1.00	$ 920.20	$ 920.20	$ 33,127.34	36	$ 920.20		
	Install Footing, Form and Pour base	Concrete Foundations	each	36	24	10.58	$ 935.63	$ 9,900.05	$ 356,401.84	36	$ 9,900.05		
	Backfill & Compact	Backfill and Compact	each	36	21	4.47	$ 959.25	$ 4,286.76	$ 154,323.43	36	$ 4,286.76		
	Cleanup	Site Cleanup	each	36	22	2.00	$ 194.96	$ 389.92	$ 14,037.17	36	$ 389.92		
	Heat and Hoard	Concrete Foundations	each	36	24	1.50	$ 935.63	$ 1,403.44	$ 50,523.82	36	$ 1,403.44		
			each	36			$ -	$ -	$ -	36	$ -		
			each	36			$ -	$ -	$ -	36	$ -		
			each	36			$ -	$ -	$ -	36	$ -		
								$ 26,775.55	$ 963,919.96		$ 26,775.55		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C43	**S1-C43 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-** **Total structure count:**		**24**	**ea**			**$ 620,599.76**		**$ 25,858.32**	**$ 2,793.12**	**$ 28,651.44**	**$ 67,034.88**
	S1-C43 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type E1											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4794	Grout (l) 232.2	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 7.0	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	24	17	3.00	$ 441.04	$ 1,321.96	$ 31,726.94	24	$ 1,321.96	
	Excavate	Found Excavation	each	24	19	3.00	$ 1,143.76	$ 3,426.56	$ 82,237.44	24	$ 3,426.56	
	Prepare Rock Surface	Found Excavation	each	24	19	3.50	$ 1,143.76	$ 4,003.16	$ 96,075.80	24	$ 4,003.16	
	Rock drill Setup	Rock Foundations	each	24	36	1.00	$ 920.20	$ 920.20	$ 22,084.89	24	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	24	24	10.80	$ 935.63	$ 10,106.32	$ 242,551.74	24	$ 10,106.32	
	Backfill & Compact	Backfill and Compact	each	24	21	4.47	$ 959.25	$ 4,286.76	$ 102,882.29	24	$ 4,286.76	
	Cleanup	Site Cleanup	each	24	22	2.00	$ 194.96	$ 389.92	$ 9,358.11	24	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	24	24	1.50	$ 935.63	$ 1,403.44	$ 33,682.55	24	$ 1,403.44	
			each	24			$ -	$ -	$ -	24	$ -	
			each	24			$ -	$ -	$ -	24	$ -	
			each	24			$ -	$ -	$ -	24	$ -	
								$ 25,858.32	$ 620,599.76		$ 25,858.32	
V::C44	**S1-C44 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-** **Total structure count:**		**28**	**ea**			**$ 703,736.11**		**$ 25,133.43**	**$ 2,793.12**	**$ 27,926.55**	**$ 78,207.36**
	S1-C44 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C1 (surface rock)											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4441	Grout (l) 149.3	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 4.5	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	28	17	2.85	$ 441.04	$ 1,257.13	$ 35,199.74	28	$ 1,257.13	
	Excavate	Found Excavation	each	28	19	3.00	$ 1,143.76	$ 3,426.56	$ 95,943.68	28	$ 3,426.56	
	Prepare Rock Surface	Found Excavation	each	28	19	3.50	$ 1,143.76	$ 4,003.16	$ 112,088.44	28	$ 4,003.16	
	Rock drill Setup	Rock Foundations	each	28	36	1.00	$ 920.20	$ 920.20	$ 25,765.71	28	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	28	24	10.10	$ 935.63	$ 9,446.25	$ 264,495.12	28	$ 9,446.25	
	Backfill & Compact	Backfill and Compact	each	28	21	4.47	$ 959.25	$ 4,286.76	$ 120,029.34	28	$ 4,286.76	
	Cleanup	Site Cleanup	each	28	22	2.00	$ 194.96	$ 389.92	$ 10,917.80	28	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	28	24	1.50	$ 935.63	$ 1,403.44	$ 39,296.30	28	$ 1,403.44	
			each	28			$ -	$ -	$ -	28	$ -	
			each	28			$ -	$ -	$ -	28	$ -	
			each	28			$ -	$ -	$ -	28	$ -	
								$ 25,133.43	$ 703,736.11		$ 25,133.43	
V::C45	**S1-C45 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-** **Total structure count:**		**28**	**EA**			**$ 742,104.17**		**$ 26,503.72**	**$ 2,793.12**	**$ 29,296.84**	**$ 78,207.36**
	S1-C45 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C2 (surface rock)-- 7.2mm clad steel wire; 3000m reels at 250kg/km or ~800kg /											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4551	Grout (l) 165.9	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 5.0	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	28	17	2.90	$ 441.04	$ 1,277.39	$ 35,766.93	28	$ 1,277.39	
	Excavate	Found Excavation	each	28	19	3.00	$ 1,143.76	$ 3,426.56	$ 95,943.68	28	$ 3,426.56	
	Prepare Rock Surface	Found Excavation	each	28	19	4.50	$ 1,143.76	$ 5,146.92	$ 144,113.70	28	$ 5,146.92	
	Rock drill Setup	Rock Foundations	each	28	36	1.00	$ 920.20	$ 920.20	$ 25,765.71	28	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	28	24	10.32	$ 935.63	$ 9,652.53	$ 270,270.71	28	$ 9,652.53	
	Backfill & Compact	Backfill and Compact	each	28	21	4.47	$ 959.25	$ 4,286.76	$ 120,029.34	28	$ 4,286.76	
	Cleanup	Site Cleanup	each	28	22	2.00	$ 194.96	$ 389.92	$ 10,917.80	28	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	28	24	1.50	$ 935.63	$ 1,403.44	$ 39,296.30	28	$ 1,403.44	
			each	28			$ -	$ -	$ -	28	$ -	
			each	28			$ -	$ -	$ -	28	$ -	
			each	28			$ -	$ -	$ -	28	$ -	
								$ 26,503.72	$ 742,104.17		$ 26,503.72	

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C46	**S1-C46 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-** **Total structure count:**		**52**	**EA**			**$ 1,332,853.34**		**$ 25,631.79**	**$ 2,793.12**	**$ 28,424.91**	**$ 145,242.24**
	S1-C46 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D1 (surface rock)											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) =	Steel Weight (lb)	Grout (l)	Rebar (kg)	Excavation (m3)	BackFill Vol(m3)	#Anchor Holes	Hole Depth (m)	Hole Dia. (mm)			
	2.43	4683	165.9	124.3	224.6	222.2	10.00	5.0	57.0			
	Haul	Foundation Haul		each	52	17	2.95	$ 441.04	$ 1,301.70	$ 67,688.34	52	$ 1,301.70
	Excavate	Found Excavation		each	52	19	3.00	$ 1,143.76	$ 3,426.56	$ 178,181.12	52	$ 3,426.56
	Prepare Rock Surface	Found Excavation		each	52	19	3.50	$ 1,143.76	$ 4,003.16	$ 208,164.24	52	$ 4,003.16
	Rock drill Setup	Rock Foundations		each	52	36	1.00	$ 920.20	$ 920.20	$ 47,850.60	52	$ 920.20
	Install Footing, Form and Pour base	Concrete Foundations		each	52	24	10.58	$ 935.63	$ 9,900.05	$ 514,802.66	52	$ 9,900.05
	Backfill & Compact	Backfill and Compact		each	52	21	4.47	$ 959.25	$ 4,286.76	$ 222,911.63	52	$ 4,286.76
	Cleanup	Site Cleanup		each	52	22	2.00	$ 194.96	$ 389.92	$ 20,275.91	52	$ 389.92
	Heat and Hoard	Concrete Foundations		each	52	24	1.50	$ 935.63	$ 1,403.44	$ 72,978.85	52	$ 1,403.44
				each	52			$ -	$ -	$ -	52	$ -
				each	52			$ -	$ -	$ -	52	$ -
				each	52			$ -	$ -	$ -	52	$ -
				each	52			$ -	$ -	$ -	52	$ -
									$ 25,631.79	$ 1,332,853.34		$ 25,631.79
V::C47	**S1-C47 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-** **Total structure count:**		**28**	**EA**			**$ 749,715.53**		**$ 26,775.55**	**$ 2,793.12**	**$ 29,568.67**	**$ 78,207.36**
	S1-C47 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D2 (surface rock)											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) =	Steel Weight (lb)	Grout (l)	Rebar (kg)	Excavation (m3)	BackFill Vol(m3)	#Anchor Holes	Hole Depth (m)	Hole Dia. (mm)			
	2.43	4683	165.9	124.3	224.6	222.2	10.00	5.0	57.0			
	Haul	Foundation Haul		each	28	17	2.95	$ 441.04	$ 1,301.70	$ 36,447.57	28	$ 1,301.70
	Excavate	Found Excavation		each	28	19	3.00	$ 1,143.76	$ 3,426.56	$ 95,943.68	28	$ 3,426.56
	Prepare Rock Surface	Found Excavation		each	28	19	4.50	$ 1,143.76	$ 5,146.92	$ 144,113.70	28	$ 5,146.92
	Rock drill Setup	Rock Foundations		each	28	36	1.00	$ 920.20	$ 920.20	$ 25,765.71	28	$ 920.20
	Install Footing, Form and Pour base	Concrete Foundations		each	28	24	10.58	$ 935.63	$ 9,900.05	$ 277,201.43	28	$ 9,900.05
	Backfill & Compact	Backfill and Compact		each	28	21	4.47	$ 959.25	$ 4,286.76	$ 120,029.34	28	$ 4,286.76
	Cleanup	Site Cleanup		each	28	22	2.00	$ 194.96	$ 389.92	$ 10,917.80	28	$ 389.92
	Heat and Hoard	Concrete Foundations		each	28	24	1.50	$ 935.63	$ 1,403.44	$ 39,296.30	28	$ 1,403.44
				each	28			$ -	$ -	$ -	28	$ -
				each	28			$ -	$ -	$ -	28	$ -
				each	28			$ -	$ -	$ -	28	$ -
									$ 26,775.55	$ 749,715.53		$ 26,775.55
V::C48	**S1-C48 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-** **Total structure count:**		**16**	**EA**			**$ 413,733.17**		**$ 25,858.32**	**$ 2,793.12**	**$ 28,651.44**	**$ 44,689.92**
	S1-C48 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type E1 (surface rock)											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) =	Steel Weight (lb)	Grout (l)	Rebar (kg)	Excavation (m3)	BackFill Vol(m3)	#Anchor Holes	Hole Depth (m)	Hole Dia. (mm)			
	2.43	4794	165.9	124.3	224.6	222.2	10.00	5.0	57.0			
	Haul	Foundation Haul		each	16	17	3.00	$ 441.04	$ 1,321.96	$ 21,151.29	16	$ 1,321.96
	Excavate	Found Excavation		each	16	19	3.00	$ 1,143.76	$ 3,426.56	$ 54,824.96	16	$ 3,426.56
	Prepare Rock Surface	Found Excavation		each	16	19	3.50	$ 1,143.76	$ 4,003.16	$ 64,050.54	16	$ 4,003.16
	Rock drill Setup	Rock Foundations		each	16	36	1.00	$ 920.20	$ 920.20	$ 14,723.26	16	$ 920.20
	Install Footing, Form and Pour base	Concrete Foundations		each	16	24	10.80	$ 935.63	$ 10,106.32	$ 161,701.16	16	$ 10,106.32
	Backfill & Compact	Backfill and Compact		each	16	21	4.47	$ 959.25	$ 4,286.76	$ 68,588.19	16	$ 4,286.76
	Cleanup	Site Cleanup		each	16	22	2.00	$ 194.96	$ 389.92	$ 6,238.74	16	$ 389.92
	Heat and Hoard	Concrete Foundations		each	16	24	1.50	$ 935.63	$ 1,403.44	$ 22,455.03	16	$ 1,403.44
				each	16			$ -	$ -	$ -	16	$ -
				each	16			$ -	$ -	$ -	16	$ -
				each	16			$ -	$ -	$ -	16	$ -
									$ 25,858.32	$ 413,733.17		$ 25,858.32

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description		Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C49	**S1-C49 Installation and Testing of 25M Mechanical Rock Anchor as per design** **Total structure count:**		**10443**		**LM**			**$ 1,975,845.36**		**$ 189.20**	**$ 23.48**	**$ 212.69**	**$ 245,237.77**
	S1-C49 Installation and Testing of 25M Mechanical Rock Anchor as per design drawings and technical specification												
	Grout (l) 2.6 / Grout (unit) 0.3				#Anchor Holes 1.00	Hole Depth (m) 1.0	Hole Dia. (mm) 50.0						
Drill and Install Rock Anchors	Rock Foundations	each	10443	36	0.14	$ 920.20	$ 130.14	$ 1,359,015.08	10443	$ 130.14			
Grout Anchor	Grout Crew	each	10443	23	0.15	$ 393.78	$ 59.07	$ 616,830.28	10443	$ 59.07			
		each	10443			$ -	$ -	$ -	10443	$ -			
		each	10443			$ -	$ -	$ -	10443	$ -			
		each	10443			$ -	$ -	$ -	10443	$ -			
		each	10443			$ -	$ -	$ -	10443	$ -			
		each	10443			$ -	$ -	$ -	10443	$ -			
		each	10443			$ -	$ -	$ -	10443	$ -			
		each	10443			$ -	$ -	$ -	10443	$ -			
		each	10443			$ -	$ -	$ -	10443	$ -			
							$ 189.20	$ 1,975,845.36		$ 189.20			
V::C50	**S1-C50 Installation and Testing of 29M Mechanical Rock Anchor as per design** **Total structure count:**		**618**		**LM**			**$ 122,372.72**		**$ 198.01**	**$ 30.52**	**$ 228.53**	**$ 18,860.81**
	S1-C50 Installation and Testing of 29M Mechanical Rock Anchor as per design drawings and technical specification												
	Grout (l) 3.3 / Grout (unit) 0.3				#Anchor Holes 1.00	Hole Depth (m) 1.0	Hole Dia. (mm) 57.0						
Drill and Install Rock Anchors	Rock Foundations	each	618	36	0.15	$ 920.20	$ 138.95	$ 85,869.69	618	$ 138.95			
Grout Anchor	Grout Crew	each	618	23	0.15	$ 393.78	$ 59.07	$ 36,503.03	618	$ 59.07			
		each	618			$ -	$ -	$ -	618	$ -			
		each	618			$ -	$ -	$ -	618	$ -			
		each	618			$ -	$ -	$ -	618	$ -			
		each	618			$ -	$ -	$ -	618	$ -			
		each	618			$ -	$ -	$ -	618	$ -			
		each	618			$ -	$ -	$ -	618	$ -			
		each	618			$ -	$ -	$ -	618	$ -			
		each	618			$ -	$ -	$ -	618	$ -			
							$ 198.01	$ 122,372.72		$ 198.01			
V::C51	**S1-C51 Installation and Testing of 32M Mechanical Rock Anchor as per design** **Total structure count:**		**0**		**LM**			**$ -**		**$ 214.99**	**$ 37.28**	**$ 252.27**	**$ -**
	S1-C51 Installation and Testing of 32M Mechanical Rock Anchor as per design drawings and technical specification												
	Grout (l) 4.1 / Grout (unit) 0.4				#Anchor Holes 1.00	Hole Depth (m) 1.0	Hole Dia. (mm) 63.0						
Drill and Install Rock Anchors	Rock Foundations	each	0	36	0.16	$ 920.20	$ 146.08	$ -	0	$ -			
Grout Anchor	Grout Crew	each	0	23	0.18	$ 393.78	$ 68.91	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 214.99	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C52	**S1-C52 Installation and Testing of 43M Mechanical Rock Anchor as per design** **Total structure count:**	**22944**		**LM**			**$ 5,339,865.46**		**$ 232.73**	**$ 46.03**	**$ 278.76**	**$ 1,056,056.83**
	S1-C52 Installation and Testing of 43M Mechanical Rock Anchor as per design drawings and technical specification											
	Grout (l) 5.0 / Grout (unit) 0.5			#Anchor Holes 1.00	Hole Depth (m) 1.0	Hole Dia. (mm) 70.0						
Drill and Install Rock Anchors	Rock Foundations	each	22944	36	0.17	$ 920.20	$ 153.98	$ 3,532,906.55	22944	$ 153.98		
Grout Anchor	Grout Crew	each	22944	23	0.20	$ 393.78	$ 78.76	$ 1,806,958.91	22944	$ 78.76		
		each	22944			$ -	$ -	$ -	22944	$ -		
		each	22944			$ -	$ -	$ -	22944	$ -		
		each	22944			$ -	$ -	$ -	22944	$ -		
		each	22944			$ -	$ -	$ -	22944	$ -		
		each	22944			$ -	$ -	$ -	22944	$ -		
		each	22944			$ -	$ -	$ -	22944	$ -		
		each	22944			$ -	$ -	$ -	22944	$ -		
		each	22944			$ -	$ -	$ -	22944	$ -		
							$ 232.73	$ 5,339,865.46		$ 232.73		
V::C53	**S1-C53 Installation and Testing of 57M Mechanical Rock Anchor as per design** **Total structure count:**	**296**		**LM**			**$ 75,855.53**		**$ 256.27**	**$ 64.71**	**$ 320.98**	**$ 19,154.46**
	S1-C53 Installation and Testing of 57M Mechanical Rock Anchor as per design drawings and technical specification											
	Grout (l) 7.0 / Grout (unit) 0.6			#Anchor Holes 1.00	Hole Depth (m) 1.0	Hole Dia. (mm) 83.0						
Drill and Install Rock Anchors	Rock Foundations	each	296	36	0.18	$ 920.20	$ 167.67	$ 49,630.05	296	$ 167.67		
Grout Anchor	Grout Crew	each	296	23	0.23	$ 393.78	$ 88.60	$ 26,225.48	296	$ 88.60		
		each	296			$ -	$ -	$ -	296	$ -		
		each	296			$ -	$ -	$ -	296	$ -		
		each	296			$ -	$ -	$ -	296	$ -		
		each	296			$ -	$ -	$ -	296	$ -		
		each	296			$ -	$ -	$ -	296	$ -		
		each	296			$ -	$ -	$ -	296	$ -		
		each	296			$ -	$ -	$ -	296	$ -		
		each	296			$ -	$ -	$ -	296	$ -		
							$ 256.27	$ 75,855.53		$ 256.27		
		381	199.0958803									
V::C54	**S1-C54 Installation and Testing of 64M Mechanical Rock Anchor as per design** **Total structure count:**	**40**		**LM**			**$ 10,921.61**		**$ 273.04**	**$ 76.09**	**$ 349.13**	**$ 3,043.46**
	S1-C54 Installation and Testing of 64M Mechanical Rock Anchor as per design drawings and technical specification											
	Grout (l) 8.3 / Grout (unit) 0.7			#Anchor Holes 1.00	Hole Depth (m) 1.0	Hole Dia. (mm) 90.0						
Drill and Install Rock Anchors	Rock Foundations	each	40	36	0.19	$ 920.20	$ 174.60	$ 6,983.86	40	$ 174.60		
Grout Anchor	Grout Crew	each	40	23	0.25	$ 393.78	$ 98.44	$ 3,937.76	40	$ 98.44		
		each	40			$ -	$ -	$ -	40	$ -		
		each	40			$ -	$ -	$ -	40	$ -		
		each	40			$ -	$ -	$ -	40	$ -		
		each	40			$ -	$ -	$ -	40	$ -		
		each	40			$ -	$ -	$ -	40	$ -		
		each	40			$ -	$ -	$ -	40	$ -		
		each	40			$ -	$ -	$ -	40	$ -		
		each	40			$ -	$ -	$ -	40	$ -		
							$ 273.04	$ 10,921.61		$ 273.04		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H11	**H-Pile Foundations**												
V::C55	**S1-C55 Design, Assembly and Installation of Foundation Type A1-3 as per Dwg Total structure count:**			**7**		**EA**		$ 16,473.78		$ 2,353.40	$ 44,266.30	$ 46,619.70	$ 309,864.12
	S1-C55 Design, Assembly and Installation of Foundation Type A1-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A1 including supply and installation of steep cap.												
	Site Preparation (Site Preparation)	each	7	2	2.00	$ 675.12	$ 1,350.24	$ 9,451.71	7	$ 1,350.24			
	supervisor (Supervisory)	each	7	29	6.00	$ 167.19	$ 1,003.15	$ 7,022.07	7	$ 1,003.15			
		each	7			$ -	$ -	$ -	7	$ -			
		each	7			$ -	$ -	$ -	7	$ -			
		each	7			$ -	$ -	$ -	7	$ -			
							$ 2,353.40	$ 16,473.78		$ 2,353.40			
V::C56	**S1-C56 Design, Assembly and Installation of Foundation Type A2-3 as per Dwg Total structure count:**			**3**		**EA**		**$ 7,060.19**		$ 2,353.40	$ 44,266.30	$ 46,619.70	$ 132,798.91
	S1-C56 Design, Assembly and Installation of Foundation Type A2-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A2 including supply and installation of steep cap.												
	Site Preparation (Site Preparation)	each	3	2	2.00	$ 675.12	$ 1,350.24	$ 4,050.73	3	$ 1,350.24			
	supervisor (Supervisory)	each	3	29	6.00	$ 167.19	$ 1,003.15	$ 3,009.46	3	$ 1,003.15			
		each	3			$ -	$ -	$ -	3	$ -			
		each	3			$ -	$ -	$ -	3	$ -			
		each	3			$ -	$ -	$ -	3	$ -			
		each	3			$ -	$ -	$ -	3	$ -			
		each	3			$ -	$ -	$ -	3	$ -			
							$ 2,353.40	$ 7,060.19		$ 2,353.40			
V::C57	**S1-C57 Design, Assembly and Installation of Foundation Type A3-3 as per Dwg Total structure count:**			**0**		**EA**		**$ -**		$ 2,353.40	$ 44,266.30	$ 46,619.70	$ -
	S1-C57 Design, Assembly and Installation of Foundation Type A3-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A3 including supply and installation of steep cap.												
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	supervisor (Supervisory)	each	0	29	6.00	$ 167.19	$ 1,003.15	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 2,353.40	$ -		$ -			
V::C58	**S1-C58 Design, Assembly and Installation of Foundation Type A4-3 as per Dwg Total structure count:**			**0**		**EA**		**$ -**		$ 2,353.40	$ 44,266.30	$ 46,619.70	$ -
	S1-C58 Design, Assembly and Installation of Foundation Type A4-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A4 including supply and installation of steep cap.												
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	supervisor (Supervisory)	each	0	29	6.00	$ 167.19	$ 1,003.15	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 2,353.40	$ -		$ -			
V::C59	**S1-C59 Design, Assembly and Installation of Foundation Type B1-3 as per Dwg Total structure count:**			**0**		**EA**		**$ -**		$ 2,353.40	$ 44,266.30	$ 46,619.70	$ -
	S1-C59 Design, Assembly and Installation of Foundation Type B1-3 as per Dwg 505573-4622-42DD-0037 for Tower Type B1 including supply and installation of steep cap.												
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	supervisor (Supervisory)	each	0	29	6.00	$ 167.19	$ 1,003.15	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units / Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
						$ 2,353.40	$ -		$ -			
V::C60	**S1-C60 Design, Assembly and Installation of Foundation Type B2-3 as per Dwg** **Total structure count:**		**0**	**EA**			$ -		**$ 5,362.85**	**$ 208,457.28**	**$ 213,820.13**	**$ -**
	S1-C60 Design, Assembly and Installation of Foundation Type B2-3 as per Dwg 505573-4622-42DD-0046 for Tower Type B2 including supply and installation of steep cap.											
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	supervisor (Supervisory)	each	0	29	24.00	$ 167.19	$ 4,012.61	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
						$ 5,362.85	$ -		$ -			
V::C61	**S1-C61 Design, Assembly and Installation of Foundation Type C1-3 as per Dwg** **Total structure count:**		**0**	**EA**			$ -		**$ 5,362.85**	**$ 208,457.28**	**$ 213,820.13**	**$ -**
	S1-C61 Design, Assembly and Installation of Foundation Type C1-3 as per Dwg 505573-4622-42DD-0046 for Tower Type C1 including supply and installation of steel cap.											
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	supervisor (Supervisory)	each	0	29	24.00	$ 167.19	$ 4,012.61	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
						$ 5,362.85	$ -		$ -			
V::C62	**S1-C62 Design, Assembly and Installation of Foundation Type C2-3 as per Dwg** **Total structure count:**		**0**	**EA**			**$ -**		**$ 5,362.85**	**$ 208,457.28**	**$ 213,820.13**	**$ -**
	S1-C62 Design, Assembly and Installation of Foundation Type C2-3 as per Dwg 505573-4622-42DD-0046 for Tower Type C2 including supply and installation of steel cap.											
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	supervisor (Supervisory)	each	0	29	24.00	$ 167.19	$ 4,012.61	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
						$ 5,362.85	$ -		$ -			
V::C63	**S1-C63 Design, Assembly and Installation of Foundation Type D1-3 per Dwg** **Total structure count:**		**0**	**EA**			**$ -**		**$ 5,362.85**	**$ 208,457.28**	**$ 213,820.13**	**$ -**
	S1-C63 Design, Assembly and Installation of Foundation Type D1-3 per Dwg 505573-4622-42DD-0046 for Tower Type D1 including supply and installation of steel cap.											
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	supervisor (Supervisory)	each	0	29	24.00	$ 167.19	$ 4,012.61	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
						$ 5,362.85	$ -		$ -			
V::C64	**S1-C64 Design, Assembly and Installation of Foundation Type D2-3 as per Dwg** **Total structure count:**		**4**	**EA**			**$ 21,451.42**		**$ 5,362.85**	**$ 208,457.28**	**$ 213,820.13**	**$ 833,829.12**
	S1-C64 Design, Assembly and Installation of Foundation Type D2-3 as per Dwg 505573-4622-42DD-0046 for Tower Type D2 including supply and installation of steel cap.											
	Site Preparation (Site Preparation)	each	4	2	2.00	$ 675.12	$ 1,350.24	$ 5,400.98	4	$ 1,350.24		
	supervisor (Supervisory)	each	4	29	24.00	$ 167.19	$ 4,012.61	$ 16,050.44	4	$ 4,012.61		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
						$ 5,362.85	$ 21,451.42		$ 5,362.85			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units / Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C65	**S1-C65 Design, Assembly and Installation of Foundation Type E1-3 as per Dwg** **Total structure count:**		**0**	**EA**			$ -		$ 5,362.85	$ 208,457.28	$ 213,820.13	$ -
	S1-C65 Design, Assembly and Installation of Foundation Type E1-3 as per Dwg 505573-4622-42DD-0046 for Tower Type E1 including supply and installation of steel cap.											
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	supervisor (Supervisory)	each	0	29	24.00	$ 167.19	$ 4,012.61	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
							$ 5,362.85	$ -		$ -		
V::C66	**S1-C66 Rock anchor to be installed with S1-C60 to S1-C65 item above as per** **Total structure count:**		**240**	**LM**			$ -		$ -	$ 468.58	$ 468.58	$ 112,460.18
	S1-C66 Rock anchor to be installed with S1-C60 to S1-C65 item above as per the design drawings and technical specifications (length in bog not considered)											
		each	240			$ -	$ -	$ -	240	$ -		
		each	240			$ -	$ -	$ -	240	$ -		
		each	240			$ -	$ -	$ -	240	$ -		
		each	240			$ -	$ -	$ -	240	$ -		
		each	240			$ -	$ -	$ -	240	$ -		
		each	240			$ -	$ -	$ -	240	$ -		
		each	240			$ -	$ -	$ -	240	$ -		
		each	240			$ -	$ -	$ -	240	$ -		
		each	240			$ -	$ -	$ -	240	$ -		
							$ -	$ -		$ -		
V::C67	**S1-C67 Supply, and installation of H-Piles, HP 360 x 108, Grade 350AT** **Total structure count:**		**1680**	**LM**			$ -		$ -	$ 580.69	$ 580.69	$ 975,558.09
	S1-C67 Supply, and installation of H-Piles, HP 360 x 108, Grade 350AT											
		each	1680			$ -	$ -	$ -	1680	$ -		
		each	1680			$ -	$ -	$ -	1680	$ -		
		each	1680			$ -	$ -	$ -	1680	$ -		
		each	1680			$ -	$ -	$ -	1680	$ -		
		each	1680			$ -	$ -	$ -	1680	$ -		
		each	1680			$ -	$ -	$ -	1680	$ -		
		each	1680			$ -	$ -	$ -	1680	$ -		
		each	1680			$ -	$ -	$ -	1680	$ -		
		each	1680			$ -	$ -	$ -	1680	$ -		
							$ -	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description		Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H12	**Bog and Poor Soil**												
V::C68	**S1-C68 Supply and Installation of Cribs for excavation protection of tower**	**Total structure count:**	**10000**		**M2**			$ 4,422,186.67		$ 442.22	$ 254.37	$ 696.59	$ 2,543,685.00
	S1-C68 Supply and Installation of Cribs for excavation protection of tower types A1, A2, A3, A4, B1, B2, C1, C2, D1, D2, E1 for any type of Foundation as per Dwg 505573-4622-42DD-0069 and												
	Hauling (Hauling)	each	10000	1	0.30	$ 441.04	$ 132.31	$ 1,323,125.95	10000	$ 132.31			
	Assembly (Grillage Installation)	each	10000	20	0.13	$ 1,002.72	$ 125.34	$ 1,253,398.19	10000	$ 125.34			
	Installation (Grillage Installation)	each	10000	20	0.05	$ 1,002.72	$ 50.14	$ 501,359.28	10000	$ 50.14			
	extra excavation and De-watering (Found Excavation)	each	10000	19	0.10	$ 1,143.76	$ 114.38	$ 1,143,759.55	10000	$ 114.38			
	Remove Top section (Grillage Installation)	each	10000	20	0.02	$ 1,002.72	$ 20.05	$ 200,543.71	10000	$ 20.05			
							$ 442.22	$ 4,422,186.67		$ 442.22			
V-H13	**Earthwork**												
V::C69	**S1-C69 Transportation of native backfill**	**Total structure count:**	**2000**		**KM**			$ 98,009.33		$ 49.00	$ -	$ 49.00	$ -
	S1-C69 Transportation of native backfill												
	Hauling (Foundation Haul)	each	2000	17	0.11	$ 441.04	$ 49.00	$ 98,009.33	2000	$ 49.00			
		each	2000			$ -	$ -	$ -	2000	$ -			
		each	2000			$ -	$ -	$ -	2000	$ -			
		each	2000			$ -	$ -	$ -	2000	$ -			
		each	2000			$ -	$ -	$ -	2000	$ -			
		each	2000			$ -	$ -	$ -	2000	$ -			
		each	2000			$ -	$ -	$ -	2000	$ -			
		each	2000			$ -	$ -	$ -	2000	$ -			
		each	2000			$ -	$ -	$ -	2000	$ -			
							$ 49.00	$ 98,009.33		$ 49.00			
V::C70	**S1-C70 Supply and transportation of approved fill from an alternate**	**Total structure count:**	**20000**		**M3 * KM**			$ 537,408.38		$ 26.87	$ 106.61	$ 133.48	$ 2,132,100.00
	S1-C70 Supply and transportation of approved fill from an alternate source/processed material/road gravel												
	Hauling (Camp Haul)	each	20000	46	0.11	$ 241.83	$ 26.87	$ 537,408.38	20000	$ 26.87			
		each	20000			$ -	$ -	$ -	20000	$ -			
		each	20000			$ -	$ -	$ -	20000	$ -			
		each	20000			$ -	$ -	$ -	20000	$ -			
		each	20000			$ -	$ -	$ -	20000	$ -			
		each	20000			$ -	$ -	$ -	20000	$ -			
		each	20000			$ -	$ -	$ -	20000	$ -			
		each	20000			$ -	$ -	$ -	20000	$ -			
		each	20000			$ -	$ -	$ -	20000	$ -			
							$ 26.87	$ 537,408.38		$ 26.87			
V::C71	**S1-C71 Rock blasting/preparation**	**Total structure count:**	**1100**		**M3**			$ 1,258,135.51		$ 1,143.76	$ -	$ 1,143.76	$ -
	S1-C71 Rock blasting/preparation												
	Site Prep (Found Excavation)	each	1100	19	1.00	$ 1,143.76	$ 1,143.76	$ 1,258,135.51	1100	$ 1,143.76			
		each	1100			$ -	$ -	$ -	1100	$ -			
		each	1100			$ -	$ -	$ -	1100	$ -			
		each	1100			$ -	$ -	$ -	1100	$ -			
		each	1100			$ -	$ -	$ -	1100	$ -			
		each	1100			$ -	$ -	$ -	1100	$ -			
		each	1100			$ -	$ -	$ -	1100	$ -			
		each	1100			$ -	$ -	$ -	1100	$ -			
		each	1100			$ -	$ -	$ -	1100	$ -			
							$ 1,143.76	$ 1,258,135.51		$ 1,143.76			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H14	**S1-D Tower Assembly and Erection (S1-Dx)**		**Tower Setting Ratio**	**0.00**	**Helicopter**		**100% Crane**					
V-H15	**Assembly and Erection of Suspension Tower Type "A1"**											
V::D01	**S1-D1 Assembly and Erection of Suspension Tower Type "A1 + 0" as per dwg.** **Total structure count:**		**40**	**EA**			**$ 1,870,163.33**		**$ 46,754.08**	**$ -**	**$ 46,754.08**	**$ -**
	S1-D1 Assembly and Erection of Suspension Tower Type "A1 + 0" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 14925 Total Tower Height(ft) = 123 Section Weight (lb) = 13999											
	Site Preparation (Site Preparation)	each	40	2	2.00	$ 675.12	$ 1,350.24	$ 54,009.80	40	$ 1,350.24		
	Haul (Hauling)	each	40	1	7.37	$ 441.04	$ 3,250.98	$ 130,039.05	40	$ 3,250.98		
	Setup Blocks (Blocking Crew)	each	40	3	2.00	$ 281.84	$ 563.68	$ 22,547.38	40	$ 563.68		
	Assemble Tower (Lattice Assembly)	each	40	4	24.00	$ 1,183.92	$ 28,410.51	$ 1,136,420.39	40	$ 28,410.51		
	Install Guy Strand (Guy Install)	each	40	39	2.00	$ 1,258.65	$ 2,517.30	$ 100,691.98	40	$ 2,517.30		
	Helicopter Set (HL Helicopter)	each	40	27	0.00	$ 21,899.72	$ -	$ -	40	$ -		
	Crane Set (Y- Tower Erection)	each	40	40	2.50	$ 1,482.09	$ 3,705.24	$ 148,209.41	40	$ 3,705.24		
	Plumb Tower (Tower Plumb)	each	40	41	2.00	$ 913.00	$ 1,826.00	$ 73,040.12	40	$ 1,826.00		
	haul Insulators and Travellers (Haul Travellers&Glass)	each	40	7	2.00	$ 636.64	$ 1,273.27	$ 50,930.99	40	$ 1,273.27		
	Hang Travellers (Hang Travellers)	each	40	8	1.50	$ 1,444.07	$ 2,166.10	$ 86,644.02	40	$ 2,166.10		
	Tie -in (Tie -in)	each	40	12	2.50	$ 676.30	$ 1,690.75	$ 67,630.18	40	$ 1,690.75		
	Total Cost = $ 2.877	per pound					$ 46,754.08	$ 1,870,163.33		$ 46,754.08		
V::D02	**S1-D2 Assembly and Erection of Suspension Tower Type "A1 + 1.5" as per** **Total structure count:**		**29**	**EA**			**$ 1,386,378.12**		**$ 47,806.14**	**$ -**	**$ 47,806.14**	**$ -**
	S1-D2 Assembly and Erection of Suspension Tower Type "A1 + 1.5" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 15440 Total Tower Height(ft) = 128 Section Weight (lb) = 14465											
	Site Preparation (Site Preparation)	each	29	2	2.00	$ 675.12	$ 1,350.24	$ 39,157.10	29	$ 1,350.24		
	Haul (Hauling)	each	29	1	7.62	$ 441.04	$ 3,359.00	$ 97,411.03	29	$ 3,359.00		
	Setup Blocks (Blocking Crew)	each	29	3	2.00	$ 281.84	$ 563.68	$ 16,346.85	29	$ 563.68		
	Assemble Tower (Lattice Assembly)	each	29	4	24.79	$ 1,183.92	$ 29,354.54	$ 851,281.78	29	$ 29,354.54		
	Install Guy Strand (Guy Install)	each	29	39	2.00	$ 1,258.65	$ 2,517.30	$ 73,001.69	29	$ 2,517.30		
	Helicopter Set (HL Helicopter)	each	29	27	0.00	$ 21,899.72	$ -	$ -	29	$ -		
	Crane Set (Y- Tower Erection)	each	29	40	2.50	$ 1,482.09	$ 3,705.24	$ 107,451.82	29	$ 3,705.24		
	Plumb Tower (Tower Plumb)	each	29	41	2.00	$ 913.00	$ 1,826.00	$ 52,954.09	29	$ 1,826.00		
	haul Insulators and Travellers (Haul Travellers&Glass)	each	29	7	2.00	$ 636.64	$ 1,273.27	$ 36,924.97	29	$ 1,273.27		
	Hang Travellers (Hang Travellers)	each	29	8	1.50	$ 1,444.07	$ 2,166.10	$ 62,816.91	29	$ 2,166.10		
	Tie -in (Tie -in)	each	29	12	2.50	$ 676.30	$ 1,690.75	$ 49,031.88	29	$ 1,690.75		
	Total Cost = $ 2.857	per pound				$ -	$ -	$ -	29	$ -		
							$ 47,806.14	$ 1,386,378.12		$ 47,806.14		
V::D03	**S1-D3 Assembly and Erection of Suspension Tower Type "A1 + 3" as per dwg.** **Total structure count:**		**46**	**EA**			**$ 2,226,376.23**		**$ 48,399.48**	**$ -**	**$ 48,399.48**	**$ -**
	S1-D3 Assembly and Erection of Suspension Tower Type "A1 + 3" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 15753 Total Tower Height(ft) = 133 Section Weight (lb) = 14727											
	Site Preparation (Site Preparation)	each	46	2	2.00	$ 675.12	$ 1,350.24	$ 62,111.27	46	$ 1,350.24		
	Haul (Hauling)	each	46	1	7.75	$ 441.04	$ 3,419.92	$ 157,316.54	46	$ 3,419.92		
	Setup Blocks (Blocking Crew)	each	46	3	2.00	$ 281.84	$ 563.68	$ 25,929.49	46	$ 563.68		
	Assemble Tower (Lattice Assembly)	each	46	4	25.24	$ 1,183.92	$ 29,886.96	$ 1,374,800.23	46	$ 29,886.96		
	Install Guy Strand (Guy Install)	each	46	39	2.00	$ 1,258.65	$ 2,517.30	$ 115,795.78	46	$ 2,517.30		
	Helicopter Set (HL Helicopter)	each	46	27	0.00	$ 21,899.72	$ -	$ -	46	$ -		
	Crane Set (Y- Tower Erection)	each	46	40	2.50	$ 1,482.09	$ 3,705.24	$ 170,440.82	46	$ 3,705.24		
	Plumb Tower (Tower Plumb)	each	46	41	2.00	$ 913.00	$ 1,826.00	$ 83,996.14	46	$ 1,826.00		
	haul Insulators and Travellers (Haul Travellers&Glass)	each	46	7	2.00	$ 636.64	$ 1,273.27	$ 58,570.64	46	$ 1,273.27		
	Hang Travellers (Hang Travellers)	each	46	8	1.50	$ 1,444.07	$ 2,166.10	$ 99,640.62	46	$ 2,166.10		
	Tie -in (Tie -in)	each	46	12	2.50	$ 676.30	$ 1,690.75	$ 77,774.70	46	$ 1,690.75		
	Total Cost = $ 2.938	per pound				$ -	$ -	$ -	46	$ -		
							$ 48,399.48	$ 2,226,376.23		$ 48,399.48		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D04	**S1-D4 Assembly and Erection of Suspension Tower Type "A1 + 4.5" as per**	**Total structure count:**	**31**	**EA**				**$ 1,532,997.81**		**$ 49,451.54**	**$ -**	**$ 49,451.54**	**$ -**
	S1-D4 Assembly and Erection of Suspension Tower Type "A1 + 4.5" as per dwg. 505573-4622-43DD-0042												
	Total Tower Weight With Guys and Ext. (lb) = 16268	Total Tower Height(ft) = 138	Section Weight (lb) = 15192										
	Site Preparation	Site Preparation	each	31	2	2.00	$ 675.12	$ 1,350.24	$ 41,857.59	31	$ 1,350.24		
	Haul	Hauling	each	31	1	8.00	$ 441.04	$ 3,527.95	$ 109,366.43	31	$ 3,527.95		
	Setup Blocks	Blocking Crew	each	31	3	2.00	$ 281.84	$ 563.68	$ 17,474.22	31	$ 563.68		
	Assemble Tower	Lattice Assembly	each	31	4	26.04	$ 1,183.92	$ 30,831.00	$ 955,760.87	31	$ 30,831.00		
	Install Guy Strand	Guy Install	each	31	39	2.00	$ 1,258.65	$ 2,517.30	$ 78,036.29	31	$ 2,517.30		
	Helicopter Set	HL Helicopter	each	31	27	0.00	$ 21,899.72	$ -	$ -	31	$ -		
	Crane Set	Y- Tower Erection	each	31	40	2.50	$ 1,482.09	$ 3,705.24	$ 114,862.29	31	$ 3,705.24		
	Plumb Tower	Tower Plumb	each	31	41	2.00	$ 913.00	$ 1,826.00	$ 56,606.09	31	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	31	7	2.00	$ 636.64	$ 1,273.27	$ 39,471.52	31	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	31	8	1.50	$ 1,444.07	$ 2,166.10	$ 67,149.11	31	$ 2,166.10		
	Tie -in	Tie -in	each	31	12	2.50	$ 676.30	$ 1,690.75	$ 52,413.39	31	$ 1,690.75		
	Total Cost = $ 2.917		per pound				$ -	$ -	$ -	31	$ -		
								$ 49,451.54	$ 1,532,997.81		$ 49,451.54		
V::D05	**S1-D5 Assembly and Erection of Suspension Tower Type "A1 + 6" as per dwg.**	**Total structure count:**	**138**	**EA**				**$ 6,849,083.56**		**$ 49,631.04**	**$ -**	**$ 49,631.04**	**$ -**
	S1-D5 Assembly and Erection of Suspension Tower Type "A1 + 6" as per dwg. 505573-4622-43DD-0042												
	Total Tower Weight With Guys and Ext. (lb) = 16398	Total Tower Height(ft) = 143	Section Weight (lb) = 15272										
	Site Preparation	Site Preparation	each	138	2	2.00	$ 675.12	$ 1,350.24	$ 186,333.80	138	$ 1,350.24		
	Haul	Hauling	each	138	1	8.04	$ 441.04	$ 3,546.38	$ 489,400.45	138	$ 3,546.38		
	Setup Blocks	Blocking Crew	each	138	3	2.00	$ 281.84	$ 563.68	$ 77,788.47	138	$ 563.68		
	Assemble Tower	Lattice Assembly	each	138	4	26.18	$ 1,183.92	$ 30,992.06	$ 4,276,904.73	138	$ 30,992.06		
	Install Guy Strand	Guy Install	each	138	39	2.00	$ 1,258.65	$ 2,517.30	$ 347,387.34	138	$ 2,517.30		
	Helicopter Set	HL Helicopter	each	138	27	0.00	$ 21,899.72	$ -	$ -	138	$ -		
	Crane Set	Y- Tower Erection	each	138	40	2.50	$ 1,482.09	$ 3,705.24	$ 511,322.47	138	$ 3,705.24		
	Plumb Tower	Tower Plumb	each	138	41	2.00	$ 913.00	$ 1,826.00	$ 251,988.42	138	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	138	7	2.00	$ 636.64	$ 1,273.27	$ 175,711.92	138	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	138	8	1.50	$ 1,444.07	$ 2,166.10	$ 298,921.86	138	$ 2,166.10		
	Tie -in	Tie -in	each	138	12	2.50	$ 676.30	$ 1,690.75	$ 233,324.11	138	$ 1,690.75		
	Total Cost = $ 2.914		per pound				$ -	$ -	$ -	138	$ -		
								$ 49,631.04	$ 6,849,083.56		$ 49,631.04		
V::D06	**S1-D6 Assembly and Erection of Suspension Tower Type "A1 + 7.5" as per**	**Total structure count:**	**79**	**EA**				**$ 3,977,573.61**		**$ 50,349.03**	**$ -**	**$ 50,349.03**	**$ -**
	S1-D6 Assembly and Erection of Suspension Tower Type "A1 + 7.5" as per dwg. 505573-4622-43DD-0042												
	Total Tower Weight With Guys and Ext. (lb) = 16766	Total Tower Height(ft) = 148	Section Weight (lb) = 15589										
	Site Preparation	Site Preparation	each	79	2	2.00	$ 675.12	$ 1,350.24	$ 106,669.35	79	$ 1,350.24		
	Haul	Hauling	each	79	1	8.21	$ 441.04	$ 3,620.10	$ 285,988.13	79	$ 3,620.10		
	Setup Blocks	Blocking Crew	each	79	3	2.00	$ 281.84	$ 563.68	$ 44,531.08	79	$ 563.68		
	Assemble Tower	Lattice Assembly	each	79	4	26.72	$ 1,183.92	$ 31,636.33	$ 2,499,270.32	79	$ 31,636.33		
	Install Guy Strand	Guy Install	each	79	39	2.00	$ 1,258.65	$ 2,517.30	$ 198,866.66	79	$ 2,517.30		
	Helicopter Set	HL Helicopter	each	79	27	0.00	$ 21,899.72	$ -	$ -	79	$ -		
	Crane Set	Y- Tower Erection	each	79	40	2.50	$ 1,482.09	$ 3,705.24	$ 292,713.59	79	$ 3,705.24		
	Plumb Tower	Tower Plumb	each	79	41	2.00	$ 913.00	$ 1,826.00	$ 144,254.24	79	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	79	7	2.00	$ 636.64	$ 1,273.27	$ 100,588.71	79	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	79	8	1.50	$ 1,444.07	$ 2,166.10	$ 171,121.93	79	$ 2,166.10		
	Tie -in	Tie -in	each	79	12	2.50	$ 676.30	$ 1,690.75	$ 133,569.60	79	$ 1,690.75		
			each	79			$ -	$ -	$ -	79	$ -		
	Total Cost = $ 2.901		per pound					$ 50,349.03	$ 3,977,573.61		$ 50,349.03		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D07	**S1-D7 Assembly and Erection of Suspension Tower Type "A1 + 9" as per dwg. Total structure count:**			**116**	**EA**			**$ 5,905,845.12**		**$ 50,912.46**	**$ -**	**$ 50,912.46**	**$ -**
	S1-D7 Assembly and Erection of Suspension Tower Type "A1 + 9" as per dwg. 505573-4622-43DD-0042												
	Total Tower Weight With Guys and Ext. (lb) = 17066	Total Tower Height(ft) = 153	Section Weight (lb) = 15838										
	Site Preparation	Site Preparation	each	116	2	2.00	$ 675.12	$ 1,350.24	$ 156,628.41	116	$ 1,350.24		
	Haul	Hauling	each	116	1	8.34	$ 441.04	$ 3,677.95	$ 426,642.78	116	$ 3,677.95		
	Setup Blocks	Blocking Crew	each	116	3	2.00	$ 281.84	$ 563.68	$ 65,387.41	116	$ 563.68		
	Assemble Tower	Lattice Assembly	each	116	4	27.15	$ 1,183.92	$ 32,141.91	$ 3,728,461.09	116	$ 32,141.91		
	Install Guy Strand	Guy Install	each	116	39	2.00	$ 1,258.65	$ 2,517.30	$ 292,006.75	116	$ 2,517.30		
	Helicopter Set	HL Helicopter	each	116	27	0.00	$ 21,899.72	$ -	$ -	116	$ -		
	Crane Set	Y- Tower Erection	each	116	40	2.50	$ 1,482.09	$ 3,705.24	$ 429,807.30	116	$ 3,705.24		
	Plumb Tower	Tower Plumb	each	116	41	2.00	$ 913.00	$ 1,826.00	$ 211,816.35	116	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	116	7	2.00	$ 636.64	$ 1,273.27	$ 147,699.87	116	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	116	8	1.50	$ 1,444.07	$ 2,166.10	$ 251,267.65	116	$ 2,166.10		
	Tie -in	Tie -in	each	116	12	2.50	$ 676.30	$ 1,690.75	$ 196,127.51	116	$ 1,690.75		
			each	116			$ -	$ -	$ -	116	$ -		
			each	116			$ -	$ -	$ -	116	$ -		
	Total Cost = $ 2.891		per pound					$ 50,912.46	$ 5,905,845.12		$ 50,912.46		
V::D08	**S1-D8 Assembly and Erection of Suspension Tower Type "A1 + 10.5" as per Total structure count:**			**77**	**EA**			**$ 4,003,571.35**		**$ 51,994.43**	**$ -**	**$ 51,994.43**	**$ -**
	S1-D8 Assembly and Erection of Suspension Tower Type "A1 + 10.5" as per dwg. 505573-4622-43DD-0042												
	Total Tower Weight With Guys and Ext. (lb) = 17594	Total Tower Height(ft) = 158	Section Weight (lb) = 16316										
	Site Preparation	Site Preparation	each	77	2	2.00	$ 675.12	$ 1,350.24	$ 103,968.86	77	$ 1,350.24		
	Haul	Hauling	each	77	1	8.59	$ 441.04	$ 3,789.05	$ 291,756.95	77	$ 3,789.05		
	Setup Blocks	Blocking Crew	each	77	3	2.00	$ 281.84	$ 563.68	$ 43,403.71	77	$ 563.68		
	Assemble Tower	Lattice Assembly	each	77	4	27.97	$ 1,183.92	$ 33,112.78	$ 2,549,684.43	77	$ 33,112.78		
	Install Guy Strand	Guy Install	each	77	39	2.00	$ 1,258.65	$ 2,517.30	$ 193,832.06	77	$ 2,517.30		
	Helicopter Set	HL Helicopter	each	77	27	0.00	$ 21,899.72	$ -	$ -	77	$ -		
	Crane Set	Y- Tower Erection	each	77	40	2.50	$ 1,482.09	$ 3,705.24	$ 285,303.12	77	$ 3,705.24		
	Plumb Tower	Tower Plumb	each	77	41	2.00	$ 913.00	$ 1,826.00	$ 140,602.24	77	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	77	7	2.00	$ 636.64	$ 1,273.27	$ 98,042.16	77	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	77	8	1.50	$ 1,444.07	$ 2,166.10	$ 166,789.73	77	$ 2,166.10		
	Tie -in	Tie -in	each	77	12	2.50	$ 676.30	$ 1,690.75	$ 130,188.09	77	$ 1,690.75		
			each	77			$ -	$ -	$ -	77	$ -		
	Total Cost = $ 2.872		per pound					$ 51,994.43	$ 4,003,571.35		$ 51,994.43		
V::D09	**S1-D9 Assembly and Erection of Suspension Tower Type "A1 + 12" as per Total structure count:**			**147**	**EA**			**$ 7,718,675.62**		**$ 52,508.00**	**$ -**	**$ 52,508.00**	**$ -**
	S1-D9 Assembly and Erection of Suspension Tower Type "A1 + 12" as per dwg. 505573-4622-43DD-0042												
	Total Tower Weight With Guys and Ext. (lb) = 17872	Total Tower Height(ft) = 163	Section Weight (lb) = 16544										
	Site Preparation	Site Preparation	each	147	2	2.00	$ 675.12	$ 1,350.24	$ 198,486.00	147	$ 1,350.24		
	Haul	Hauling	each	147	1	8.71	$ 441.04	$ 3,841.78	$ 564,742.21	147	$ 3,841.78		
	Setup Blocks	Blocking Crew	each	147	3	2.00	$ 281.84	$ 563.68	$ 82,861.63	147	$ 563.68		
	Assemble Tower	Lattice Assembly	each	147	4	28.36	$ 1,183.92	$ 33,573.62	$ 4,935,321.66	147	$ 33,573.62		
	Install Guy Strand	Guy Install	each	147	39	2.00	$ 1,258.65	$ 2,517.30	$ 370,043.03	147	$ 2,517.30		
	Helicopter Set	HL Helicopter	each	147	27	0.00	$ 21,899.72	$ -	$ -	147	$ -		
	Crane Set	Y- Tower Erection	each	147	40	2.50	$ 1,482.09	$ 3,705.24	$ 544,669.59	147	$ 3,705.24		
	Plumb Tower	Tower Plumb	each	147	41	2.00	$ 913.00	$ 1,826.00	$ 268,422.45	147	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	147	7	2.00	$ 636.64	$ 1,273.27	$ 187,171.39	147	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	147	8	1.50	$ 1,444.07	$ 2,166.10	$ 318,416.76	147	$ 2,166.10		
	Tie -in	Tie -in	each	147	12	2.50	$ 676.30	$ 1,690.75	$ 248,540.90	147	$ 1,690.75		
			each	147			$ -	$ -	$ -	147	$ -		
	Total Cost = $ 2.864		per pound					$ 52,508.00	$ 7,718,675.62		$ 52,508.00		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total		Crew No.	Crew Cost Hours per unit	 Hourly Rate	 Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D10	**S1-D10 Assembly and Erection of Suspension Tower Type "A1 + 13.5" as per**	**Total structure count:**		**0**	**EA**			$ -		$ 53,225.99	$ -	$ 53,225.99	$ -
	S1-D10 Assembly and Erection of Suspension Tower Type "A1 + 13.5" as per dwg. 505573-4622-43DD-0042												
	Total Tower Weight With Guys and Ext. (lb) = 18240	Total Tower Height(ft) =	168	Section Weight (lb) =	16861								
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	Hauling	each	0	1	8.88	$ 441.04	$ 3,915.51	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	Lattice Assembly	each	0	4	28.90	$ 1,183.92	$ 34,217.89	$ -	0	$ -		
	Install Guy Strand	Guy Install	each	0	39	2.00	$ 1,258.65	$ 2,517.30	$ -	0	$ -		
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	Y- Tower Erection	each	0	40	2.50	$ 1,482.09	$ 3,705.24	$ -	0	$ -		
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -		
	Tie -in	Tie -in	each	0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.852		per pound					$ 53,225.99	$ -		$ -		
V::D11	**S1-D11 Assembly and Erection of Suspension Tower Type "A1 + 15" as per**	**Total structure count:**		**0**	**EA**			$ -		$ 53,943.98	$ -	$ 53,943.98	$ -
	S1-D11 Assembly and Erection of Suspension Tower Type "A1 + 15" as per dwg. 505573-4622-43DD-0042												
	Total Tower Weight With Guys and Ext. (lb) = 18608	Total Tower Height(ft) =	172	Section Weight (lb) =	17179								
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	Hauling	each	0	1	9.05	$ 441.04	$ 3,989.23	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	Lattice Assembly	each	0	4	29.45	$ 1,183.92	$ 34,862.16	$ -	0	$ -		
	Install Guy Strand	Guy Install	each	0	39	2.00	$ 1,258.65	$ 2,517.30	$ -	0	$ -		
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	Y- Tower Erection	each	0	40	2.50	$ 1,482.09	$ 3,705.24	$ -	0	$ -		
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -		
	Tie -in	Tie -in	each	0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.842		per pound					$ 53,943.98	$ -		$ -		
V::D12	**S1-D12 Assembly and Erection of Suspension Tower Type "A1 + 16.5" as per**	**Total structure count:**		**0**	**EA**			$ -		$ 54,507.41	$ -	$ 54,507.41	$ -
	S1-D12 Assembly and Erection of Suspension Tower Type "A1 + 16.5" as per dwg. 505573-4622-43DD-0042												
	Total Tower Weight With Guys and Ext. (lb) = 18907	Total Tower Height(ft) =	177	Section Weight (lb) =	17428								
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	Hauling	each	0	1	9.18	$ 441.04	$ 4,047.08	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	Lattice Assembly	each	0	4	29.87	$ 1,183.92	$ 35,367.73	$ -	0	$ -		
	Install Guy Strand	Guy Install	each	0	39	2.00	$ 1,258.65	$ 2,517.30	$ -	0	$ -		
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	Y- Tower Erection	each	0	40	2.50	$ 1,482.09	$ 3,705.24	$ -	0	$ -		
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -		
	Tie -in	Tie -in	each	0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.833		per pound					$ 54,507.41	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D13	**S1-D13 Assembly and Erection of Suspension Tower Type "A1 + 18" as per** **Total structure count:**		**0**	**EA**			$ -		$ 55,075.82	$ -	$ 55,075.82	$ -
	S1-D13 Assembly and Erection of Suspension Tower Type "A1 + 18" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 19209 Total Tower Height(ft) = 182 Section Weight (lb) = 17679											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	9.31	$ 441.04	$ 4,105.45	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	30.30	$ 1,183.92	$ 35,877.78	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	2.00	$ 1,258.65	$ 2,517.30	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	2.50	$ 1,482.09	$ 3,705.24	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.825	per pound				$ 55,075.82	$ -		$ -			
V-H16	**Assembly and Erection of Suspension Tower Type "A2"** **Tower Setting Ratio** **0.00 Helicopter** **100% Crane**											
V::D14	**S1-D14 Assembly and Erection of Suspension Tower Type "A2 + 0" as per dwg. Total structure count:**		**0**	**EA**			$ -		$ 67,332.18	$ -	$ 67,332.18	$ -
	S1-D14 Assembly and Erection of Suspension Tower Type "A2 + 0" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 22259 Total Tower Height(ft) = 107 Section Weight (lb) = 20779											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	14.94	$ 441.04	$ 6,589.44	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	35.62	$ 1,183.92	$ 42,168.36	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.994	per pound				$ 67,332.18	$ -		$ -			
V::D15	**S1-D15 Assembly and Erection of Suspension Tower Type "A2 + 1.5" as per** **Total structure count:**		**0**	**EA**			$ -		$ 69,172.04	$ -	$ 69,172.04	$ -
	S1-D15 Assembly and Erection of Suspension Tower Type "A2 + 1.5" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 23188 Total Tower Height(ft) = 112 Section Weight (lb) = 21592											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	15.37	$ 441.04	$ 6,778.35	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	37.01	$ 1,183.92	$ 43,819.30	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.966	per pound				$ 69,172.04	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description		Units Total		Crew No.	Crew Cost Hours per unit	 Hourly Rate	 Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D16	**S1-D16 Assembly and Erection of Suspension Tower Type "A2 + 3" as per**		**Total structure count:**		**1**	**EA**			**$ 70,503.31**		**$ 70,503.31**	**$ -**	**$ 70,503.31**	**$ -**
	S1-D16 Assembly and Erection of Suspension Tower Type "A2 + 3" as per dwg. 505573-4622-43DD-0044													
	Total Tower Weight With Guys and Ext. (lb) = 23893	Total Tower Height(ft) =	116	Section Weight (lb) =	22181									
	Site Preparation	Site Preparation	each	1	2	2.00	$ 675.12	$ 1,350.24	$ 1,350.24	1	$ 1,350.24			
	Haul	Hauling	each	1	1	15.68	$ 441.04	$ 6,915.05	$ 6,915.05	1	$ 6,915.05			
	Setup Blocks	Blocking Crew	each	1	3	2.00	$ 281.84	$ 563.68	$ 563.68	1	$ 563.68			
	Assemble Tower	Lattice Assembly	each	1	4	38.02	$ 1,183.92	$ 45,013.88	$ 45,013.88	1	$ 45,013.88			
	Install Guy Strand	Guy Install	each	1	39	3.00	$ 1,258.65	$ 3,775.95	$ 3,775.95	1	$ 3,775.95			
	Helicopter Set	HL Helicopter	each	1	27	0.00	$ 21,899.72	$ -	$ -	1	$ -			
	Crane Set	Y- Tower Erection	each	1	40	4.00	$ 1,482.09	$ 5,928.38	$ 5,928.38	1	$ 5,928.38			
	Plumb Tower	Tower Plumb	each	1	41	2.00	$ 913.00	$ 1,826.00	$ 1,826.00	1	$ 1,826.00			
	haul Insulators and Travellers	Haul Travellers&Glass	each	1	7	2.00	$ 636.64	$ 1,273.27	$ 1,273.27	1	$ 1,273.27			
	Hang Travellers	Hang Travellers	each	1	8	1.50	$ 1,444.07	$ 2,166.10	$ 2,166.10	1	$ 2,166.10			
	Tie -in	Tie -in	each	1	12	2.50	$ 676.30	$ 1,690.75	$ 1,690.75	1	$ 1,690.75			
			each	1			$ -	$ -	$ -	1	$ -			
	Total Cost =	$ 2.947	per pound					$ 70,503.31	$ 70,503.31		$ 70,503.31			
V::D17	**S1-D17 Assembly and Erection of Suspension Tower Type "A2 + 4.5" as per**		**Total structure count:**		**30**	**EA**			**$ 2,170,444.69**		**$ 72,348.16**	**$ -**	**$ 72,348.16**	**$ -**
	S1-D17 Assembly and Erection of Suspension Tower Type "A2 + 4.5" as per dwg. 505573-4622-43DD-0044													
	Total Tower Weight With Guys and Ext. (lb) = 24825	Total Tower Height(ft) =	121	Section Weight (lb) =	22997									
	Site Preparation	Site Preparation	each	30	2	2.00	$ 675.12	$ 1,350.24	$ 40,507.35	30	$ 1,350.24			
	Haul	Hauling	each	30	1	16.11	$ 441.04	$ 7,104.47	$ 213,134.18	30	$ 7,104.47			
	Setup Blocks	Blocking Crew	each	30	3	2.00	$ 281.84	$ 563.68	$ 16,910.54	30	$ 563.68			
	Assemble Tower	Lattice Assembly	each	30	4	39.42	$ 1,183.92	$ 46,669.30	$ 1,400,078.87	30	$ 46,669.30			
	Install Guy Strand	Guy Install	each	30	39	3.00	$ 1,258.65	$ 3,775.95	$ 113,278.48	30	$ 3,775.95			
	Helicopter Set	HL Helicopter	each	30	27	0.00	$ 21,899.72	$ -	$ -	30	$ -			
	Crane Set	Y- Tower Erection	each	30	40	4.00	$ 1,482.09	$ 5,928.38	$ 177,851.29	30	$ 5,928.38			
	Plumb Tower	Tower Plumb	each	30	41	2.00	$ 913.00	$ 1,826.00	$ 54,780.09	30	$ 1,826.00			
	haul Insulators and Travellers	Haul Travellers&Glass	each	30	7	2.00	$ 636.64	$ 1,273.27	$ 38,198.24	30	$ 1,273.27			
	Hang Travellers	Hang Travellers	each	30	8	1.50	$ 1,444.07	$ 2,166.10	$ 64,983.01	30	$ 2,166.10			
	Tie -in	Tie -in	each	30	12	2.50	$ 676.30	$ 1,690.75	$ 50,722.63	30	$ 1,690.75			
			each	30			$ -	$ -	$ -	30	$ -			
	Total Cost =	$ 2.923	per pound					$ 72,348.16	$ 2,170,444.69		$ 72,348.16			
V::D18	**S1-D18 Assembly and Erection of Suspension Tower Type "A2 + 6" as per**		**Total structure count:**		**61**	**EA**			**$ 4,428,749.17**		**$ 72,602.45**	**$ -**	**$ 72,602.45**	**$ -**
	S1-D18 Assembly and Erection of Suspension Tower Type "A2 + 6" as per dwg. 505573-4622-43DD-0044													
	Total Tower Weight With Guys and Ext. (lb) = 25053	Total Tower Height(ft) =	126	Section Weight (lb) =	23109									
	Site Preparation	Site Preparation	each	61	2	2.00	$ 675.12	$ 1,350.24	$ 82,364.94	61	$ 1,350.24			
	Haul	Hauling	each	61	1	16.17	$ 441.04	$ 7,130.58	$ 434,965.55	61	$ 7,130.58			
	Setup Blocks	Blocking Crew	each	61	3	2.00	$ 281.84	$ 563.68	$ 34,384.76	61	$ 563.68			
	Assemble Tower	Lattice Assembly	each	61	4	39.61	$ 1,183.92	$ 46,897.47	$ 2,860,745.96	61	$ 46,897.47			
	Install Guy Strand	Guy Install	each	61	39	3.00	$ 1,258.65	$ 3,775.95	$ 230,332.91	61	$ 3,775.95			
	Helicopter Set	HL Helicopter	each	61	27	0.00	$ 21,899.72	$ -	$ -	61	$ -			
	Crane Set	Y- Tower Erection	each	61	40	4.00	$ 1,482.09	$ 5,928.38	$ 361,630.97	61	$ 5,928.38			
	Plumb Tower	Tower Plumb	each	61	41	2.00	$ 913.00	$ 1,826.00	$ 111,386.19	61	$ 1,826.00			
	haul Insulators and Travellers	Haul Travellers&Glass	each	61	7	2.00	$ 636.64	$ 1,273.27	$ 77,669.76	61	$ 1,273.27			
	Hang Travellers	Hang Travellers	each	61	8	1.50	$ 1,444.07	$ 2,166.10	$ 132,132.13	61	$ 2,166.10			
	Tie -in	Tie -in	each	61	12	2.50	$ 676.30	$ 1,690.75	$ 103,136.02	61	$ 1,690.75			
			each	61			$ -	$ -	$ -	61	$ -			
	Total Cost =	$ 2.920	per pound					$ 72,602.45	$ 4,428,749.17		$ 72,602.45			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D19	**S1-D19 Assembly and Erection of Suspension Tower Type "A2 + 7.5" as per**	**Total structure count:**		**76**	**EA**			**$ 5,662,162.23**		**$ 74,502.13**	**$ -**	**$ 74,502.13**	**$ -**
	S1-D19 Assembly and Erection of Suspension Tower Type "A2 + 7.5" as per dwg. 505573-4622-43DD-0044												
	Total Tower Weight With Guys and Ext. (lb) = 26009	Total Tower Height(ft) = 131	Section Weight (lb) = 23949										
	Site Preparation	Site Preparation	each	76	2	2.00	$ 675.12	$ 1,350.24	$ 102,618.61	76	$ 1,350.24		
	Haul	Hauling	each	76	1	16.61	$ 441.04	$ 7,325.64	$ 556,748.74	76	$ 7,325.64		
	Setup Blocks	Blocking Crew	each	76	3	2.00	$ 281.84	$ 563.68	$ 42,840.03	76	$ 563.68		
	Assemble Tower	Lattice Assembly	each	76	4	41.05	$ 1,183.92	$ 48,602.11	$ 3,693,760.00	76	$ 48,602.11		
	Install Guy Strand	Guy Install	each	76	39	3.00	$ 1,258.65	$ 3,775.95	$ 286,972.15	76	$ 3,775.95		
	Helicopter Set	HL Helicopter	each	76	27	0.00	$ 21,899.72	$ -	$ -	76	$ -		
	Crane Set	Y- Tower Erection	each	76	40	4.00	$ 1,482.09	$ 5,928.38	$ 450,556.61	76	$ 5,928.38		
	Plumb Tower	Tower Plumb	each	76	41	2.00	$ 913.00	$ 1,826.00	$ 138,776.23	76	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	76	7	2.00	$ 636.64	$ 1,273.27	$ 96,768.88	76	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	76	8	1.50	$ 1,444.07	$ 2,166.10	$ 164,623.63	76	$ 2,166.10		
	Tie -in	Tie -in	each	76	12	2.50	$ 676.30	$ 1,690.75	$ 128,497.33	76	$ 1,690.75		
			each	76			$ -	$ -	$ -	76	$ -		
	Total Cost = $ 2.897		per pound					$ 74,502.13	$ 5,662,162.23		$ 74,502.13		
V::D20	**S1-D20 Assembly and Erection of Suspension Tower Type "A2 + 9" as per**	**Total structure count:**		**77**	**EA**			**$ 5,839,172.79**		**$ 75,833.41**	**$ -**	**$ 75,833.41**	**$ -**
	S1-D20 Assembly and Erection of Suspension Tower Type "A2 + 9" as per dwg. 505573-4622-43DD-0044												
	Total Tower Weight With Guys and Ext. (lb) = 26713	Total Tower Height(ft) = 136	Section Weight (lb) = 24538										
	Site Preparation	Site Preparation	each	77	2	2.00	$ 675.12	$ 1,350.24	$ 103,968.86	77	$ 1,350.24		
	Haul	Hauling	each	77	1	16.92	$ 441.04	$ 7,462.34	$ 574,599.87	77	$ 7,462.34		
	Setup Blocks	Blocking Crew	each	77	3	2.00	$ 281.84	$ 563.68	$ 43,403.71	77	$ 563.68		
	Assemble Tower	Lattice Assembly	each	77	4	42.06	$ 1,183.92	$ 49,796.69	$ 3,834,345.05	77	$ 49,796.69		
	Install Guy Strand	Guy Install	each	77	39	3.00	$ 1,258.65	$ 3,775.95	$ 290,748.10	77	$ 3,775.95		
	Helicopter Set	HL Helicopter	each	77	27	0.00	$ 21,899.72	$ -	$ -	77	$ -		
	Crane Set	Y- Tower Erection	each	77	40	4.00	$ 1,482.09	$ 5,928.38	$ 456,484.99	77	$ 5,928.38		
	Plumb Tower	Tower Plumb	each	77	41	2.00	$ 913.00	$ 1,826.00	$ 140,602.24	77	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	77	7	2.00	$ 636.64	$ 1,273.27	$ 98,042.16	77	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	77	8	1.50	$ 1,444.07	$ 2,166.10	$ 166,789.73	77	$ 2,166.10		
	Tie -in	Tie -in	each	77	12	2.50	$ 676.30	$ 1,690.75	$ 130,188.09	77	$ 1,690.75		
			each	77			$ -	$ -	$ -	77	$ -		
	Total Cost = $ 2.881		per pound					$ 75,833.41	$ 5,839,172.79		$ 75,833.41		
V::D21	**S1-D21 Assembly and Erection of Suspension Tower Type "A2 + 10.5" as per**	**Total structure count:**		**56**	**EA**			**$ 4,349,982.30**		**$ 77,678.26**	**$ -**	**$ 77,678.26**	**$ -**
	S1-D21 Assembly and Erection of Suspension Tower Type "A2 + 10.5" as per dwg. 505573-4622-43DD-0044												
	Total Tower Weight With Guys and Ext. (lb) = 27645	Total Tower Height(ft) = 141	Section Weight (lb) = 25353										
	Site Preparation	Site Preparation	each	56	2	2.00	$ 675.12	$ 1,350.24	$ 75,613.72	56	$ 1,350.24		
	Haul	Hauling	each	56	1	17.35	$ 441.04	$ 7,651.76	$ 428,498.72	56	$ 7,651.76		
	Setup Blocks	Blocking Crew	each	56	3	2.00	$ 281.84	$ 563.68	$ 31,566.34	56	$ 563.68		
	Assemble Tower	Lattice Assembly	each	56	4	43.46	$ 1,183.92	$ 51,452.10	$ 2,881,317.85	56	$ 51,452.10		
	Install Guy Strand	Guy Install	each	56	39	3.00	$ 1,258.65	$ 3,775.95	$ 211,453.16	56	$ 3,775.95		
	Helicopter Set	HL Helicopter	each	56	27	0.00	$ 21,899.72	$ -	$ -	56	$ -		
	Crane Set	Y- Tower Erection	each	56	40	4.00	$ 1,482.09	$ 5,928.38	$ 331,989.08	56	$ 5,928.38		
	Plumb Tower	Tower Plumb	each	56	41	2.00	$ 913.00	$ 1,826.00	$ 102,256.17	56	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	56	7	2.00	$ 636.64	$ 1,273.27	$ 71,303.39	56	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	56	8	1.50	$ 1,444.07	$ 2,166.10	$ 121,301.62	56	$ 2,166.10		
	Tie -in	Tie -in	each	56	12	2.50	$ 676.30	$ 1,690.75	$ 94,682.25	56	$ 1,690.75		
			each	56			$ -	$ -	$ -	56	$ -		
	Total Cost = $ 2.861		per pound					$ 77,678.26	$ 4,349,982.30		$ 77,678.26		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description		Units Total		Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D22	**S1-D22 Assembly and Erection of Suspension Tower Type "A2 + 12" as per** S1-D22 Assembly and Erection of Suspension Tower Type "A2 + 12" as per dwg. 505573-4622-43DD-0044		**Total structure count:**		**34**	**EA**			**$ 2,647,841.72**		**$ 77,877.70**	**$ -**	**$ 77,877.70**	**$ -**
	Total Tower Weight With Guys and Ext. (lb) = 27849	Total Tower Height(ft) = 146	Section Weight (lb) = 25441											
	Site Preparation	Site Preparation	each	34	2	2.00	$ 675.12	$ 1,350.24	$ 45,908.33	34	$ 1,350.24			
	Haul	Hauling	each	34	1	17.40	$ 441.04	$ 7,672.24	$ 260,856.21	34	$ 7,672.24			
	Setup Blocks	Blocking Crew	each	34	3	2.00	$ 281.84	$ 563.68	$ 19,165.28	34	$ 563.68			
	Assemble Tower	Lattice Assembly	each	34	4	43.61	$ 1,183.92	$ 51,631.07	$ 1,755,456.32	34	$ 51,631.07			
	Install Guy Strand	Guy Install	each	34	39	3.00	$ 1,258.65	$ 3,775.95	$ 128,382.28	34	$ 3,775.95			
	Helicopter Set	HL Helicopter	each	34	27	0.00	$ 21,899.72	$ -	$ -	34	$ -			
	Crane Set	Y- Tower Erection	each	34	40	4.00	$ 1,482.09	$ 5,928.38	$ 201,564.80	34	$ 5,928.38			
	Plumb Tower	Tower Plumb	each	34	41	2.00	$ 913.00	$ 1,826.00	$ 62,084.10	34	$ 1,826.00			
	haul Insulators and Travellers	Haul Travellers&Glass	each	34	7	2.00	$ 636.64	$ 1,273.27	$ 43,291.34	34	$ 1,273.27			
	Hang Travellers	Hang Travellers	each	34	8	1.50	$ 1,444.07	$ 2,166.10	$ 73,647.41	34	$ 2,166.10			
	Tie -in	Tie -in	each	34	12	2.50	$ 676.30	$ 1,690.75	$ 57,485.65	34	$ 1,690.75			
			each	34			$ -	$ -	$ -	34	$ -			
	Total Cost =	$ 2.859	per pound					$ 77,877.70	$ 2,647,841.72		$ 77,877.70			
V::D23	**S1-D23 Assembly and Erection of Suspension Tower Type "A2 + 13.5" as per** S1-D23 Assembly and Erection of Suspension Tower Type "A2 + 13.5" as per dwg. 505573-4622-43DD-0044		**Total structure count:**		**9**	**EA**			**$ 717,996.48**		**$ 79,777.39**	**$ -**	**$ 79,777.39**	**$ -**
	Total Tower Weight With Guys and Ext. (lb) = 28805	Total Tower Height(ft) = 151	Section Weight (lb) = 26281											
	Site Preparation	Site Preparation	each	9	2	2.00	$ 675.12	$ 1,350.24	$ 12,152.20	9	$ 1,350.24			
	Haul	Hauling	each	9	1	17.84	$ 441.04	$ 7,867.30	$ 70,805.70	9	$ 7,867.30			
	Setup Blocks	Blocking Crew	each	9	3	2.00	$ 281.84	$ 563.68	$ 5,073.16	9	$ 563.68			
	Assemble Tower	Lattice Assembly	each	9	4	45.05	$ 1,183.92	$ 53,335.70	$ 480,021.29	9	$ 53,335.70			
	Install Guy Strand	Guy Install	each	9	39	3.00	$ 1,258.65	$ 3,775.95	$ 33,983.54	9	$ 3,775.95			
	Helicopter Set	HL Helicopter	each	9	27	0.00	$ 21,899.72	$ -	$ -	9	$ -			
	Crane Set	Y- Tower Erection	each	9	40	4.00	$ 1,482.09	$ 5,928.38	$ 53,355.39	9	$ 5,928.38			
	Plumb Tower	Tower Plumb	each	9	41	2.00	$ 913.00	$ 1,826.00	$ 16,434.03	9	$ 1,826.00			
	haul Insulators and Travellers	Haul Travellers&Glass	each	9	7	2.00	$ 636.64	$ 1,273.27	$ 11,459.47	9	$ 1,273.27			
	Hang Travellers	Hang Travellers	each	9	8	1.50	$ 1,444.07	$ 2,166.10	$ 19,494.90	9	$ 2,166.10			
	Tie -in	Tie -in	each	9	12	2.50	$ 676.30	$ 1,690.75	$ 15,216.79	9	$ 1,690.75			
			each	9			$ -	$ -	$ -	9	$ -			
	Total Cost =	$ 2.840	per pound					$ 79,777.39	$ 717,996.48		$ 79,777.39			
V::D24	**S1-D24 Assembly and Erection of Suspension Tower Type "A2 + 15" as per** S1-D24 Assembly and Erection of Suspension Tower Type "A2 + 15" as per dwg. 505573-4622-43DD-0044		**Total structure count:**		**3**	**EA**			**$ 249,477.51**		**$ 83,159.17**	**$ -**	**$ 83,159.17**	**$ -**
	Total Tower Weight With Guys and Ext. (lb) = 29761	Total Tower Height(ft) = 156	Section Weight (lb) = 27121											
	Site Preparation	Site Preparation	each	3	2	2.00	$ 675.12	$ 1,350.24	$ 4,050.73	3	$ 1,350.24			
	Haul	Hauling	each	3	1	18.28	$ 441.04	$ 8,062.36	$ 24,187.08	3	$ 8,062.36			
	Setup Blocks	Blocking Crew	each	3	3	2.00	$ 281.84	$ 563.68	$ 1,691.05	3	$ 563.68			
	Assemble Tower	Lattice Assembly	each	3	4	46.49	$ 1,183.92	$ 55,040.33	$ 165,120.99	3	$ 55,040.33			
	Install Guy Strand	Guy Install	each	3	39	3.00	$ 1,258.65	$ 3,775.95	$ 11,327.85	3	$ 3,775.95			
	Helicopter Set	HL Helicopter	each	3	27	0.00	$ 21,899.72	$ -	$ -	3	$ -			
	Crane Set	Y- Tower Erection	each	3	40	5.00	$ 1,482.09	$ 7,410.47	$ 22,231.41	3	$ 7,410.47			
	Plumb Tower	Tower Plumb	each	3	41	2.00	$ 913.00	$ 1,826.00	$ 5,478.01	3	$ 1,826.00			
	haul Insulators and Travellers	Haul Travellers&Glass	each	3	7	2.00	$ 636.64	$ 1,273.27	$ 3,819.82	3	$ 1,273.27			
	Hang Travellers	Hang Travellers	each	3	8	1.50	$ 1,444.07	$ 2,166.10	$ 6,498.30	3	$ 2,166.10			
	Tie -in	Tie -in	each	3	12	2.50	$ 676.30	$ 1,690.75	$ 5,072.26	3	$ 1,690.75			
			each	3			$ -	$ -	$ -	3	$ -			
	Total Cost =	$ 2.877	per pound					$ 83,159.17	$ 249,477.51		$ 83,159.17			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description		Units Total		Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D25	**S1-D25 Assembly and Erection of Suspension Tower Type "A2 + 16.5" as per**		**Total structure count:**		**0**	**EA**			**$ -**		**$ 84,490.45**	**$ -**	**$ 84,490.45**	**$ -**
	S1-D25 Assembly and Erection of Suspension Tower Type "A2 + 16.5" as per dwg. 505573-4622-43DD-0044													
	Total Tower Weight With Guys and Ext. (lb) = 30466	Total Tower Height(ft) =	161	Section Weight (lb) =	27710									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul	Hauling	each	0	1	18.59	$ 441.04	$ 8,199.05	$ -	0	$ -			
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower	Lattice Assembly	each	0	4	47.50	$ 1,183.92	$ 56,234.91	$ -	0	$ -			
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set	Y- Tower Erection	each	0	40	5.00	$ 1,482.09	$ 7,410.47	$ -	0	$ -			
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -			
	Tie -in	Tie -in	each	0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Total Cost =	$ 2.864	per pound					$ 84,490.45	$ -		$ -			
V::D26	**S1-D26 Assembly and Erection of Suspension Tower Type "A2 + 18" as per**		**Total structure count:**		**0**	**EA**			**$ -**		**$ 85,821.73**	**$ -**	**$ 85,821.73**	**$ -**
	S1-D26 Assembly and Erection of Suspension Tower Type "A2 + 18" as per dwg. 505573-4622-43DD-0044													
	Total Tower Weight With Guys and Ext. (lb) = 31170	Total Tower Height(ft) =	166	Section Weight (lb) =	28299									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul	Hauling	each	0	1	18.90	$ 441.04	$ 8,335.75	$ -	0	$ -			
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower	Lattice Assembly	each	0	4	48.51	$ 1,183.92	$ 57,429.50	$ -	0	$ -			
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set	Y- Tower Erection	each	0	40	5.00	$ 1,482.09	$ 7,410.47	$ -	0	$ -			
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -			
	Tie -in	Tie -in	each	0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Total Cost =	$ 2.851	per pound					$ 85,821.73	$ -		$ -			
V::D27	**S1-D27 Assembly and Erection of Suspension Tower Type "A2 + 19.5" as per**		**Total structure count:**		**0**	**EA**			**$ -**		**$ 86,534.73**	**$ -**	**$ 86,534.73**	**$ -**
	S1-D27 Assembly and Erection of Suspension Tower Type "A2 + 19.5" as per dwg. 505573-4622-43DD-0044													
	Total Tower Weight With Guys and Ext. (lb) = 32326	Total Tower Height(ft) =	171	Section Weight (lb) =	28614									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul	Hauling	each	0	1	19.07	$ 441.04	$ 8,408.96	$ -	0	$ -			
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower	Lattice Assembly	each	0	4	49.05	$ 1,183.92	$ 58,069.29	$ -	0	$ -			
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set	Y- Tower Erection	each	0	40	5.00	$ 1,482.09	$ 7,410.47	$ -	0	$ -			
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -			
	Tie -in	Tie -in	each	0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Total Cost =	$ 2.845	per pound					$ 86,534.73	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H17	**Assembly and Erection of Suspension Tower Type "A3"**	**Tower Setting Ratio**		**0.00 Helicopter**			**100% Crane**					
V::D28	**S1-D28 Assembly and Erection of Suspension Tower Type "A3 + 0" as per dwg. Total structure count:**		**4**	**EA**			$ 210,283.21		$ 52,570.80	$ -	$ 52,570.80	$ -
	S1-D28 Assembly and Erection of Suspension Tower Type "A3 + 0" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 16808	Total Tower Height(ft) = 147	Section Weight (lb) = 15745									
	Site Preparation	each	4	2	2.00	$ 675.12	$ 1,350.24	$ 5,400.98	4	$ 1,350.24		
	Haul	each	4	1	12.29	$ 441.04	$ 5,420.62	$ 21,682.48	4	$ 5,420.62		
	Setup Blocks	each	4	3	2.00	$ 281.84	$ 563.68	$ 2,254.74	4	$ 563.68		
	Assemble Tower	each	4	4	26.99	$ 1,183.92	$ 31,953.99	$ 127,815.98	4	$ 31,953.99		
	Install Guy Strand	each	4	39	2.00	$ 1,258.65	$ 2,517.30	$ 10,069.20	4	$ 2,517.30		
	Helicopter Set	each	4	27	0.00	$ 21,899.72	$ -	$ -	4	$ -		
	Crane Set	each	4	40	3.50	$ 1,482.09	$ 5,187.33	$ 20,749.32	4	$ 5,187.33		
	Plumb Tower	each	4	41	2.00	$ 913.00	$ 1,826.00	$ 7,304.01	4	$ 1,826.00		
	haul Insulators and Travellers	each	4	7	1.50	$ 636.64	$ 954.96	$ 3,819.82	4	$ 954.96		
	Hang Travellers	each	4	8	1.00	$ 1,444.07	$ 1,444.07	$ 5,776.27	4	$ 1,444.07		
	Tie -in	each	4	12	2.00	$ 676.30	$ 1,352.60	$ 5,410.41	4	$ 1,352.60		
		each	4			$ -	$ -	$ -	4	$ -		
	Total Cost = $ 3.101	per pound					$ 52,570.80	$ 210,283.21		$ 52,570.80		
V::D29	**S1-D29 Assembly and Erection of Suspension Tower Type "A3 + 1.5" as per Total structure count:**		**0**	**EA**			$ -		$ 53,717.60	$ -	$ 53,717.60	$ -
	S1-D29 Assembly and Erection of Suspension Tower Type "A3 + 1.5" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 17366	Total Tower Height(ft) = 152	Section Weight (lb) = 16253									
	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	each	0	1	12.56	$ 441.04	$ 5,538.37	$ -	0	$ -		
	Setup Blocks	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	each	0	4	27.86	$ 1,183.92	$ 32,983.04	$ -	0	$ -		
	Install Guy Strand	each	0	39	2.00	$ 1,258.65	$ 2,517.30	$ -	0	$ -		
	Helicopter Set	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -		
	Plumb Tower	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	each	0	7	1.50	$ 636.64	$ 954.96	$ -	0	$ -		
	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 3.074	per pound					$ 53,717.60	$ -		$ -		
V::D30	**S1-D30 Assembly and Erection of Suspension Tower Type "A3 + 3" as per Total structure count:**		**0**	**EA**			$ -		$ 54,405.67	$ -	$ 54,405.67	$ -
	S1-D30 Assembly and Erection of Suspension Tower Type "A3 + 3" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 17720	Total Tower Height(ft) = 157	Section Weight (lb) = 16557									
	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	each	0	1	12.72	$ 441.04	$ 5,609.02	$ -	0	$ -		
	Setup Blocks	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	each	0	4	28.38	$ 1,183.92	$ 33,600.46	$ -	0	$ -		
	Install Guy Strand	each	0	39	2.00	$ 1,258.65	$ 2,517.30	$ -	0	$ -		
	Helicopter Set	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -		
	Plumb Tower	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	each	0	7	1.50	$ 636.64	$ 954.96	$ -	0	$ -		
	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 3.059	per pound					$ 54,405.67	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description		Units Total		Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D31	**S1-D31 Assembly and Erection of Suspension Tower Type "A3 + 4.5" as per** S1-D31 Assembly and Erection of Suspension Tower Type "A3 + 4.5" as per dwg. 505573-4622-43DD-0050		**Total structure count:**		**2**	**EA**			**$ 111,104.93**		**$ 55,552.47**	**$ -**	**$ 55,552.47**	**$ -**
	Total Tower Weight With Guys and Ext. (lb) = 18278	Total Tower Height(ft) = 162	Section Weight (lb) = 17064											
	Site Preparation	Site Preparation	each	2	2	2.00	$ 675.12	$ 1,350.24	$ 2,700.49	2	$ 1,350.24			
	Haul	Hauling	each	2	1	12.98	$ 441.04	$ 5,726.78	$ 11,453.55	2	$ 5,726.78			
	Setup Blocks	Blocking Crew	each	2	3	2.00	$ 281.84	$ 563.68	$ 1,127.37	2	$ 563.68			
	Assemble Tower	Lattice Assembly	each	2	4	29.25	$ 1,183.92	$ 34,629.50	$ 69,259.01	2	$ 34,629.50			
	Install Guy Strand	Guy Install	each	2	39	2.00	$ 1,258.65	$ 2,517.30	$ 5,034.60	2	$ 2,517.30			
	Helicopter Set	HL Helicopter	each	2	27	0.00	$ 21,899.72	$ -	$ -	2	$ -			
	Crane Set	Y- Tower Erection	each	2	40	3.50	$ 1,482.09	$ 5,187.33	$ 10,374.66	2	$ 5,187.33			
	Plumb Tower	Tower Plumb	each	2	41	2.00	$ 913.00	$ 1,826.00	$ 3,652.01	2	$ 1,826.00			
	haul Insulators and Travellers	Haul Travellers&Glass	each	2	7	1.50	$ 636.64	$ 954.96	$ 1,909.91	2	$ 954.96			
	Hang Travellers	Hang Travellers	each	2	8	1.00	$ 1,444.07	$ 1,444.07	$ 2,888.13	2	$ 1,444.07			
	Tie -in	Tie -in	each	2	12	2.00	$ 676.30	$ 1,352.60	$ 2,705.21	2	$ 1,352.60			
			each	2			$ -	$ -	$ -	2	$ -			
	Total Cost =	$ 3.036	per pound					$ 55,552.47	$ 111,104.93		$ 55,552.47			
V::D32	**S1-D32 Assembly and Erection of Suspension Tower Type "A3 + 6" as per** S1-D32 Assembly and Erection of Suspension Tower Type "A3 + 6" as per dwg. 505573-4622-43DD-0050		**Total structure count:**		**0**	**EA**			**$ -**		**$ 55,766.87**	**$ -**	**$ 55,766.87**	**$ -**
	Total Tower Weight With Guys and Ext. (lb) = 18423	Total Tower Height(ft) = 167	Section Weight (lb) = 17159											
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul	Hauling	each	0	1	13.03	$ 441.04	$ 5,748.79	$ -	0	$ -			
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower	Lattice Assembly	each	0	4	29.41	$ 1,183.92	$ 34,821.89	$ -	0	$ -			
	Install Guy Strand	Guy Install	each	0	39	2.00	$ 1,258.65	$ 2,517.30	$ -	0	$ -			
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set	Y- Tower Erection	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -			
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	1.50	$ 636.64	$ 954.96	$ -	0	$ -			
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Total Cost =	$ 3.031	per pound					$ 55,766.87	$ -		$ -			
V::D33	**S1-D33 Assembly and Erection of Suspension Tower Type "A3 + 7.5" as per** S1-D33 Assembly and Erection of Suspension Tower Type "A3 + 7.5" as per dwg. 505573-4622-43DD-0050		**Total structure count:**		**4**	**EA**			**$ 226,836.93**		**$ 56,709.23**	**$ -**	**$ 56,709.23**	**$ -**
	Total Tower Weight With Guys and Ext. (lb) = 18890	Total Tower Height(ft) = 172	Section Weight (lb) = 17575											
	Site Preparation	Site Preparation	each	4	2	2.00	$ 675.12	$ 1,350.24	$ 5,400.98	4	$ 1,350.24			
	Haul	Hauling	each	4	1	13.25	$ 441.04	$ 5,845.55	$ 23,382.20	4	$ 5,845.55			
	Setup Blocks	Blocking Crew	each	4	3	2.00	$ 281.84	$ 563.68	$ 2,254.74	4	$ 563.68			
	Assemble Tower	Lattice Assembly	each	4	4	30.13	$ 1,183.92	$ 35,667.49	$ 142,669.97	4	$ 35,667.49			
	Install Guy Strand	Guy Install	each	4	39	2.00	$ 1,258.65	$ 2,517.30	$ 10,069.20	4	$ 2,517.30			
	Helicopter Set	HL Helicopter	each	4	27	0.00	$ 21,899.72	$ -	$ -	4	$ -			
	Crane Set	Y- Tower Erection	each	4	40	3.50	$ 1,482.09	$ 5,187.33	$ 20,749.32	4	$ 5,187.33			
	Plumb Tower	Tower Plumb	each	4	41	2.00	$ 913.00	$ 1,826.00	$ 7,304.01	4	$ 1,826.00			
	haul Insulators and Travellers	Haul Travellers&Glass	each	4	7	1.50	$ 636.64	$ 954.96	$ 3,819.82	4	$ 954.96			
	Hang Travellers	Hang Travellers	each	4	8	1.00	$ 1,444.07	$ 1,444.07	$ 5,776.27	4	$ 1,444.07			
	Tie -in	Tie -in	each	4	12	2.00	$ 676.30	$ 1,352.60	$ 5,410.41	4	$ 1,352.60			
			each	4			$ -	$ -	$ -	4	$ -			
	Total Cost =	$ 3.013	per pound					$ 56,709.23	$ 226,836.93		$ 56,709.23			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description		Units Total		Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D34	**S1-D34 Assembly and Erection of Suspension Tower Type "A3 + 9" as per**		**Total structure count:**		**0**	**EA**			**$ -**		**$ 57,282.63**	**$ -**	**$ 57,282.63**	**$ -**
	S1-D34 Assembly and Erection of Suspension Tower Type "A3 + 9" as per dwg. 505573-4622-43DD-0050													
	Total Tower Weight With Guys and Ext. (lb) = 19194	Total Tower Height(ft) =	177	Section Weight (lb) =	17829									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul	Hauling	each	0	1	13.39	$ 441.04	$ 5,904.43	$ -	0	$ -			
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower	Lattice Assembly	each	0	4	30.56	$ 1,183.92	$ 36,182.01	$ -	0	$ -			
	Install Guy Strand	Guy Install	each	0	39	2.00	$ 1,258.65	$ 2,517.30	$ -	0	$ -			
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set	Y- Tower Erection	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -			
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	1.50	$ 636.64	$ 954.96	$ -	0	$ -			
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Total Cost =	$ 3.002	per pound					$ 57,282.63	$ -		$ -			
V::D35	**S1-D35 Assembly and Erection of Suspension Tower Type "A3 + 10.5" as per**		**Total structure count:**		**1**	**EA**			**$ 58,539.12**		**$ 58,539.12**	**$ -**	**$ 58,539.12**	**$ -**
	S1-D35 Assembly and Erection of Suspension Tower Type "A3 + 10.5" as per dwg. 505573-4622-43DD-0050													
	Total Tower Weight With Guys and Ext. (lb) = 19800	Total Tower Height(ft) =	182	Section Weight (lb) =	18384									
	Site Preparation	Site Preparation	each	1	2	2.00	$ 675.12	$ 1,350.24	$ 1,350.24	1	$ 1,350.24			
	Haul	Hauling	each	1	1	13.68	$ 441.04	$ 6,033.44	$ 6,033.44	1	$ 6,033.44			
	Setup Blocks	Blocking Crew	each	1	3	2.00	$ 281.84	$ 563.68	$ 563.68	1	$ 563.68			
	Assemble Tower	Lattice Assembly	each	1	4	31.51	$ 1,183.92	$ 37,309.49	$ 37,309.49	1	$ 37,309.49			
	Install Guy Strand	Guy Install	each	1	39	2.00	$ 1,258.65	$ 2,517.30	$ 2,517.30	1	$ 2,517.30			
	Helicopter Set	HL Helicopter	each	1	27	0.00	$ 21,899.72	$ -	$ -	1	$ -			
	Crane Set	Y- Tower Erection	each	1	40	3.50	$ 1,482.09	$ 5,187.33	$ 5,187.33	1	$ 5,187.33			
	Plumb Tower	Tower Plumb	each	1	41	2.00	$ 913.00	$ 1,826.00	$ 1,826.00	1	$ 1,826.00			
	haul Insulators and Travellers	Haul Travellers&Glass	each	1	7	1.50	$ 636.64	$ 954.96	$ 954.96	1	$ 954.96			
	Hang Travellers	Hang Travellers	each	1	8	1.00	$ 1,444.07	$ 1,444.07	$ 1,444.07	1	$ 1,444.07			
	Tie -in	Tie -in	each	1	12	2.00	$ 676.30	$ 1,352.60	$ 1,352.60	1	$ 1,352.60			
			each	1			$ -	$ -	$ -	1	$ -			
	Total Cost =	$ 2.980	per pound					$ 58,539.12	$ 58,539.12		$ 58,539.12			
V::D36	**S1-D36 Assembly and Erection of Suspension Tower Type "A3 + 12" as per**		**Total structure count:**		**2**	**EA**			**$ 117,915.89**		**$ 58,957.95**	**$ -**	**$ 58,957.95**	**$ -**
	S1-D36 Assembly and Erection of Suspension Tower Type "A3 + 12" as per dwg. 505573-4622-43DD-0050													
	Total Tower Weight With Guys and Ext. (lb) = 20036	Total Tower Height(ft) =	187	Section Weight (lb) =	18570									
	Site Preparation	Site Preparation	each	2	2	2.00	$ 675.12	$ 1,350.24	$ 2,700.49	2	$ 1,350.24			
	Haul	Hauling	each	2	1	13.78	$ 441.04	$ 6,076.45	$ 12,152.89	2	$ 6,076.45			
	Setup Blocks	Blocking Crew	each	2	3	2.00	$ 281.84	$ 563.68	$ 1,127.37	2	$ 563.68			
	Assemble Tower	Lattice Assembly	each	2	4	31.83	$ 1,183.92	$ 37,685.31	$ 75,370.62	2	$ 37,685.31			
	Install Guy Strand	Guy Install	each	2	39	2.00	$ 1,258.65	$ 2,517.30	$ 5,034.60	2	$ 2,517.30			
	Helicopter Set	HL Helicopter	each	2	27	0.00	$ 21,899.72	$ -	$ -	2	$ -			
	Crane Set	Y- Tower Erection	each	2	40	3.50	$ 1,482.09	$ 5,187.33	$ 10,374.66	2	$ 5,187.33			
	Plumb Tower	Tower Plumb	each	2	41	2.00	$ 913.00	$ 1,826.00	$ 3,652.01	2	$ 1,826.00			
	haul Insulators and Travellers	Haul Travellers&Glass	each	2	7	1.50	$ 636.64	$ 954.96	$ 1,909.91	2	$ 954.96			
	Hang Travellers	Hang Travellers	each	2	8	1.00	$ 1,444.07	$ 1,444.07	$ 2,888.13	2	$ 1,444.07			
	Tie -in	Tie -in	each	2	12	2.00	$ 676.30	$ 1,352.60	$ 2,705.21	2	$ 1,352.60			
			each	2			$ -	$ -	$ -	2	$ -			
	Total Cost =	$ 2.973	per pound					$ 58,957.95	$ 117,915.89		$ 58,957.95			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description		Units Total		Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D37	**S1-D37 Assembly and Erection of Suspension Tower Type "A3 + 13.5" as per**	**Total structure count:**			**0**	**EA**			**$ -**		**$ 59,900.31**	**$ -**	**$ 59,900.31**	**$ -**
	S1-D37 Assembly and Erection of Suspension Tower Type "A3 + 13.5" as per dwg. 505573-4622-43DD-0050													
	Total Tower Weight With Guys and Ext. (lb) = 20503	Total Tower Height(ft) = 192	Section Weight (lb) = 18986											
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul	Hauling	each	0	1	14.00	$ 441.04	$ 6,173.21	$ -	0	$ -			
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower	Lattice Assembly	each	0	4	32.55	$ 1,183.92	$ 38,530.92	$ -	0	$ -			
	Install Guy Strand	Guy Install	each	0	39	2.00	$ 1,258.65	$ 2,517.30	$ -	0	$ -			
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set	Y- Tower Erection	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -			
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	1.50	$ 636.64	$ 954.96	$ -	0	$ -			
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.957		per pound					$ 59,900.31	$ -		$ -			
V::D38	**S1-D38 Assembly and Erection of Suspension Tower Type "A3 + 15" as per**	**Total structure count:**			**4**	**EA**			**$ 243,370.71**		**$ 60,842.68**	**$ -**	**$ 60,842.68**	**$ -**
	S1-D38 Assembly and Erection of Suspension Tower Type "A3 + 15" as per dwg. 505573-4622-43DD-0050													
	Total Tower Weight With Guys and Ext. (lb) = 20970	Total Tower Height(ft) = 197	Section Weight (lb) = 19403											
	Site Preparation	Site Preparation	each	4	2	2.00	$ 675.12	$ 1,350.24	$ 5,400.98	4	$ 1,350.24			
	Haul	Hauling	each	4	1	14.22	$ 441.04	$ 6,269.97	$ 25,079.88	4	$ 6,269.97			
	Setup Blocks	Blocking Crew	each	4	3	2.00	$ 281.84	$ 563.68	$ 2,254.74	4	$ 563.68			
	Assemble Tower	Lattice Assembly	each	4	4	33.26	$ 1,183.92	$ 39,376.52	$ 157,506.08	4	$ 39,376.52			
	Install Guy Strand	Guy Install	each	4	39	2.00	$ 1,258.65	$ 2,517.30	$ 10,069.20	4	$ 2,517.30			
	Helicopter Set	HL Helicopter	each	4	27	0.00	$ 21,899.72	$ -	$ -	4	$ -			
	Crane Set	Y- Tower Erection	each	4	40	3.50	$ 1,482.09	$ 5,187.33	$ 20,749.32	4	$ 5,187.33			
	Plumb Tower	Tower Plumb	each	4	41	2.00	$ 913.00	$ 1,826.00	$ 7,304.01	4	$ 1,826.00			
	haul Insulators and Travellers	Haul Travellers&Glass	each	4	7	1.50	$ 636.64	$ 954.96	$ 3,819.82	4	$ 954.96			
	Hang Travellers	Hang Travellers	each	4	8	1.00	$ 1,444.07	$ 1,444.07	$ 5,776.27	4	$ 1,444.07			
	Tie -in	Tie -in	each	4	12	2.00	$ 676.30	$ 1,352.60	$ 5,410.41	4	$ 1,352.60			
			each	4			$ -	$ -	$ -	4	$ -			
	Total Cost = $ 2.942		per pound					$ 60,842.68	$ 243,370.71		$ 60,842.68			
V::D39	**S1-D39 Assembly and Erection of Suspension Tower Type "A3 + 16.5" as per**	**Total structure count:**			**3**	**EA**			**$ 184,263.18**		**$ 61,421.06**	**$ -**	**$ 61,421.06**	**$ -**
	S1-D39 Assembly and Erection of Suspension Tower Type "A3 + 16.5" as per dwg. 505573-4622-43DD-0050													
	Total Tower Weight With Guys and Ext. (lb) = 21276	Total Tower Height(ft) = 202	Section Weight (lb) = 19659											
	Site Preparation	Site Preparation	each	3	2	2.00	$ 675.12	$ 1,350.24	$ 4,050.73	3	$ 1,350.24			
	Haul	Hauling	each	3	1	14.35	$ 441.04	$ 6,329.36	$ 18,988.07	3	$ 6,329.36			
	Setup Blocks	Blocking Crew	each	3	3	2.00	$ 281.84	$ 563.68	$ 1,691.05	3	$ 563.68			
	Assemble Tower	Lattice Assembly	each	3	4	33.70	$ 1,183.92	$ 39,895.51	$ 119,686.54	3	$ 39,895.51			
	Install Guy Strand	Guy Install	each	3	39	2.00	$ 1,258.65	$ 2,517.30	$ 7,551.90	3	$ 2,517.30			
	Helicopter Set	HL Helicopter	each	3	27	0.00	$ 21,899.72	$ -	$ -	3	$ -			
	Crane Set	Y- Tower Erection	each	3	40	3.50	$ 1,482.09	$ 5,187.33	$ 15,561.99	3	$ 5,187.33			
	Plumb Tower	Tower Plumb	each	3	41	2.00	$ 913.00	$ 1,826.00	$ 5,478.01	3	$ 1,826.00			
	haul Insulators and Travellers	Haul Travellers&Glass	each	3	7	1.50	$ 636.64	$ 954.96	$ 2,864.87	3	$ 954.96			
	Hang Travellers	Hang Travellers	each	3	8	1.00	$ 1,444.07	$ 1,444.07	$ 4,332.20	3	$ 1,444.07			
	Tie -in	Tie -in	each	3	12	2.00	$ 676.30	$ 1,352.60	$ 4,057.81	3	$ 1,352.60			
			each	3			$ -	$ -	$ -	3	$ -			
	Total Cost = $ 2.934		per pound					$ 61,421.06	$ 184,263.18		$ 61,421.06			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H18	**Assembly and Erection of Suspension Tower Type "A4"**	**Tower Setting Ratio**		**0.00 Helicopter**			**100% Crane**					
V::D40	**S1-D40 Assembly and Erection of Suspension Tower Type "A4 + 0" as per dwg. Total structure count:**	**0**		**EA**			$ -		$ 66,617.12	$ -	$ 66,617.12	$ -
	S1-D40 Assembly and Erection of Suspension Tower Type "A4 + 0" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 21808	Total Tower Height(ft) = 107		Section Weight (lb) = 21118								
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul (Hauling)	each	0	1	15.12	$ 441.04	$ 6,668.28	$ -	0	$ -		
	Setup Blocks (Blocking Crew)	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower (Lattice Assembly)	each	0	4	36.20	$ 1,183.92	$ 42,857.37	$ -	0	$ -		
	Install Guy Strand (Guy Install)	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set (HL Helicopter)	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set (Y- Tower Erection)	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -		
	Plumb Tower (Tower Plumb)	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers (Haul Travellers&Glass)	each	0	7	2.50	$ 636.64	$ 1,591.59	$ -	0	$ -		
	Hang Travellers (Hang Travellers)	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in (Tie -in)	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.947	per pound					$ 66,617.12	$ -		$ -		
V::D41	**S1-D41 Assembly and Erection of Suspension Tower Type "A4 + 1.5" as per Total structure count:**	**0**		**EA**			$ -		$ 68,143.64	$ -	$ 68,143.64	$ -
	S1-D41 Assembly and Erection of Suspension Tower Type "A4 + 1.5" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 22674	Total Tower Height(ft) = 112		Section Weight (lb) = 21934								
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul (Hauling)	each	0	1	15.55	$ 441.04	$ 6,857.71	$ -	0	$ -		
	Setup Blocks (Blocking Crew)	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower (Lattice Assembly)	each	0	4	37.60	$ 1,183.92	$ 44,512.78	$ -	0	$ -		
	Install Guy Strand (Guy Install)	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set (HL Helicopter)	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set (Y- Tower Erection)	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -		
	Plumb Tower (Tower Plumb)	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers (Haul Travellers&Glass)	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers (Hang Travellers)	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in (Tie -in)	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.921	per pound					$ 68,143.64	$ -		$ -		
V::D42	**S1-D42 Assembly and Erection of Suspension Tower Type "A4 + 3" as per Total structure count:**	**0**		**EA**			$ -		$ 69,474.92	$ -	$ 69,474.92	$ -
	S1-D42 Assembly and Erection of Suspension Tower Type "A4 + 3" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 23313	Total Tower Height(ft) = 116		Section Weight (lb) = 22523								
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul (Hauling)	each	0	1	15.86	$ 441.04	$ 6,994.40	$ -	0	$ -		
	Setup Blocks (Blocking Crew)	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower (Lattice Assembly)	each	0	4	38.61	$ 1,183.92	$ 45,707.37	$ -	0	$ -		
	Install Guy Strand (Guy Install)	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set (HL Helicopter)	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set (Y- Tower Erection)	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -		
	Plumb Tower (Tower Plumb)	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers (Haul Travellers&Glass)	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers (Hang Travellers)	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in (Tie -in)	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.904	per pound					$ 69,474.92	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description		Units Total		Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D43	**S1-D43 Assembly and Erection of Suspension Tower Type "A4 + 4.5" as per**		**Total structure count:**		**0**	**EA**			**$ -**		**$ 71,314.78**	**$ -**	**$ 71,314.78**	**$ -**
	S1-D43 Assembly and Erection of Suspension Tower Type "A4 + 4.5" as per dwg. 505573-4622-43DD-0056													
	Total Tower Weight With Guys and Ext. (lb) = 24177	Total Tower Height(ft) =	121	Section Weight (lb) =	23336									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul	Hauling	each	0	1	16.29	$ 441.04	$ 7,183.32	$ -	0	$ -			
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower	Lattice Assembly	each	0	4	40.00	$ 1,183.92	$ 47,358.31	$ -	0	$ -			
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set	Y- Tower Erection	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -			
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Total Cost =	$ 2.882	per pound					$ 71,314.78	$ -		$ -			
V::D44	**S1-D44 Assembly and Erection of Suspension Tower Type "A4 + 6" as per**		**Total structure count:**		**0**	**EA**			**$ -**		**$ 71,574.05**	**$ -**	**$ 71,574.05**	**$ -**
	S1-D44 Assembly and Erection of Suspension Tower Type "A4 + 6" as per dwg. 505573-4622-43DD-0056													
	Total Tower Weight With Guys and Ext. (lb) = 24342	Total Tower Height(ft) =	126	Section Weight (lb) =	23451									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul	Hauling	each	0	1	16.35	$ 441.04	$ 7,209.94	$ -	0	$ -			
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower	Lattice Assembly	each	0	4	40.20	$ 1,183.92	$ 47,590.96	$ -	0	$ -			
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set	Y- Tower Erection	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -			
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Total Cost =	$ 2.879	per pound					$ 71,574.05	$ -		$ -			
V::D45	**S1-D45 Assembly and Erection of Suspension Tower Type "A4 + 7.5" as per**		**Total structure count:**		**0**	**EA**			**$ -**		**$ 73,473.74**	**$ -**	**$ 73,473.74**	**$ -**
	S1-D45 Assembly and Erection of Suspension Tower Type "A4 + 7.5" as per dwg. 505573-4622-43DD-0056													
	Total Tower Weight With Guys and Ext. (lb) = 25232	Total Tower Height(ft) =	131	Section Weight (lb) =	24291									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul	Hauling	each	0	1	16.79	$ 441.04	$ 7,405.00	$ -	0	$ -			
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower	Lattice Assembly	each	0	4	41.64	$ 1,183.92	$ 49,295.59	$ -	0	$ -			
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set	Y- Tower Erection	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -			
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Total Cost =	$ 2.857	per pound					$ 73,473.74	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description		Units Total		Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D46	**S1-D46 Assembly and Erection of Suspension Tower Type "A4 + 9" as per**		**Total structure count:**		**0**	**EA**			$ -		$ 74,805.02	$ -	$ 74,805.02	$ -
	S1-D46 Assembly and Erection of Suspension Tower Type "A4 + 9" as per dwg. 505573-4622-43DD-0056													
	Total Tower Weight With Guys and Ext. (lb) = 25871	Total Tower Height(ft) = 136	Section Weight (lb) = 24879											
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul	Hauling	each	0	1	17.10	$ 441.04	$ 7,541.69	$ -	0	$ -			
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower	Lattice Assembly	each	0	4	42.65	$ 1,183.92	$ 50,490.17	$ -	0	$ -			
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set	Y- Tower Erection	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -			
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Total Cost =	$ 2.843	per pound					$ 74,805.02	$ -		$ -			
V::D47	**S1-D47 Assembly and Erection of Suspension Tower Type "A4 + 10.5" as per**		**Total structure count:**		**0**	**EA**			$ -		$ 76,644.88	$ -	$ 76,644.88	$ -
	S1-D47 Assembly and Erection of Suspension Tower Type "A4 + 10.5" as per dwg. 505573-4622-43DD-0056													
	Total Tower Weight With Guys and Ext. (lb) = 26735	Total Tower Height(ft) = 141	Section Weight (lb) = 25693											
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul	Hauling	each	0	1	17.53	$ 441.04	$ 7,730.61	$ -	0	$ -			
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower	Lattice Assembly	each	0	4	44.04	$ 1,183.92	$ 52,141.12	$ -	0	$ -			
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set	Y- Tower Erection	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -			
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Total Cost =	$ 2.825	per pound					$ 76,644.88	$ -		$ -			
V::D48	**S1-D48 Assembly and Erection of Suspension Tower Type "A4 + 12" as per**		**Total structure count:**		**0**	**EA**			$ -		$ 76,849.31	$ -	$ 76,849.31	$ -
	S1-D48 Assembly and Erection of Suspension Tower Type "A4 + 12" as per dwg. 505573-4622-43DD-0056													
	Total Tower Weight With Guys and Ext. (lb) = 26876	Total Tower Height(ft) = 146	Section Weight (lb) = 25783											
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul	Hauling	each	0	1	17.58	$ 441.04	$ 7,751.60	$ -	0	$ -			
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower	Lattice Assembly	each	0	4	44.20	$ 1,183.92	$ 52,324.55	$ -	0	$ -			
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set	Y- Tower Erection	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -			
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Total Cost =	$ 2.823	per pound					$ 76,849.31	$ -		$ -			

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)

Payment Item	Description	Units	Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D49	**S1-D49 Assembly and Erection of Suspension Tower Type "A4 + 13.5" as per**	**Total structure count:**		**0**	**EA**			$ -		$ 78,748.99	$ -	$ 78,748.99	$ -
	S1-D49 Assembly and Erection of Suspension Tower Type "A4 + 13.5" as per dwg. 505573-4622-43DD-0056												
	Total Tower Weight With Guys and Ext. (lb) = 27766	Total Tower Height(ft) = 151		Section Weight (lb) = 26623									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	Hauling	each	0	1	18.02	$ 441.04	$ 7,946.65	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	Lattice Assembly	each	0	4	45.64	$ 1,183.92	$ 54,029.18	$ -	0	$ -		
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	Y- Tower Erection	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -		
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.805		per pound					$ 78,748.99	$ -		$ -		
V::D50	**S1-D50 Assembly and Erection of Suspension Tower Type "A4 + 15" as per**	**Total structure count:**		**0**	**EA**			$ -		$ 80,648.68	$ -	$ 80,648.68	$ -
	S1-D50 Assembly and Erection of Suspension Tower Type "A4 + 15" as per dwg. 505573-4622-43DD-0056												
	Total Tower Weight With Guys and Ext. (lb) = 28657	Total Tower Height(ft) = 156		Section Weight (lb) = 27463									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	Hauling	each	0	1	18.46	$ 441.04	$ 8,141.71	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	Lattice Assembly	each	0	4	47.08	$ 1,183.92	$ 55,733.81	$ -	0	$ -		
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	Y- Tower Erection	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -		
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.788		per pound					$ 80,648.68	$ -		$ -		
V::D51	**S1-D51 Assembly and Erection of Suspension Tower Type "A4 + 16.5" as per**	**Total structure count:**		**0**	**EA**			$ -		$ 81,979.96	$ -	$ 81,979.96	$ -
	S1-D51 Assembly and Erection of Suspension Tower Type "A4 + 16.5" as per dwg. 505573-4622-43DD-0056												
	Total Tower Weight With Guys and Ext. (lb) = 29296	Total Tower Height(ft) = 161		Section Weight (lb) = 28052									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	Hauling	each	0	1	18.77	$ 441.04	$ 8,278.41	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	Lattice Assembly	each	0	4	48.08	$ 1,183.92	$ 56,928.40	$ -	0	$ -		
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	Y- Tower Erection	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -		
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.777		per pound					$ 81,979.96	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D52	**S1-D52 Assembly and Erection of Suspension Tower Type "A4 + 18" as per** **Total structure count:**		**0**	**EA**			**$ -**		**$ 83,306.25**	**$ -**	**$ 83,306.25**	**$ -**
	S1-D52 Assembly and Erection of Suspension Tower Type "A4 + 18" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 29933 Total Tower Height(ft) = 166 Section Weight (lb) = 28638											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	19.08	$ 441.04	$ 8,414.59	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	49.09	$ 1,183.92	$ 58,118.51	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.767	per pound				$ 83,306.25	$ -		$ -			
V::D53	**S1-D53 Assembly and Erection of Suspension Tower Type "A4 + 19.5" as per** **Total structure count:**		**0**	**EA**			**$ -**		**$ 84,024.25**	**$ -**	**$ 84,024.25**	**$ -**
	S1-D53 Assembly and Erection of Suspension Tower Type "A4 + 19.5" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 30300 Total Tower Height(ft) = 171 Section Weight (lb) = 28956											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	19.25	$ 441.04	$ 8,488.31	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	49.63	$ 1,183.92	$ 58,762.78	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.761	per pound				$ 84,024.25	$ -		$ -			
V-H19	**Assembly and Erection of Suspension Tower Type "B1"** **Tower Setting Ratio** **0.00 Helicopter** **100% Crane**											
V::D54	**S1-D54 Assembly and Erection of Suspension Tower Type "B1 + 0" as per dwg. Total structure count:**		**0**	**EA**			**$ -**		**$ 86,290.12**	**$ -**	**$ 86,290.12**	**$ -**
	S1-D54 Assembly and Erection of Suspension Tower Type "B1 + 0" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 31846 Total Tower Height(ft) = 122 Section Weight (lb) = 30111											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	15.85	$ 441.04	$ 6,992.41	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	51.61	$ 1,183.92	$ 61,107.20	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.708	per pound				$ 86,290.12	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description		Units Total		Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D55	**S1-D55 Assembly and Erection of Suspension Tower Type "B1 + 1.5" as per**		**Total structure count:**		**0**	**EA**			**$ -**		**$ 89,405.62**	**$ -**	**$ 89,405.62**	**$ -**
	S1-D55 Assembly and Erection of Suspension Tower Type "B1 + 1.5" as per dwg. 505573-4622-43DD-0002													
	Total Tower Weight With Guys and Ext. (lb) = 33198	Total Tower Height(ft) =	127	Section Weight (lb) =	31348									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul	Hauling	each	0	1	16.51	$ 441.04	$ 7,279.63	$ -	0	$ -			
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower	Lattice Assembly	each	0	4	53.73	$ 1,183.92	$ 63,617.17	$ -	0	$ -			
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set	Y- Tower Erection	each	0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -			
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.50	$ 636.64	$ 1,591.59	$ -	0	$ -			
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in	Tie -in	each	0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Total Cost =	$ 2.691	per pound					$ 89,405.62	$ -		$ -			
V::D56	**S1-D56 Assembly and Erection of Suspension Tower Type "B1 + 3" as per**		**Total structure count:**		**0**	**EA**			**$ -**		**$ 90,917.19**	**$ -**	**$ 90,917.19**	**$ -**
	S1-D56 Assembly and Erection of Suspension Tower Type "B1 + 3" as per dwg. 505573-4622-43DD-0002													
	Total Tower Weight With Guys and Ext. (lb) = 34123	Total Tower Height(ft) =	132	Section Weight (lb) =	32157									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul	Hauling	each	0	1	16.93	$ 441.04	$ 7,467.52	$ -	0	$ -			
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower	Lattice Assembly	each	0	4	55.12	$ 1,183.92	$ 65,259.16	$ -	0	$ -			
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set	Y- Tower Erection	each	0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -			
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in	Tie -in	each	0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Total Cost =	$ 2.680	per pound					$ 90,917.19	$ -		$ -			
V::D57	**S1-D57 Assembly and Erection of Suspension Tower Type "B1 + 4.5" as per**		**Total structure count:**		**0**	**EA**			**$ -**		**$ 93,714.37**	**$ -**	**$ 93,714.37**	**$ -**
	S1-D57 Assembly and Erection of Suspension Tower Type "B1 + 4.5" as per dwg. 505573-4622-43DD-0002													
	Total Tower Weight With Guys and Ext. (lb) = 35476	Total Tower Height(ft) =	137	Section Weight (lb) =	33394									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul	Hauling	each	0	1	17.58	$ 441.04	$ 7,754.73	$ -	0	$ -			
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower	Lattice Assembly	each	0	4	57.24	$ 1,183.92	$ 67,769.13	$ -	0	$ -			
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set	Y- Tower Erection	each	0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -			
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in	Tie -in	each	0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Total Cost =	$ 2.664	per pound					$ 93,714.37	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total		Crew No.	Crew Cost Hours per unit	 Hourly Rate	 Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D58	**S1-D58 Assembly and Erection of Suspension Tower Type "B1 + 6" as per**	**Total structure count:**		**0**	**EA**			**$ -**		**$ 94,831.25**	**$ -**	**$ 94,831.25**	**$ -**
	S1-D58 Assembly and Erection of Suspension Tower Type "B1 + 6" as per dwg. 505573-4622-43DD-0002												
	Total Tower Weight With Guys and Ext. (lb) = 36086	Total Tower Height(ft) = 142		Section Weight (lb) = 33887									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	Hauling	each	0	1	17.84	$ 441.04	$ 7,869.41	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	Lattice Assembly	each	0	4	58.09	$ 1,183.92	$ 68,771.33	$ -	0	$ -		
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	Y- Tower Erection	each	0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -		
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in	Tie -in	each	0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.658		per pound					$ 94,831.25	$ -		$ -		
V::D59	**S1-D59 Assembly and Erection of Suspension Tower Type "B1 + 7.5" as per**	**Total structure count:**		**5**	**EA**			**$ 483,505.10**		**$ 96,701.02**	**$ -**	**$ 96,701.02**	**$ -**
	S1-D59 Assembly and Erection of Suspension Tower Type "B1 + 7.5" as per dwg. 505573-4622-43DD-0002												
	Total Tower Weight With Guys and Ext. (lb) = 37029	Total Tower Height(ft) = 147		Section Weight (lb) = 34714									
	Site Preparation	Site Preparation	each	5	2	2.00	$ 675.12	$ 1,350.24	$ 6,751.22	5	$ 1,350.24		
	Haul	Hauling	each	5	1	18.28	$ 441.04	$ 8,061.40	$ 40,306.99	5	$ 8,061.40		
	Setup Blocks	Blocking Crew	each	5	3	2.00	$ 281.84	$ 563.68	$ 2,818.42	5	$ 563.68		
	Assemble Tower	Lattice Assembly	each	5	4	59.50	$ 1,183.92	$ 70,449.12	$ 352,245.58	5	$ 70,449.12		
	Install Guy Strand	Guy Install	each	5	39	3.00	$ 1,258.65	$ 3,775.95	$ 18,879.75	5	$ 3,775.95		
	Helicopter Set	HL Helicopter	each	5	27	0.00	$ 21,899.72	$ -	$ -	5	$ -		
	Crane Set	Y- Tower Erection	each	5	40	4.00	$ 1,482.09	$ 5,928.38	$ 29,641.88	5	$ 5,928.38		
	Plumb Tower	Tower Plumb	each	5	41	2.00	$ 913.00	$ 1,826.00	$ 9,130.02	5	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	5	7	2.00	$ 636.64	$ 1,273.27	$ 6,366.37	5	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	5	8	1.00	$ 1,444.07	$ 1,444.07	$ 7,220.33	5	$ 1,444.07		
	Tie -in	Tie -in	each	5	12	3.00	$ 676.30	$ 2,028.91	$ 10,144.53	5	$ 2,028.91		
			each	5			$ -	$ -	$ -	5	$ -		
	Total Cost = $ 2.649		per pound					$ 96,701.02	$ 483,505.10		$ 96,701.02		
V::D60	**S1-D60 Assembly and Erection of Suspension Tower Type "B1 + 9" as per**	**Total structure count:**		**6**	**EA**			**$ 590,347.76**		**$ 98,391.29**	**$ -**	**$ 98,391.29**	**$ -**
	S1-D60 Assembly and Erection of Suspension Tower Type "B1 + 9" as per dwg. 505573-4622-43DD-0002												
	Total Tower Weight With Guys and Ext. (lb) = 37892	Total Tower Height(ft) = 152		Section Weight (lb) = 35462									
	Site Preparation	Site Preparation	each	6	2	2.00	$ 675.12	$ 1,350.24	$ 8,101.47	6	$ 1,350.24		
	Haul	Hauling	each	6	1	18.67	$ 441.04	$ 8,234.95	$ 49,409.72	6	$ 8,234.95		
	Setup Blocks	Blocking Crew	each	6	3	2.00	$ 281.84	$ 563.68	$ 3,382.11	6	$ 563.68		
	Assemble Tower	Lattice Assembly	each	6	4	60.79	$ 1,183.92	$ 71,965.83	$ 431,795.01	6	$ 71,965.83		
	Install Guy Strand	Guy Install	each	6	39	3.00	$ 1,258.65	$ 3,775.95	$ 22,655.70	6	$ 3,775.95		
	Helicopter Set	HL Helicopter	each	6	27	0.00	$ 21,899.72	$ -	$ -	6	$ -		
	Crane Set	Y- Tower Erection	each	6	40	4.00	$ 1,482.09	$ 5,928.38	$ 35,570.26	6	$ 5,928.38		
	Plumb Tower	Tower Plumb	each	6	41	2.00	$ 913.00	$ 1,826.00	$ 10,956.02	6	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	6	7	2.00	$ 636.64	$ 1,273.27	$ 7,639.65	6	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	6	8	1.00	$ 1,444.07	$ 1,444.07	$ 8,664.40	6	$ 1,444.07		
	Tie -in	Tie -in	each	6	12	3.00	$ 676.30	$ 2,028.91	$ 12,173.43	6	$ 2,028.91		
			each	6			$ -	$ -	$ -	6	$ -		
	Total Cost = $ 2.641		per pound					$ 98,391.29	$ 590,347.76		$ 98,391.29		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description		Units Total		Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D61	**S1-D61 Assembly and Erection of Suspension Tower Type "B1 + 10.5" as per**		**Total structure count:**		**11**	**EA**			**$ 1,114,773.46**		**$ 101,343.04**	**$ -**	**$ 101,343.04**	**$ -**
	S1-D61 Assembly and Erection of Suspension Tower Type "B1 + 10.5" as per dwg. 505573-4622-43DD-0002													
	Total Tower Weight With Guys and Ext. (lb) = 39313	Total Tower Height(ft) =	157	Section Weight (lb) =	36767									
	Site Preparation	Site Preparation	each	11	2	2.00	$ 675.12	$ 1,350.24	$ 14,852.69	11	$ 1,350.24			
	Haul	Hauling	each	11	1	19.36	$ 441.04	$ 8,538.04	$ 93,918.40	11	$ 8,538.04			
	Setup Blocks	Blocking Crew	each	11	3	2.00	$ 281.84	$ 563.68	$ 6,200.53	11	$ 563.68			
	Assemble Tower	Lattice Assembly	each	11	4	63.02	$ 1,183.92	$ 74,614.50	$ 820,759.50	11	$ 74,614.50			
	Install Guy Strand	Guy Install	each	11	39	3.00	$ 1,258.65	$ 3,775.95	$ 41,535.44	11	$ 3,775.95			
	Helicopter Set	HL Helicopter	each	11	27	0.00	$ 21,899.72	$ -	$ -	11	$ -			
	Crane Set	Y- Tower Erection	each	11	40	4.00	$ 1,482.09	$ 5,928.38	$ 65,212.14	11	$ 5,928.38			
	Plumb Tower	Tower Plumb	each	11	41	2.00	$ 913.00	$ 1,826.00	$ 20,086.03	11	$ 1,826.00			
	haul Insulators and Travellers	Haul Travellers&Glass	each	11	7	2.00	$ 636.64	$ 1,273.27	$ 14,006.02	11	$ 1,273.27			
	Hang Travellers	Hang Travellers	each	11	8	1.00	$ 1,444.07	$ 1,444.07	$ 15,884.74	11	$ 1,444.07			
	Tie -in	Tie -in	each	11	12	3.00	$ 676.30	$ 2,028.91	$ 22,317.96	11	$ 2,028.91			
			each	11			$ -	$ -	$ -	11	$ -			
	Total Cost =	$ 2.627	per pound					$ 101,343.04	$ 1,114,773.46		$ 101,343.04			
V::D62	**S1-D62 Assembly and Erection of Suspension Tower Type "B1 + 12" as per**		**Total structure count:**		**9**	**EA**			**$ 930,396.19**		**$ 103,377.35**	**$ -**	**$ 103,377.35**	**$ -**
	S1-D62 Assembly and Erection of Suspension Tower Type "B1 + 12" as per dwg. 505573-4622-43DD-0002													
	Total Tower Weight With Guys and Ext. (lb) = 40328	Total Tower Height(ft) =	161	Section Weight (lb) =	37666									
	Site Preparation	Site Preparation	each	9	2	2.00	$ 675.12	$ 1,350.24	$ 12,152.20	9	$ 1,350.24			
	Haul	Hauling	each	9	1	19.83	$ 441.04	$ 8,746.92	$ 78,722.26	9	$ 8,746.92			
	Setup Blocks	Blocking Crew	each	9	3	2.00	$ 281.84	$ 563.68	$ 5,073.16	9	$ 563.68			
	Assemble Tower	Lattice Assembly	each	9	4	64.57	$ 1,183.92	$ 76,439.93	$ 687,959.38	9	$ 76,439.93			
	Install Guy Strand	Guy Install	each	9	39	3.00	$ 1,258.65	$ 3,775.95	$ 33,983.54	9	$ 3,775.95			
	Helicopter Set	HL Helicopter	each	9	27	0.00	$ 21,899.72	$ -	$ -	9	$ -			
	Crane Set	Y- Tower Erection	each	9	40	4.00	$ 1,482.09	$ 5,928.38	$ 53,355.39	9	$ 5,928.38			
	Plumb Tower	Tower Plumb	each	9	41	2.00	$ 913.00	$ 1,826.00	$ 16,434.03	9	$ 1,826.00			
	haul Insulators and Travellers	Haul Travellers&Glass	each	9	7	2.00	$ 636.64	$ 1,273.27	$ 11,459.47	9	$ 1,273.27			
	Hang Travellers	Hang Travellers	each	9	8	1.00	$ 1,444.07	$ 1,444.07	$ 12,996.60	9	$ 1,444.07			
	Tie -in	Tie -in	each	9	12	3.00	$ 676.30	$ 2,028.91	$ 18,260.15	9	$ 2,028.91			
			each	9			$ -	$ -	$ -	9	$ -			
	Total Cost =	$ 2.619	per pound					$ 103,377.35	$ 930,396.19		$ 103,377.35			
V::D63	**S1-D63 Assembly and Erection of Suspension Tower Type "B1 + 13.5" as per**		**Total structure count:**		**11**	**EA**			**$ 1,174,131.13**		**$ 106,739.19**	**$ -**	**$ 106,739.19**	**$ -**
	S1-D63 Assembly and Erection of Suspension Tower Type "B1 + 13.5" as per dwg. 505573-4622-43DD-0002													
	Total Tower Weight With Guys and Ext. (lb) = 41275	Total Tower Height(ft) =	166	Section Weight (lb) =	38497									
	Site Preparation	Site Preparation	each	11	2	2.00	$ 675.12	$ 1,350.24	$ 14,852.69	11	$ 1,350.24			
	Haul	Hauling	each	11	1	20.27	$ 441.04	$ 8,939.93	$ 98,339.22	11	$ 8,939.93			
	Setup Blocks	Blocking Crew	each	11	3	2.00	$ 281.84	$ 563.68	$ 6,200.53	11	$ 563.68			
	Assemble Tower	Lattice Assembly	each	11	4	65.99	$ 1,183.92	$ 78,126.67	$ 859,393.32	11	$ 78,126.67			
	Install Guy Strand	Guy Install	each	11	39	3.00	$ 1,258.65	$ 3,775.95	$ 41,535.44	11	$ 3,775.95			
	Helicopter Set	HL Helicopter	each	11	27	0.00	$ 21,899.72	$ -	$ -	11	$ -			
	Crane Set	Y- Tower Erection	each	11	40	5.00	$ 1,482.09	$ 7,410.47	$ 81,515.18	11	$ 7,410.47			
	Plumb Tower	Tower Plumb	each	11	41	2.00	$ 913.00	$ 1,826.00	$ 20,086.03	11	$ 1,826.00			
	haul Insulators and Travellers	Haul Travellers&Glass	each	11	7	2.00	$ 636.64	$ 1,273.27	$ 14,006.02	11	$ 1,273.27			
	Hang Travellers	Hang Travellers	each	11	8	1.00	$ 1,444.07	$ 1,444.07	$ 15,884.74	11	$ 1,444.07			
	Tie -in	Tie -in	each	11	12	3.00	$ 676.30	$ 2,028.91	$ 22,317.96	11	$ 2,028.91			
			each	11			$ -	$ -	$ -	11	$ -			
	Total Cost =	$ 2.649	per pound					$ 106,739.19	$ 1,174,131.13		$ 106,739.19			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D64	**S1-D64 Assembly and Erection of Suspension Tower Type "B1 + 15" as per**	**Total structure count:**		**0**	**EA**			**$ -**		**$ 108,623.92**	**$ -**	**$ 108,623.92**	**$ -**
	S1-D64 Assembly and Erection of Suspension Tower Type "B1 + 15" as per dwg. 505573-4622-43DD-0002												
	Total Tower Weight With Guys and Ext. (lb) = 42225	Total Tower Height(ft) = 171	Section Weight (lb) = 39331										
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	Hauling	each	0	1	20.71	$ 441.04	$ 9,133.45	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	Lattice Assembly	each	0	4	67.42	$ 1,183.92	$ 79,817.87	$ -	0	$ -		
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	Y- Tower Erection	each	0	40	5.00	$ 1,482.09	$ 7,410.47	$ -	0	$ -		
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in	Tie -in	each	0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.641		per pound					$ 108,623.92	$ -		$ -		
V::D65	**S1-D65 Assembly and Erection of Suspension Tower Type "B1 + 16.5" as per**	**Total structure count:**		**1**	**EA**			**$ 110,299.24**		**$ 110,299.24**	**$ -**	**$ 110,299.24**	**$ -**
	S1-D65 Assembly and Erection of Suspension Tower Type "B1 + 16.5" as per dwg. 505573-4622-43DD-0002												
	Total Tower Weight With Guys and Ext. (lb) = 43081	Total Tower Height(ft) = 176	Section Weight (lb) = 40071										
	Site Preparation	Site Preparation	each	1	2	2.00	$ 675.12	$ 1,350.24	$ 1,350.24	1	$ 1,350.24		
	Haul	Hauling	each	1	1	21.10	$ 441.04	$ 9,305.47	$ 9,305.47	1	$ 9,305.47		
	Setup Blocks	Blocking Crew	each	1	3	2.00	$ 281.84	$ 563.68	$ 563.68	1	$ 563.68		
	Assemble Tower	Lattice Assembly	each	1	4	68.69	$ 1,183.92	$ 81,321.17	$ 81,321.17	1	$ 81,321.17		
	Install Guy Strand	Guy Install	each	1	39	3.00	$ 1,258.65	$ 3,775.95	$ 3,775.95	1	$ 3,775.95		
	Helicopter Set	HL Helicopter	each	1	27	0.00	$ 21,899.72	$ -	$ -	1	$ -		
	Crane Set	Y- Tower Erection	each	1	40	5.00	$ 1,482.09	$ 7,410.47	$ 7,410.47	1	$ 7,410.47		
	Plumb Tower	Tower Plumb	each	1	41	2.00	$ 913.00	$ 1,826.00	$ 1,826.00	1	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	1	7	2.00	$ 636.64	$ 1,273.27	$ 1,273.27	1	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	1	8	1.00	$ 1,444.07	$ 1,444.07	$ 1,444.07	1	$ 1,444.07		
	Tie -in	Tie -in	each	1	12	3.00	$ 676.30	$ 2,028.91	$ 2,028.91	1	$ 2,028.91		
			each	1			$ -	$ -	$ -	1	$ -		
	Total Cost = $ 2.634		per pound					$ 110,299.24	$ 110,299.24		$ 110,299.24		
V::D66	**S1-D66 Assembly and Erection of Suspension Tower Type "B1 + 18" as per**	**Total structure count:**		**1**	**EA**			**$ 111,979.54**		**$ 111,979.54**	**$ -**	**$ 111,979.54**	**$ -**
	S1-D66 Assembly and Erection of Suspension Tower Type "B1 + 18" as per dwg. 505573-4622-43DD-0002												
	Total Tower Weight With Guys and Ext. (lb) = 43940	Total Tower Height(ft) = 181	Section Weight (lb) = 40814										
	Site Preparation	Site Preparation	each	1	2	2.00	$ 675.12	$ 1,350.24	$ 1,350.24	1	$ 1,350.24		
	Haul	Hauling	each	1	1	21.49	$ 441.04	$ 9,478.00	$ 9,478.00	1	$ 9,478.00		
	Setup Blocks	Blocking Crew	each	1	3	2.00	$ 281.84	$ 563.68	$ 563.68	1	$ 563.68		
	Assemble Tower	Lattice Assembly	each	1	4	69.96	$ 1,183.92	$ 82,828.94	$ 82,828.94	1	$ 82,828.94		
	Install Guy Strand	Guy Install	each	1	39	3.00	$ 1,258.65	$ 3,775.95	$ 3,775.95	1	$ 3,775.95		
	Helicopter Set	HL Helicopter	each	1	27	0.00	$ 21,899.72	$ -	$ -	1	$ -		
	Crane Set	Y- Tower Erection	each	1	40	5.00	$ 1,482.09	$ 7,410.47	$ 7,410.47	1	$ 7,410.47		
	Plumb Tower	Tower Plumb	each	1	41	2.00	$ 913.00	$ 1,826.00	$ 1,826.00	1	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	1	7	2.00	$ 636.64	$ 1,273.27	$ 1,273.27	1	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	1	8	1.00	$ 1,444.07	$ 1,444.07	$ 1,444.07	1	$ 1,444.07		
	Tie -in	Tie -in	each	1	12	3.00	$ 676.30	$ 2,028.91	$ 2,028.91	1	$ 2,028.91		
			each	1			$ -	$ -	$ -	1	$ -		
	Total Cost = $ 2.627		per pound					$ 111,979.54	$ 111,979.54		$ 111,979.54		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description		Units Total		Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D67	**S1-D67 Assembly and Erection of Suspension Tower Type "B1 + 19.5" as per** S1-D67 Assembly and Erection of Suspension Tower Type "B1 + 19.5" as per dwg. 505573-4622-43DD-0002		**Total structure count:**		**0**	**EA**			$ -		$ 115,285.30	$ -	$ 115,285.30	$ -
	Total Tower Weight With Guys and Ext. (lb) = 45518	Total Tower Height(ft) =	186	Section Weight (lb) =	42276									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul	Hauling	each	0	1	22.26	$ 441.04	$ 9,817.44	$ -	0	$ -			
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower	Lattice Assembly	each	0	4	72.47	$ 1,183.92	$ 85,795.27	$ -	0	$ -			
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set	Y- Tower Erection	each	0	40	5.00	$ 1,482.09	$ 7,410.47	$ -	0	$ -			
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in	Tie -in	each	0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Total Cost =	$ 2.615	per pound					$ 115,285.30	$ -		$ -			
V::D68	**S1-D68 Assembly and Erection of Suspension Tower Type "B1 + 21" as per** S1-D68 Assembly and Erection of Suspension Tower Type "B1 + 21" as per dwg. 505573-4622-43DD-0002		**Total structure count:**		**0**	**EA**			$ -		$ 118,447.70	$ -	$ 118,447.70	$ -
	Total Tower Weight With Guys and Ext. (lb) = 46377	Total Tower Height(ft) =	191	Section Weight (lb) =	43019									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul	Hauling	each	0	1	22.65	$ 441.04	$ 9,989.97	$ -	0	$ -			
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower	Lattice Assembly	each	0	4	73.74	$ 1,183.92	$ 87,303.04	$ -	0	$ -			
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set	Y- Tower Erection	each	0	40	6.00	$ 1,482.09	$ 8,892.56	$ -	0	$ -			
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in	Tie -in	each	0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Total Cost =	$ 2.643	per pound					$ 118,447.70	$ -		$ -			
V::D69	**S1-D69 Assembly and Erection of Suspension Tower Type "B1 + 22.5" as per** S1-D69 Assembly and Erection of Suspension Tower Type "B1 + 22.5" as per dwg. 505573-4622-43DD-0002		**Total structure count:**		**1**	**EA**			$ 120,531.87		$ 120,531.87	$ -	$ 120,531.87	$ -
	Total Tower Weight With Guys and Ext. (lb) = 47414	Total Tower Height(ft) =	196	Section Weight (lb) =	43941									
	Site Preparation	Site Preparation	each	1	2	2.00	$ 675.12	$ 1,350.24	$ 1,350.24	1	$ 1,350.24			
	Haul	Hauling	each	1	1	23.14	$ 441.04	$ 10,203.97	$ 10,203.97	1	$ 10,203.97			
	Setup Blocks	Blocking Crew	each	1	3	2.00	$ 281.84	$ 563.68	$ 563.68	1	$ 563.68			
	Assemble Tower	Lattice Assembly	each	1	4	75.32	$ 1,183.92	$ 89,173.21	$ 89,173.21	1	$ 89,173.21			
	Install Guy Strand	Guy Install	each	1	39	3.00	$ 1,258.65	$ 3,775.95	$ 3,775.95	1	$ 3,775.95			
	Helicopter Set	HL Helicopter	each	1	27	0.00	$ 21,899.72	$ -	$ -	1	$ -			
	Crane Set	Y- Tower Erection	each	1	40	6.00	$ 1,482.09	$ 8,892.56	$ 8,892.56	1	$ 8,892.56			
	Plumb Tower	Tower Plumb	each	1	41	2.00	$ 913.00	$ 1,826.00	$ 1,826.00	1	$ 1,826.00			
	haul Insulators and Travellers	Haul Travellers&Glass	each	1	7	2.00	$ 636.64	$ 1,273.27	$ 1,273.27	1	$ 1,273.27			
	Hang Travellers	Hang Travellers	each	1	8	1.00	$ 1,444.07	$ 1,444.07	$ 1,444.07	1	$ 1,444.07			
	Tie -in	Tie -in	each	1	12	3.00	$ 676.30	$ 2,028.91	$ 2,028.91	1	$ 2,028.91			
			each	1			$ -	$ -	$ -	1	$ -			
	Total Cost =	$ 2.635	per pound					$ 120,531.87	$ 120,531.87		$ 120,531.87			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description		Units Total		Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D70	**S1-D70 Assembly and Erection of Suspension Tower Type "B1 + 24" as per** S1-D70 Assembly and Erection of Suspension Tower Type "B1 + 24" as per dwg. 505573-4622-43DD-0002		**Total structure count:**		**0**	**EA**			**$ -**		**$ 124,971.93**	**$ -**	**$ 124,971.93**	**$ -**
	Total Tower Weight With Guys and Ext. (lb) = 48183	Total Tower Height(ft) = 201	Section Weight (lb) = 44593											
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul	Hauling	each	0	1	23.48	$ 441.04	$ 10,355.51	$ -	0	$ -			
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower	Lattice Assembly	each	0	4	76.44	$ 1,183.92	$ 90,497.54	$ -	0	$ -			
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set	Y- Tower Erection	each	0	40	8.00	$ 1,482.09	$ 11,856.75	$ -	0	$ -			
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in	Tie -in	each	0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Total Cost =	$ 2.696	per pound					$ 124,971.93	$ -		$ -			
V::D71	**S1-D71 Assembly and Erection of Suspension Tower Type "B1 + 25.5" as per** S1-D71 Assembly and Erection of Suspension Tower Type "B1 + 25.5" as per dwg. 505573-4622-43DD-0002		**Total structure count:**		**0**	**EA**			**$ -**		**$ 126,851.68**	**$ -**	**$ 126,851.68**	**$ -**
	Total Tower Weight With Guys and Ext. (lb) = 49130	Total Tower Height(ft) = 206	Section Weight (lb) = 45424											
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul	Hauling	each	0	1	23.92	$ 441.04	$ 10,548.52	$ -	0	$ -			
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower	Lattice Assembly	each	0	4	77.86	$ 1,183.92	$ 92,184.27	$ -	0	$ -			
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set	Y- Tower Erection	each	0	40	8.00	$ 1,482.09	$ 11,856.75	$ -	0	$ -			
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in	Tie -in	each	0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Total Cost =	$ 2.688	per pound					$ 126,851.68	$ -		$ -			
V::D72	**S1-D72 Assembly and Erection of Suspension Tower Type "B1 + 27" as per** S1-D72 Assembly and Erection of Suspension Tower Type "B1 + 27" as per dwg. 505573-4622-43DD-0002		**Total structure count:**		**1**	**EA**			**$ 128,531.98**		**$ 128,531.98**	**$ -**	**$ 128,531.98**	**$ -**
	Total Tower Weight With Guys and Ext. (lb) = 49989	Total Tower Height(ft) = 211	Section Weight (lb) = 46167											
	Site Preparation	Site Preparation	each	1	2	2.00	$ 675.12	$ 1,350.24	$ 1,350.24	1	$ 1,350.24			
	Haul	Hauling	each	1	1	24.31	$ 441.04	$ 10,721.05	$ 10,721.05	1	$ 10,721.05			
	Setup Blocks	Blocking Crew	each	1	3	2.00	$ 281.84	$ 563.68	$ 563.68	1	$ 563.68			
	Assemble Tower	Lattice Assembly	each	1	4	79.14	$ 1,183.92	$ 93,692.05	$ 93,692.05	1	$ 93,692.05			
	Install Guy Strand	Guy Install	each	1	39	3.00	$ 1,258.65	$ 3,775.95	$ 3,775.95	1	$ 3,775.95			
	Helicopter Set	HL Helicopter	each	1	27	0.00	$ 21,899.72	$ -	$ -	1	$ -			
	Crane Set	Y- Tower Erection	each	1	40	8.00	$ 1,482.09	$ 11,856.75	$ 11,856.75	1	$ 11,856.75			
	Plumb Tower	Tower Plumb	each	1	41	2.00	$ 913.00	$ 1,826.00	$ 1,826.00	1	$ 1,826.00			
	haul Insulators and Travellers	Haul Travellers&Glass	each	1	7	2.00	$ 636.64	$ 1,273.27	$ 1,273.27	1	$ 1,273.27			
	Hang Travellers	Hang Travellers	each	1	8	1.00	$ 1,444.07	$ 1,444.07	$ 1,444.07	1	$ 1,444.07			
	Tie -in	Tie -in	each	1	12	3.00	$ 676.30	$ 2,028.91	$ 2,028.91	1	$ 2,028.91			
			each	1			$ -	$ -	$ -	1	$ -			
	Total Cost =	$ 2.681	per pound					$ 128,531.98	$ 128,531.98		$ 128,531.98			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H20	**Assembly and Erection of Medium Angle Tower Type "B2"**											
V::D73	**S1-D73 Assembly and Erection of Medium Angle Tower Type "B2" Basic Body** **Total structure count:**		**28**	**EA**			$ 2,986,162.31		$ 106,648.65	$ -	$ 106,648.65	$ -
	S1-D73 Assembly and Erection of Medium Angle Tower Type "B2" Basic Body as per dwg. 505573-4622-43DD-0058											
	Total Tower Weight With Guys and Ext. (lb) = 38332 Total Tower Height(ft) = 131 Section Weight (lb) = 38332											
	Site Preparation (Site Preparation)	each 28	2	2.00	$ 675.12	$ 1,350.24	$ 37,806.86	28	$ 1,350.24			
	Haul (Hauling)	each 28	1	24.22	$ 441.04	$ 10,681.84	$ 299,091.46	28	$ 10,681.84			
	Setup Blocks (Blocking Crew)	each 28	3	2.00	$ 281.84	$ 563.68	$ 15,783.17	28	$ 563.68			
	Assemble (Lattice Assembly)	each 28	4	56.37	$ 1,183.92	$ 66,738.29	$ 1,868,672.06	28	$ 66,738.29			
	Erect Tower (Tower Topping)	each 28	6	11.11	$ 1,656.68	$ 18,406.94	$ 515,394.40	28	$ 18,406.94			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 28	7	4.00	$ 636.64	$ 2,546.55	$ 71,303.39	28	$ 2,546.55			
	Hang Travellers (Hang Travellers)	each 28	8	3.00	$ 1,444.07	$ 4,332.20	$ 121,301.62	28	$ 4,332.20			
	Tie -in (Tie -in)	each 28	12	3.00	$ 676.30	$ 2,028.91	$ 56,809.35	28	$ 2,028.91			
		each 28			$ -	$ -	$ -	28	$ -			
		each 28			$ -	$ -	$ -	28	$ -			
		each 28			$ -	$ -	$ -	28	$ -			
	Total Cost = $ 2.729	per pound				$ 106,648.65	$ 2,986,162.31		$ 106,648.65			
V::D74	**S1-D74 Assembly and Erection of +4.5 m body extension for Medium Angle** **Total structure count:**		**3**	**EA**			$ 82,555.57		$ 27,518.52	$ -	$ 27,518.52	$ -
	S1-D74 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058											
	Total Tower Weight With Guys and Ext. (lb) = 11008 Total Tower Height(ft) = 146 Section Weight (lb) = 11008											
	Site Preparation (Site Preparation)	each 3	2		$ 675.12	$ -	$ -	3	$ -			
	Haul (Hauling)	each 3	1	6.96	$ 441.04	$ 3,067.49	$ 9,202.46	3	$ 3,067.49			
		each 3			$ -	$ -	$ -	3	$ -			
	Assemble Bottom (Lattice Assembly)	each 3	4	16.19	$ 1,183.92	$ 19,165.14	$ 57,495.42	3	$ 19,165.14			
		each 3			$ -	$ -	$ -	3	$ -			
		each 3			$ -	$ -	$ -	3	$ -			
	Set Extension (Tower Topping)	each 3	6	3.19	$ 1,656.68	$ 5,285.90	$ 15,857.69	3	$ 5,285.90			
		each 3			$ -	$ -	$ -	3	$ -			
		each 3			$ -	$ -	$ -	3	$ -			
		each 3			$ -	$ -	$ -	3	$ -			
		each 3			$ -	$ -	$ -	3	$ -			
	Total Cost = $ 2.500	per pound				$ 27,518.52	$ 82,555.57		$ 27,518.52			
V::D75	**S1-D75 Assembly and Erection of +10.5 m body extension for Medium Angle** **Total structure count:**		**0**	**EA**			$ -		$ 46,562.11	$ -	$ 46,562.11	$ -
	S1-D75 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058											
	Total Tower Weight With Guys and Ext. (lb) = 18294 Total Tower Height(ft) = 165 Section Weight (lb) = 18294											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	11.56	$ 441.04	$ 5,097.94	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	26.90	$ 1,183.92	$ 31,851.06	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Set Extension (Tower Topping)	each 0	6	5.80	$ 1,656.68	$ 9,613.11	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.545	per pound				$ 46,562.11	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D76	**S1-D76 Assembly and Erection of +0 m leg extension for Medium Angle Tower** **Total structure count:**		**8**	**EA**			**$ 11,573.98**		**$ 1,446.75**	**$ -**	**$ 1,446.75**	**$ -**
	S1-D76 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 2315 Total Tower Height(ft) = 131 Section Weight (lb) = 579											
	Site Preparation (Site Preparation)	each 8	2		$ 675.12	$ -	$ -	8	$ -			
	Haul (Hauling)	each 8	1	0.37	$ 441.04	$ 161.27	$ 1,290.15	8	$ 161.27			
	Setup Blocks (Blocking Crew)	each 8	3		$ 281.84	$ -	$ -	8	$ -			
	Assemble Bottom (Lattice Assembly)	each 8	4	0.85	$ 1,183.92	$ 1,007.58	$ 8,060.64	8	$ 1,007.58			
	Panel Bottom (Lattice Erection)	each 8	5		$ 1,519.02	$ -	$ -	8	$ -			
	Assemble Tops (Lattice Assembly)	each 8	4		$ 1,183.92	$ -	$ -	8	$ -			
	Set Leg (Tower Topping)	each 8	6	0.17	$ 1,656.68	$ 277.90	$ 2,223.19	8	$ 277.90			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
	Total Cost = $ 2.500	per pound				$ 1,446.75	$ 11,573.98		$ 1,446.75			
V::D77	**S1-D77 Assembly and Erection of +1.5 m leg extension for Medium Angle** **Total structure count:**		**20**	**EA**			**$ 40,508.94**		**$ 2,025.45**	**$ -**	**$ 2,025.45**	**$ -**
	S1-D77 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 3241 Total Tower Height(ft) = 136 Section Weight (lb) = 810											
	Site Preparation (Site Preparation)	each 20	2		$ 675.12	$ -	$ -	20	$ -			
	Haul (Hauling)	each 20	1	0.51	$ 441.04	$ 225.78	$ 4,515.53	20	$ 225.78			
	Setup Blocks (Blocking Crew)	each 20	3		$ 281.84	$ -	$ -	20	$ -			
	Assemble Bottom (Lattice Assembly)	each 20	4	1.19	$ 1,183.92	$ 1,410.61	$ 28,212.25	20	$ 1,410.61			
	Panel Bottom (Lattice Erection)	each 20	5		$ 1,519.02	$ -	$ -	20	$ -			
	Assemble Tops (Lattice Assembly)	each 20	4		$ 1,183.92	$ -	$ -	20	$ -			
	Set Leg (Tower Topping)	each 20	6	0.23	$ 1,656.68	$ 389.06	$ 7,781.16	20	$ 389.06			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
	Total Cost = $ 2.500	per pound				$ 2,025.45	$ 40,508.94		$ 2,025.45			
V::D78	**S1-D78 Assembly and Erection of +3 m leg extension for Medium Angle Tower** **Total structure count:**		**16**	**EA**			**$ 56,881.33**		**$ 3,555.08**	**$ -**	**$ 3,555.08**	**$ -**
	S1-D78 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 5796 Total Tower Height(ft) = 141 Section Weight (lb) = 1449											
	Site Preparation (Site Preparation)	each 16	2		$ 675.12	$ -	$ -	16	$ -			
	Haul (Hauling)	each 16	1	0.76	$ 441.04	$ 336.49	$ 5,383.82	16	$ 336.49			
	Setup Blocks (Blocking Crew)	each 16	3		$ 281.84	$ -	$ -	16	$ -			
	Assemble Bottom (Lattice Assembly)	each 16	4	2.13	$ 1,183.92	$ 2,522.79	$ 40,364.63	16	$ 2,522.79			
	Panel Bottom (Lattice Erection)	each 16	5		$ 1,519.02	$ -	$ -	16	$ -			
	Assemble Tops (Lattice Assembly)	each 16	4		$ 1,183.92	$ -	$ -	16	$ -			
	Set Leg (Tower Topping)	each 16	6	0.42	$ 1,656.68	$ 695.81	$ 11,132.88	16	$ 695.81			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
	Total Cost = $ 2.453	per pound				$ 3,555.08	$ 56,881.33		$ 3,555.08			

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)

Payment Item	Description	Units	Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D79	**S1-D79 Assembly and Erection of +4.5 m leg extension for Medium Angle**	**Total structure count:**		**24**		**EA**		**$ 101,388.09**		**$ 4,224.50**	**$ -**	**$ 4,224.50**	**$ -**
	S1-D79 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 6759	Total Tower Height(ft) = 146		Section Weight (lb) = 1690									
	Site Preparation	Site Preparation	each	24	2		$ 675.12	$ -	$ -	24	$ -		
	Haul	Hauling	each	24	1	1.07	$ 441.04	$ 470.91	$ 11,301.72	24	$ 470.91		
	Setup Blocks	Blocking Crew	each	24	3		$ 281.84	$ -	$ -	24	$ -		
	Assemble Bottom	Lattice Assembly	each	24	4	2.49	$ 1,183.92	$ 2,942.13	$ 70,611.24	24	$ 2,942.13		
	Panel Bottom	Lattice Erection	each	24	5		$ 1,519.02	$ -	$ -	24	$ -		
	Assemble Tops	Lattice Assembly	each	24	4		$ 1,183.92	$ -	$ -	24	$ -		
	Set Leg	Tower Topping	each	24	6	0.49	$ 1,656.68	$ 811.46	$ 19,475.13	24	$ 811.46		
			each	24			$ -	$ -	$ -	24	$ -		
			each	24			$ -	$ -	$ -	24	$ -		
			each	24			$ -	$ -	$ -	24	$ -		
			each	24			$ -	$ -	$ -	24	$ -		
	Total Cost = $ 2.500		per pound					$ 4,224.50	$ 101,388.09		$ 4,224.50		
V::D80	**S1-D80 Assembly and Erection of +6 m leg extension for Medium Angle Tower**	**Total structure count:**		**28**		**EA**		**$ 132,213.47**		**$ 4,721.91**	**$ -**	**$ 4,721.91**	**$ -**
	S1-D80 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 7555	Total Tower Height(ft) = 151		Section Weight (lb) = 1889									
	Site Preparation	Site Preparation	each	28	2		$ 675.12	$ -	$ -	28	$ -		
	Haul	Hauling	each	28	1	1.19	$ 441.04	$ 526.35	$ 14,737.83	28	$ 526.35		
	Setup Blocks	Blocking Crew	each	28	3		$ 281.84	$ -	$ -	28	$ -		
	Assemble Bottom	Lattice Assembly	each	28	4	2.78	$ 1,183.92	$ 3,288.55	$ 92,079.42	28	$ 3,288.55		
	Panel Bottom	Lattice Erection	each	28	5		$ 1,519.02	$ -	$ -	28	$ -		
	Assemble Tops	Lattice Assembly	each	28	4		$ 1,183.92	$ -	$ -	28	$ -		
	Set Leg	Tower Topping	each	28	6	0.55	$ 1,656.68	$ 907.01	$ 25,396.22	28	$ 907.01		
			each	28			$ -	$ -	$ -	28	$ -		
			each	28			$ -	$ -	$ -	28	$ -		
			each	28			$ -	$ -	$ -	28	$ -		
			each	28			$ -	$ -	$ -	28	$ -		
	Total Cost = $ 2.500		per pound					$ 4,721.91	$ 132,213.47		$ 4,721.91		
V::D81	**S1-D81 Assembly and Erection of +7.5 m leg extension for Medium Angle**	**Total structure count:**		**8**		**EA**		**$ 44,818.87**		**$ 5,602.36**	**$ -**	**$ 5,602.36**	**$ -**
	S1-D81 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 8964	Total Tower Height(ft) = 156		Section Weight (lb) = 2241									
	Site Preparation	Site Preparation	each	8	2		$ 675.12	$ -	$ -	8	$ -		
	Haul	Hauling	each	8	1	1.42	$ 441.04	$ 624.49	$ 4,995.96	8	$ 624.49		
	Setup Blocks	Blocking Crew	each	8	3		$ 281.84	$ -	$ -	8	$ -		
	Assemble Bottom	Lattice Assembly	each	8	4	3.30	$ 1,183.92	$ 3,901.74	$ 31,213.88	8	$ 3,901.74		
	Panel Bottom	Lattice Erection	each	8	5		$ 1,519.02	$ -	$ -	8	$ -		
	Assemble Tops	Lattice Assembly	each	8	4		$ 1,183.92	$ -	$ -	8	$ -		
	Set Leg	Tower Topping	each	8	6	0.65	$ 1,656.68	$ 1,076.13	$ 8,609.03	8	$ 1,076.13		
			each	8			$ -	$ -	$ -	8	$ -		
			each	8			$ -	$ -	$ -	8	$ -		
			each	8			$ -	$ -	$ -	8	$ -		
			each	8			$ -	$ -	$ -	8	$ -		
	Total Cost = $ 2.500		per pound					$ 5,602.36	$ 44,818.87		$ 5,602.36		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D82	**S1-D82 Assembly and Erection of +9 m leg extension for Medium Angle Tower** **Total structure count:**	**8**	**EA**				**$ 58,103.40**		**$ 7,262.93**	**$ -**	**$ 7,262.93**	**$ -**
	S1-D82 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 10296 Total Tower Height(ft) = 160 Section Weight (lb) = 2574											
	Site Preparation (Site Preparation)	each 8	2		$ 675.12	$ -	$ -	8	$ -			
	Haul (Hauling)	each 8	1	1.63	$ 441.04	$ 717.26	$ 5,738.10	8	$ 717.26			
	Setup Blocks (Blocking Crew)	each 8	3		$ 281.84	$ -	$ -	8	$ -			
	Assemble Bottom (Lattice Assembly)	each 8	4	3.79	$ 1,183.92	$ 4,481.33	$ 35,850.67	8	$ 4,481.33			
	Panel Bottom (Lattice Erection)	each 8	5		$ 1,519.02	$ -	$ -	8	$ -			
	Assemble Tops (Lattice Assembly)	each 8	4		$ 1,183.92	$ -	$ -	8	$ -			
	Set Leg (Tower Topping)	each 8	6	1.25	$ 1,656.68	$ 2,064.33	$ 16,514.63	8	$ 2,064.33			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
	Total Cost = $ 2.822	per pound				$ 7,262.93	$ 58,103.40		$ 7,262.93			
V-H21	**Assembly and Erection of Medium Angle Tower Type "C1"**											
V::D83	**S1-D83 Assembly and Erection of Medium Angle Tower Type "C1" Basic Body** **Total structure count:**	**21**	**EA**				**$ 2,531,996.75**		**$ 120,571.27**	**$ -**	**$ 120,571.27**	**$ -**
	S1-D83 Assembly and Erection of Medium Angle Tower Type "C1" Basic Body as per dwg. 505573-4622-43DD-0004											
	Total Tower Weight With Guys and Ext. (lb) = 39636 Total Tower Height(ft) = 119 Section Weight (lb) = 39636											
	Site Preparation (Site Preparation)	each 21	2	2.00	$ 675.12	$ 1,350.24	$ 28,355.14	21	$ 1,350.24			
	Haul (Hauling)	each 21	1	20.87	$ 441.04	$ 9,204.36	$ 193,291.54	21	$ 9,204.36			
	Setup Blocks (Blocking Crew)	each 21	3	2.00	$ 281.84	$ 563.68	$ 11,837.38	21	$ 563.68			
	Assemble (Lattice Assembly)	each 21	4	58.29	$ 1,183.92	$ 69,008.70	$ 1,449,182.75	21	$ 69,008.70			
	Erect Tower (Tower Topping)	each 21	6	11.49	$ 1,656.68	$ 19,033.14	$ 399,695.96	21	$ 19,033.14			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 21	7	3.00	$ 636.64	$ 1,909.91	$ 40,108.16	21	$ 1,909.91			
	Hang Travellers (Hang Travellers)	each 21	8	2.00	$ 1,444.07	$ 2,888.13	$ 60,650.81	21	$ 2,888.13			
	Dead-end (Deadends)	each 21	13	12.00	$ 1,384.42	$ 16,613.10	$ 348,875.01	21	$ 16,613.10			
		each 21			$ -	$ -	$ -	21	$ -			
		each 21			$ -	$ -	$ -	21	$ -			
		each 21			$ -	$ -	$ -	21	$ -			
	Total Cost = $ 2.623	per pound				$ 120,571.27	$ 2,531,996.75		$ 120,571.27			
V::D84	**S1-D84 Assembly and Erection of +4.5 m body extension for Medium Angle** **Total structure count:**	**0**	**EA**				**$ -**		**$ 23,805.13**	**$ -**	**$ 23,805.13**	**$ -**
	S1-D84 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004											
	Total Tower Weight With Guys and Ext. (lb) = 9703 Total Tower Height(ft) = 134 Section Weight (lb) = 9703											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	5.11	$ 441.04	$ 2,253.16	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	14.27	$ 1,183.92	$ 16,892.81	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	2.81	$ 1,656.68	$ 4,659.17	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.453	per pound				$ 23,805.13	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D85	**S1-D85 Assembly and Erection of +10.5 m body extension for Medium Angle** **Total structure count:**	**0**		**EA**			**$ -**		**$ 44,425.10**	**$ -**	**$ 44,425.10**	**$ -**
	S1-D85 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004											
	Total Tower Weight With Guys and Ext. (lb) = 17769 Total Tower Height(ft) = 169 Section Weight (lb) = 17769											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	9.36	$ 441.04	$ 4,126.44	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	26.13	$ 1,183.92	$ 30,937.52	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	5.65	$ 1,656.68	$ 9,361.15	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.500	per pound				$ 44,425.10	$ -		$ -			
V::D86	**S1-D86 Assembly and Erection of +0 m leg extension for Medium Angle Tower** **Total structure count:**	**40**		**EA**			**$ 89,113.73**		**$ 2,227.84**	**$ -**	**$ 2,227.84**	**$ -**
	S1-D86 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 3632 Total Tower Height(ft) = 119 Section Weight (lb) = 908											
	Site Preparation (Site Preparation)	each 40	2		$ 675.12	$ -	$ -	40	$ -			
	Haul (Hauling)	each 40	1	0.48	$ 441.04	$ 210.87	$ 8,434.62	40	$ 210.87			
	Setup Blocks (Blocking Crew)	each 40	3		$ 281.84	$ -	$ -	40	$ -			
	Assemble Bottom (Lattice Assembly)	each 40	4	1.34	$ 1,183.92	$ 1,580.94	$ 63,237.67	40	$ 1,580.94			
	Panel Bottom (Lattice Erection)	each 40	5		$ 1,519.02	$ -	$ -	40	$ -			
	Assemble Tops (Lattice Assembly)	each 40	4		$ 1,183.92	$ -	$ -	40	$ -			
	Top / Assembly Tower (Tower Topping)	each 40	6	0.26	$ 1,656.68	$ 436.04	$ 17,441.44	40	$ 436.04			
		each 40			$ -	$ -	$ -	40	$ -			
		each 40			$ -	$ -	$ -	40	$ -			
		each 40			$ -	$ -	$ -	40	$ -			
		each 40			$ -	$ -	$ -	40	$ -			
	Total Cost = $ 2.453	per pound				$ 2,227.84	$ 89,113.73		$ 2,227.84			
V::D87	**S1-D87 Assembly and Erection of +1.5 m leg extension for Medium Angle** **Total structure count:**	4		**EA**			**$ 12,475.92**		**$ 3,118.98**	**$ -**	**$ 3,118.98**	**$ -**
	S1-D87 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 5085 Total Tower Height(ft) = 124 Section Weight (lb) = 1271											
	Site Preparation (Site Preparation)	each 4	2		$ 675.12	$ -	$ -	4	$ -			
	Haul (Hauling)	each 4	1	0.67	$ 441.04	$ 295.21	$ 1,180.85	4	$ 295.21			
	Setup Blocks (Blocking Crew)	each 4	3		$ 281.84	$ -	$ -	4	$ -			
	Assemble Bottom (Lattice Assembly)	each 4	4	1.87	$ 1,183.92	$ 2,213.32	$ 8,853.27	4	$ 2,213.32			
	Panel Bottom (Lattice Erection)	each 4	5		$ 1,519.02	$ -	$ -	4	$ -			
	Assemble Tops (Lattice Assembly)	each 4	4		$ 1,183.92	$ -	$ -	4	$ -			
	Top / Assembly Tower (Tower Topping)	each 4	6	0.37	$ 1,656.68	$ 610.45	$ 2,441.80	4	$ 610.45			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
	Total Cost = $ 2.453	per pound				$ 3,118.98	$ 12,475.92		$ 3,118.98			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D88	**S1-D88 Assembly and Erection of +3 m leg extension for Medium Angle Tower** **Total structure count:**		**16**	**EA**			**$ 65,178.78**		**$ 4,073.67**	**$ -**	**$ 4,073.67**	**$ -**
	S1-D88 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 6641 Total Tower Height(ft) = 129 Section Weight (lb) = 1660											
	Site Preparation (Site Preparation)	each 16	2		$ 675.12	$ -	$ -	16	$ -			
	Haul (Hauling)	each 16	1	0.87	$ 441.04	$ 385.57	$ 6,169.18	16	$ 385.57			
	Setup Blocks (Blocking Crew)	each 16	3		$ 281.84	$ -	$ -	16	$ -			
	Assemble Bottom (Lattice Assembly)	each 16	4	2.44	$ 1,183.92	$ 2,890.80	$ 46,252.74	16	$ 2,890.80			
	Panel Bottom (Lattice Erection)	each 16	5		$ 1,519.02	$ -	$ -	16	$ -			
	Assemble Tops (Lattice Assembly)	each 16	4		$ 1,183.92	$ -	$ -	16	$ -			
	Top / Assembly Tower (Tower Topping)	each 16	6	0.48	$ 1,656.68	$ 797.30	$ 12,756.87	16	$ 797.30			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
	Total Cost = $ 2.453	per pound				$ 4,073.67	$ 65,178.78		$ 4,073.67			
V::D89	**S1-D89 Assembly and Erection of +4.5 m leg extension for Medium Angle** **Total structure count:**		**8**	**EA**			**$ 40,443.30**		**$ 5,055.41**	**$ -**	**$ 5,055.41**	**$ -**
	S1-D89 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 8242 Total Tower Height(ft) = 134 Section Weight (lb) = 2061											
	Site Preparation (Site Preparation)	each 8	2		$ 675.12	$ -	$ -	8	$ -			
	Haul (Hauling)	each 8	1	1.08	$ 441.04	$ 478.50	$ 3,827.96	8	$ 478.50			
	Setup Blocks (Blocking Crew)	each 8	3		$ 281.84	$ -	$ -	8	$ -			
	Assemble Bottom (Lattice Assembly)	each 8	4	3.03	$ 1,183.92	$ 3,587.47	$ 28,699.73	8	$ 3,587.47			
	Panel Bottom (Lattice Erection)	each 8	5		$ 1,519.02	$ -	$ -	8	$ -			
	Assemble Tops (Lattice Assembly)	each 8	4		$ 1,183.92	$ -	$ -	8	$ -			
	Top / Assembly Tower (Tower Topping)	each 8	6	0.60	$ 1,656.68	$ 989.45	$ 7,915.61	8	$ 989.45			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
	Total Cost = $ 2.453	per pound				$ 5,055.41	$ 40,443.30		$ 5,055.41			
V::D90	**S1-D90 Assembly and Erection of +6 m leg extension for Medium Angle Tower** **Total structure count:**		**8**	**EA**			**$ 50,082.19**		**$ 6,260.27**	**$ -**	**$ 6,260.27**	**$ -**
	S1-D90 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 10206 Total Tower Height(ft) = 139 Section Weight (lb) = 2552											
	Site Preparation (Site Preparation)	each 8	2		$ 675.12	$ -	$ -	8	$ -			
	Haul (Hauling)	each 8	1	1.34	$ 441.04	$ 592.54	$ 4,740.28	8	$ 592.54			
	Setup Blocks (Blocking Crew)	each 8	3		$ 281.84	$ -	$ -	8	$ -			
	Assemble Bottom (Lattice Assembly)	each 8	4	3.75	$ 1,183.92	$ 4,442.47	$ 35,539.76	8	$ 4,442.47			
	Panel Bottom (Lattice Erection)	each 8	5		$ 1,519.02	$ -	$ -	8	$ -			
	Assemble Tops (Lattice Assembly)	each 8	4		$ 1,183.92	$ -	$ -	8	$ -			
	Top / Assembly Tower (Tower Topping)	each 8	6	0.74	$ 1,656.68	$ 1,225.27	$ 9,802.14	8	$ 1,225.27			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
	Total Cost = $ 2.453	per pound				$ 6,260.27	$ 50,082.19		$ 6,260.27			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	 Hourly Rate	 Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D91	**S1-D91 Assembly and Erection of +7.5 m leg extension for Medium Angle** **Total structure count:**	**8**	**EA**				**$ 58,531.09**		**$ 7,316.39**	**$ -**	**$ 7,316.39**	**$ -**
	S1-D91 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 11928 Total Tower Height(ft) = 144 Section Weight (lb) = 2982											
	Site Preparation (Site Preparation)	each 8	2		$ 675.12	$ -	$ -	8	$ -			
	Haul (Hauling)	each 8	1	1.57	$ 441.04	$ 692.50	$ 5,539.97	8	$ 692.50			
	Setup Blocks (Blocking Crew)	each 8	3		$ 281.84	$ -	$ -	8	$ -			
	Assemble Bottom (Lattice Assembly)	each 8	4	4.39	$ 1,183.92	$ 5,191.92	$ 41,535.34	8	$ 5,191.92			
	Panel Bottom (Lattice Erection)	each 8	5		$ 1,519.02	$ -	$ -	8	$ -			
	Assemble Tops (Lattice Assembly)	each 8	4		$ 1,183.92	$ -	$ -	8	$ -			
	Top / Assembly Tower (Tower Topping)	each 8	6	0.86	$ 1,656.68	$ 1,431.97	$ 11,455.77	8	$ 1,431.97			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
	Total Cost = $ 2.453	per pound				$ 7,316.39	$ 58,531.09		$ 7,316.39			
V::D92	**S1-D92 Assembly and Erection of +9 m leg extension for Medium Angle Tower** **Total structure count:**	**0**	**EA**				**$ -**		**$ 8,912.05**	**$ -**	**$ 8,912.05**	**$ -**
	S1-D92 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 14530 Total Tower Height(ft) = 149 Section Weight (lb) = 3632											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	1.91	$ 441.04	$ 843.53	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	5.34	$ 1,183.92	$ 6,324.25	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	1.05	$ 1,656.68	$ 1,744.28	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.453	per pound				$ 8,912.05	$ -		$ -			
V-H22	**Assembly and Erection of Medium Angle Tower Type "C2"**											
V::D93	**S1-D93 Assembly and Erection of Medium Angle Tower Type "C2" Basic Body** **Total structure count:**	**24**	**EA**				**$ 2,676,139.88**		**$ 111,505.83**	**$ -**	**$ 111,505.83**	**$ -**
	S1-D93 Assembly and Erection of Medium Angle Tower Type "C2" Basic Body as per dwg. 505573-4622-43DD-0012											
	Total Tower Weight With Guys and Ext. (lb) = 33817 Total Tower Height(ft) = 104 Section Weight (lb) = 33817											
	Site Preparation (Site Preparation)	each 24	2	2.00	$ 675.12	$ 1,350.24	$ 32,405.88	24	$ 1,350.24			
	Haul (Hauling)	each 24	1	21.90	$ 441.04	$ 9,659.22	$ 231,821.38	24	$ 9,659.22			
	Setup Blocks (Blocking Crew)	each 24	3	2.00	$ 281.84	$ 563.68	$ 13,528.43	24	$ 563.68			
	Assemble Bottom (Lattice Assembly)	each 24	4	49.73	$ 1,183.92	$ 58,877.24	$ 1,413,053.80	24	$ 58,877.24			
	Panel Bottom (Lattice Erection)	each 24	5		$ 1,519.02	$ -	$ -	24	$ -			
	Assemble Tops (Lattice Assembly)	each 24	4		$ 1,183.92	$ -	$ -	24	$ -			
	Erect Tower (Tower Topping)	each 24	6	9.80	$ 1,656.68	$ 16,238.80	$ 389,731.31	24	$ 16,238.80			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 24	7	4.00	$ 636.64	$ 2,546.55	$ 61,117.19	24	$ 2,546.55			
	Hang Travellers (Hang Travellers)	each 24	8	2.00	$ 1,444.07	$ 2,888.13	$ 69,315.21	24	$ 2,888.13			
	Dead-end (Deadends)	each 24	13	14.00	$ 1,384.42	$ 19,381.95	$ 465,166.68	24	$ 19,381.95			
		each 24			$ -	$ -	$ -	24	$ -			
	Total Cost = $ 2.563	per pound				$ 111,505.83	$ 2,676,139.88		$ 111,505.83			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total		Crew No.	Crew Cost Hours per unit	 Hourly Rate	 Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D94	**S1-D94 Assembly and Erection of +4.5 m body extension for Medium Angle** **Total structure count:**			4	EA			$ 103,947.67		$ 25,986.92	$ -	$ 25,986.92	$ -
	S1-D94 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012												
	Total Tower Weight With Guys and Ext. (lb) = 10366 Total Tower Height(ft) = 119 Section Weight (lb) = 10366												
	Site Preparation (Site Preparation)	each	4	2		$ 675.12	$ -	$ -	4	$ -			
	Haul (Hauling)	each	4	1	6.71	$ 441.04	$ 2,960.93	$ 11,843.71	4	$ 2,960.93			
	Setup Blocks (Blocking Crew)	each	4	3		$ 281.84	$ -	$ -	4	$ -			
	Assemble Bottom (Lattice Assembly)	each	4	4	15.24	$ 1,183.92	$ 18,048.16	$ 72,192.66	4	$ 18,048.16			
	Panel Bottom (Lattice Erection)	each	4	5		$ 1,519.02	$ -	$ -	4	$ -			
	Assemble Tops (Lattice Assembly)	each	4	4		$ 1,183.92	$ -	$ -	4	$ -			
	Top / Assembly Tower (Tower Topping)	each	4	6	3.00	$ 1,656.68	$ 4,977.83	$ 19,911.30	4	$ 4,977.83			
		each	4			$ -	$ -	$ -	4	$ -			
		each	4			$ -	$ -	$ -	4	$ -			
		each	4			$ -	$ -	$ -	4	$ -			
		each	4			$ -	$ -	$ -	4	$ -			
	Total Cost = $ 2.507	per pound					$ 25,986.92	$ 103,947.67		$ 25,986.92			
V::D95	**S1-D95 Assembly and Erection of +10.5 m body extension for Medium Angle** **Total structure count:**			0	EA			$ -		$ -	$ -	$ -	$ -
	S1-D95 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012												
	Total Tower Weight With Guys and Ext. (lb) = 26024 Total Tower Height(ft) = 139 Section Weight (lb) = 0												
	Site Preparation (Site Preparation)	each	0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each	0	1	0.00	$ 441.04	$ -	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each	0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each	0	4	0.00	$ 1,183.92	$ -	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each	0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each	0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each	0	6	0.00	$ 1,656.68	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
	Total Cost = #DIV/0!	per pound					$ -	$ -		$ -			
V::D96	**S1-D96 Assembly and Erection of +0 m leg extension for Medium Angle Tower** **Total structure count:**			40	EA			$ 105,008.81		$ 2,625.22	$ -	$ 2,625.22	$ -
	S1-D96 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 4189 Total Tower Height(ft) = 104 Section Weight (lb) = 1047												
	Site Preparation (Site Preparation)	each	40	2		$ 675.12	$ -	$ -	40	$ -			
	Haul (Hauling)	each	40	1	0.68	$ 441.04	$ 299.12	$ 11,964.62	40	$ 299.12			
	Setup Blocks (Blocking Crew)	each	40	3		$ 281.84	$ -	$ -	40	$ -			
	Assemble Bottom (Lattice Assembly)	each	40	4	1.54	$ 1,183.92	$ 1,823.24	$ 72,929.63	40	$ 1,823.24			
	Panel Bottom (Lattice Erection)	each	40	5		$ 1,519.02	$ -	$ -	40	$ -			
	Assemble Tops (Lattice Assembly)	each	40	4		$ 1,183.92	$ -	$ -	40	$ -			
	Top / Assembly Tower (Tower Topping)	each	40	6	0.30	$ 1,656.68	$ 502.86	$ 20,114.56	40	$ 502.86			
		each	40			$ -	$ -	$ -	40	$ -			
		each	40			$ -	$ -	$ -	40	$ -			
		each	40			$ -	$ -	$ -	40	$ -			
		each	40			$ -	$ -	$ -	40	$ -			
	Total Cost = $ 2.507	per pound					$ 2,625.22	$ 105,008.81		$ 2,625.22			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D97	**S1-D97 Assembly and Erection of +1.5 m leg extension for Medium Angle** **Total structure count:**		**12**	**EA**			**$ 44,103.70**		**$ 3,675.31**	**$ -**	**$ 3,675.31**	**$ -**
	S1-D97 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 5864 Total Tower Height(ft) = 109 Section Weight (lb) = 1466											
	Site Preparation (Site Preparation)	each 12	2		$ 675.12	$ -	$ -	12	$ -			
	Haul (Hauling)	each 12	1	0.95	$ 441.04	$ 418.76	$ 5,025.14	12	$ 418.76			
	Setup Blocks (Blocking Crew)	each 12	3		$ 281.84	$ -	$ -	12	$ -			
	Assemble Bottom (Lattice Assembly)	each 12	4	2.16	$ 1,183.92	$ 2,552.54	$ 30,630.44	12	$ 2,552.54			
	Panel Bottom (Lattice Erection)	each 12	5		$ 1,519.02	$ -	$ -	12	$ -			
	Assemble Tops (Lattice Assembly)	each 12	4		$ 1,183.92	$ -	$ -	12	$ -			
	Top / Assembly Tower (Tower Topping)	each 12	6	0.42	$ 1,656.68	$ 704.01	$ 8,448.12	12	$ 704.01			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
	Total Cost = $ 2.507	per pound				$ 3,675.31	$ 44,103.70		$ 3,675.31			
V::D98	**S1-D98 Assembly and Erection of +3 m leg extension for Medium Angle Tower** **Total structure count:**		**16**	**EA**			**$ 81,928.98**		**$ 5,120.56**	**$ -**	**$ 5,120.56**	**$ -**
	S1-D98 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 8170 Total Tower Height(ft) = 114 Section Weight (lb) = 2043											
	Site Preparation (Site Preparation)	each 16	2		$ 675.12	$ -	$ -	16	$ -			
	Haul (Hauling)	each 16	1	1.32	$ 441.04	$ 583.43	$ 9,334.92	16	$ 583.43			
	Setup Blocks (Blocking Crew)	each 16	3		$ 281.84	$ -	$ -	16	$ -			
	Assemble Bottom (Lattice Assembly)	each 16	4	3.00	$ 1,183.92	$ 3,556.28	$ 56,900.46	16	$ 3,556.28			
	Panel Bottom (Lattice Erection)	each 16	5		$ 1,519.02	$ -	$ -	16	$ -			
	Assemble Tops (Lattice Assembly)	each 16	4		$ 1,183.92	$ -	$ -	16	$ -			
	Top / Assembly Tower (Tower Topping)	each 16	6	0.59	$ 1,656.68	$ 980.85	$ 15,693.59	16	$ 980.85			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
	Total Cost = $ 2.507	per pound				$ 5,120.56	$ 81,928.98		$ 5,120.56			
V::D99	**S1-D99 Assembly and Erection of +4.5 m leg extension for Medium Angle** **Total structure count:**		4	**EA**			**$ 25,633.20**		**$ 6,408.30**	**$ -**	**$ 6,408.30**	**$ -**
	S1-D99 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 10225 Total Tower Height(ft) = 119 Section Weight (lb) = 2556											
	Site Preparation (Site Preparation)	each 4	2		$ 675.12	$ -	$ -	4	$ -			
	Haul (Hauling)	each 4	1	1.66	$ 441.04	$ 730.16	$ 2,920.63	4	$ 730.16			
	Setup Blocks (Blocking Crew)	each 4	3		$ 281.84	$ -	$ -	4	$ -			
	Assemble Bottom (Lattice Assembly)	each 4	4	3.76	$ 1,183.92	$ 4,450.63	$ 17,802.51	4	$ 4,450.63			
	Panel Bottom (Lattice Erection)	each 4	5		$ 1,519.02	$ -	$ -	4	$ -			
	Assemble Tops (Lattice Assembly)	each 4	4		$ 1,183.92	$ -	$ -	4	$ -			
	Top / Assembly Tower (Tower Topping)	each 4	6	0.74	$ 1,656.68	$ 1,227.52	$ 4,910.07	4	$ 1,227.52			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
	Total Cost = $ 2.507	per pound				$ 6,408.30	$ 25,633.20		$ 6,408.30			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D100	**S1-D100 Assembly and Erection of +6 m leg extension for Medium Angle Tower** **Total structure count:**	**12**	**EA**				**$ 98,139.02**		**$ 8,178.25**	**$ -**	**$ 8,178.25**	**$ -**
	S1-D100 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 13049 Total Tower Height(ft) = 124 Section Weight (lb) = 3262											
	Site Preparation (Site Preparation)	each 12	2		$ 675.12	$ -	$ -	12	$ -			
	Haul (Hauling)	each 12	1	2.11	$ 441.04	$ 931.82	$ 11,181.88	12	$ 931.82			
	Setup Blocks (Blocking Crew)	each 12	3		$ 281.84	$ -	$ -	12	$ -			
	Assemble Bottom (Lattice Assembly)	each 12	4	4.80	$ 1,183.92	$ 5,679.87	$ 68,158.50	12	$ 5,679.87			
	Panel Bottom (Lattice Erection)	each 12	5		$ 1,519.02	$ -	$ -	12	$ -			
	Assemble Tops (Lattice Assembly)	each 12	4		$ 1,183.92	$ -	$ -	12	$ -			
	Top / Assembly Tower (Tower Topping)	each 12	6	0.95	$ 1,656.68	$ 1,566.55	$ 18,798.65	12	$ 1,566.55			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
	Total Cost = $ 2.507	per pound				$ 8,178.25	$ 98,139.02		$ 8,178.25			
V::D101	**S1-D101 Assembly and Erection of +7.5 m leg extension for Medium Angle** **Total structure count:**	**4**	**EA**				**$ 38,261.89**		**$ 9,565.47**	**$ -**	**$ 9,565.47**	**$ -**
	S1-D101 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 15263 Total Tower Height(ft) = 129 Section Weight (lb) = 3816											
	Site Preparation (Site Preparation)	each 4	2		$ 675.12	$ -	$ -	4	$ -			
	Haul (Hauling)	each 4	1	2.47	$ 441.04	$ 1,089.88	$ 4,359.53	4	$ 1,089.88			
	Setup Blocks (Blocking Crew)	each 4	3		$ 281.84	$ -	$ -	4	$ -			
	Assemble Bottom (Lattice Assembly)	each 4	4	5.61	$ 1,183.92	$ 6,643.31	$ 26,573.25	4	$ 6,643.31			
	Panel Bottom (Lattice Erection)	each 4	5		$ 1,519.02	$ -	$ -	4	$ -			
	Assemble Tops (Lattice Assembly)	each 4	4		$ 1,183.92	$ -	$ -	4	$ -			
	Top / Assembly Tower (Tower Topping)	each 4	6	1.11	$ 1,656.68	$ 1,832.28	$ 7,329.11	4	$ 1,832.28			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
	Total Cost = $ 2.507	per pound				$ 9,565.47	$ 38,261.89		$ 9,565.47			
V::D102	**S1-D102 Assembly and Erection of +9 m leg extension for Medium Angle Tower** **Total structure count:**	**8**	**EA**				**$ 87,345.22**		**$ 10,918.15**	**$ -**	**$ 10,918.15**	**$ -**
	S1-D102 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 17421 Total Tower Height(ft) = 134 Section Weight (lb) = 4355											
	Site Preparation (Site Preparation)	each 8	2		$ 675.12	$ -	$ -	8	$ -			
	Haul (Hauling)	each 8	1	2.82	$ 441.04	$ 1,244.01	$ 9,952.04	8	$ 1,244.01			
	Setup Blocks (Blocking Crew)	each 8	3		$ 281.84	$ -	$ -	8	$ -			
	Assemble Bottom (Lattice Assembly)	each 8	4	6.40	$ 1,183.92	$ 7,582.76	$ 60,662.10	8	$ 7,582.76			
	Panel Bottom (Lattice Erection)	each 8	5		$ 1,519.02	$ -	$ -	8	$ -			
	Assemble Tops (Lattice Assembly)	each 8	4		$ 1,183.92	$ -	$ -	8	$ -			
	Top / Assembly Tower (Tower Topping)	each 8	6	1.26	$ 1,656.68	$ 2,091.39	$ 16,731.08	8	$ 2,091.39			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
	Total Cost = $ 2.507	per pound				$ 10,918.15	$ 87,345.22		$ 10,918.15			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H23	**Assembly and Erection of Dead-End Tower Type "D1"**											
V::D103	**S1-D103 Assembly and Erection of Dead-End Tower Type "D1" Basic Body as** **Total structure count:**		**42**	**EA**			$ 5,710,066.96		**$ 135,953.98**	**$ -**	**$ 135,953.98**	**$ -**
	S1-D103 Assembly and Erection of Dead-End Tower Type "D1" Basic Body as per dwg. 505573-4622-43DD-0043											
	Total Tower Weight With Guys and Ext. (lb) = 44777 Total Tower Height(ft) = 121 Section Weight (lb) = 44777											
	Site Preparation (Site Preparation)	each 42	2	2.00	$ 675.12	$ 1,350.24	$ 56,710.29	42	$ 1,350.24			
	Haul (Hauling)	each 42	1	23.58	$ 441.04	$ 10,398.26	$ 436,726.95	42	$ 10,398.26			
	Setup Blocks (Blocking Crew)	each 42	3	2.00	$ 281.84	$ 563.68	$ 23,674.75	42	$ 563.68			
	Assemble (Lattice Assembly)	each 42	4	65.85	$ 1,183.92	$ 77,959.85	$ 3,274,313.91	42	$ 77,959.85			
		each 42			$ -	$ -	$ -	42	$ -			
		each 42			$ -	$ -	$ -	42	$ -			
	Erect Tower (Tower Topping)	each 42	6	12.98	$ 1,656.68	$ 21,501.94	$ 903,081.44	42	$ 21,501.94			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 42	7	3.00	$ 636.64	$ 1,909.91	$ 80,216.31	42	$ 1,909.91			
	Hang Travellers (Hang Travellers)	each 42	8	2.00	$ 1,444.07	$ 2,888.13	$ 121,301.62	42	$ 2,888.13			
	Dead-end (Deadends)	each 42	13	14.00	$ 1,384.42	$ 19,381.95	$ 814,041.70	42	$ 19,381.95			
		each 42			$ -	$ -	$ -	42	$ -			
	Total Cost = $ 2.496	per pound				$ 135,953.98	$ 5,710,066.96		$ 135,953.98			
V::D104	**S1-D104 Assembly and Erection of +4.5 m body extension for Dead-End Tower** **Total structure count:**		**0**	**EA**			$ -		**$ 28,126.94**	**$ -**	**$ 28,126.94**	**$ -**
	S1-D104 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043											
	Total Tower Weight With Guys and Ext. (lb) = 11464 Total Tower Height(ft) = 136 Section Weight (lb) = 11464											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	6.04	$ 441.04	$ 2,662.22	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	16.86	$ 1,183.92	$ 19,959.69	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	3.32	$ 1,656.68	$ 5,505.04	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.453	per pound				$ 28,126.94	$ -		$ -			
V::D105	**S1-D105 Assembly and Erection of +10.5 m body extension for Dead-End Tower** **Total structure count:**		**0**	**EA**			$ -		**$ 54,290.41**	**$ -**	**$ 54,290.41**	**$ -**
	S1-D105 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043											
	Total Tower Weight With Guys and Ext. (lb) = 22128 Total Tower Height(ft) = 156 Section Weight (lb) = 22128											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	11.65	$ 441.04	$ 5,138.59	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	32.54	$ 1,183.92	$ 38,526.04	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	6.41	$ 1,656.68	$ 10,625.78	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.453	per pound				$ 54,290.41	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D106	**S1-D106 Assembly and Erection of +0 m leg extension for Dead-End Tower** **Total structure count:**		**88**	**EA**			**$ 177,605.42**		**$ 2,018.24**	**$ -**	**$ 2,018.24**	**$ -**
	S1-D106 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 3290 Total Tower Height(ft) = 121 Section Weight (lb) = 823											
	Site Preparation (Site Preparation)	each 88	2		$ 675.12	$ -	$ -	88	$ -			
	Haul (Hauling)	each 88	1	0.43	$ 441.04	$ 191.03	$ 16,810.36	88	$ 191.03			
	Setup Blocks (Blocking Crew)	each 88	3		$ 281.84	$ -	$ -	88	$ -			
	Assemble Bottom (Lattice Assembly)	each 88	4	1.21	$ 1,183.92	$ 1,432.20	$ 126,033.92	88	$ 1,432.20			
	Panel Bottom (Lattice Erection)	each 88	5		$ 1,519.02	$ -	$ -	88	$ -			
	Assemble Tops (Lattice Assembly)	each 88	4		$ 1,183.92	$ -	$ -	88	$ -			
	Top / Assembly Tower (Tower Topping)	each 88	6	0.24	$ 1,656.68	$ 395.01	$ 34,761.14	88	$ 395.01			
		each 88			$ -	$ -	$ -	88	$ -			
		each 88			$ -	$ -	$ -	88	$ -			
		each 88			$ -	$ -	$ -	88	$ -			
		each 88			$ -	$ -	$ -	88	$ -			
	Total Cost = $ 2.453	per pound				$ 2,018.24	$ 177,605.42		$ 2,018.24			
V::D107	**S1-D107 Assembly and Erection of +1.5 m leg extension for Dead-End Tower** **Total structure count:**		**20**	**EA**			**$ 56,510.82**		**$ 2,825.54**	**$ -**	**$ 2,825.54**	**$ -**
	S1-D107 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 4607 Total Tower Height(ft) = 126 Section Weight (lb) = 1152											
	Site Preparation (Site Preparation)	each 20	2		$ 675.12	$ -	$ -	20	$ -			
	Haul (Hauling)	each 20	1	0.61	$ 441.04	$ 267.44	$ 5,348.75	20	$ 267.44			
	Setup Blocks (Blocking Crew)	each 20	3		$ 281.84	$ -	$ -	20	$ -			
	Assemble Bottom (Lattice Assembly)	each 20	4	1.69	$ 1,183.92	$ 2,005.09	$ 40,101.70	20	$ 2,005.09			
	Panel Bottom (Lattice Erection)	each 20	5		$ 1,519.02	$ -	$ -	20	$ -			
	Assemble Tops (Lattice Assembly)	each 20	4		$ 1,183.92	$ -	$ -	20	$ -			
	Top / Assembly Tower (Tower Topping)	each 20	6	0.33	$ 1,656.68	$ 553.02	$ 11,060.36	20	$ 553.02			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
	Total Cost = $ 2.453	per pound				$ 2,825.54	$ 56,510.82		$ 2,825.54			
V::D108	**S1-D108 Assembly and Erection of +3 m leg extension for Dead-End Tower** **Total structure count:**		**16**	**EA**			**$ 63,469.53**		**$ 3,966.85**	**$ -**	**$ 3,966.85**	**$ -**
	S1-D108 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 6467 Total Tower Height(ft) = 131 Section Weight (lb) = 1617											
	Site Preparation (Site Preparation)	each 16	2		$ 675.12	$ -	$ -	16	$ -			
	Haul (Hauling)	each 16	1	0.85	$ 441.04	$ 375.46	$ 6,007.39	16	$ 375.46			
	Setup Blocks (Blocking Crew)	each 16	3		$ 281.84	$ -	$ -	16	$ -			
	Assemble Bottom (Lattice Assembly)	each 16	4	2.38	$ 1,183.92	$ 2,814.99	$ 45,039.80	16	$ 2,814.99			
	Panel Bottom (Lattice Erection)	each 16	5		$ 1,519.02	$ -	$ -	16	$ -			
	Assemble Tops (Lattice Assembly)	each 16	4		$ 1,183.92	$ -	$ -	16	$ -			
	Top / Assembly Tower (Tower Topping)	each 16	6	0.47	$ 1,656.68	$ 776.40	$ 12,422.33	16	$ 776.40			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
	Total Cost = $ 2.453	per pound				$ 3,966.85	$ 63,469.53		$ 3,966.85			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D109	**S1-D109 Assembly and Erection of +4.5 m leg extension for Dead-End Tower** **Total structure count:**	**4**		**EA**			**$ 21,611.77**		**$ 5,402.94**	**$ -**	**$ 5,402.94**	**$ -**
	S1-D109 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 8809 Total Tower Height(ft) = 136 Section Weight (lb) = 2202											
	Site Preparation (Site Preparation)	each 4	2		$ 675.12	$ -	$ -	4	$ -			
	Haul (Hauling)	each 4	1	1.16	$ 441.04	$ 511.39	$ 2,045.56	4	$ 511.39			
	Setup Blocks (Blocking Crew)	each 4	3		$ 281.84	$ -	$ -	4	$ -			
	Assemble Bottom (Lattice Assembly)	each 4	4	3.24	$ 1,183.92	$ 3,834.08	$ 15,336.33	4	$ 3,834.08			
	Panel Bottom (Lattice Erection)	each 4	5		$ 1,519.02	$ -	$ -	4	$ -			
	Assemble Tops (Lattice Assembly)	each 4	4		$ 1,183.92	$ -	$ -	4	$ -			
	Top / Assembly Tower (Tower Topping)	each 4	6	0.64	$ 1,656.68	$ 1,057.47	$ 4,229.88	4	$ 1,057.47			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
	Total Cost = $ 2.453	per pound				$ 5,402.94	$ 21,611.77		$ 5,402.94			
V::D110	**S1-D110 Assembly and Erection of +6 m leg extension for Dead-End Tower** **Total structure count:**	**28**		**EA**			**$ 178,960.38**		**$ 6,391.44**	**$ -**	**$ 6,391.44**	**$ -**
	S1-D110 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 10420 Total Tower Height(ft) = 141 Section Weight (lb) = 2605											
	Site Preparation (Site Preparation)	each 28	2		$ 675.12	$ -	$ -	28	$ -			
	Haul (Hauling)	each 28	1	1.37	$ 441.04	$ 604.95	$ 16,938.61	28	$ 604.95			
	Setup Blocks (Blocking Crew)	each 28	3		$ 281.84	$ -	$ -	28	$ -			
	Assemble Bottom (Lattice Assembly)	each 28	4	3.83	$ 1,183.92	$ 4,535.55	$ 126,995.43	28	$ 4,535.55			
	Panel Bottom (Lattice Erection)	each 28	5		$ 1,519.02	$ -	$ -	28	$ -			
	Assemble Tops (Lattice Assembly)	each 28	4		$ 1,183.92	$ -	$ -	28	$ -			
	Top / Assembly Tower (Tower Topping)	each 28	6	0.76	$ 1,656.68	$ 1,250.94	$ 35,026.34	28	$ 1,250.94			
		each 28			$ -	$ -	$ -	28	$ -			
		each 28			$ -	$ -	$ -	28	$ -			
		each 28			$ -	$ -	$ -	28	$ -			
		each 28			$ -	$ -	$ -	28	$ -			
	Total Cost = $ 2.453	per pound				$ 6,391.44	$ 178,960.38		$ 6,391.44			
V::D111	**S1-D111 Assembly and Erection of +7.5 m leg extension for Dead-End Tower** **Total structure count:**	**8**		**EA**			**$ 60,900.24**		**$ 7,612.53**	**$ -**	**$ 7,612.53**	**$ -**
	S1-D111 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 12411 Total Tower Height(ft) = 146 Section Weight (lb) = 3103											
	Site Preparation (Site Preparation)	each 8	2		$ 675.12	$ -	$ -	8	$ -			
	Haul (Hauling)	each 8	1	1.63	$ 441.04	$ 720.53	$ 5,764.21	8	$ 720.53			
	Setup Blocks (Blocking Crew)	each 8	3		$ 281.84	$ -	$ -	8	$ -			
	Assemble Bottom (Lattice Assembly)	each 8	4	4.56	$ 1,183.92	$ 5,402.07	$ 43,216.56	8	$ 5,402.07			
	Panel Bottom (Lattice Erection)	each 8	5		$ 1,519.02	$ -	$ -	8	$ -			
	Assemble Tops (Lattice Assembly)	each 8	4		$ 1,183.92	$ -	$ -	8	$ -			
	Top / Assembly Tower (Tower Topping)	each 8	6	0.90	$ 1,656.68	$ 1,489.93	$ 11,919.47	8	$ 1,489.93			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
	Total Cost = $ 2.453	per pound				$ 7,612.53	$ 60,900.24		$ 7,612.53			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D112	**S1-D112 Assembly and Erection of +9 m leg extension for Dead-End Tower** **Total structure count:**		**4**	**EA**			**$ 40,402.73**		**$ 10,100.68**	**$ -**	**$ 10,100.68**	**$ -**
	S1-D112 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 16468 Total Tower Height(ft) = 151 Section Weight (lb) = 4117											
	Site Preparation — Site Preparation	each 4	2		$ 675.12	$ -	$ -	4	$ -			
	Haul — Hauling	each 4	1	2.17	$ 441.04	$ 956.03	$ 3,824.12	4	$ 956.03			
	Setup Blocks — Blocking Crew	each 4	3		$ 281.84	$ -	$ -	4	$ -			
	Assemble Bottom — Lattice Assembly	each 4	4	6.05	$ 1,183.92	$ 7,167.74	$ 28,670.94	4	$ 7,167.74			
	Panel Bottom — Lattice Erection	each 4	5		$ 1,519.02	$ -	$ -	4	$ -			
	Assemble Tops — Lattice Assembly	each 4	4		$ 1,183.92	$ -	$ -	4	$ -			
	Top / Assembly Tower — Tower Topping	each 4	6	1.19	$ 1,656.68	$ 1,976.92	$ 7,907.67	4	$ 1,976.92			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
	Total Cost = $ 2.453	per pound				$ 10,100.68	$ 40,402.73		$ 10,100.68			
V-H24	**Assembly and Erection of Dead-End Tower Type "D2"**											
V::D113	**S1-D113 Assembly and Erection of Dead-End Tower Type "D2" Basic Body as** **Total structure count:**		**24**	**EA**			**$ 3,278,543.89**		**$ 136,606.00**	**$ -**	**$ 136,606.00**	**$ -**
	S1-D113 Assembly and Erection of Dead-End Tower Type "D2" Basic Body as per dwg. 505573-4622-43DD-0045											
	Total Tower Weight With Guys and Ext. (lb) = 41363 Total Tower Height(ft) = 106 Section Weight (lb) = 41363											
	Site Preparation — Site Preparation	each 24	2	2.00	$ 675.12	$ 1,350.24	$ 32,405.88	24	$ 1,350.24			
	Haul — Hauling	each 24	1	25.78	$ 441.04	$ 11,370.01	$ 272,880.25	24	$ 11,370.01			
	Setup Blocks — Blocking Crew	each 24	3	2.00	$ 281.84	$ 563.68	$ 13,528.43	24	$ 563.68			
	Assemble — Lattice Assembly	each 24	4	60.83	$ 1,183.92	$ 72,016.09	$ 1,728,386.16	24	$ 72,016.09			
	— Lattice Erection	each 24	5		$ 1,519.02	$ -	$ -	24	$ -			
	— Lattice Assembly	each 24	4		$ 1,183.92	$ -	$ -	24	$ -			
	Erect Tower — Tower Topping	each 24	6	15.99	$ 1,656.68	$ 26,489.34	$ 635,744.08	24	$ 26,489.34			
	haul Insulators and Travellers — Haul Travellers&Glass	each 24	7	4.00	$ 636.64	$ 2,546.55	$ 61,117.19	24	$ 2,546.55			
	Hang Travellers — Hang Travellers	each 24	8	2.00	$ 1,444.07	$ 2,888.13	$ 69,315.21	24	$ 2,888.13			
	Dead-end — Deadends	each 24	13	14.00	$ 1,384.42	$ 19,381.95	$ 465,166.68	24	$ 19,381.95			
		each 24			$ -	$ -	$ -	24	$ -			
	Total Cost = $ 2.703	per pound				$ 136,606.00	$ 3,278,543.89		$ 136,606.00			
V::D114	**S1-D114 Assembly and Erection of +4.5 m body extension for Dead-End Tower** **Total structure count:**		**0**	**EA**			**$ -**		**$ 39,176.39**	**$ -**	**$ 39,176.39**	**$ -**
	S1-D114 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045											
	Total Tower Weight With Guys and Ext. (lb) = 15695 Total Tower Height(ft) = 121 Section Weight (lb) = 15695											
	Site Preparation — Site Preparation	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul — Hauling	each 0	1	9.78	$ 441.04	$ 4,314.20	$ -	0	$ -			
	Setup Blocks — Blocking Crew	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom — Lattice Assembly	each 0	4	23.08	$ 1,183.92	$ 27,325.58	$ -	0	$ -			
	Panel Bottom — Lattice Erection	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops — Lattice Assembly	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower — Tower Topping	each 0	6	4.55	$ 1,656.68	$ 7,536.61	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.496	per pound				$ 39,176.39	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D115	**S1-D115 Assembly and Erection of +10.5 m body extension for Dead-End Tower** **Total structure count:**	**0**		**EA**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-D115 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045											
	Total Tower Weight With Guys and Ext. (lb) = 16061 Total Tower Height(ft) = 140 Section Weight (lb) = 16061											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1		$ 441.04	$ -	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6		$ 1,656.68	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ -	per pound				$ -	$ -		$ -			
V::D116	**S1-D116 Assembly and Erection of +0 m leg extension for Dead-End Tower** **Total structure count:**	**32**		**EA**			**$ 147,526.45**		**$ 4,610.20**	**$ -**	**$ 4,610.20**	**$ -**
	S1-D116 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 7388 Total Tower Height(ft) = 106 Section Weight (lb) = 1847											
	Site Preparation (Site Preparation)	each 32	2		$ 675.12	$ -	$ -	32	$ -			
	Haul (Hauling)	each 32	1	1.15	$ 441.04	$ 507.69	$ 16,245.99	32	$ 507.69			
	Setup Blocks (Blocking Crew)	each 32	3		$ 281.84	$ -	$ -	32	$ -			
	Assemble Bottom (Lattice Assembly)	each 32	4	2.72	$ 1,183.92	$ 3,215.62	$ 102,899.87	32	$ 3,215.62			
	Panel Bottom (Lattice Erection)	each 32	5		$ 1,519.02	$ -	$ -	32	$ -			
	Assemble Tops (Lattice Assembly)	each 32	4		$ 1,183.92	$ -	$ -	32	$ -			
	Top / Assembly Tower (Tower Topping)	each 32	6	0.54	$ 1,656.68	$ 886.89	$ 28,380.59	32	$ 886.89			
		each 32			$ -	$ -	$ -	32	$ -			
		each 32			$ -	$ -	$ -	32	$ -			
		each 32			$ -	$ -	$ -	32	$ -			
		each 32			$ -	$ -	$ -	32	$ -			
	Total Cost = $ 2.496	per pound				$ 4,610.20	$ 147,526.45		$ 4,610.20			
V::D117	**S1-D117 Assembly and Erection of +1.5 m leg extension for Dead-End Tower** **Total structure count:**	**16**		**EA**			**$ 98,350.97**		**$ 6,146.94**	**$ -**	**$ 6,146.94**	**$ -**
	S1-D117 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 9850 Total Tower Height(ft) = 111 Section Weight (lb) = 2463											
	Site Preparation (Site Preparation)	each 16	2		$ 675.12	$ -	$ -	16	$ -			
	Haul (Hauling)	each 16	1	1.53	$ 441.04	$ 676.92	$ 10,830.66	16	$ 676.92			
	Setup Blocks (Blocking Crew)	each 16	3		$ 281.84	$ -	$ -	16	$ -			
	Assemble Bottom (Lattice Assembly)	each 16	4	3.62	$ 1,183.92	$ 4,287.49	$ 68,599.91	16	$ 4,287.49			
	Panel Bottom (Lattice Erection)	each 16	5		$ 1,519.02	$ -	$ -	16	$ -			
	Assemble Tops (Lattice Assembly)	each 16	4		$ 1,183.92	$ -	$ -	16	$ -			
	Top / Assembly Tower (Tower Topping)	each 16	6	0.71	$ 1,656.68	$ 1,182.52	$ 18,920.39	16	$ 1,182.52			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
	Total Cost = $ 2.496	per pound				$ 6,146.94	$ 98,350.97		$ 6,146.94			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D118	**S1-D118 Assembly and Erection of +3 m leg extension for Dead-End Tower** **Total structure count:**		**28**	**EA**			**$ 220,998.01**		**$ 7,892.79**	**$ -**	**$ 7,892.79**	**$ -**
	S1-D118 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 12648 Total Tower Height(ft) = 116 Section Weight (lb) = 3162											
	Site Preparation (Site Preparation)	each 28	2		$ 675.12	$ -	$ -	28	$ -			
	Haul (Hauling)	each 28	1	1.97	$ 441.04	$ 869.17	$ 24,336.86	28	$ 869.17			
	Setup Blocks (Blocking Crew)	each 28	3		$ 281.84	$ -	$ -	28	$ -			
	Assemble Bottom (Lattice Assembly)	each 28	4	4.65	$ 1,183.92	$ 5,505.23	$ 154,146.37	28	$ 5,505.23			
	Panel Bottom (Lattice Erection)	each 28	5		$ 1,519.02	$ -	$ -	28	$ -			
	Assemble Tops (Lattice Assembly)	each 28	4		$ 1,183.92	$ -	$ -	28	$ -			
	Top / Assembly Tower (Tower Topping)	each 28	6	0.92	$ 1,656.68	$ 1,518.38	$ 42,514.78	28	$ 1,518.38			
		each 28			$ -	$ -	$ -	28	$ -			
		each 28			$ -	$ -	$ -	28	$ -			
		each 28			$ -	$ -	$ -	28	$ -			
		each 28			$ -	$ -	$ -	28	$ -			
	Total Cost = $ 2.496	per pound				$ 7,892.79	$ 220,998.01		$ 7,892.79			
V::D119	**S1-D119 Assembly and Erection of +4.5 m leg extension for Dead-End Tower** **Total structure count:**		**12**	**EA**			**$ 110,727.38**		**$ 9,227.28**	**$ -**	**$ 9,227.28**	**$ -**
	S1-D119 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 14786 Total Tower Height(ft) = 121 Section Weight (lb) = 3697											
	Site Preparation (Site Preparation)	each 12	2		$ 675.12	$ -	$ -	12	$ -			
	Haul (Hauling)	each 12	1	2.30	$ 441.04	$ 1,016.13	$ 12,193.58	12	$ 1,016.13			
	Setup Blocks (Blocking Crew)	each 12	3		$ 281.84	$ -	$ -	12	$ -			
	Assemble Bottom (Lattice Assembly)	each 12	4	5.44	$ 1,183.92	$ 6,436.04	$ 77,232.48	12	$ 6,436.04			
	Panel Bottom (Lattice Erection)	each 12	5		$ 1,519.02	$ -	$ -	12	$ -			
	Assemble Tops (Lattice Assembly)	each 12	4		$ 1,183.92	$ -	$ -	12	$ -			
	Top / Assembly Tower (Tower Topping)	each 12	6	1.07	$ 1,656.68	$ 1,775.11	$ 21,301.32	12	$ 1,775.11			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
	Total Cost = $ 2.496	per pound				$ 9,227.28	$ 110,727.38		$ 9,227.28			
V::D120	**S1-D120 Assembly and Erection of +6 m leg extension for Dead-End Tower** **Total structure count:**		**0**	**EA**			**$ -**		**$ 12,179.68**	**$ -**	**$ 12,179.68**	**$ -**
	S1-D120 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 19518 Total Tower Height(ft) = 126 Section Weight (lb) = 4879											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	3.04	$ 441.04	$ 1,341.26	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	7.18	$ 1,183.92	$ 8,495.34	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	1.41	$ 1,656.68	$ 2,343.08	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.496	per pound				$ 12,179.68	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D121	**S1-D121 Assembly and Erection of +7.5 m leg extension for Dead-End Tower** **Total structure count:**	**0**		**EA**			**$ -**		**$ 14,126.39**	**$ -**	**$ 14,126.39**	**$ -**
	S1-D121 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 22637 Total Tower Height(ft) = 131 Section Weight (lb) = 5659											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	3.53	$ 441.04	$ 1,555.63	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	8.32	$ 1,183.92	$ 9,853.18	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	1.64	$ 1,656.68	$ 2,717.58	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.496	per pound				$ 14,126.39	$ -		$ -			
V::D122	**S1-D122 Assembly and Erection of +9 m leg extension for Dead-End Tower** **Total structure count:**	**8**		**EA**			**$ 114,166.80**		**$ 14,270.85**	**$ -**	**$ 14,270.85**	**$ -**
	S1-D122 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 22869 Total Tower Height(ft) = 135 Section Weight (lb) = 5717											
	Site Preparation (Site Preparation)	each 8	2		$ 675.12	$ -	$ -	8	$ -			
	Haul (Hauling)	each 8	1	3.56	$ 441.04	$ 1,571.54	$ 12,572.34	8	$ 1,571.54			
	Setup Blocks (Blocking Crew)	each 8	3		$ 281.84	$ -	$ -	8	$ -			
	Assemble Bottom (Lattice Assembly)	each 8	4	8.41	$ 1,183.92	$ 9,953.93	$ 79,631.48	8	$ 9,953.93			
	Panel Bottom (Lattice Erection)	each 8	5		$ 1,519.02	$ -	$ -	8	$ -			
	Assemble Tops (Lattice Assembly)	each 8	4		$ 1,183.92	$ -	$ -	8	$ -			
	Top / Assembly Tower (Tower Topping)	each 8	6	1.66	$ 1,656.68	$ 2,745.37	$ 21,962.99	8	$ 2,745.37			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
	Total Cost = $ 2.496	per pound				$ 14,270.85	$ 114,166.80		$ 14,270.85			
V-H25	**Assembly and Erection of Dead-End Tower Type "E1"**											
V::D123	**S1-D123 Assembly and Erection of Dead-End Tower Type "E1" Basic Body as** **Total structure count:**	**16**		**EA**			**$ 2,592,890.41**		**$ 162,055.65**	**$ -**	**$ 162,055.65**	**$ -**
	S1-D123 Assembly and Erection of Dead-End Tower Type "E1" Basic Body as per dwg. 505573-4622-43DD-0007											
	Total Tower Weight With Guys and Ext. (lb) = 55056 Total Tower Height(ft) = 121 Section Weight (lb) = 55056											
	Site Preparation (Site Preparation)	each 16	2	2.00	$ 675.12	$ 1,350.24	$ 21,603.92	16	$ 1,350.24			
	Haul (Hauling)	each 16	1	30.99	$ 441.04	$ 13,667.38	$ 218,678.09	16	$ 13,667.38			
	Setup Blocks (Blocking Crew)	each 16	3	2.00	$ 281.84	$ 563.68	$ 9,018.95	16	$ 563.68			
	Assemble (Lattice Assembly)	each 16	4	80.97	$ 1,183.92	$ 95,856.40	$ 1,533,702.44	16	$ 95,856.40			
	(Lattice Erection)	each 16	5		$ 1,519.02	$ -	$ -	16	$ -			
	(Lattice Assembly)	each 16	4		$ 1,183.92	$ -	$ -	16	$ -			
	Erect Tower (Tower Topping)	each 16	6	15.96	$ 1,656.68	$ 26,437.95	$ 423,007.15	16	$ 26,437.95			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 16	7	3.00	$ 636.64	$ 1,909.91	$ 30,558.59	16	$ 1,909.91			
	Hang Travellers (Hang Travellers)	each 16	8	2.00	$ 1,444.07	$ 2,888.13	$ 46,210.14	16	$ 2,888.13			
	Dead-end (Deadends)	each 16	13	14.00	$ 1,384.42	$ 19,381.95	$ 310,111.12	16	$ 19,381.95			
		each 16			$ -	$ -	$ -	16	$ -			
	Total Cost = $ 2.504	per pound				$ 162,055.65	$ 2,592,890.41		$ 162,055.65			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D124	**S1-D124 Assembly and Erection of +4.5 m body extension for Dead-End Tower** **Total structure count:**	**0**		**EA**			**$ -**		**$ 39,331.95**	**$ -**	**$ 39,331.95**	**$ -**
	S1-D124 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007											
	Total Tower Weight With Guys and Ext. (lb) = 15851 Total Tower Height(ft) = 136 Section Weight (lb) = 15851											
	Site Preparation (Site Preparation)	each	0	2		$ 675.12	$ -	$ -	0	$ -		
	Haul (Hauling)	each	0	1	9.35	$ 441.04	$ 4,122.07	$ -	0	$ -		
	Setup Blocks (Blocking Crew)	each	0	3		$ 281.84	$ -	$ -	0	$ -		
	Assemble Bottom (Lattice Assembly)	each	0	4	23.31	$ 1,183.92	$ 27,598.11	$ -	0	$ -		
	Panel Bottom (Lattice Erection)	each	0	5		$ 1,519.02	$ -	$ -	0	$ -		
	Assemble Tops (Lattice Assembly)	each	0	4		$ 1,183.92	$ -	$ -	0	$ -		
	Top / Assembly Tower (Tower Topping)	each	0	6	4.59	$ 1,656.68	$ 7,611.77	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.481	per pound					$ 39,331.95	$ -		$ -		
V::D125	**S1-D125 Assembly and Erection of +10.5 m body extension for Dead-End Tower** **Total structure count:**	**0**		**EA**			**$ -**		**$ 75,089.78**	**$ -**	**$ 75,089.78**	**$ -**
	S1-D125 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007											
	Total Tower Weight With Guys and Ext. (lb) = 30336 Total Tower Height(ft) = 156 Section Weight (lb) = 30336											
	Site Preparation (Site Preparation)	each	0	2		$ 675.12	$ -	$ -	0	$ -		
	Haul (Hauling)	each	0	1	17.47	$ 441.04	$ 7,706.20	$ -	0	$ -		
	Setup Blocks (Blocking Crew)	each	0	3		$ 281.84	$ -	$ -	0	$ -		
	Assemble Bottom (Lattice Assembly)	each	0	4	44.61	$ 1,183.92	$ 52,816.41	$ -	0	$ -		
	Panel Bottom (Lattice Erection)	each	0	5		$ 1,519.02	$ -	$ -	0	$ -		
	Assemble Tops (Lattice Assembly)	each	0	4		$ 1,183.92	$ -	$ -	0	$ -		
	Top / Assembly Tower (Tower Topping)	each	0	6	8.79	$ 1,656.68	$ 14,567.18	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.475	per pound					$ 75,089.78	$ -		$ -		
V::D126	**S1-D126 Assembly and Erection of +0 m leg extension for Dead-End Tower** **Total structure count:**	**20**		**EA**			**$ 94,847.30**		**$ 4,742.36**	**$ -**	**$ 4,742.36**	**$ -**
	S1-D126 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 7732 Total Tower Height(ft) = 121 Section Weight (lb) = 1933											
	Site Preparation (Site Preparation)	each	20	2		$ 675.12	$ -	$ -	20	$ -		
	Haul (Hauling)	each	20	1	1.02	$ 441.04	$ 448.87	$ 8,977.30	20	$ 448.87		
	Setup Blocks (Blocking Crew)	each	20	3		$ 281.84	$ -	$ -	20	$ -		
	Assemble Bottom (Lattice Assembly)	each	20	4	2.84	$ 1,183.92	$ 3,365.32	$ 67,306.37	20	$ 3,365.32		
	Panel Bottom (Lattice Erection)	each	20	5		$ 1,519.02	$ -	$ -	20	$ -		
	Assemble Tops (Lattice Assembly)	each	20	4		$ 1,183.92	$ -	$ -	20	$ -		
	Top / Assembly Tower (Tower Topping)	each	20	6	0.56	$ 1,656.68	$ 928.18	$ 18,563.62	20	$ 928.18		
		each	20			$ -	$ -	$ -	20	$ -		
		each	20			$ -	$ -	$ -	20	$ -		
		each	20			$ -	$ -	$ -	20	$ -		
		each	20			$ -	$ -	$ -	20	$ -		
	Total Cost = $ 2.453	per pound					$ 4,742.36	$ 94,847.30		$ 4,742.36		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D127	**S1-D127 Assembly and Erection of +1.5 m leg extension for Dead-End Tower** **Total structure count:**		**12**	**EA**			**$ 75,877.84**		**$ 6,323.15**	**$ -**	**$ 6,323.15**	**$ -**
	S1-D127 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 10309 Total Tower Height(ft) = 126 Section Weight (lb) = 2577											
	Site Preparation (Site Preparation)	each 12	2		$ 675.12	$ -	$ -	12	$ -			
	Haul (Hauling)	each 12	1	1.36	$ 441.04	$ 598.49	$ 7,181.84	12	$ 598.49			
	Setup Blocks (Blocking Crew)	each 12	3		$ 281.84	$ -	$ -	12	$ -			
	Assemble Bottom (Lattice Assembly)	each 12	4	3.79	$ 1,183.92	$ 4,487.09	$ 53,845.10	12	$ 4,487.09			
	Panel Bottom (Lattice Erection)	each 12	5		$ 1,519.02	$ -	$ -	12	$ -			
	Assemble Tops (Lattice Assembly)	each 12	4		$ 1,183.92	$ -	$ -	12	$ -			
	Top / Assembly Tower (Tower Topping)	each 12	6	0.75	$ 1,656.68	$ 1,237.57	$ 14,850.90	12	$ 1,237.57			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
	Total Cost = $ 2.453	per pound				$ 6,323.15	$ 75,877.84		$ 6,323.15			
V::D128	**S1-D128 Assembly and Erection of +3 m leg extension for Dead-End Tower** **Total structure count:**		**8**	**EA**			**$ 66,552.68**		**$ 8,319.08**	**$ -**	**$ 8,319.08**	**$ -**
	S1-D128 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 13563 Total Tower Height(ft) = 131 Section Weight (lb) = 3391											
	Site Preparation (Site Preparation)	each 8	2		$ 675.12	$ -	$ -	8	$ -			
	Haul (Hauling)	each 8	1	1.79	$ 441.04	$ 787.40	$ 6,299.21	8	$ 787.40			
	Setup Blocks (Blocking Crew)	each 8	3		$ 281.84	$ -	$ -	8	$ -			
	Assemble Bottom (Lattice Assembly)	each 8	4	4.99	$ 1,183.92	$ 5,903.46	$ 47,227.69	8	$ 5,903.46			
	Panel Bottom (Lattice Erection)	each 8	5		$ 1,519.02	$ -	$ -	8	$ -			
	Assemble Tops (Lattice Assembly)	each 8	4		$ 1,183.92	$ -	$ -	8	$ -			
	Top / Assembly Tower (Tower Topping)	each 8	6	0.98	$ 1,656.68	$ 1,628.22	$ 13,025.77	8	$ 1,628.22			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
	Total Cost = $ 2.453	per pound				$ 8,319.08	$ 66,552.68		$ 8,319.08			
V::D129	**S1-D129 Assembly and Erection of +4.5 m leg extension for Dead-End Tower** **Total structure count:**		**12**	**EA**			**$ 121,362.35**		**$ 10,113.53**	**$ -**	**$ 10,113.53**	**$ -**
	S1-D129 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 16488 Total Tower Height(ft) = 136 Section Weight (lb) = 4122											
	Site Preparation (Site Preparation)	each 12	2		$ 675.12	$ -	$ -	12	$ -			
	Haul (Hauling)	each 12	1	2.17	$ 441.04	$ 957.25	$ 11,486.95	12	$ 957.25			
	Setup Blocks (Blocking Crew)	each 12	3		$ 281.84	$ -	$ -	12	$ -			
	Assemble Bottom (Lattice Assembly)	each 12	4	6.06	$ 1,183.92	$ 7,176.85	$ 86,122.22	12	$ 7,176.85			
	Panel Bottom (Lattice Erection)	each 12	5		$ 1,519.02	$ -	$ -	12	$ -			
	Assemble Tops (Lattice Assembly)	each 12	4		$ 1,183.92	$ -	$ -	12	$ -			
	Top / Assembly Tower (Tower Topping)	each 12	6	1.19	$ 1,656.68	$ 1,979.43	$ 23,753.18	12	$ 1,979.43			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
	Total Cost = $ 2.453	per pound				$ 10,113.53	$ 121,362.35		$ 10,113.53			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D130	**S1-D130 Assembly and Erection of +6 m leg extension for Dead-End Tower** **Total structure count:**		**4**	**EA**			**$ 49,714.37**		**$ 12,428.59**	**$ -**	**$ 12,428.59**	**$ -**
	S1-D130 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 20263 Total Tower Height(ft) = 141 Section Weight (lb) = 5066											
	Site Preparation (Site Preparation)	each 4	2		$ 675.12	$ -	$ -	4	$ -			
	Haul (Hauling)	each 4	1	2.67	$ 441.04	$ 1,176.37	$ 4,705.47	4	$ 1,176.37			
	Setup Blocks (Blocking Crew)	each 4	3		$ 281.84	$ -	$ -	4	$ -			
	Assemble Bottom (Lattice Assembly)	each 4	4	7.45	$ 1,183.92	$ 8,819.69	$ 35,278.75	4	$ 8,819.69			
	Panel Bottom (Lattice Erection)	each 4	5		$ 1,519.02	$ -	$ -	4	$ -			
	Assemble Tops (Lattice Assembly)	each 4	4		$ 1,183.92	$ -	$ -	4	$ -			
	Top / Assembly Tower (Tower Topping)	each 4	6	1.47	$ 1,656.68	$ 2,432.54	$ 9,730.16	4	$ 2,432.54			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
	Total Cost = $ 2.453	per pound				$ 12,428.59	$ 49,714.37		$ 12,428.59			
V::D131	**S1-D131 Assembly and Erection of +7.5 m leg extension for Dead-End Tower** **Total structure count:**		**8**	**EA**			**$ 115,407.01**		**$ 14,425.88**	**$ -**	**$ 14,425.88**	**$ -**
	S1-D131 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 23519 Total Tower Height(ft) = 146 Section Weight (lb) = 5880											
	Site Preparation (Site Preparation)	each 8	2		$ 675.12	$ -	$ -	8	$ -			
	Haul (Hauling)	each 8	1	3.10	$ 441.04	$ 1,365.41	$ 10,923.28	8	$ 1,365.41			
	Setup Blocks (Blocking Crew)	each 8	3		$ 281.84	$ -	$ -	8	$ -			
	Assemble Bottom (Lattice Assembly)	each 8	4	8.65	$ 1,183.92	$ 10,237.02	$ 81,896.14	8	$ 10,237.02			
	Panel Bottom (Lattice Erection)	each 8	5		$ 1,519.02	$ -	$ -	8	$ -			
	Assemble Tops (Lattice Assembly)	each 8	4		$ 1,183.92	$ -	$ -	8	$ -			
	Top / Assembly Tower (Tower Topping)	each 8	6	1.70	$ 1,656.68	$ 2,823.45	$ 22,587.60	8	$ 2,823.45			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
	Total Cost = $ 2.453	per pound				$ 14,425.88	$ 115,407.01		$ 14,425.88			
V::D132	**S1-D132 Assembly and Erection of +9 m leg extension for Dead-End Tower** **Total structure count:**		**0**	**EA**			**$ -**		**$ 16,421.81**	**$ -**	**$ 16,421.81**	**$ -**
	S1-D132 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 26773 Total Tower Height(ft) = 151 Section Weight (lb) = 6693											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	3.52	$ 441.04	$ 1,554.33	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	9.84	$ 1,183.92	$ 11,653.39	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	1.94	$ 1,656.68	$ 3,214.10	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.453	per pound				$ 16,421.81	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units / Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H26	**S1-E Installation of Wires and OPGW (S1-Ex)**											
V::E01	**S1-E1 Installation of Counterpoise wire, connection with tower grounding**	**Total structure count:**	**397**	**KM**			$ 2,910,500.66		$ 7,331.24	$ -	$ 7,331.24	$ -
	S1-E1 Installation of Counterpoise wire, connection with tower grounding											
		Assume		1.2 km/day								
Haul	Wire Hauling	each	397	9	0.15	$ 405.51	$ 62.22	$ 24,701.60	397	$ 62.22		
Plow Counterpoise	Counterpoise Instal	each	397	43	9.17	$ 750.15	$ 6,876.39	$ 2,729,928.63	397	$ 6,876.39		
Connect at tower	Ground Testing	each	397	25	1.50	$ 261.75	$ 392.62	$ 155,870.43	397	$ 392.62		
		each	397			$ -	$ -	$ -	397	$ -		
		each	397			$ -	$ -	$ -	397	$ -		
		each	397			$ -	$ -	$ -	397	$ -		
		each	397			$ -	$ -	$ -	397	$ -		
		each	397			$ -	$ -	$ -	397	$ -		
		each	397			$ -	$ -	$ -	397	$ -		
		each	397			$ -	$ -	$ -	397	$ -		
							$ 7,331.24	$ 2,910,500.66		$ 7,331.24		
V::E02	**S1-E2 Installation of ground rods at crossing obstacles in soil and rock**	**Total structure count:**	**200**	**EA**			$ 37,507.61		$ 187.54	$ -	$ 187.54	$ -
	S1-E2 Installation of ground rods at crossing obstacles in soil and rock											
Haul and install	Counterpoise Instal	each	200	43	0.25	$ 750.15	$ 187.54	$ 37,507.61	200	$ 187.54		
		each	200			$ -	$ -	$ -	200	$ -		
		each	200			$ -	$ -	$ -	200	$ -		
		each	200			$ -	$ -	$ -	200	$ -		
		each	200			$ -	$ -	$ -	200	$ -		
		each	200			$ -	$ -	$ -	200	$ -		
		each	200			$ -	$ -	$ -	200	$ -		
		each	200			$ -	$ -	$ -	200	$ -		
		each	200			$ -	$ -	$ -	200	$ -		
		each	200			$ -	$ -	$ -	200	$ -		
		each	200			$ -	$ -	$ -	200	$ -		
		each	200			$ -	$ -	$ -	200	$ -		
							$ 187.54	$ 37,507.61		$ 187.54		
V::E03	**S1-E3 Tower Footing resistance measurement**	**Total structure count:**	**397**	**EA**			$ 51,956.81		$ 130.87	$ -	$ 130.87	$ -
	S1-E3 Tower Footing resistance measurement											
Test Tower ground	Ground Testing	each	397	25	0.50	$ 261.75	$ 130.87	$ 51,956.81	397	$ 130.87		
		each	397			$ -	$ -	$ -	397	$ -		
		each	397			$ -	$ -	$ -	397	$ -		
		each	397			$ -	$ -	$ -	397	$ -		
		each	397			$ -	$ -	$ -	397	$ -		
		each	397			$ -	$ -	$ -	397	$ -		
		each	397			$ -	$ -	$ -	397	$ -		
		each	397			$ -	$ -	$ -	397	$ -		
		each	397			$ -	$ -	$ -	397	$ -		
		each	397			$ -	$ -	$ -	397	$ -		
		each	397			$ -	$ -	$ -	397	$ -		
							$ 130.87	$ 51,956.81		$ 130.87		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description		Units Total	Crew No.	Crew Cost Hours per unit	 Hourly Rate	 Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::E04	**S1-E4 S1 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Total structure count:**			**250**	**KM**			**$ 17,575,667.22**		**$ 70,302.67**	**$ -**	**$ 70,302.67**	**$ -**
	S1-E4 S1 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles												
	1350m per reel / Average Haul distance =	200 km	Assume		1.1 km/day								
	Haul	Wire Hauling	each	250	9	7.30	$ 405.51	$ 2,960.84	$ 740,211.16	250	$ 2,960.84		
	Prepare Pull site	Pull Site Prep	each	250	10	3.70	$ 1,282.13	$ 4,748.63	$ 1,187,158.30	250	$ 4,748.63		
	Install Rock anchor for pull site 50%	Rock Foundations	each	250	36	0.99	$ 920.20	$ 908.84	$ 227,210.80	250	$ 908.84		
	Pull In Conductor & Sag	Stringing	each	250	11	10.00	$ 5,977.88	$ 59,778.85	$ 14,944,711.96	250	$ 59,778.85		
			each	250			$ -	$ -	$ -	250	$ -		
	Sock installation by Helicopter	HeliSockInstall	each	250	34	1.00	$ 1,905.50	$ 1,905.50	$ 476,375.00	250	$ 1,905.50		
			each	250			$ -	$ -	$ -	250	$ -		
			each	250			$ -	$ -	$ -	250	$ -		
			each	250			$ -	$ -	$ -	250	$ -		
			each	250			$ -	$ -	$ -	250	$ -		
			each	250			$ -	$ -	$ -	250	$ -		
								$ 70,302.67	$ 17,575,667.22		$ 70,302.67		
V::E04-1	**S2-E4 S2 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Total structure count:**			**147**	**KM**			**$ 13,177,814.34**		**$ 89,645.00**	**$ -**	**$ 89,645.00**	**$ -**
	S2-E4 S2 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles												
	1350m per reel / Average Haul distance =	700 km	Assume		0.9 km/day								
	Haul	Wire Hauling	each	147	9	20.00	$ 405.51	$ 8,110.14	$ 1,192,190.53	147	$ 8,110.14		
	Prepare Pull site	Pull Site Prep	each	147	10	3.70	$ 1,282.13	$ 4,748.63	$ 698,049.08	147	$ 4,748.63		
	Install Rock anchor for pull site 100%	Rock Foundations	each	147	36	1.98	$ 920.20	$ 1,817.69	$ 267,199.90	147	$ 1,817.69		
	Pull In Conductor & Sag	Stringing	each	147	11	12.22	$ 5,977.88	$ 73,063.04	$ 10,740,266.33	147	$ 73,063.04		
			each	147			$ -	$ -	$ -	147	$ -		
	Sock installation by Helicopter	HeliSockInstall	each	147	34	1.00	$ 1,905.50	$ 1,905.50	$ 280,108.50	147	$ 1,905.50		
			each	147			$ -	$ -	$ -	147	$ -		
								$ 89,645.00	$ 13,177,814.34		$ 89,645.00		
V::E04-2	**S3-E4 S3 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Total structure count:**			**0**	**KM**			**$ -**		**$ 86,555.42**	**$ -**	**$ 86,555.42**	**$ -**
	S3-E4 S3 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles												
	1350m per reel / Average Haul distance =	400 km	Assume		0.9 km/day								
	Haul	Wire Hauling	each	0	9	12.38	$ 405.51	$ 5,020.56	$ -	0	$ -		
	Prepare Pull site	Pull Site Prep	each	0	10	3.70	$ 1,282.13	$ 4,748.63	$ -	0	$ -		
	Install Rock anchor for pull site 66%	Rock Foundations	each	0	36	1.98	$ 920.20	$ 1,817.69	$ -	0	$ -		
	Pull In Conductor & Sag	Stringing	each	0	11	12.22	$ 5,977.88	$ 73,063.04	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Sock installation by Helicopter	HeliSockInstall	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
								$ 86,555.42	$ -		$ -		
V::E04-3	**S4-E4 S4 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Total structure count:**			**0**	**KM**			**$ -**		**$ 73,271.23**	**$ -**	**$ 73,271.23**	**$ -**
	S4-E4 S4 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles												
	1350m per reel / Average Haul distance =	400 km	Assume		1.1 km/day								
	Haul	Wire Hauling	each	0	9	12.38	$ 405.51	$ 5,020.56	$ -	0	$ -		
	Prepare Pull site	Pull Site Prep	each	0	10	3.70	$ 1,282.13	$ 4,748.63	$ -	0	$ -		
	Install Rock anchor for pull site 100%	Rock Foundations	each	0	36	1.98	$ 920.20	$ 1,817.69	$ -	0	$ -		
	Pull In Conductor & Sag	Stringing	each	0	11	10.00	$ 5,977.88	$ 59,778.85	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Sock installation by Helicopter	HeliSockInstall	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
								$ 73,271.23	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::E04-4	**S5-E4 S5 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR** **Total structure count:**			**0**	**KM**			**$ -**		**$ 66,229.94**	**$ -**	**$ 66,229.94**	**$ -**
	S5-E4 S5 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles												
	1350m per reel / Average Haul distance = 200 km Assume 1.2 km/day												
	Haul	Wire Hauling	each	0	9	7.30	$ 405.51	$ 2,960.84	$ -	0	$ -		
	Prepare Pull site	Pull Site Prep	each	0	10	3.70	$ 1,282.13	$ 4,748.63	$ -	0	$ -		
	Install Rock anchor for pull site 100%	Rock Foundations	each	0	36	1.98	$ 920.20	$ 1,817.69	$ -	0	$ -		
	Pull In Conductor & Sag	Stringing	each	0	11	9.17	$ 5,977.88	$ 54,797.28	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Sock installation by Helicopter	HeliSockInstall	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -		
								$ 66,229.94	$ -		$ -		
V::E05	**S1-E5 Installation of Conductor on Steel Towers - 1192.5 kcmil 54/19 ACSR** **Total structure count:**			**285**	**KM**			**$ 10,375,749.12**		**$ 36,406.14**	**$ -**	**$ 36,406.14**	**$ -**
	S1-E5 Installation of Conductor on Steel Towers - 1192.5 kcmil 54/19 ACSR Grackle Conductor, complete for both electrodes												
	1800m per reel / Average Haul distance = 300 km Assume 1.8 km/day												
	Haul	Wire Hauling	each	285	9	3.69	$ 405.51	$ 1,496.51	$ 426,506.45	285	$ 1,496.51		
	Prepare Pull site	Pull Site Prep	each	285	10	2.50	$ 1,282.13	$ 3,205.33	$ 913,518.32	285	$ 3,205.33		
	Pull In Conductor & Sag		each	285			$ -	$ -	$ -	285	$ -		
	Install Rock anchor for pull site 66%	Rock Foundations	each	285	36	1.47	$ 920.20	$ 1,349.63	$ 384,645.17	285	$ 1,349.63		
	Pull In Conductor & Sag	Electrode Slack String	each	285	47	6.11	$ 4,655.32	$ 28,449.16	$ 8,108,011.69	285	$ 28,449.16		
	Splicing Time for DE Crew		each	285			$ -	$ -	$ -	285	$ -		
	Sock installation by Helicopter	HeliSockInstall	each	285	34	1.00	$ 1,905.50	$ 1,905.50	$ 543,067.50	285	$ 1,905.50		
			each	285			$ -	$ -	$ -	285	$ -		
			each	285			$ -	$ -	$ -	285	$ -		
			each	285			$ -	$ -	$ -	285	$ -		
			each	285			$ -	$ -	$ -	285	$ -		
								$ 36,406.14	$ 10,375,749.12		$ 36,406.14		
V::E06	**S1-E6 Installation of Conductor on Steel Towers - 1590.0 kcmil 54/19 ACSR** **Total structure count:**			**99**	**KM**			**$ 5,187,824.58**		**$ 52,402.27**	**$ -**	**$ 52,402.27**	**$ -**
	S1-E6 Installation of Conductor on Steel Towers - 1590.0 kcmil 54/19 ACSR Falcon Conductor, complete for both electrodes												
	1800m per reel / Average Haul distance = 700 km Assume 1.3 km/day												
	Haul	Wire Hauling	each	99	9	15.00	$ 405.51	$ 6,082.60	$ 602,177.87	99	$ 6,082.60		
	Prepare Pull site	Pull Site Prep	each	99	10	2.50	$ 1,282.13	$ 3,205.33	$ 317,327.41	99	$ 3,205.33		
	Pull In Conductor & Sag		each	99			$ -	$ -	$ -	99	$ -		
	Install Rock anchor for pull site 100%	Rock Foundations	each	99	36	1.98	$ 920.20	$ 1,817.69	$ 179,950.96	99	$ 1,817.69		
	Pull In Conductor & Sag	Electrode Slack String	each	99	47	8.46	$ 4,655.32	$ 39,391.15	$ 3,899,723.84	99	$ 39,391.15		
	Splicing Time for DE Crew		each	99			$ -	$ -	$ -	99	$ -		
	Sock installation by Helicopter	HeliSockInstall	each	99	34	1.00	$ 1,905.50	$ 1,905.50	$ 188,644.50	99	$ 1,905.50		
			each	99			$ -	$ -	$ -	99	$ -		
			each	99			$ -	$ -	$ -	99	$ -		
			each	99			$ -	$ -	$ -	99	$ -		
			each	99			$ -	$ -	$ -	99	$ -		
								$ 52,402.27	$ 5,187,824.58		$ 52,402.27		
V::E07	**S1-E7 Installation of Conductor on Wood Poles - 1192.5 kcmil 54/19 ACSR** **Total structure count:**			**18**	**KM**			**$ 507,568.37**		**$ 28,198.24**	**$ -**	**$ 28,198.24**	**$ -**
	S1-E7 Installation of Conductor on Wood Poles - 1192.5 kcmil 54/19 ACSR Grackle Conductor, complete for both electrodes												
	1800m per reel / Average Haul distance = 600 km Assume 1.5 km/day												
	Haul	Wire Hauling	each	18	9	17.46	$ 405.51	$ 7,080.28	$ 127,445.05	18	$ 7,080.28		
	Prepare Pull site	Pull Site Prep	each	18	10	2.50	$ 1,282.13	$ 3,205.33	$ 57,695.89	18	$ 3,205.33		
	Slack Stringing	Wood Slack Stringing	each	18	50	7.33	$ 2,442.63	$ 17,912.63	$ 322,427.43	18	$ 17,912.63		
			each	18			$ -	$ -	$ -	18	$ -		
			each	18			$ -	$ -	$ -	18	$ -		
			each	18			$ -	$ -	$ -	18	$ -		
			each	18			$ -	$ -	$ -	18	$ -		
			each	18			$ -	$ -	$ -	18	$ -		
			each	18			$ -	$ -	$ -	18	$ -		
			each	18			$ -	$ -	$ -	18	$ -		
			each	18			$ -	$ -	$ -	18	$ -		
								$ 28,198.24	$ 507,568.37		$ 28,198.24		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::E08	**S1-E8 Installation of Conductor on Wood Poles - 1590.0 kcmil 54/19 ACSR**	**Total structure count:**	**0**		**KM**			**$ -**		**$ 30,954.03**	**$ -**	**$ 30,954.03**	**$ -**
	S1-E8 Installation of Conductor on Wood Poles - 1590.0 kcmil 54/19 ACSR Falcon Conductor, complete for both electrodes												
	1800m per reel / Average Haul distance = 600 km Assume 1.3 km/day												
	Haul (Wire Hauling)	each	0	9	17.46	$ 405.51	$ 7,080.28	$ -	0	$ -			
	Prepare Pull site (Pull Site Prep)	each	0	10	2.50	$ 1,282.13	$ 3,205.33	$ -	0	$ -			
	Slack Stringing (Wood Slack Stringing)	each	0	50	8.46	$ 2,442.63	$ 20,668.42	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 30,954.03	$ -		$ -			
V::E09	**S1-E9 Installation of ADSS on Wood Poles**	**Total structure count:**	**18**		**KM**			**$ 219,014.23**		**$ 12,167.46**	**$ -**	**$ 12,167.46**	**$ -**
	S1-E9 Installation of ADSS on Wood Poles												
	1.2 kg/m and 6680 kg / reel Assume 4 km/day												
	Haul (Wire Hauling)	each	18	9	1.13	$ 405.51	$ 456.20	$ 8,211.52	18	$ 456.20			
	Prepare Pull site (Pull Site Prep)	each	18	10	3.15	$ 1,282.13	$ 4,036.34	$ 72,654.09	18	$ 4,036.34			
	Pull In OPGW & Sag (OPGW Install)	each	18	15	2.75	$ 2,790.88	$ 7,674.92	$ 138,148.63	18	$ 7,674.92			
		each	18			$ -	$ -	$ -	18	$ -			
		each	18			$ -	$ -	$ -	18	$ -			
		each	18			$ -	$ -	$ -	18	$ -			
		each	18			$ -	$ -	$ -	18	$ -			
		each	18			$ -	$ -	$ -	18	$ -			
		each	18			$ -	$ -	$ -	18	$ -			
		each	18			$ -	$ -	$ -	18	$ -			
		each	18			$ -	$ -	$ -	18	$ -			
							$ 12,167.46	$ 219,014.23		$ 12,167.46			
V::E10	**S1-E10 ADSS splicing and tests including loss analysis**	**Total structure count:**	**6**		**EA**			**$ 33,377.27**		**$ 5,562.88**	**$ -**	**$ 5,562.88**	**$ -**
	S1-E10 ADSS splicing and tests including loss analysis												
	Assume number of splice points = 1 @ 24 Minutes/Fibre = 9.60 Hours per 24 fibre splice												
	Haul and install Fibre Splice Box (Tie -in)	each	6	12	4.00	$ 676.30	$ 2,705.21	$ 16,231.24	6	$ 2,705.21			
		each	6			$ -	$ -	$ -	6	$ -			
	Splice and test Fibre (OPGW Splice)	each	6	42	9.60	$ 297.67	$ 2,857.67	$ 17,146.03	6	$ 2,857.67			
		each	6			$ -	$ -	$ -	6	$ -			
		each	6			$ -	$ -	$ -	6	$ -			
		each	6			$ -	$ -	$ -	6	$ -			
		each	6			$ -	$ -	$ -	6	$ -			
		each	6			$ -	$ -	$ -	6	$ -			
		each	6			$ -	$ -	$ -	6	$ -			
		each	6			$ -	$ -	$ -	6	$ -			
		each	6			$ -	$ -	$ -	6	$ -			
							$ 5,562.88	$ 33,377.27		$ 5,562.88			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::E11	**S1-E11 ADSS end to end test**	**Total structure count:**		**1**	**LS**			**$ 7,144.18**		**$ 7,144.18**	**$ -**	**$ 7,144.18**	**$ -**
	S1-E11 ADSS end to end test												
	Test OPGW Splice	each	1	42	24.00	$ 297.67	$ 7,144.18	$ 7,144.18	1	$ 7,144.18			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 7,144.18	$ 7,144.18		$ 7,144.18			
V::E12	**S1-E12 S1 - Installation of OPGW**	**Total structure count:**		**250**	**KM**			**$ 3,795,294.14**		**$ 15,181.18**	**$ -**	**$ 15,181.18**	**$ -**
	S1-E12 S1 - Installation of OPGW												
	1.2 kg/m and 6680 kg / reel Assume 3.5 km/day												
	Haul Wire Hauling	each	250	9	1.83	$ 405.51	$ 740.21	$ 185,052.79	250	$ 740.21			
	Prepare Pull site Pull Site Prep	each	250	10	3.15	$ 1,282.13	$ 4,036.34	$ 1,009,084.56	250	$ 4,036.34			
	Pull In OPGW & Sag OPGW Install	each	250	15	3.14	$ 2,790.88	$ 8,771.34	$ 2,192,835.36	250	$ 8,771.34			
		each	250			$ -	$ -	$ -	250	$ -			
		each	250			$ -	$ -	$ -	250	$ -			
	Sock installation by Helicopter HeliSockInstall	each	250	34	0.86	$ 1,905.50	$ 1,633.29	$ 408,321.43	250	$ 1,633.29			
		each	250			$ -	$ -	$ -	250	$ -			
		each	250			$ -	$ -	$ -	250	$ -			
		each	250			$ -	$ -	$ -	250	$ -			
		each	250			$ -	$ -	$ -	250	$ -			
		each	250			$ -	$ -	$ -	250	$ -			
							$ 15,181.18	$ 3,795,294.14		$ 15,181.18			
V::E12-1	**S2-E12 S2 - Installation of OPGW**	**Total structure count:**		**165**	**KM**			**$ 3,003,429.80**		**$ 18,202.60**	**$ -**	**$ 18,202.60**	**$ -**
	S2-E12 S2 - Installation of OPGW												
	1.2 kg/m and 6680 kg / reel Assume 3 km/day												
	Haul Wire Hauling	each	165	9	5.00	$ 405.51	$ 2,027.53	$ 334,543.26	165	$ 2,027.53			
	Prepare Pull site Pull Site Prep	each	165	10	3.15	$ 1,282.13	$ 4,036.34	$ 665,995.81	165	$ 4,036.34			
	Pull In OPGW & Sag OPGW Install	each	165	15	3.67	$ 2,790.88	$ 10,233.23	$ 1,688,483.23	165	$ 10,233.23			
		each	165			$ -	$ -	$ -	165	$ -			
		each	165			$ -	$ -	$ -	165	$ -			
	Sock installation by Helicopter HeliSockInstall	each	165	34	1.00	$ 1,905.50	$ 1,905.50	$ 314,407.50	165	$ 1,905.50			
		each	165			$ -	$ -	$ -	165	$ -			
							$ 18,202.60	$ 3,003,429.80		$ 18,202.60			
V::E12-2	**S3-E12 S3 - Installation of OPGW**	**Total structure count:**		**0**	**KM**			**$ -**		**$ 17,430.21**	**$ -**	**$ 17,430.21**	**$ -**
	S3-E12 S3 - Installation of OPGW												
	1.2 kg/m and 6680 kg / reel Assume 3 km/day												
	Haul Wire Hauling	each	0	9	3.10	$ 405.51	$ 1,255.14	$ -	0	$ -			
	Prepare Pull site Pull Site Prep	each	0	10	3.15	$ 1,282.13	$ 4,036.34	$ -	0	$ -			
	Pull In OPGW & Sag OPGW Install	each	0	15	3.67	$ 2,790.88	$ 10,233.23	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
	Sock installation by Helicopter HeliSockInstall	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 17,430.21	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::E12-3	**S4-E12 S4 - Installation of OPGW**	**Total structure count:**	**0**	**KM**				**$ -**		**$ 17,430.21**	**$ -**	**$ 17,430.21**	**$ -**
	S4-E12 S4 - Installation of OPGW												
	1.2 kg/m and	6680 kg / reel	Assume	3 km/day									
	Haul (Wire Hauling)	each	0	9	3.10	$ 405.51	$ 1,255.14	$ -	0	$ -			
	Prepare Pull site (Pull Site Prep)	each	0	10	3.15	$ 1,282.13	$ 4,036.34	$ -	0	$ -			
	Pull In OPGW & Sag (OPGW Install)	each	0	15	3.67	$ 2,790.88	$ 10,233.23	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
	Sock installation by Helicopter (HeliSockInstall)	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 17,430.21	$ -		$ -			
V::E12-4	**S5-E12 S5 - Installation of OPGW**	**Total structure count:**	**0**	**KM**				**$ -**		**$ 16,915.28**	**$ -**	**$ 16,915.28**	**$ -**
	S5-E12 S5 - Installation of OPGW												
	1.2 kg/m and	6680 kg / reel	Assume	3 km/day									
	Haul (Wire Hauling)	each	0	9	1.83	$ 405.51	$ 740.21	$ -	0	$ -			
	Prepare Pull site (Pull Site Prep)	each	0	10	3.15	$ 1,282.13	$ 4,036.34	$ -	0	$ -			
	Pull In OPGW & Sag (OPGW Install)	each	0	15	3.67	$ 2,790.88	$ 10,233.23	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
	Sock installation by Helicopter (HeliSockInstall)	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 16,915.28	$ -		$ -			
V::E13	**S1-E13 OPGW Continuity tests before and after stringing**	**Total structure count:**	**2**	**LS**				**$ 474,373.41**		**$ 237,186.71**	**$ -**	**$ 237,186.71**	**$ -**
	S1-E13 OPGW Continuity tests before and after stringing												
	Assume number of reels =	83											
	Test (OPGW Splice)	each	2	42	796.80	$ 297.67	$ 237,186.71	$ 474,373.41	2	$ 237,186.71			
		each	2			$ -	$ -	$ -	2	$ -			
		each	2			$ -	$ -	$ -	2	$ -			
		each	2			$ -	$ -	$ -	2	$ -			
		each	2			$ -	$ -	$ -	2	$ -			
		each	2			$ -	$ -	$ -	2	$ -			
		each	2			$ -	$ -	$ -	2	$ -			
		each	2			$ -	$ -	$ -	2	$ -			
		each	2			$ -	$ -	$ -	2	$ -			
	10512						$ 237,186.71	$ 474,373.41		$ 237,186.71			
	$ 45.13												
V::E14	**S1-E14 OPGW splicing and tests including loss analysis**	**Total structure count:**	**89**	**EA**				**$ 558,679.34**		**$ 6,277.30**	**$ -**	**$ 6,277.30**	**$ -**
	S1-E14 OPGW splicing and tests including loss analysis												
	Assume number of splice points =	1 @	15	Minutes/Fibre =	12.00	Hours per 48 fibre splice							
	Haul and install Fibre Splice Box (Tie -in)	each	89	12	4.00	$ 676.30	$ 2,705.21	$ 240,763.43	89	$ 2,705.21			
		each	89			$ -	$ -	$ -	89	$ -			
	Splice and test Fibre (OPGW Splice)	each	89	42	12.00	$ 297.67	$ 3,572.09	$ 317,915.92	89	$ 3,572.09			
		each	89			$ -	$ -	$ -	89	$ -			
		each	89			$ -	$ -	$ -	89	$ -			
		each	89			$ -	$ -	$ -	89	$ -			
		each	89			$ -	$ -	$ -	89	$ -			
		each	89			$ -	$ -	$ -	89	$ -			
		each	89			$ -	$ -	$ -	89	$ -			
							$ 6,277.30	$ 558,679.34		$ 6,277.30			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::E15	**S1-E15 OPGW end to end test**	**Total structure count:**		**2**	**LS**			**$ 57,153.42**		**$ 28,576.71**	**$ -**	**$ 28,576.71**	**$ -**
	S1-E15 OPGW end to end test												
	Test OPGW Splice	each	2	42	96.00	$ 297.67	$ 28,576.71	$ 57,153.42	2	$ 28,576.71			
		each	2			$ -	$ -	$ -	2	$ -			
		each	2			$ -	$ -	$ -	2	$ -			
		each	2			$ -	$ -	$ -	2	$ -			
		each	2			$ -	$ -	$ -	2	$ -			
		each	2			$ -	$ -	$ -	2	$ -			
		each	2			$ -	$ -	$ -	2	$ -			
		each	2			$ -	$ -	$ -	2	$ -			
		each	2			$ -	$ -	$ -	2	$ -			
							$ 28,576.71	$ 57,153.42		$ 28,576.71			
V-H27	**S1-F Miscellaneous Tower Attachments and Accessories (S1-Fx)**												
V::F01	**S1-F1 Install 18" Aerial marker cones**	**Total structure count:**		**15**	**EA**			**$ 10,144.53**		**$ 676.30**	**$ -**	**$ 676.30**	**$ -**
	S1-F1 Install 18" Aerial marker cones												
	Haul and Install Tie -in	each	15	12	1.00	$ 676.30	$ 676.30	$ 10,144.53	15	$ 676.30			
		each	15			$ -	$ -	$ -	15	$ -			
		each	15			$ -	$ -	$ -	15	$ -			
		each	15			$ -	$ -	$ -	15	$ -			
		each	15			$ -	$ -	$ -	15	$ -			
		each	15			$ -	$ -	$ -	15	$ -			
		each	15			$ -	$ -	$ -	15	$ -			
		each	15			$ -	$ -	$ -	15	$ -			
		each	15			$ -	$ -	$ -	15	$ -			
							$ 676.30	$ 10,144.53		$ 676.30			
V-H28	**S1-G Framing and Setting of Wood Poles (S1-Gx)**												
V::G01	**S1-G1 Framing and Setting of Single Pole Tangent (0 - 1 deg) as per Drawing**	**Total structure count:**		**241**	**EA**			**$ 1,210,773.79**		**$ 5,023.96**	**$ 2,300.00**	**$ 7,323.96**	**$ 554,300.00**
	S1-G1 Framing and Setting of Single Pole Tangent (0 - 1 deg) as per Drawing 505573-4633-4ZDD-0011												
	Wood pole with crossarm and V brace. Wire assembly on extension bracket												
	Haul Hauling	each	241	1	2.50	$ 441.04	$ 1,102.60	$ 265,727.79	241	$ 1,102.60			
	Frame the Structure Wood Assembly	each	241	48	2.00	$ 710.52	$ 1,421.04	$ 342,471.53	241	$ 1,421.04			
	Set Wood Erection	each	241	49	1.50	$ 1,216.00	$ 1,824.01	$ 439,585.74	241	$ 1,824.01			
	Tie in Tie -in	each	241	12	1.00	$ 676.30	$ 676.30	$ 162,988.72	241	$ 676.30			
		each	241			$ -	$ -	$ -	241	$ -			
		each	241			$ -	$ -	$ -	241	$ -			
		each	241			$ -	$ -	$ -	241	$ -			
		each	241			$ -	$ -	$ -	241	$ -			
		each	241			$ -	$ -	$ -	241	$ -			
							$ 5,023.96	$ 1,210,773.79		$ 5,023.96			
V::G02	**S1-G2 Framing and Setting of Single Pole Light angle (1 - 10 deg) with Guys as**	**Total structure count:**		**13**	**EA**			**$ 101,671.77**		**$ 7,820.91**	**$ 2,300.00**	**$ 10,120.91**	**$ 29,900.00**
	S1-G2 Framing and Setting of Single Pole Light angle (1 - 10 deg) with Guys as per Drawing 505573-4633-4ZDD-0012												
	Wood pole with crossarm and V brace. Wire assembly on extension bracket. One side anchor												
	Haul Hauling	each	13	1	2.50	$ 441.04	$ 1,102.60	$ 14,333.86	13	$ 1,102.60			
	Frame the Structure Wood Assembly	each	13	48	2.00	$ 710.52	$ 1,421.04	$ 18,473.57	13	$ 1,421.04			
	Set Wood Erection	each	13	49	1.50	$ 1,216.00	$ 1,824.01	$ 23,712.09	13	$ 1,824.01			
	Anchoring Anchor Crew	each	13	35	4.00	$ 699.24	$ 2,796.95	$ 36,360.32	13	$ 2,796.95			
	Tie in Tie -in	each	13	12	1.00	$ 676.30	$ 676.30	$ 8,791.92	13	$ 676.30			
		each	13			$ -	$ -	$ -	13	$ -			
		each	13			$ -	$ -	$ -	13	$ -			
		each	13			$ -	$ -	$ -	13	$ -			
		each	13			$ -	$ -	$ -	13	$ -			
							$ 7,820.91	$ 101,671.77		$ 7,820.91			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::G03	**S1-G3 Framing and Setting of Single Pole Heavy angle (10 - 30 deg) with Guys**	**Total structure count:**		**7**	**EA**			**$ 118,455.89**		**$ 16,922.27**	**$ 2,300.00**	**$ 19,222.27**	**$ 16,100.00**
	S1-G3 Framing and Setting of Single Pole Heavy angle (10 - 30 deg) with Guys as per Drawing 505573-4633-4ZDD-0020												
	Wood pole Heavy angle 4 anchors , assembly on extension bracket												
	Haul (Hauling)	each	7	1	2.50	$ 441.04	$ 1,102.60	$ 7,718.23	7	$ 1,102.60			
	Frame the Structure (Wood Assembly)	each	7	48	3.00	$ 710.52	$ 2,131.57	$ 14,920.96	7	$ 2,131.57			
	Set (Wood Erection)	each	7	49	1.50	$ 1,216.00	$ 1,824.01	$ 12,768.05	7	$ 1,824.01			
	Anchoring (Anchor Crew)	each	7	35	16.00	$ 699.24	$ 11,187.79	$ 78,314.53	7	$ 11,187.79			
	Tie in (Tie -in)	each	7	12	1.00	$ 676.30	$ 676.30	$ 4,734.11	7	$ 676.30			
		each	7			$ -	$ -	$ -	7	$ -			
		each	7			$ -	$ -	$ -	7	$ -			
		each	7			$ -	$ -	$ -	7	$ -			
		each	7			$ -	$ -	$ -	7	$ -			
							$ 16,922.27	$ 118,455.89		$ 16,922.27			
V::G04	**S1-G4 Framing and Setting of Single Pole Dead-end (30 - 90 deg) with Guys as**	**Total structure count:**		**11**	**EA**			**$ 355,057.74**		**$ 32,277.98**	**$ 2,300.00**	**$ 34,577.98**	**$ 25,300.00**
	S1-G4 Framing and Setting of Single Pole Dead-end (30 - 90 deg) with Guys as per Drawing 505573-4633-4ZDD-0021												
	Single pole DE 90 degree, 6 anchors, jumpers on extension bracket												
	Haul (Hauling)	each	11	1	2.50	$ 441.04	$ 1,102.60	$ 12,128.65	11	$ 1,102.60			
	Frame the Structure (Wood Assembly)	each	11	48	6.00	$ 710.52	$ 4,263.13	$ 46,894.44	11	$ 4,263.13			
	Set (Wood Erection)	each	11	49	1.50	$ 1,216.00	$ 1,824.01	$ 20,064.08	11	$ 1,824.01			
	Anchoring (Anchor Crew)	each	11	35	24.00	$ 699.24	$ 16,781.69	$ 184,598.54	11	$ 16,781.69			
	Dead end (Deadends)	each	11	13	6.00	$ 1,384.42	$ 8,306.55	$ 91,372.03	11	$ 8,306.55			
		each	11			$ -	$ -	$ -	11	$ -			
		each	11			$ -	$ -	$ -	11	$ -			
		each	11			$ -	$ -	$ -	11	$ -			
		each	11			$ -	$ -	$ -	11	$ -			
							$ 32,277.98	$ 355,057.74		$ 32,277.98			
V::G05	**S1-G5 Framing and Setting of Single Pole Floating Dead-end (0 - 1 deg) with**	**Total structure count:**		**9**	**EA**			**$ 189,811.68**		**$ 21,090.19**	**$ 2,300.00**	**$ 23,390.19**	**$ 20,700.00**
	S1-G5 Framing and Setting of Single Pole Floating Dead-end (0 - 1 deg) with Guys as per Drawing 505573-4633-4ZDD-0013												
	Single pole floating DE w 2 anchors												
	Haul (Hauling)	each	9	1	2.50	$ 441.04	$ 1,102.60	$ 9,923.44	9	$ 1,102.60			
	Frame the Structure (Wood Assembly)	each	9	48	6.00	$ 710.52	$ 4,263.13	$ 38,368.18	9	$ 4,263.13			
	Set (Wood Erection)	each	9	49	1.50	$ 1,216.00	$ 1,824.01	$ 16,416.06	9	$ 1,824.01			
	Anchoring (Anchor Crew)	each	9	35	8.00	$ 699.24	$ 5,593.90	$ 50,345.06	9	$ 5,593.90			
	Dead end (Deadends)	each	9	13	6.00	$ 1,384.42	$ 8,306.55	$ 74,758.93	9	$ 8,306.55			
		each	9			$ -	$ -	$ -	9	$ -			
		each	9			$ -	$ -	$ -	9	$ -			
		each	9			$ -	$ -	$ -	9	$ -			
		each	9			$ -	$ -	$ -	9	$ -			
							$ 21,090.19	$ 189,811.68		$ 21,090.19			
V::G06	**S1-G6 Framing and Setting of Two Pole Dead-end to tap to HVdc Tower in**	**Total structure count:**		**1**	**EA**			**$ 39,695.88**		**$ 39,695.88**	**$ 2,300.00**	**$ 41,995.88**	**$ 2,300.00**
	S1-G6 Framing and Setting of Two Pole Dead-end to tap to HVdc Tower in Labrador as per Drawing 505573-4633-4ZDD-0061												
	Two pole DE 90 degree, 8 anchors, jumpers on extension												
	Haul (Hauling)	each	1	1	2.50	$ 441.04	$ 1,102.60	$ 1,102.60	1	$ 1,102.60			
	Frame the Structure (Wood Assembly)	each	1	48	6.00	$ 710.52	$ 4,263.13	$ 4,263.13	1	$ 4,263.13			
	Set (Wood Erection)	each	1	49	3.00	$ 1,216.00	$ 3,648.01	$ 3,648.01	1	$ 3,648.01			
	Anchoring (Anchor Crew)	each	1	35	32.00	$ 699.24	$ 22,375.58	$ 22,375.58	1	$ 22,375.58			
	Dead end (Deadends)	each	1	13	6.00	$ 1,384.42	$ 8,306.55	$ 8,306.55	1	$ 8,306.55			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 39,695.88	$ 39,695.88		$ 39,695.88			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H29	**S1-I Optional Pricing (S1-Ix)**											
V::I01	**S1-I1 Perform Geotechnical Investigation and Identify Foundation Type as per** **Total structure count:**		**2**	**LS**			$ -		$ -	$ -	$ -	$ -
	S1-I1 Perform Geotechnical Investigation and Identify Foundation Type as per Design Drawings and Technical Specifications											
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
							$ -	$ -		$ -		
V::I02	**S1-I2 Design and supply of micropile option as replacement for H-pile design** **Total structure count:**		**2**	**EA**			$ -		$ -	$ -	$ -	$ -
	S1-I2 Design and supply of micropile option as replacement for H-pile design											
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
							$ -	$ -		$ -		
V::I03	**S1-I3 Optional cost for mulching given area instead of salvaging** **Total structure count:**		**2207**	**Ha**			$ -		$ -	$ -	$ -	$ -
	S1-I3 Optional cost for mulching given area instead of salvaging											
		each	2207			$ -	$ -	$ -	2207	$ -		
		each	2207			$ -	$ -	$ -	2207	$ -		
		each	2207			$ -	$ -	$ -	2207	$ -		
		each	2207			$ -	$ -	$ -	2207	$ -		
		each	2207			$ -	$ -	$ -	2207	$ -		
		each	2207			$ -	$ -	$ -	2207	$ -		
		each	2207			$ -	$ -	$ -	2207	$ -		
		each	2207			$ -	$ -	$ -	2207	$ -		
		each	2207			$ -	$ -	$ -	2207	$ -		
							$ -	$ -		$ -		
V::I04	**S1-I4 Installation of Access Road - Alternative** **Total structure count:**		**79**	**KM**			$ -		$ -	$ -	$ -	$ -
	S1-I4 Installation of Access Road - Alternative											
		each	79			$ -	$ -	$ -	79	$ -		
		each	79			$ -	$ -	$ -	79	$ -		
		each	79			$ -	$ -	$ -	79	$ -		
		each	79			$ -	$ -	$ -	79	$ -		
		each	79			$ -	$ -	$ -	79	$ -		
		each	79			$ -	$ -	$ -	79	$ -		
		each	79			$ -	$ -	$ -	79	$ -		
		each	79			$ -	$ -	$ -	79	$ -		
		each	79			$ -	$ -	$ -	79	$ -		
							$ -	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description		Units Total	Crew No.	Crew Cost Hours per unit	 Hourly Rate	 Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I05	**S1-I5 Slack Span Connections - Installation of all Conductor and OPGW from** **Total structure count:**			**2**	**LS**			**$ 93,582.73**		**$ 46,791.36**	**$ -**	**$ 46,791.36**	**$ -**
	S1-I5 Slack Span Connections - Installation of all Conductor and OPGW from Terminal Tower to the Substation Gantry												
	haul Insulators and Travellers Haul Travellers&Glass	each	2	7	2.50	$ 636.64	$ 1,591.59	$ 3,183.19	2	$ 1,591.59			
	Hang Travellers Hang Travellers	each	2	8	1.00	$ 1,444.07	$ 1,444.07	$ 2,888.13	2	$ 1,444.07			
	Install Conductor Stringing	each	2	11	5.00	$ 5,977.88	$ 29,889.42	$ 59,778.85	2	$ 29,889.42			
	Install OPGW OPGW Install	each	2	15	1.00	$ 2,790.88	$ 2,790.88	$ 5,581.76	2	$ 2,790.88			
	Dead-end Deadends	each	2	13	8.00	$ 1,384.42	$ 11,075.40	$ 22,150.79	2	$ 11,075.40			
		each	2			$ -	$ -	$ -	2	$ -			
		each	2			$ -	$ -	$ -	2	$ -			
		each	2			$ -	$ -	$ -	2	$ -			
		each	2			$ -	$ -	$ -	2	$ -			
							$ 46,791.36	$ 93,582.73		$ 46,791.36			
V::I06	**S1-I6 Slack Span Connections - Installation of all Conductor and OPGW/ADSS** **Total structure count:**			**1**	**LS**			**$ 26,664.57**		**$ 26,664.57**	**$ -**	**$ 26,664.57**	**$ -**
	S1-I6 Slack Span Connections - Installation of all Conductor and OPGW/ADSS from Terminal Wood Pole to the Electrode Compound Gantry												
	haul Insulators and Travellers Haul Travellers&Glass	each	1	7	3.00	$ 636.64	$ 1,909.91	$ 1,909.91	1	$ 1,909.91			
	Hang Travellers Hang Travellers	each	1	8	1.00	$ 1,444.07	$ 1,444.07	$ 1,444.07	1	$ 1,444.07			
	Install Conductor Wood Slack Stringing	each	1	50	5.00	$ 2,442.63	$ 12,213.16	$ 12,213.16	1	$ 12,213.16			
	Install OPGW / ADSS OPGW Install	each	1	15	1.00	$ 2,790.88	$ 2,790.88	$ 2,790.88	1	$ 2,790.88			
	Dead-end Deadends	each	1	13	6.00	$ 1,384.42	$ 8,306.55	$ 8,306.55	1	$ 8,306.55			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 26,664.57	$ 26,664.57		$ 26,664.57			
V::I07	**S1-I7 Supply and Installation of Culvert - 1000 mm** **Total structure count:**			**44**	**LM**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-I7 Supply and Installation of Culvert - 1000 mm												
		each	44			$ -	$ -	$ -	44	$ -			
		each	44			$ -	$ -	$ -	44	$ -			
		each	44			$ -	$ -	$ -	44	$ -			
		each	44			$ -	$ -	$ -	44	$ -			
		each	44			$ -	$ -	$ -	44	$ -			
		each	44			$ -	$ -	$ -	44	$ -			
		each	44			$ -	$ -	$ -	44	$ -			
		each	44			$ -	$ -	$ -	44	$ -			
		each	44			$ -	$ -	$ -	44	$ -			
							$ -	$ -		$ -			
V::I08	**S1-I8 Supply and Installation of Culvert - 1200 mm** **Total structure count:**			**44**	**LM**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-I8 Supply and Installation of Culvert - 1200 mm												
		each	44			$ -	$ -	$ -	44	$ -			
		each	44			$ -	$ -	$ -	44	$ -			
		each	44			$ -	$ -	$ -	44	$ -			
		each	44			$ -	$ -	$ -	44	$ -			
		each	44			$ -	$ -	$ -	44	$ -			
		each	44			$ -	$ -	$ -	44	$ -			
		each	44			$ -	$ -	$ -	44	$ -			
		each	44			$ -	$ -	$ -	44	$ -			
		each	44			$ -	$ -	$ -	44	$ -			
							$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I09	**S1-I9 Supply and Installation of Culvert - 1600 mm** S1-I9 Supply and Installation of Culvert - 1600 mm	**Total structure count:**	**44**	**LM**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
						$ -	$ -		$ -			
V::I10	**S1-I10 Supply and Installation of Culvert - 2000 mm** S1-I10 Supply and Installation of Culvert - 2000 mm	**Total structure count:**	**44**	**LM**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
						$ -	$ -		$ -			
V::I11	**S1-I11 Supply and Installation of Culvert - 2400 mm** S1-I11 Supply and Installation of Culvert - 2400 mm	**Total structure count:**	44	LM			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
						$ -	$ -		$ -			
V::I12	**S1-I12 Supply and Installation of Culvert - 3000 mm** S1-I12 Supply and Installation of Culvert - 3000 mm	**Total structure count:**	**44**	**LM**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
		each	44		$ -	$ -	$ -	44	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I13	**S1-I13 Assembly and Installation of Foundation Type A1-1/1A, per kg, to be** **Total structure count:**		**1**	**KG**			**$ 1.39**		**$ 1.39**	**$ -**	**$ 1.39**	**$ -**
	S1-I13 Assembly and Installation of Foundation Type A1-1/1A, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble (Grillage Installation)	each 1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.39	$ 1.39		$ 1.39			
V::I14	**S1-I14 Assembly and Installation of Foundation Type A2-1/1A, per kg, to be** **Total structure count:**		**1**	**KG**			**$ 1.67**		**$ 1.67**	**$ -**	**$ 1.67**	**$ -**
	S1-I14 Assembly and Installation of Foundation Type A2-1/1A, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble (Grillage Installation)	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			
V::I15	**S1-I15 Assembly and Installation of Foundation Type A3-1/1A, per kg, to be** **Total structure count:**		**1**	**KG**			**$ 1.67**		**$ 1.67**	**$ -**	**$ 1.67**	**$ -**
	S1-I15 Assembly and Installation of Foundation Type A3-1/1A, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble (Grillage Installation)	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			
V::I16	**S1-I16 Assembly and Installation of Foundation Type A4-1/1A, per kg, to be** **Total structure count:**		**1**	**KG**			**$ 1.67**		**$ 1.67**	**$ -**	**$ 1.67**	**$ -**
	S1-I16 Assembly and Installation of Foundation Type A4-1/1A, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble (Grillage Installation)	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units / Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I17	**S1-I17 Assembly and Installation of Foundation Type B1-1/1A, per kg, to be** **Total structure count:**		**1**	**KG**			**$ 1.39**		**$ 1.39**	**$ -**	**$ 1.39**	**$ -**
	S1-I17 Assembly and Installation of Foundation Type B1-1/1A, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble (Grillage Installation)	each 1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.39	$ 1.39		$ 1.39			
V::I18	**S1-I18 Assembly and Installation of Foundation Type B2-1/1A, per kg, to be** **Total structure count:**		**1**	**KG**			**$ 1.67**		**$ 1.67**	**$ -**	**$ 1.67**	**$ -**
	S1-I18 Assembly and Installation of Foundation Type B2-1/1A, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble (Grillage Installation)	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			
V::I19	**S1-I19 Assembly and Installation of Foundation Type C1-1, per kg, to be used** **Total structure count:**		**1**	**KG**			**$ 1.39**		**$ 1.39**	**$ -**	**$ 1.39**	**$ -**
	S1-I19 Assembly and Installation of Foundation Type C1-1, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble (Grillage Installation)	each 1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.39	$ 1.39		$ 1.39			
V::I20	**S1-I20 Assembly and Installation of Foundation Type C2-1, per kg, to be used** **Total structure count:**		**1**	**KG**			**$ 1.67**		**$ 1.67**	**$ -**	**$ 1.67**	**$ -**
	S1-I20 Assembly and Installation of Foundation Type C2-1, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble (Grillage Installation)	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I21	**S1-I21 Assembly and Installation of Foundation Type D1-1, per kg, to be used** **Total structure count:**			**1**	**KG**			**$ 1.39**		**$ 1.39**	**$ -**	**$ 1.39**	**$ -**
	S1-I21 Assembly and Installation of Foundation Type D1-1, per kg, to be used for weight increases or decreases												
	Haul (Foundation Haul)	each	1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble (Grillage Installation)	each	1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 1.39	$ 1.39		$ 1.39			
V::I22	**S1-I22 Assembly and Installation of Foundation Type D2-1, per kg, to be used** **Total structure count:**			**1**	**KG**			**$ 1.67**		**$ 1.67**	**$ -**	**$ 1.67**	**$ -**
	S1-I22 Assembly and Installation of Foundation Type D2-1, per kg, to be used for weight increases or decreases												
	Haul (Foundation Haul)	each	1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble (Grillage Installation)	each	1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 1.67	$ 1.67		$ 1.67			
V::I23	**S1-I23 Assembly and Installation of Foundation Type E1-1, per kg, to be used** **Total structure count:**			**1**	**KG**			**$ 1.53**		**$ 1.53**	**$ -**	**$ 1.53**	**$ -**
	S1-I23 Assembly and Installation of Foundation Type E1-1, per kg, to be used for weight increases or decreases												
	Haul (Foundation Haul)	each	1	17	0.00101	$ 441.04	$ 0.45	$ 0.45	1	$ 0.45			
	Assemble (Grillage Installation)	each	1	20	0.00108	$ 1,002.72	$ 1.08	$ 1.08	1	$ 1.08			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 1.53	$ 1.53		$ 1.53			
V::I24	**S1-I24 Assembly and Installation of Foundation Type A1-2, per kg, to be used** **Total structure count:**			**1**	**KG**			**$ 1.39**		**$ 1.39**	**$ -**	**$ 1.39**	**$ -**
	S1-I24 Assembly and Installation of Foundation Type A1-2, per kg, to be used for weight increases or decreases												
	Haul (Foundation Haul)	each	1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble (Grillage Installation)	each	1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 1.39	$ 1.39		$ 1.39			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I25	**S1-I25 Assembly and Installation of Foundation Type A2-2, per kg, to be used** **Total structure count:**		**1**	**KG**			**$ 1.67**		**$ 1.67**	**$ -**	**$ 1.67**	**$ -**
	S1-I25 Assembly and Installation of Foundation Type A2-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble (Grillage Installation)	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			
V::I26	**S1-I26 Assembly and Installation of Foundation Type A3-2, per kg, to be used** **Total structure count:**		**1**	**KG**			**$ 1.67**		**$ 1.67**	**$ -**	**$ 1.67**	**$ -**
	S1-I26 Assembly and Installation of Foundation Type A3-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble (Grillage Installation)	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			
V::I27	**S1-I27 Assembly and Installation of Foundation Type A4-2, per kg, to be used** **Total structure count:**		**1**	**KG**			**$ 1.67**		**$ 1.67**	**$ -**	**$ 1.67**	**$ -**
	S1-I27 Assembly and Installation of Foundation Type A4-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble (Grillage Installation)	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			
V::I28	**S1-I28 Assembly and Installation of Foundation Type B1-2, per kg, to be used** **Total structure count:**		**1**	**KG**			**$ 1.39**		**$ 1.39**	**$ -**	**$ 1.39**	**$ -**
	S1-I28 Assembly and Installation of Foundation Type B1-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble (Grillage Installation)	each 1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.39	$ 1.39		$ 1.39			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I29	**S1-I29 Assembly and Installation of Foundation Type B2-2, per kg, to be used** **Total structure count:**		**1**	**KG**			**$ 1.67**		**$ 1.67**	**$ -**	**$ 1.67**	**$ -**
	S1-I29 Assembly and Installation of Foundation Type B2-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble (Grillage Installation)	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			
V::I30	**S1-I30 Assembly and Installation of Foundation Type C1-2, per kg, to be used** **Total structure count:**		**1**	**KG**			**$ 1.39**		**$ 1.39**	**$ -**	**$ 1.39**	**$ -**
	S1-I30 Assembly and Installation of Foundation Type C1-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble (Grillage Installation)	each 1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.39	$ 1.39		$ 1.39			
V::I31	**S1-I31 Assembly and Installation of Foundation Type C2-2, per kg, to be used** **Total structure count:**		**1**	**KG**			**$ 1.67**		**$ 1.67**	**$ -**	**$ 1.67**	**$ -**
	S1-I31 Assembly and Installation of Foundation Type C2-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble (Grillage Installation)	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			
V::I32	**S1-I32 Assembly and Installation of Foundation Type D1-2, per kg, to be used** **Total structure count:**		**1**	**KG**			**$ 1.39**		**$ 1.39**	**$ -**	**$ 1.39**	**$ -**
	S1-I32 Assembly and Installation of Foundation Type D1-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble (Grillage Installation)	each 1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.39	$ 1.39		$ 1.39			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I33	**S1-I33 Assembly and Installation of Foundation Type D2-2, per kg, to be used** **Total structure count:**		**1**	**KG**			**$ 1.67**		**$ 1.67**	**$ -**	**$ 1.67**	**$ -**
	S1-I33 Assembly and Installation of Foundation Type D2-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble (Grillage Installation)	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			
V::I34	**S1-I34 Assembly and Installation of Foundation Type E1-2, per kg, to be used** **Total structure count:**		**1**	**KG**			**$ 1.53**		**$ 1.53**	**$ -**	**$ 1.53**	**$ -**
	S1-I34 Assembly and Installation of Foundation Type E1-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00101	$ 441.04	$ 0.45	$ 0.45	1	$ 0.45			
	Assemble (Grillage Installation)	each 1	20	0.00108	$ 1,002.72	$ 1.08	$ 1.08	1	$ 1.08			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.53	$ 1.53		$ 1.53			
V::I35	**S1-I35 Assembly and Erection of Tower Type A1, per kg, to be used for weight** **Total structure count:**		**1**	**KG**			**$ 5.04**		**$ 5.04**	**$ -**	**$ 5.04**	**$ -**
	S1-I35 Assembly and Erection of Tower Type A1, per kg, to be used for weight increases or decreases											
	Haul (Hauling)	each 1	1	0.00116	$ 441.04	$ 0.51	$ 0.51	1	$ 0.51			
	Assemble (Grillage Installation)	each 1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect (Y- Tower Erection)	each 1	40	0.0005	$ 1,482.09	$ 0.74	$ 0.74	1	$ 0.74			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 5.04	$ 5.04		$ 5.04			
V::I36	**S1-I36 Assembly and Erection of Tower Type A2, per kg, to be used for weight** **Total structure count:**		**1**	**KG**			**$ 5.30**		**$ 5.30**	**$ -**	**$ 5.30**	**$ -**
	S1-I36 Assembly and Erection of Tower Type A2, per kg, to be used for weight increases or decreases											
	Haul (Hauling)	each 1	1	0.00174	$ 441.04	$ 0.77	$ 0.77	1	$ 0.77			
	Assemble (Grillage Installation)	each 1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect (Y- Tower Erection)	each 1	40	0.0005	$ 1,482.09	$ 0.74	$ 0.74	1	$ 0.74			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 5.30	$ 5.30		$ 5.30			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) / Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I37	**S1-I37 Assembly and Erection of Tower Type A3, per kg, to be used for weight** **Total structure count:**			**1**	**KG**			**$ 5.30**		**$ 5.30**	**$ -**	**$ 5.30**	**$ -**
	S1-I37 Assembly and Erection of Tower Type A3, per kg, to be used for weight increases or decreases												
	Haul Hauling	each	1	1	0.00174	$ 441.04	$ 0.77	$ 0.77	1	$ 0.77			
	Assemble Grillage Installation	each	1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect Y- Tower Erection	each	1	40	0.0005	$ 1,482.09	$ 0.74	$ 0.74	1	$ 0.74			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 5.30	$ 5.30		$ 5.30			
V::I38	**S1-I38 Assembly and Erection of Tower Type A4, per kg, to be used for weight** **Total structure count:**			**1**	**KG**			**$ 5.04**		**$ 5.04**	**$ -**	**$ 5.04**	**$ -**
	S1-I38 Assembly and Erection of Tower Type A4, per kg, to be used for weight increases or decreases												
	Haul Hauling	each	1	1	0.00116	$ 441.04	$ 0.51	$ 0.51	1	$ 0.51			
	Assemble Grillage Installation	each	1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect Y- Tower Erection	each	1	40	0.0005	$ 1,482.09	$ 0.74	$ 0.74	1	$ 0.74			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 5.04	$ 5.04		$ 5.04			
V::I39	**S1-I39 Assembly and Erection of Tower Type B1, per kg, to be used for weight** **Total structure count:**			**1**	**KG**			**$ 5.04**		**$ 5.04**	**$ -**	**$ 5.04**	**$ -**
	S1-I39 Assembly and Erection of Tower Type B1, per kg, to be used for weight increases or decreases												
	Haul Hauling	each	1	1	0.00116	$ 441.04	$ 0.51	$ 0.51	1	$ 0.51			
	Assemble Grillage Installation	each	1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect Y- Tower Erection	each	1	40	0.0005	$ 1,482.09	$ 0.74	$ 0.74	1	$ 0.74			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 5.04	$ 5.04		$ 5.04			
V::I40	**S1-I40 Assembly and Erection of Tower Type B2, per kg, to be used for weight** **Total structure count:**			**1**	**KG**			**$ 5.35**		**$ 5.35**	**$ -**	**$ 5.35**	**$ -**
	S1-I40 Assembly and Erection of Tower Type B2, per kg, to be used for weight increases or decreases												
	Haul Hauling	each	1	1	0.00186	$ 441.04	$ 0.82	$ 0.82	1	$ 0.82			
	Assemble Grillage Installation	each	1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect Y- Tower Erection	each	1	40	0.0005	$ 1,482.09	$ 0.74	$ 0.74	1	$ 0.74			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 5.35	$ 5.35		$ 5.35			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I41	**S1-I41 Assembly and Erection of Tower Type C1, per kg, to be used for weight** **Total structure count:**	**1**	**KG**			**$ 5.36**		**$ 5.36**	**$ -**	**$ 5.36**	**$ -**	
	S1-I41 Assembly and Erection of Tower Type C1, per kg, to be used for weight increases or decreases											
	Haul Hauling	each 1	1	0.00116	$ 441.04	$ 0.51	$ 0.51	1	$ 0.51			
	Assemble Grillage Installation	each 1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect Tower Topping	each 1	6	0.0006	$ 1,656.68	$ 1.06	$ 1.06	1	$ 1.06			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 5.36	$ 5.36		$ 5.36			
V::I42	**S1-I42 Assembly and Erection of Tower Type C2, per kg, to be used for weight** **Total structure count:**	**1**	**KG**				**$ 5.46**		**$ 5.46**	**$ -**	**$ 5.46**	**$ -**
	S1-I42 Assembly and Erection of Tower Type C2, per kg, to be used for weight increases or decreases											
	Haul Hauling	each 1	1	0.00139	$ 441.04	$ 0.61	$ 0.61	1	$ 0.61			
	Assemble Grillage Installation	each 1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect Tower Topping	each 1	6	0.0006	$ 1,656.68	$ 1.06	$ 1.06	1	$ 1.06			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 5.46	$ 5.46		$ 5.46			
V::I43	**S1-I43 Assembly and Erection of Tower Type D1, per kg, to be used for weight** **Total structure count:**	**1**	**KG**				**$ 5.36**		**$ 5.36**	**$ -**	**$ 5.36**	**$ -**
	S1-I43 Assembly and Erection of Tower Type D1, per kg, to be used for weight increases or decreases											
	Haul Hauling	each 1	1	0.00116	$ 441.04	$ 0.51	$ 0.51	1	$ 0.51			
	Assemble Grillage Installation	each 1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect Tower Topping	each 1	6	0.0006	$ 1,656.68	$ 1.06	$ 1.06	1	$ 1.06			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 5.36	$ 5.36		$ 5.36			
V::I44	**S1-I44 Assembly and Erection of Tower Type D2, per kg, to be used for weight** **Total structure count:**	**1**	**KG**				**$ 5.47**		**$ 5.47**	**$ -**	**$ 5.47**	**$ -**
	S1-I44 Assembly and Erection of Tower Type D2, per kg, to be used for weight increases or decreases											
	Haul Hauling	each 1	1	0.00140	$ 441.04	$ 0.62	$ 0.62	1	$ 0.62			
	Assemble Grillage Installation	each 1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect Tower Topping	each 1	6	0.0006	$ 1,656.68	$ 1.06	$ 1.06	1	$ 1.06			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 5.47	$ 5.47		$ 5.47			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 1 (Labrador) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I45	**S1-I45 Assembly and Erection of Tower Type E1, per kg, to be used for weight** **Total structure count:**		**1**	**KG**			**$ 5.44**		**$ 5.44**	**$ -**	**$ 5.44**	**$ -**
	S1-I45 Assembly and Erection of Tower Type E1, per kg, to be used for weight increases or decreases											
	Haul Hauling	each 1	1	0.00133	$ 441.04	$ 0.59	$ 0.59	1	$ 0.59			
	Assemble Grillage Installation	each 1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect Tower Topping	each 1	6	0.0006	$ 1,656.68	$ 1.06	$ 1.06	1	$ 1.06			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 5.44	$ 5.44		$ 5.44			
V::I46	**S1-I46 Survey Cost** **Total structure count:**		**1**	**LS**			**$ -**		**$ -**	**$ 2,865,292.91**	**$ 2,865,292.91**	**$ 2,865,292.91**
	S1-I46 Survey Cost											
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
B-E(Rider)	**RiderPole** **Total structure count:**		**100**				**$ 986,673.56**		**$ 9,866.74**	**$ 236.90**	**$ 10,103.64**	**$ 23,690.00**
	Haul Wire Hauling	each 100	9	3.00	$ 405.51	$ 1,216.52	$ 121,652.09	100	$ 1,216.52			
	Install Rider Pole Crew	each 100	16	3.00	$ 1,238.95	$ 3,716.85	$ 371,684.69	100	$ 3,716.85			
	Remove Rider Pole Crew	each 100	16	3.00	$ 1,238.95	$ 3,716.85	$ 371,684.69	100	$ 3,716.85			
	Haul Back Wire Hauling	each 100	9	3.00	$ 405.51	$ 1,216.52	$ 121,652.09	100	$ 1,216.52			
						$ 9,866.74	$ 986,673.56		$ 9,866.74			

Construction Total Man Hours Total: $ 200,342,426.52 Mat. Total: $ 194,969,967.79

		1		2		3		4		5	
		Hauling		Site Preparation		Blocking Crew		Lattice Assembly		Lattice Erection	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate										
Supervisor	$ 142.83		$ -		$ -		$ -		$ -		$ -
Foreman	$ 120.15		$ -	0.50	$ 60.07		$ -	1.00	$ 120.15	1.00	$ 120.15
Surveyor	$ 111.85		$ -	0.50	$ 55.92		$ -		$ -		$ -
Lineman	$ 111.85		$ -		$ -		$ -	1.00	$ 111.85	2.00	$ 223.70
Apprentice - 4th Year	$ 103.90		$ -		$ -		$ -	2.00	$ 207.79	1.00	$ 103.90
Apprentice - 3rd Year	$ 95.95		$ -		$ -	1.00	$ 95.95	2.00	$ 191.89	2.00	$ 191.89
Apprentice - 2nd Year	$ 87.99	1.00	$ 87.99		$ -		$ -		$ -		$ -
Apprentice - 1st Year	$ 80.04		$ -		$ -		$ -		$ -		$ -
Equipment Operator	$ 96.49		$ -	2.00	$ 192.99	1.00	$ 96.49	1.00	$ 96.49	1.00	$ 96.49
Truck Driver / Picker Op.	$ 107.16	1.00	$ 107.16		$ -		$ -	1.00	$ 107.16	2.00	$ 214.32
Labourer	$ 87.44		$ -		$ -		$ -		$ -		$ -
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -		$ -		$ -		$ -		$ -
Telecom Foreman	$ 87.44		$ -		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -		$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -		$ -		$ -		$ -		$ -
none	$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**2.00**	**195.16**	**3.00**	**308.98**	**2.00**	**192.44**	**8.00**	**835.34**	**9.00**	**950.45**
Pickup	$ 24.36		$ -	0.50	$ 12.18		$ -		$ -		$ -
Crew Cab Truck	$ 29.20	1.00	$ 29.20	1.00	$ 29.20		$ -	2.00	$ 58.40	2.00	$ 58.40
Conductor Splicing Truck	$ 46.02		$ -		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27		$ -		$ -		$ -	1.00	$ 136.27		$ -
Picker - 38 Ton	$ 180.25		$ -		$ -		$ -		$ -	1.00	$ 180.25
40T RT Crane	$ 195.70		$ -		$ -		$ -		$ -		$ -
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -	1.00	$ 247.20
80T RT Crane	$ 345.05		$ -		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40		$ -		$ -	1.00	$ 89.40		$ -	-	$ -
200T All-Tr. crane	$ 418.72		$ -		$ -		$ -		$ -	-	$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -		$ -		$ -	0.25	$ 21.89	-	$ -
53' Tridem trailer	$ 11.85	4.00	$ 47.38		$ -		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67		$ -		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67	1.00	$ 134.67	-	$ -		$ -		$ -		$ -
Tractor Trailer (Heavy)	$ 134.67		$ -		$ -		$ -		$ -		$ -
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83		$ -	1.00	$ 165.83		$ -		$ -		$ -
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27	0.50	$ 34.63		$ -		$ -	0.50	$ 34.63	1.00	$ 69.27
JD 290 Track-hoe	$ 130.60		$ -	1.00	$ 130.60		$ -		$ -		$ -
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -	-	$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -		$ -		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -		$ -		$ -		$ -
Trencher	$ 84.36		$ -		$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -		$ -	1.00	$ 53.00		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -	1.00	$ 24.21		$ -
Reel Trailer	$ 72.10		$ -		$ -		$ -		$ -		$ -
Tensioner	$ 139.05		$ -		$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -		$ -		$ -		$ -		$ -
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -		$ -
JD 350 LDC Excavator	$ 160.89		$ -		$ -		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -		$ -		$ -		$ -
Grout truck	$ 82.40		$ -		$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46		$ -		$ -		$ -	1.50	$ 20.19	1.00	$ 13.46
Water pump	$ 40.99		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -		$ -		$ -
Travellers (ea)	$ 1.24		$ -		$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -		$ -		$ -
Hoe-Pack	$ 25.75		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65		$ -	0.50	$ 28.33		$ -		$ -		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -	-	$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**6.50**	**245.89**	**4.00**	**366.14**	**1.00**	**89.40**	**7.25**	**348.59**	**6.00**	**568.58**
TOTAL CREW RATE			**$ 441.04**		**$ 675.12**		**$ 281.84**		**$ 1,183.92**		**$ 1,519.02**

		6		7		8		9		10	
		Tower Topping		Haul Travellers&Glass		Hang Travellers		Wire Hauling		Pull Site Prep	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate										
Supervisor	$ 142.83		$ -		$ -		$ -		$ -		$ -
Foreman	$ 120.15	1.00	$ 120.15		$ -	1.00	$ 120.15		$ -	1.00	$ 120.15
Surveyor	$ 111.85		$ -		$ -		$ -		$ -		$ -
Lineman	$ 111.85	2.00	$ 223.70	1.00	$ 111.85	3.00	$ 335.55		$ -	1.00	$ 111.85
Apprentice - 4th Year	$ 103.90	1.00	$ 103.90		$ -		$ -		$ -		$ -
Apprentice - 3rd Year	$ 95.95	2.00	$ 191.89		$ -	3.00	$ 287.84		$ -		$ -
Apprentice - 2nd Year	$ 87.99		$ -	1.00	$ 87.99		$ -	1.00	$ 87.99	2.00	$ 175.99
Apprentice - 1st Year	$ 80.04		$ -		$ -		$ -		$ -		$ -
Equipment Operator	$ 96.49	1.00	$ 96.49	1.00	$ 96.49	1.00	$ 96.49		$ -	3.00	$ 289.48
Truck Driver / Picker Op.	$ 107.16	2.00	$ 214.32	1.00	$ 107.16	-	$ -	1.00	$ 107.16	1.00	$ 107.16
Labourer	$ 87.44		$ -		$ -		$ -		$ -	-	$ -
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -		$ -		$ -		$ -		$ -
Telecom Foreman	$ 87.44		$ -		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -		$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -		$ -		$ -		$ -		$ -
none	$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**9.00**	**950.45**	**4.00**	**403.50**	**8.00**	**840.02**	**2.00**	**195.16**	**8.00**	**804.62**
Pickup	$ 24.36	1.00	$ 24.36		$ -		$ -		$ -	1.00	$ 24.36
Crew Cab Truck	$ 29.20	2.00	$ 58.40	1.00	$ 29.20	2.00	$ 58.40	1.00	$ 29.20	1.00	$ 29.20
Conductor Splicing Truck	$ 46.02		$ -		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27		$ -		$ -		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25		$ -		$ -		$ -		$ -		$ -
40T RT Crane	$ 195.70	1.00	$ 195.70		$ -		$ -		$ -		$ -
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05	1.00	$ 345.05		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40		$ -		$ -		$ -		$ -	1.00	$ 89.40
200T All-Tr. crane	$ 418.72	-	$ -		$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55	-	$ -		$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85	-	$ -		$ -		$ -	1.00	$ 11.85		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67		$ -		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67		$ -	1.00	$ 134.67		$ -		$ -		$ -
Tractor Trailer (Heavy)	$ 134.67		$ -		$ -		$ -	1.00	$ 134.67	1.00	$ 134.67
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83		$ -		$ -		$ -		$ -		$ -
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27	1.00	$ 69.27	1.00	$ 69.27	1.00	$ 69.27	0.50	$ 34.63	1.00	$ 69.27
JD 290 Track-hoe	$ 130.60		$ -		$ -		$ -		$ -	1.00	$ 130.60
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -		$ -	-	$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -		$ -		$ -		$ -
Trencher	$ 84.36		$ -		$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -
Reel Trailer	$ 72.10		$ -		$ -		$ -		$ -		$ -
Tensioner	$ 139.05		$ -		$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -		$ -		$ -		$ -		$ -
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -		$ -
JD 350 LDC Excavator	$ 160.89		$ -		$ -		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -		$ -		$ -		$ -
Grout truck	$ 82.40		$ -		$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46	1.00	$ 13.46		$ -		$ -		$ -		$ -
Water pump	$ 40.99		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -		$ -		$ -
Travellers (ea)	$ 1.24		$ -		$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -		$ -		$ -
Hoe-Pack	$ 25.75		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65		$ -		$ -		$ -		$ -		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -		$ -	0.25	$ 476.38		$ -		$ -
TOTAL EQUIPMENT		**7.00**	**706.23**	**3.00**	**233.14**	**3.25**	**604.04**	**3.50**	**210.35**	**6.00**	**477.51**
TOTAL CREW RATE			**$ 1,656.68**		**$ 636.64**		**$ 1,444.07**		**$ 405.51**		**$ 1,282.13**

		11		12		13		14		15	
		Stringing		Tie -in		Deadends		Spacer Crews		OPGW Install	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate										
Supervisor	$ 142.83	1.00	$ 142.83		$ -		$ -		$ -		$ -
Foreman	$ 120.15	2.00	$ 240.29		$ -	1.00	$ 120.15	1.00	$ 120.15	1.00	$ 120.15
Surveyor	$ 111.85	1.00	$ 111.85		$ -		$ -		$ -		$ -
Lineman	$ 111.85	7.00	$ 782.94	2.00	$ 223.70	2.00	$ 223.70		$ -	3.00	$ 335.55
Apprentice - 4th Year	$ 103.90		$ -		$ -		$ -	3.00	$ 311.69	1.00	$ 103.90
Apprentice - 3rd Year	$ 95.95	4.00	$ 383.78		$ -	2.00	$ 191.89		$ -	2.00	$ 191.89
Apprentice - 2nd Year	$ 87.99		$ -	1.00	$ 87.99		$ -	1.00	$ 87.99		$ -
Apprentice - 1st Year	$ 80.04		$ -		$ -		$ -		$ -		$ -
Equipment Operator	$ 96.49	6.00	$ 578.96		$ -	2.00	$ 192.99		$ -	4.00	$ 385.97
Truck Driver / Picker Op.	$ 107.16	7.00	$ 750.13	1.00	$ 107.16	1.00	$ 107.16	1.00	$ 107.16	3.00	$ 321.48
Labourer	$ 87.44		$ -		$ -		$ -		$ -		$ -
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -		$ -		$ -		$ -		$ -
Telecom Foreman	$ 87.44		$ -		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -		$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -		$ -		$ -		$ -		$ -
none	$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**28.00**	**2,990.79**	**4.00**	**418.85**	**8.00**	**835.88**	**6.00**	**626.99**	**14.00**	**1,458.94**
Pickup	$ 24.36	2.00	$ 48.72		$ -		$ -	1.00	$ 24.36	2.00	$ 48.72
Crew Cab Truck	$ 29.20	7.00	$ 204.40	1.00	$ 29.20	2.00	$ 58.40	1.00	$ 29.20	3.00	$ 87.60
Conductor Splicing Truck	$ 46.02	1.00	$ 46.02		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27	-	$ -		$ -		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25	-	$ -		$ -	1.00	$ 180.25	1.00	$ 180.25		$ -
40T RT Crane	$ 195.70	2.00	$ 391.40		$ -		$ -		$ -	2.00	$ 391.40
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05		$ -		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40	1.00	$ 89.40		$ -		$ -		$ -	1.00	$ 89.40
200T All-Tr. crane	$ 418.72		$ -		$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -		$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85		$ -		$ -		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67		$ -		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67	-	$ -		$ -		$ -		$ -	-	$ -
Tractor Trailer (Heavy)	$ 134.67	2.00	$ 269.35		$ -		$ -		$ -	1.00	$ 134.67
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83	2.00	$ 331.66		$ -	1.00	$ 165.83		$ -	1.00	$ 165.83
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27	2.00	$ 138.54		$ -		$ -		$ -	1.00	$ 69.27
JD 290 Track-hoe	$ 130.60	2.00	$ 261.21		$ -	1.00	$ 130.60		$ -		$ -
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25	2.00	$ 456.50	1.00	$ 228.25		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -		$ -		$ -		$ -
Trencher	$ 84.36		$ -		$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -
Reel Trailer	$ 72.10	3.00	$ 216.30		$ -		$ -		$ -	1.00	$ 72.10
Tensioner	$ 139.05	1.00	$ 139.05		$ -		$ -		$ -		$ -
Puller	$ 139.05	1.00	$ 139.05		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -		$ -		$ -		$ -	1.00	$ 77.25
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -	1.00	$ 77.25
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -	50.00	$ 25.75
JD 350 LDC Excavator	$ 160.89		$ -		$ -		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -		$ -		$ -		$ -
Grout truck	$ 82.40		$ -		$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46	1.00	$ 13.46		$ -	1.00	$ 13.46		$ -		$ -
Water pump	$ 40.99		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -	1.00	$ 92.70
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -	3.00	$ 139.05		$ -
Travellers (ea)	$ 1.24	150.00	$ 185.40		$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -		$ -		$ -
Hoe-Pack	$ 25.75		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65	1.00	$ 56.65		$ -		$ -		$ -		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -		$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**180.00**	**2,987.10**	**2.00**	**257.45**	**6.00**	**548.54**	**6.00**	**372.86**	**65.00**	**1,331.94**
TOTAL CREW RATE			**$ 5,977.88**		**$ 676.30**		**$ 1,384.42**		**$ 999.85**		**$ 2,790.88**

		16		17		18		19		20		21		22	
		Rider Pole Crew		Foundation Haul		Foundation Survey ($250/h)		Found Excavation		Grillage Installation		Backfill and Compact		Site Cleanup	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate														
Supervisor	$ 142.83		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Foreman	$ 120.15	1.00	$ 120.15	-	$ -		$ -	1.00	$ 120.15	1.00	$ 120.15		$ -		$ -
Surveyor	$ 111.85		$ -	-	$ -	2.00	$ 223.70	1.00	$ 111.85	1.00	$ 111.85	0.50	$ 55.92		$ -
Lineman	$ 111.85	1.00	$ 111.85	-	$ -		$ -		$ -		$ -		$ -		$ -
Apprentice - 4th Year	$ 103.90		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Apprentice - 3rd Year	$ 95.95		$ -	-	$ -		$ -		$ -	2.00	$ 191.89		$ -		$ -
Apprentice - 2nd Year	$ 87.99	2.00	$ 175.99	1.00	$ 87.99		$ -		$ -		$ -		$ -		$ -
Apprentice - 1st Year	$ 80.04		$ -	-	$ -		$ -	1.00	$ 80.04		$ -		$ -		$ -
Equipment Operator	$ 96.49	1.00	$ 96.49	-	$ -		$ -	3.00	$ 289.48	1.00	$ 96.49	3.00	$ 289.48	1.00	$ 96.49
Truck Driver / Picker Op.	$ 107.16	2.00	$ 214.32	1.00	$ 107.16		$ -		$ -	1.00	$ 107.16		$ -		$ -
Labourer	$ 87.44		$ -	-	$ -		$ -		$ -		$ -	1.00	$ 87.44		$ -
3rd Party Density Tester	$ 243.80		$ -	-	$ -		$ -		$ -		$ -	-	$ -		$ -
Carpenter	$ 100.05		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Telecom Foreman	$ 87.44		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
none	$ -		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**7.00**	**718.80**	**2.00**	**195.16**	**2.00**	**223.70**	**6.00**	**601.52**	**6.00**	**627.54**	**4.50**	**432.84**	**1.00**	**96.49**
Pickup	$ 24.36		$ -	-	$ -	1.00	$ 24.36	1.00	$ 24.36	1.00	$ 24.36	0.50	$ 12.18		$ -
Crew Cab Truck	$ 29.20	1.00	$ 29.20	1.00	$ 29.20	-	$ -	1.00	$ 29.20	1.00	$ 29.20	2.00	$ 58.40	1.00	$ 29.20
Conductor Splicing Truck	$ 46.02		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27	1.00	$ 136.27	-	$ -		$ -		$ -		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
40T RT Crane	$ 195.70		$ -	-	$ -		$ -		$ -	1.00	$ 195.70		$ -		$ -
60T RT Crane	$ 247.20		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40	1.00	$ 89.40	-	$ -		$ -		$ -		$ -		$ -		$ -
200T All-Tr. crane	$ 418.72		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85		$ -	4.00	$ 47.38		$ -		$ -		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67		$ -	1.00	$ 134.67		$ -		$ -		$ -		$ -		$ -
Tractor Trailer (Heavy)	$ 134.67	1.00	$ 134.67	-	$ -		$ -		$ -		$ -		$ -		$ -
Self-Loader	$ 134.67		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
JD 310 Back Hoe	$ 68.13		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27		$ -	0.50	$ 34.63		$ -	1.00	$ 69.27	1.00	$ 69.27	1.00	$ 69.27	1.00	$ 69.27
JD 290 Track-hoe	$ 130.60	1.00	$ 130.60	-	$ -		$ -		$ -		$ -	1.00	$ 130.60		$ -
Skid-Steer Loader	$ 38.11		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Trencher	$ 84.36		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -	-	$ -	1.00	$ 24.21		$ -		$ -		$ -		$ -
Reel Trailer	$ 72.10		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Tensioner	$ 139.05		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Single Tensioner	$ 77.25		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
JD 350 LDC Excavator	$ 160.89		$ -	-	$ -		$ -	2.00	$ 321.77		$ -	1.00	$ 160.89		$ -
Compressor	$ 22.04		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Grout truck	$ 82.40		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Water pump	$ 40.99		$ -	-	$ -		$ -	1.00	$ 40.99		$ -	1.00	$ 40.99		$ -
Pilot Line Winder	$ 92.70		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Travellers (ea)	$ 1.24		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Hoe-Pack	$ 25.75		$ -	-	$ -		$ -		$ -		$ -	1.00	$ 25.75		$ -
Pile Driving Crew (per m)	$ 211.07		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65		$ -	-	$ -	1.00	$ 56.65	1.00	$ 56.65	1.00	$ 56.65	0.50	$ 28.33		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**5.00**	**520.15**	**6.50**	**245.89**	**3.00**	**105.21**	**7.00**	**542.24**	**5.00**	**375.18**	**8.00**	**526.41**	**2.00**	**98.47**
TOTAL CREW RATE			**$ 1,238.95**		**$ 441.04**		**$ 328.91**		**$ 1,143.76**		**$ 1,002.72**		**$ 959.25**		**$ 194.96**

		23		24		25		26		27	
		Grout Crew		Concrete Foundations		Ground Testing		Sign Crew		HL Helicopter	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate										
Supervisor	$ 142.83		$ -		$ -		$ -		$ -	2.00	$ 285.67
Foreman	$ 120.15		$ -	1.00	$ 120.15		$ -		$ -	5.00	$ 600.73
Surveyor	$ 111.85		$ -	1.00	$ 111.85		$ -		$ -		$ -
Lineman	$ 111.85		$ -		$ -	1.00	$ 111.85		$ -	8.00	$ 894.79
Apprentice - 4th Year	$ 103.90		$ -		$ -		$ -		$ -	8.00	$ 831.18
Apprentice - 3rd Year	$ 95.95		$ -		$ -		$ -		$ -	8.00	$ 767.57
Apprentice - 2nd Year	$ 87.99		$ -		$ -		$ -		$ -		$ -
Apprentice - 1st Year	$ 80.04	2.00	$ 160.08		$ -		$ -	2.00	$ 160.08		$ -
Equipment Operator	$ 96.49		$ -		$ -	1.00	$ 96.49		$ -	1.00	$ 96.49
Truck Driver / Picker Op.	$ 107.16		$ -	1.00	$ 107.16		$ -		$ -	1.00	$ 107.16
Labourer	$ 87.44		$ -	2.00	$ 174.87		$ -		$ -		$ -
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05	1.00	$ 100.05	1.00	$ 100.05		$ -		$ -		$ -
Telecom Foreman	$ 87.44		$ -		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -		$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -		$ -		$ -		$ -	4.00	$ -
none	$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**3.00**	**260.13**	**6.00**	**614.08**	**2.00**	**208.34**	**2.00**	**160.08**	**37.00**	**3,583.59**
Pickup	$ 24.36	-	$ -	2.00	$ 48.72		$ -	2.00	$ 48.72	2.00	$ 48.72
Crew Cab Truck	$ 29.20	1.00	$ 29.20	1.00	$ 29.20	1.00	$ 29.20		$ -	10.00	$ 292.01
Conductor Splicing Truck	$ 46.02		$ -		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27		$ -		$ -		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25		$ -	1.00	$ 180.25		$ -		$ -	1.00	$ 180.25
40T RT Crane	$ 195.70		$ -		$ -		$ -		$ -		$ -
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05		$ -		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40		$ -		$ -		$ -		$ -		$ -
200T All-Tr. crane	$ 418.72		$ -		$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -		$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85		$ -		$ -		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67		$ -		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67		$ -		$ -		$ -		$ -		$ -
Tractor Trailer (Heavy)	$ 134.67		$ -		$ -		$ -		$ -		$ -
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83		$ -		$ -		$ -		$ -		$ -
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27		$ -		$ -		$ -		$ -	1.00	$ 69.27
JD 290 Track-hoe	$ 130.60		$ -		$ -		$ -		$ -		$ -
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -		$ -		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -		$ -		$ -		$ -
Trencher	$ 84.36		$ -		$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -	1.00	$ 24.21		$ -		$ -
Reel Trailer	$ 72.10		$ -		$ -		$ -		$ -		$ -
Tensioner	$ 139.05		$ -		$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -		$ -		$ -		$ -		$ -
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -		$ -
JD 350 LDC Excavator	$ 160.89		$ -		$ -		$ -		$ -		$ -
Compressor	$ 22.04	1.00	$ 22.04		$ -		$ -		$ -		$ -
Grout truck	$ 82.40	1.00	$ 82.40		$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46		$ -	0.50	$ 6.73		$ -		$ -		$ -
Water pump	$ 40.99		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -		$ -		$ -
Travellers (ea)	$ 1.24		$ -		$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -	2.00	$ 43.67		$ -
Hoe-Pack	$ 25.75		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65		$ -	1.00	$ 56.65		$ -		$ -		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -		$ -	1.00	$ 17,725.89
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -		$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**3.00**	**133.64**	**5.50**	**321.55**	**2.00**	**53.41**	**4.00**	**92.39**	**15.00**	**18,316.13**
TOTAL CREW RATE			**$ 393.78**		**$ 935.63**		**$ 261.75**		**$ 252.48**		**$ 21,899.72**

		28		29		30		31		32		33		34		35		
		Camp Site Preparation		Supervisory		Sign Crew		Flagging Crew		Welding Support		Roads and Reclaim		HeliSockInstall		Anchor Crew		Rock
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.
Designation	Rate																	
Supervisor	$ 142.83		$ -	1.00	$ 142.83		$ -		$ -		$ -		$ -		$ -		$ -	
Foreman	$ 120.15	1.00	$ 120.15		$ -		$ -		$ -		$ -	1.00	$ 120.15		$ -	1.00	$ 120.15	1.00
Surveyor	$ 111.85	0.50	$ 55.92		$ -		$ -		$ -		$ -		$ -		$ -		$ -	1.00
Lineman	$ 111.85		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Apprentice - 4th Year	$ 103.90		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Apprentice - 3rd Year	$ 95.95		$ -		$ -		$ -		$ -		$ -		$ -		$ -	1.00	$ 95.95	
Apprentice - 2nd Year	$ 87.99		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	1.00
Apprentice - 1st Year	$ 80.04		$ -		$ -	2.00	$ 160.08	2.00	$ 160.08	1.00	$ 80.04		$ -		$ -		$ -	
Equipment Operator	$ 96.49	3.00	$ 289.48		$ -		$ -		$ -	1.00	$ 96.49	4.00	$ 385.97		$ -	1.00	$ 96.49	1.00
Truck Driver / Picker Op.	$ 107.16		$ -		$ -		$ -		$ -		$ -		$ -		$ -	1.00	$ 107.16	
Labourer	$ 87.44		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Carpenter	$ 100.05		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	1.00
Telecom Foreman	$ 87.44		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Telecom Cable Splicer	$ 87.44		$ -		$ -		$ -		$ -		$ -		$ -	-	$ -		$ -	
Included Super or Operator	$ -		$ -		$ -		$ -		$ -		$ -		$ -	1.00	$ -		$ -	
none	$ -		$ -		$ -		$ -		$ -		$ -		$ -	-	$ -		$ -	
TOTAL LABOUR		**4.50**	**465.55**	**1.00**	**142.83**	**2.00**	**160.08**	**2.00**	**160.08**	**2.00**	**176.53**	**5.00**	**506.12**	**1.00**	**-**	**4.00**	**419.75**	**5.00**
Pickup	$ 24.36	1.00	$ 24.36	1.00	$ 24.36	2.00	$ 48.72	2.00	$ 48.72		$ -	1.00	$ 24.36		$ -		$ -	2.00
Crew Cab Truck	$ 29.20	1.00	$ 29.20		$ -		$ -		$ -	1.00	$ 29.20	1.00	$ 29.20		$ -	1.00	$ 29.20	1.00
Conductor Splicing Truck	$ 46.02		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Picker - 17 Ton	$ 136.27		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Picker - 38 Ton	$ 180.25		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
40T RT Crane	$ 195.70		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
80T RT Crane	$ 345.05		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Digger - TelElect 5052	$ 89.40		$ -		$ -		$ -		$ -	1.00	$ 89.40		$ -		$ -	1.00	$ 89.40	-
200T All-Tr. crane	$ 418.72		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
120' Gene Lift	$ 87.55		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
53' Tridem trailer	$ 11.85		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
T/A Rock Truck	$ 121.67	1.00	$ 121.67		$ -		$ -		$ -		$ -	1.00	$ 121.67		$ -		$ -	
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Tractor Trailer/Picker	$ 134.67	-	$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Tractor Trailer (Heavy)	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Crawler Tractors 750 JD	$ 165.83	1.00	$ 165.83		$ -		$ -		$ -		$ -	1.00	$ 165.83		$ -		$ -	
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
JD 554 Loader	$ 69.27		$ -		$ -		$ -		$ -		$ -	1.00	$ 69.27		$ -		$ -	
JD 290 Track-hoe	$ 130.60	1.00	$ 130.60		$ -		$ -		$ -		$ -	1.00	$ 130.60		$ -		$ -	1.00
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Nodwells - Picker over 17 Ton	$ 228.25		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Nodwell - Digger	$ 130.60		$ -		$ -		$ -		$ -		$ -		$ -		$ -	-	$ -	
Trencher	$ 84.36		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
10T Tele-Handler	$ 53.00		$ -		$ -		$ -		$ -		$ -		$ -		$ -	-	$ -	
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Reel Trailer	$ 72.10		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Tensioner	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Puller	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
1 Drum Puller	$ 77.25		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
JD 350 LDC Excavator	$ 160.89		$ -		$ -		$ -		$ -		$ -		$ -		$ -	1.00	$ 160.89	
Compressor	$ 22.04		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	1.00
Grout truck	$ 82.40		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Rock Drill	$ 103.00		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	1.00
Press & Pump, Genset, Light plant	$ 13.46		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	1.00
Water pump	$ 40.99		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Spacer Buggy	$ 46.35		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Travellers (ea)	$ 1.24		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Traffic Control Sign	$ 21.84		$ -		$ -	2.00	$ 43.67		$ -		$ -		$ -		$ -		$ -	
Hoe-Pack	$ 25.75		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Concrete Pumper	$ 206.00		$ -		$ -		$ -	-	$ -		$ -		$ -		$ -		$ -	
Survey Equipment	$ 56.65	0.50	$ 28.33		$ -		$ -	-	$ -		$ -		$ -		$ -		$ -	1.00
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -	
Light Duty Helicopter - Operated	$ 1,905.50	-	$ -		$ -		$ -		$ -		$ -		$ -	1.00	$ 1,905.50		$ -	
TOTAL EQUIPMENT		**5.50**	**499.99**	**1.00**	**24.36**	**4.00**	**92.39**	**2.00**	**48.72**	**2.00**	**118.60**	**6.00**	**540.93**	**1.00**	**1,905.50**	**3.00**	**279.49**	**8.00**
TOTAL CREW RATE			**$ 965.54**		**$ 167.19**		**$ 252.48**		**$ 208.80**		**$ 295.14**		########		**$ 1,905.50**		**$ 699.24**	

		36		37		38		39		40		41	
		Foundations		Bird Diverter		Pole Tag Crew		Guy Install		Y- Tower Erection		Tower Plumb	
		Rate		Rate		Rate		Rate		Rate		Rate	
Designation	Rate		No.		No.		No.		No.		No.		No.
Supervisor	$ 142.83	$ -		$ -	1.00	$ 142.83		$ -		$ -		$ -	
Foreman	$ 120.15	$ 120.15	1.00	$ 120.15	1.00	$ 120.15	1.00	$ 120.15	1.00	$ 120.15	1.00	$ 120.15	1.00
Surveyor	$ 111.85	$ 111.85		$ -		$ -	0.50	$ 55.92		$ -	1.00	$ 111.85	1.00
Lineman	$ 111.85	$ -		$ -	1.00	$ 111.85	2.00	$ 223.70	1.00	$ 111.85	1.00	$ 111.85	1.00
Apprentice - 4th Year	$ 103.90	$ -		$ -		$ -		$ -	1.00	$ 103.90		$ -	
Apprentice - 3rd Year	$ 95.95	$ -		$ -		$ -	2.00	$ 191.89	2.00	$ 191.89	2.00	$ 191.89	2.00
Apprentice - 2nd Year	$ 87.99	$ 87.99	2.00	$ 175.99	1.00	$ 87.99		$ -	1.00	$ 87.99	2.00	$ 175.99	2.00
Apprentice - 1st Year	$ 80.04	$ -		$ -		$ -		$ -	1.00	$ 80.04		$ -	
Equipment Operator	$ 96.49	$ 96.49		$ -		$ -	1.00	$ 96.49	1.00	$ 96.49		$ -	
Truck Driver / Picker Op.	$ 107.16	$ -	2.00	$ 214.32		$ -	1.00	$ 107.16	1.00	$ 107.16		$ -	
Labourer	$ 87.44	$ -	2.00	$ 174.87		$ -		$ -		$ -		$ -	
3rd Party Density Tester	$ 243.80	$ -		$ -		$ -		$ -		$ -		$ -	
Carpenter	$ 100.05	$ 100.05		$ -		$ -		$ -		$ -		$ -	
Telecom Foreman	$ 87.44	$ -		$ -		$ -		$ -		$ -		$ -	
Telecom Cable Splicer	$ 87.44	$ -		$ -		$ -		$ -		$ -		$ -	
Included Super or Operator	$ -	$ -		$ -		$ -		$ -		$ -		$ -	
none	$ -	$ -		$ -		$ -		$ -		$ -		$ -	
TOTAL LABOUR		**516.53**	**7.00**	**685.33**	**4.00**	**462.82**	**7.50**	**795.31**	**9.00**	**899.47**	**7.00**	**711.72**	
Pickup	$ 24.36	$ 48.72	1.00	$ 24.36		$ -	0.50	$ 12.18	1.00	$ 24.36	1.00	$ 24.36	
Crew Cab Truck	$ 29.20	$ 29.20	1.00	$ 29.20	1.00	$ 29.20	2.00	$ 58.40	2.00	$ 58.40	2.00	$ 58.40	
Conductor Splicing Truck	$ 46.02	$ -		$ -		$ -		$ -		$ -		$ -	
OPGW Splicing Truck	$ 93.60	$ -		$ -		$ -		$ -		$ -		$ -	
Picker - 17 Ton	$ 136.27	$ -		$ -		$ -		$ -		$ -		$ -	
Picker - 38 Ton	$ 180.25	$ -	1.00	$ 180.25		$ -	1.00	$ 180.25		$ -		$ -	
40T RT Crane	$ 195.70	$ -		$ -		$ -		$ -		$ -		$ -	
60T RT Crane	$ 247.20	$ -		$ -		$ -		$ -		$ -		$ -	
80T RT Crane	$ 345.05	$ -		$ -		$ -		$ -	1.00	$ 345.05		$ -	
Digger - TelElect 5052	$ 89.40	$ -		$ -		$ -		$ -		$ -		$ -	
200T All-Tr. crane	$ 418.72	$ -		$ -		$ -		$ -		$ -		$ -	
Texoma	$ 162.23	$ -		$ -		$ -		$ -		$ -		$ -	
Quad or Side by Side	$ 24.21	$ -		$ -		$ -		$ -		$ -		$ -	
120' Gene Lift	$ 87.55	$ -		$ -		$ -		$ -		$ -		$ -	
53' Tridem trailer	$ 11.85	$ -		$ -		$ -		$ -		$ -		$ -	
T/A Gravel Truck	$ 68.13	$ -		$ -		$ -		$ -		$ -		$ -	
T/A Rock Truck	$ 121.67	$ -		$ -		$ -		$ -		$ -		$ -	
Watson 1010	$ 190.55	$ -		$ -		$ -		$ -		$ -		$ -	
Watson 1100	$ 247.20	$ -		$ -		$ -		$ -		$ -		$ -	
Watson 2500	$ 309.00	$ -		$ -		$ -		$ -		$ -		$ -	
Soilmec SR65	$ 437.75	$ -		$ -		$ -		$ -		$ -		$ -	
Tractor Trailer/Picker	$ 134.67	$ -		$ -		$ -		$ -		$ -		$ -	
Tractor Trailer (Heavy)	$ 134.67	$ -		$ -		$ -		$ -		$ -		$ -	
Self-Loader	$ 134.67	$ -		$ -		$ -		$ -		$ -		$ -	
55' Bucket Truck	$ 81.11	$ -		$ -		$ -		$ -		$ -		$ -	
Pole Trailer	$ 22.04	$ -		$ -		$ -		$ -		$ -		$ -	
Crawler Tractors 750 JD	$ 165.83	$ -		$ -		$ -		$ -		$ -		$ -	
JD 310 Back Hoe	$ 68.13	$ -		$ -		$ -		$ -		$ -		$ -	
JD 554 Loader	$ 69.27	$ -		$ -		$ -	1.00	$ 69.27	-	$ -		$ -	
JD 290 Track-hoe	$ 130.60	$ 130.60		$ -		$ -		$ -	1.00	$ 130.60		$ -	
Skid-Steer Loader	$ 38.11	$ -		$ -		$ -		$ -		$ -		$ -	
Nodwells - Picker up to 17 Ton	$ 170.36	$ -		$ -		$ -		$ -		$ -		$ -	
Nodwells - Picker over 17 Ton	$ 228.25	$ -		$ -		$ -		$ -		$ -		$ -	
Nodwell - Digger	$ 130.60	$ -		$ -		$ -		$ -		$ -		$ -	
Trencher	$ 84.36	$ -		$ -		$ -		$ -		$ -		$ -	
10T Tele-Handler	$ 53.00	$ -		$ -		$ -		$ -		$ -		$ -	
LGP Texoma Nodwell	$ 162.23	$ -		$ -		$ -		$ -		$ -		$ -	
LGP Highboy ROW Trailer	$ 32.45	$ -		$ -		$ -		$ -		$ -		$ -	
Quad or Side by Side	$ 24.21	$ -	2.00	$ 48.41	2.00	$ 48.41	1.00	$ 24.21	1.00	$ 24.21	2.00	$ 48.41	
Reel Trailer	$ 72.10	$ -		$ -		$ -		$ -		$ -		$ -	
Tensioner	$ 139.05	$ -		$ -		$ -		$ -		$ -		$ -	
Puller	$ 139.05	$ -		$ -		$ -		$ -		$ -		$ -	
1 Drum Puller	$ 77.25	$ -		$ -		$ -	1.00	$ 77.25		$ -		$ -	
Single Tensioner	$ 77.25	$ -		$ -		$ -		$ -		$ -		$ -	
Single Traveller	$ 0.52	$ -		$ -		$ -		$ -		$ -		$ -	
JD 350 LDC Excavator	$ 160.89	$ -		$ -		$ -		$ -		$ -		$ -	
Compressor	$ 22.04	$ 22.04		$ -		$ -		$ -		$ -		$ -	
Grout truck	$ 82.40	$ -		$ -		$ -		$ -		$ -		$ -	
Rock Drill	$ 103.00	$ 103.00		$ -		$ -		$ -		$ -		$ -	
Press & Pump, Genset, Light plant	$ 13.46	$ 13.46		$ -		$ -	1.00	$ 13.46		$ -	1.00	$ 13.46	
Water pump	$ 40.99	$ -		$ -		$ -		$ -		$ -		$ -	
Pilot Line Winder	$ 92.70	$ -		$ -		$ -		$ -		$ -		$ -	
Wire Winder	$ 17.69	$ -		$ -		$ -		$ -		$ -		$ -	
Spacer Buggy	$ 46.35	$ -	2.00	$ 92.70		$ -		$ -		$ -		$ -	
Travellers (ea)	$ 1.24	$ -		$ -		$ -		$ -		$ -		$ -	
Traffic Control Sign	$ 21.84	$ -		$ -		$ -		$ -		$ -		$ -	
Hoe-Pack	$ 25.75	$ -		$ -		$ -		$ -		$ -		$ -	
Pile Driving Crew (per m)	$ 211.07	$ -		$ -		$ -		$ -		$ -		$ -	
Concrete Pumper	$ 206.00	$ -		$ -		$ -		$ -		$ -		$ -	
Survey Equipment	$ 56.65	$ 56.65		$ -		$ -	0.50	$ 28.33		$ -	1.00	$ 56.65	
Heavy Lift Helicopter - Operated	$ 17,725.89	$ -		$ -		$ -		$ -		$ -		$ -	
Medium Lift Helicopter - Operated	$ 3,071.98	$ -		$ -		$ -		$ -		$ -		$ -	
Light Duty Helicopter - Operated	$ 1,905.50	$ -		$ -		$ -		$ -		$ -		$ -	
TOTAL EQUIPMENT		**403.67**	**7.00**	**374.92**	**3.00**	**77.61**	**8.00**	**463.34**	**6.00**	**582.62**	**7.00**	**201.28**	
TOTAL CREW RATE		**$ 920.20**		**$1,060.25**		**$ 540.43**		**$1,258.65**		**$ 1,482.09**		**$ 913.00**	

		42		43		44		45		46		47		48	
		OPGW Splice		Counterpoise Instal		L/A Account		Camp Setup		Camp Haul		Electrode Slack String		Wood Assembly	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate														
Supervisor	$ 142.83		$ -		$ -		$ -	1.00	$ 142.83		$ -	1.00	$ 142.83		$ -
Foreman	$ 120.15		$ -	1.00	$ 120.15		$ -	1.00	$ 120.15		$ -	2.00	$ 240.29	1.00	$ 120.15
Surveyor	$ 111.85		$ -	1.00	$ 111.85		$ -	0.50	$ 55.92		$ -		$ -		$ -
Lineman	$ 111.85		$ -		$ -		$ -	1.00	$ 111.85		$ -	7.00	$ 782.94	1.00	$ 111.85
Apprentice - 4th Year	$ 103.90		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Apprentice - 3rd Year	$ 95.95		$ -		$ -		$ -		$ -		$ -	4.00	$ 383.78	1.00	$ 95.95
Apprentice - 2nd Year	$ 87.99		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Apprentice - 1st Year	$ 80.04		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Equipment Operator	$ 96.49		$ -	2.00	$ 192.99		$ -	2.00	$ 192.99		$ -	4.00	$ 385.97	1.00	$ 96.49
Truck Driver / Picker Op.	$ 107.16		$ -		$ -		$ -	1.00	$ 107.16	1.00	$ 107.16	6.00	$ 642.97	1.00	$ 107.16
Labourer	$ 87.44		$ -		$ -		$ -	3.00	$ 262.31		$ -		$ -		$ -
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -		$ -		$ -	3.00	$ 300.15		$ -		$ -		$ -
Telecom Foreman	$ 87.44	1.00	$ 87.44		$ -		$ -		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44	1.00	$ 87.44		$ -		$ -		$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -		$ -	1.00	$ -		$ -		$ -		$ -		$ -
none	$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**2.00**	**174.87**	**4.00**	**424.98**	**1.00**	**-**	**12.50**	**1,293.35**	**1.00**	**107.16**	**24.00**	**2,578.79**	**5.00**	**531.60**
Pickup	$ 24.36	-	$ -	1.00	$ 24.36		$ -	1.00	$ 24.36		$ -	2.00	$ 48.72		$ -
Crew Cab Truck	$ 29.20	1.00	$ 29.20	1.00	$ 29.20		$ -	2.00	$ 58.40		$ -	7.00	$ 204.40	1.00	$ 29.20
Conductor Splicing Truck	$ 46.02		$ -		$ -		$ -		$ -		$ -	1.00	$ 46.02		$ -
OPGW Splicing Truck	$ 93.60	1.00	$ 93.60		$ -		$ -		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27		$ -		$ -		$ -		$ -		$ -	-	$ -	1.00	$ 136.27
Picker - 38 Ton	$ 180.25		$ -		$ -		$ -		$ -		$ -	-	$ -		$ -
40T RT Crane	$ 195.70		$ -		$ -		$ -	1.00	$ 195.70		$ -	1.00	$ 195.70		$ -
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40		$ -		$ -		$ -		$ -		$ -	1.00	$ 89.40		$ -
200T All-Tr. crane	$ 418.72		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -		$ -		$ -		$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85		$ -		$ -		$ -		$ -		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67		$ -		$ -		$ -	1.00	$ 134.67		$ -	-	$ -		$ -
Tractor Trailer (Heavy)	$ 134.67		$ -		$ -		$ -		$ -	1.00	$ 134.67	2.00	$ 269.35		$ -
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83		$ -		$ -		$ -	1.00	$ 165.83		$ -	2.00	$ 331.66		$ -
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27		$ -		$ -		$ -	1.00	$ 69.27		$ -	1.00	$ 69.27		$ -
JD 290 Track-hoe	$ 130.60		$ -		$ -		$ -	1.00	$ 130.60		$ -	1.00	$ 130.60		$ -
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -		$ -		$ -		$ -		$ -	2.00	$ 456.50		$ -
Nodwell - Digger	$ 130.60		$ -	1.00	$ 130.60		$ -		$ -		$ -		$ -		$ -
Trencher	$ 84.36		$ -	1.00	$ 84.36		$ -		$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -		$ -		$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Reel Trailer	$ 72.10		$ -		$ -		$ -		$ -		$ -	2.00	$ 144.20		$ -
Tensioner	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -		$ -	150.00	$ 77.25		$ -
JD 350 LDC Excavator	$ 160.89		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Grout truck	$ 82.40		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46		$ -		$ -		$ -		$ -		$ -	1.00	$ 13.46	1.00	$ 13.46
Water pump	$ 40.99		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Travellers (ea)	$ 1.24		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Hoe-Pack	$ 25.75		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65		$ -	1.00	$ 56.65		$ -	0.50	$ 28.33		$ -		$ -		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -		$ -		$ -		$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**2.00**	**122.80**	**5.00**	**325.17**	**-**	**-**	**8.50**	**807.16**	**1.00**	**134.67**	**173.00**	**2,076.53**	**3.00**	**178.93**
TOTAL CREW RATE			**$ 297.67**		**$ 750.15**		**$ -**		**$ 2,100.51**		**$ 241.83**		**$ 4,655.32**		**$ 710.52**

		49		50		99	
		Wood Erection		Wood Slack Stringing			
		No.	Rate	No.	Rate	No.	Rate
Designation	Rate						
Supervisor	$ 142.83		$ -		$ -		$ -
Foreman	$ 120.15	1.00	$ 120.15	1.00	$ 120.15		$ -
Surveyor	$ 111.85		$ -		$ -		$ -
Lineman	$ 111.85	1.00	$ 111.85	3.00	$ 335.55		$ -
Apprentice - 4th Year	$ 103.90	1.00	$ 103.90	2.00	$ 207.79		$ -
Apprentice - 3rd Year	$ 95.95		$ -	2.00	$ 191.89		$ -
Apprentice - 2nd Year	$ 87.99		$ -	2.00	$ 175.99		$ -
Apprentice - 1st Year	$ 80.04		$ -		$ -		$ -
Equipment Operator	$ 96.49	1.00	$ 96.49	2.00	$ 192.99		$ -
Truck Driver / Picker Op.	$ 107.16	2.00	$ 214.32	2.00	$ 214.32		$ -
Labourer	$ 87.44		$ -		$ -		$ -
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -
Carpenter	$ 100.05		$ -		$ -		$ -
Telecom Foreman	$ 87.44		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -		$ -		$ -
Included Super or Operator	$ -		$ -		$ -		$ -
none	$ -		$ -		$ -		$ -
TOTAL LABOUR		**6.00**	**646.71**	**14.00**	**1,438.68**	**-**	**-**
Pickup	$ 24.36		$ -	1.00	$ 24.36		$ -
Crew Cab Truck	$ 29.20	2.00	$ 58.40	3.00	$ 87.60		$ -
Conductor Splicing Truck	$ 46.02		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25		$ -	2.00	$ 360.50		$ -
40T RT Crane	$ 195.70	1.00	$ 195.70		$ -		$ -
60T RT Crane	$ 247.20		$ -		$ -		$ -
80T RT Crane	$ 345.05		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40	-	$ -	-	$ -		$ -
200T All-Tr. crane	$ 418.72		$ -		$ -		$ -
Texoma	$ 162.23		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -		$ -		$ -
53' Tridem trailer	$ 11.85		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13	1.00	$ 68.13		$ -		$ -
T/A Rock Truck	$ 121.67		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -
Watson 1100	$ 247.20	-	$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67		$ -		$ -		$ -
Tractor Trailer (Heavy)	$ 134.67		$ -		$ -		$ -
Self-Loader	$ 134.67		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83		$ -		$ -		$ -
JD 310 Back Hoe	$ 68.13		$ -	1.00	$ 68.13		$ -
JD 554 Loader	$ 69.27		$ -		$ -		$ -
JD 290 Track-hoe	$ 130.60	1.00	$ 130.60	1.00	$ 130.60		$ -
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -		$ -
Trencher	$ 84.36		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -
Reel Trailer	$ 72.10		$ -	1.00	$ 72.10		$ -
Tensioner	$ 139.05		$ -		$ -		$ -
Puller	$ 139.05		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -	-	$ -		$ -
Single Tensioner	$ 77.25		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -	-	$ -		$ -
JD 350 LDC Excavator	$ 160.89		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -		$ -
Grout truck	$ 82.40		$ -		$ -		$ -
Rock Drill	$ 103.00	1.00	$ 103.00		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46	1.00	$ 13.46	1.00	$ 13.46		$ -
Water pump	$ 40.99		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -
Travellers (ea)	$ 1.24		$ -	200.00	$ 247.20		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -
Hoe-Pack	$ 25.75		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -
Survey Equipment	$ 56.65		$ -		$ -		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -		$ -		$ -
TOTAL EQUIPMENT		**7.00**	**569.30**	**210.00**	**1,003.96**	**-**	**-**
TOTAL CREW RATE			########		########		$ -

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.

Rate Blending

Based On 11.0 **Hours per Day**
7.0 **Days per Week**
77.0 **Hour Week**

Daily Living Allowance $ - Assumes 0% no LA
LA For 7 **days / week**

	Blended Hourly Rate	Unloaded Hourly Rate				Loaded Hourly Rate			Hours Per Week			Wage Cost				Weekly Living Cost	Weekly Cost Total	Blended Cost Per Hour	
Personnel Rates		ST	OT	DT	Multiplier	ST	OT	DT	ST	OT	DT	ST	OT	DT	Total			Hours	Cost
Supervisor	$ 142.83	109.19	163.13	217.18	1.00	$ 109.19	$ 163.13	$ 217.18	40.0	26.0	11.0	$ 4,367.66	$ 4,241.44	$ 2,389.00	$ 10,998.11	$ -	$ 10,998.11	77.0	$ 142.83
Senior Foreman	$ 131.69	100.67	150.40	200.23	1.00	$ 100.67	$ 150.40	$ 200.23	40.0	26.0	11.0	$ 4,026.80	$ 3,910.42	$ 2,202.56	$ 10,139.77	$ -	$ 10,139.77	77.0	$ 131.69
Foreman	$ 120.15	99.28	132.75	166.23	1.00	$ 99.28	$ 132.75	$ 166.23	40.0	26.0	11.0	$ 3,971.20	$ 3,451.60	$ 1,828.51	$ 9,251.31	$ -	$ 9,251.31	77.0	$ 120.15
Sub-Foreman	$ 117.18	97.02	129.36	161.71	1.00	$ 97.02	$ 129.36	$ 161.71	40.0	26.0	11.0	$ 3,880.83	$ 3,363.49	$ 1,778.80	$ 9,023.12	$ -	$ 9,023.12	77.0	$ 117.18
Surveyor	$ 111.85	92.95	123.26	153.58	1.00	$ 92.95	$ 123.26	$ 153.58	40.0	26.0	11.0	$ 3,718.16	$ 3,204.88	$ 1,689.33	$ 8,612.37	$ -	$ 8,612.37	77.0	$ 111.85
Lineman	$ 111.85	92.95	123.26	153.58	1.00	$ 92.95	$ 123.26	$ 153.58	40.0	26.0	11.0	$ 3,718.16	$ 3,204.88	$ 1,689.33	$ 8,612.37	$ -	$ 8,612.37	77.0	$ 111.85
Apprentice - 4th Year	$ 103.90	86.89	114.17	141.45	1.00	$ 86.89	$ 114.17	$ 141.45	40.0	26.0	11.0	$ 3,475.67	$ 2,968.46	$ 1,555.96	$ 8,000.09	$ -	$ 8,000.09	77.0	$ 103.90
Apprentice - 3rd Year	$ 95.95	80.83	105.08	129.33	1.00	$ 80.83	$ 105.08	$ 129.33	40.0	26.0	11.0	$ 3,233.18	$ 2,732.04	$ 1,422.60	$ 7,387.81	$ -	$ 7,387.81	77.0	$ 95.95
Apprentice - 2nd Year	$ 87.99	74.77	95.99	117.20	1.00	$ 74.77	$ 95.99	$ 117.20	40.0	26.0	11.0	$ 2,990.70	$ 2,495.61	$ 1,289.23	$ 6,775.54	$ -	$ 6,775.54	77.0	$ 87.99
Apprentice - 1st Year	$ 80.04	68.71	86.89	105.08	1.00	$ 68.71	$ 86.89	$ 105.08	40.0	26.0	11.0	$ 2,748.21	$ 2,259.19	$ 1,155.86	$ 6,163.26	$ -	$ 6,163.26	77.0	$ 80.04
Equipment Operator	$ 96.49	78.91	107.12	135.32	1.00	$ 78.91	$ 107.12	$ 135.32	40.0	26.0	11.0	$ 3,156.41	$ 2,785.00	$ 1,488.53	$ 7,429.93	$ -	$ 7,429.93	77.0	$ 96.49
Truck Driver / Picker Op.	$ 107.16	87.04	119.32	151.59	1.00	$ 87.04	$ 119.32	$ 151.59	40.0	26.0	11.0	$ 3,481.75	$ 3,102.21	$ 1,667.46	$ 8,251.42	$ -	$ 8,251.42	77.0	$ 107.16
Labourer	$ 87.44	72.01	96.76	121.51	1.00	$ 72.01	$ 96.76	$ 121.51	40.0	26.0	11.0	$ 2,880.23	$ 2,515.73	$ 1,336.63	$ 6,732.58	$ -	$ 6,732.58	77.0	$ 87.44
Carpenter	$ 100.05	81.62	111.18	140.74	1.00	$ 81.62	$ 111.18	$ 140.74	40.0	26.0	11.0	$ 3,264.85	$ 2,890.74	$ 1,548.17	$ 7,703.76	$ -	$ 7,703.76	77.0	$ 100.05
Telecom Foreman	$ 87.44	72.01	96.76	121.51	1.00	$ 72.01	$ 96.76	$ 121.51	40.0	26.0	11.0	$ 2,880.23	$ 2,515.73	$ 1,336.63	$ 6,732.58	$ -	$ 6,732.58	77.0	$ 87.44
Telecom Cable Splicer	$ 87.44	72.01	96.76	121.51	1.00	$ 72.01	$ 96.76	$ 121.51	40.0	26.0	11.0	$ 2,880.23	$ 2,515.73	$ 1,336.63	$ 6,732.58	$ -	$ 6,732.58	77.0	$ 87.44

ST & OT Rates c/w Sustenance

	ST	OT	DT
Supervisor	$ 109.19	$ 163.13	$ 217.18
Senior Foreman	$ 100.67	$ 150.40	$ 200.23
Foreman	$ 99.28	$ 132.75	$ 166.23
Sub-Foreman	$ 97.02	$ 129.36	$ 161.71
Surveyor	$ 92.95	$ 123.26	$ 153.58
Lineman	$ 92.95	$ 123.26	$ 153.58
Apprentice - 4th Year	$ 86.89	$ 114.17	$ 141.45
Apprentice - 3rd Year	$ 80.83	$ 105.08	$ 129.33
Apprentice - 2nd Year	$ 74.77	$ 95.99	$ 117.20
Apprentice - 1st Year	$ 68.71	$ 86.89	$ 105.08
Equipment Operator	$ 78.91	$ 107.12	$ 135.32
Truck Driver / Picker Op.	$ 87.04	$ 119.32	$ 151.59
Labourer	$ 72.01	$ 96.76	$ 121.51
Carpenter	$ 81.62	$ 111.18	$ 140.74
Telecom Foreman	$ 72.01	$ 96.76	$ 121.51
Telecom Cable Splicer	$ 72.01	$ 96.76	$ 121.51

Equipment Rates

General Highway Equipment	
Pickup	$ 24.36
Crew Cab Truck	$ 29.20
Conductor Splicing Truck	$ 46.02
OPGW Splicing Truck	$ 93.60
Picker - 17 Ton	$ 136.27
Picker - 38 Ton	$ 180.25
40T RT Crane	$ 195.70
60T RT Crane	$ 247.20
80T RT Crane	$ 345.05
Digger - TelElect 5052	$ 89.40
T/A Gravel Truck	$ 68.13
T/A Rock Truck	$ 121.67
Texoma	$ 162.23
Watson 1010	$ 190.55
Watson 1100	$ 247.20
Watson 2500	$ 309.00
Soilmec SR65	$ 437.75
Tractor Trailer/Picker	$ 134.67
Tractor Trailer (Heavy)	$ 134.67
Self-Loader	$ 134.67
55' Bucket Truck	$ 81.11
Pole Trailer	$ 22.04
Rock Drill	$ 103.00
Contract Construction Equipment	
200T All-Tr. crane	$ 418.72
Contract Welder	$ 144.20
Quad or Side by Side	$ 24.21
120' Gene Lift	$ 87.55
53' Tridem trailer	$ 11.85
Heavy Construction Equipment	
Crawler Tractors 750 JD	$ 165.83
JD 310 Back Hoe	$ 68.13
JD 554 Loader	$ 69.27
JD 290 Track-hoe	$ 130.60
Skid-Steer Loader	$ 38.11
LGP Construction Equipment	
Nodwells - Picker up to 17 Ton	$ 170.36
Nodwells - Picker over 17 Ton	$ 228.25
Nodwell - Digger	$ 130.60
Trencher	$ 84.36
10T Tele-Handler	$ 53.00
LGP Texoma Nodwell	$ 162.23
LGP Highboy ROW Trailer	$ 32.45
Stringing Equipment	
Reel Trailer	$ 72.10
Tensioner	$ 139.05
Puller	$ 139.05
1 Drum Puller	$ 77.25
Single Tensioner	$ 77.25
Single Traveller	$ 0.52
JD 350 LDC Excavator	$ 160.89
Compressor	$ 22.04
Grout Truck	$ 82.40
Press & Pump, Genset, Light plar	$ 13.46
Press & Pump	$ 40.99
Water Pump	$ 40.99
Pilot Line Winder	$ 92.70
Wire Winder	$ 17.69
Spacer Buggy	$ 46.35
Travellers (ea)	$ 1.24
Traffic Control Sign	$ 21.84

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::A01	**S1-A1 Initial Mobilization**		**Unit Cost:**	$ -	1	$ -
	S1-A1 Initial Mobilization		17			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::A02	**S1-A2 Final Demobilization**		**Unit Cost:**	$ -	1	$ -
	S1-A2 Final Demobilization		28			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::A03	**S1-A3 Accommodation Camp Installation**		**Unit Cost:**	$ 49,879,838.80	1	$ 49,879,838.80
	S1-A3 Accommodation Camp Installation		39			
	Screened Crushed Rock (Tonne)	33750	$ 47.38	$ 1,599,075.00		
	Camp incidental Material	5	$ 143,750.00	$ 718,750.00		
	Contractor Fuel(l)	105000	$ 1.33	$ 140,070.00		
	Camp Hauling with pilot car	19000	$ 218.50	$ 4,151,500.00		
	Room and Board (day)	173073	$ 250.01	$ 43,270,443.80		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 49,879,838.80		
V::A04	**S1-A4 Boarding and Lodging for Company/Engineer with 3 meals per day**		**Unit Cost:**	$ 250.01	24000	$ 6,000,309.00
	S1-A4 Boarding and Lodging for Company/Engineer with 3 meals per day		71			
	Room and Board (day)	1	$ 250.01	$ 250.01		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 250.01		
V::A05	**S1-A5 Meals for Company/Engineer visitors**		**Unit Cost:**	$ 41.68	2000	$ 83,354.29
	S1-A5 Meals for Company/Engineer visitors		82			
	Room and Board (day)	0.1667	$ 250.01	$ 41.68		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 41.68		
V::A06	**S1-A6 Parent Guarantee Article 7.4**		**Unit Cost:**	$ -	1	$ -
	S1-A6 Parent Guarantee Article 7.4		124			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::A07	**S1-A7 Letter Of Credit Article 7.6**		**Unit Cost:**	$ -	1	$ -
	S1-A7 Letter Of Credit Article 7.6		134			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::A08	**S1-A8 Performance Bonding Article 7.1**		**Unit Cost:**	$ -	1	$ -
	S1-A8 Performance Bonding Article 7.1		144			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::A09	**S1-A9 Labour and Materials Bonding Article 7.2**		**Unit Cost:**	$ -	1	$ -
	S1-A9 Labour and Materials Bonding Article 7.2		158			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::B01	**S1-B1 ROW Clearing**		**Unit Cost:**	$ 19,550.00	2207	$ 43,146,850.00
	S1-B1 ROW Clearing		174			
	ROW Clearing	1.00	$ 19,550.00	$ 19,550.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 19,550.00		
V::B02	**S1-B2 Removal of selected danger trees**		**Unit Cost:**	$ 210.00	1000	$ 210,000.00
	S1-B2 Removal of selected danger trees		188			
	Removal of selected danger trees	1.00	$ 210.00	$ 210.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 210.00		
V::B03	**S1-B3 Supply and Installation of Culvert - 600 mm x 1.6 mm thick**		**Unit Cost:**	$ 426.01	1358	$ 578,516.15
	S1-B3 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2		202			
	Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2	1.00	$ 426.01	$ 426.01		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 426.01		
V::B04	**S1-B4 Supply and Installation of Bridge - 3 m**		**Unit Cost:**	$ 32,700.00	141	$ 4,610,700.00
	S1-B4 Supply and Installation of Bridge - 3 m		216			
	Supply and Installation of Bridge - 3 m	1.00	$ 32,700.00	$ 32,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 32,700.00		
V::B05	**S1-B5 Supply and Installation of Bridge - 4 m**		**Unit Cost:**	$ 43,600.00	2	$ 87,200.00
	S1-B5 Supply and Installation of Bridge - 4 m		231			
	Supply and Installation of Bridge - 4 m	1.00	$ 43,600.00	$ 43,600.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 43,600.00		
V::B06	**S1-B6 Supply and Installation of Bridge - 5 m**		**Unit Cost:**	$ 54,500.00	15	$ 817,500.00
	S1-B6 Supply and Installation of Bridge - 5 m		275			
	Supply and Installation of Bridge - 5 m	1.00	$ 54,500.00	$ 54,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 54,500.00		
V::B07	**S1-B7 Supply and Installation of Bridge - 6 m**		**Unit Cost:**	$ 65,400.00	5	$ 327,000.00
	S1-B7 Supply and Installation of Bridge - 6 m		292			
	Supply and Installation of Bridge - 6 m	1.00	$ 65,400.00	$ 65,400.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 65,400.00		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::B08	**S1-B8 Supply and Installation of Bridge - 7 m**		**Unit Cost:**	**$ 76,300.00**	**1**	**$ 76,300.00**
	S1-B8 Supply and Installation of Bridge - 7 m		309			
	Supply and Installation of Bridge - 7 m	1.00	$ 76,300.00	$ 76,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 76,300.00**		
V::B09	**S1-B9 Supply and Installation of Bridge - 8 m**		**Unit Cost:**	**$ 87,200.00**	**4**	**$ 348,800.00**
	S1-B9 Supply and Installation of Bridge - 8 m		326			
	Supply and Installation of Bridge - 8 m	1.00	$ 87,200.00	$ 87,200.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 87,200.00**		
V::B10	**S1-B10 Supply and Installation of Bridge - 10 m**		**Unit Cost:**	**$ 109,000.00**	**3**	**$ 327,000.00**
	S1-B10 Supply and Installation of Bridge - 10 m		343			
	Supply and Installation of Bridge - 10 m	1.00	$ 109,000.00	$ 109,000.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 109,000.00**		
V::B11	**S1-B11 Supply and Installation of Bridge - 13 m**		**Unit Cost:**	**$ 141,700.00**	**0**	**$ -**
	S1-B11 Supply and Installation of Bridge - 13 m		360			
	Supply and Installation of Bridge - 13 m	1.00	$ 141,700.00	$ 141,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 141,700.00**		
V::B12	**S1-B12 Supply and Installation of Bridge - 14 m**		**Unit Cost:**	**$ 152,600.00**	**1**	**$ 152,600.00**
	S1-B12 Supply and Installation of Bridge - 14 m		377			
	Supply and Installation of Bridge - 14 m	1.00	$ 152,600.00	$ 152,600.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 152,600.00**		
V::B13	**S1-B13 Supply and Installation of Bridge - 15 m**		**Unit Cost:**	**$ 163,500.00**	**0**	**$ -**
	S1-B13 Supply and Installation of Bridge - 15 m		394			
	Supply and Installation of Bridge - 15 m	1.00	$ 163,500.00	$ 163,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 163,500.00**		
V::B14	**S1-B14 Supply and Installation of Bridge - 16 m**		**Unit Cost:**	**$ 174,400.00**	**1**	**$ 174,400.00**
	S1-B14 Supply and Installation of Bridge - 16 m		411			
	Supply and Installation of Bridge - 16 m	1.00	$ 174,400.00	$ 174,400.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 174,400.00**		
V::B15	**S1-B15 Supply and Installation of Bridge - 25 m**		**Unit Cost:**	**$ 272,500.00**	**0**	**$ -**
	S1-B15 Supply and Installation of Bridge - 25 m		425			
	Supply and Installation of Bridge - 25 m	1.00	$ 272,500.00	$ 272,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 272,500.00**		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::B16	**S1-B16 Supply and Installation of Bridge - 35 m**		**Unit Cost:**	**$ 381,500.00**	**0**	**$ -**
	S1-B16 Supply and Installation of Bridge - 35 m		439			
	Supply and Installation of Bridge - 35 m	1.00	$ 381,500.00	$ 381,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 381,500.00**		
V::B17	**S1-B17 Supply and Installation of Bridge - 50 m**		**Unit Cost:**	**$ 545,000.00**	**1**	**$ 545,000.00**
	S1-B17 Supply and Installation of Bridge - 50 m		453			
	Supply and Installation of Bridge - 50 m	1.00	$ 545,000.00	$ 545,000.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 545,000.00**		
V::B18	**S1-B18 Supply and Installation of Bridge - 60 m**		**Unit Cost:**	**$ 654,000.00**	**1**	**$ 654,000.00**
	S1-B18 Supply and Installation of Bridge - 60 m		467			
	Supply and Installation of Bridge - 60 m	1.00	$ 654,000.00	$ 654,000.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 654,000.00**		
V::B19	**S1-B19 Supply and Installation of Bridge - 65 m**		**Unit Cost:**	**$ 708,500.00**	**1**	**$ 708,500.00**
	S1-B19 Supply and Installation of Bridge - 65 m		482			
	Supply and Installation of Bridge - 65 m	1.00	$ 708,500.00	$ 708,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 708,500.00**		
V::B20	**S1-B20 Installation of Corduroy Road**		**Unit Cost:**	**$ 139.45**	**4915**	**$ 685,391.84**
	S1-B20 Installation of Corduroy Road		497			
	Installation of Corduroy Road	1.00	$ 139.45	$ 139.45		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 139.45**		
V::B21	**S1-B21 Installation of Access Road - Access Class 3**		**Unit Cost:**	**$ 80,700.00**	**415**	**$ 33,490,500.00**
	S1-B21 Installation of Access Road - Access Class 3		511			
	Installation of Access Road - Access Class 3	1.00	$ 80,700.00	$ 80,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 80,700.00**		
V::B22	**S1-B22 Installation of Access Road - Access Trail**		**Unit Cost:**	**$ 80,700.00**	**20**	**$ 1,614,000.00**
	S1-B22 Installation of Access Road - Access Trail		525			
	Installation of Access Road - Access Trail	1.00	$ 80,700.00	$ 80,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 80,700.00**		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::B23	**S1-B23 Installation of Access Road - Bypass Trail**		**Unit Cost:**	**$ 80,700.00**	**6**	**$ 484,200.00**
	S1-B23 Installation of Access Road - Bypass Trail		594			
	Installation of Access Road - Bypass Trail	1.00	$ 80,700.00	$ 80,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 80,700.00**		
V::B24	**S1-B24 Installation of Access Road - Ice Bridge**		**Unit Cost:**	**$ 7,200.00**	**35**	**$ 252,000.00**
	S1-B24 Installation of Access Road - Ice Bridge		607			
	Installation of Access Road - Ice Bridge	1.00	$ 7,200.00	$ 7,200.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 7,200.00**		
V::B25	**S1-B25 ROW Clearing**		**Unit Cost:**	**$ 19,550.00**	**18**	**$ 351,900.00**
	S1-B25 ROW Clearing		623			
	ROW Clearing	1.00	$ 19,550.00	$ 19,550.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 19,550.00**		
V::B26	**S1-B26 Removal of selected danger trees**		**Unit Cost:**	**$ 210.00**	**42**	**$ 8,820.00**
	S1-B26 Removal of selected danger trees		637			
	Removal of selected danger trees	1.00	$ 210.00	$ 210.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 210.00**		
V::B27	**S1-B27 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2**		**Unit Cost:**	**$ 426.01**	**11**	**$ 4,686.07**
	S1-B27 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2		680			
	Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2	1.00	$ 426.01	$ 426.01		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 426.01**		
V::B28	**S1-B28 Supply and Installation of Bridge - 3 m**		**Unit Cost:**	**$ 32,700.00**	**1**	**$ 32,700.00**
	S1-B28 Supply and Installation of Bridge - 3 m		698			
	Supply and Installation of Bridge - 3 m	1.00	$ 32,700.00	$ 32,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 32,700.00**		
V::B29	**S1-B29 Supply and Installation of Bridge - 4 m**		**Unit Cost:**	**$ 43,600.00**	**0**	**$ -**
	S1-B29 Supply and Installation of Bridge - 4 m		713			
	Supply and Installation of Bridge - 4 m	1.00	$ 43,600.00	$ 43,600.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 43,600.00**		
V::B30	**S1-B30 Supply and Installation of Bridge - 5 m**		**Unit Cost:**	**$ 54,500.00**	**1**	**$ 54,500.00**
	S1-B30 Supply and Installation of Bridge - 5 m		728			
	Supply and Installation of Bridge - 5 m	1.00	$ 54,500.00	$ 54,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 54,500.00**		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::B31	**S1-B31 Supply and Installation of Bridge - 6 m**		**Unit Cost:**	**$ 65,400.00**	**1**	**$ 65,400.00**
	S1-B31 Supply and Installation of Bridge - 6 m		743			
	Supply and Installation of Bridge - 6 m	1.00	$ 65,400.00	$ 65,400.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 65,400.00**		
V::B32	**S1-B32 Supply and Installation of Bridge - 7 m**		**Unit Cost:**	**$ 76,300.00**	**1**	**$ 76,300.00**
	S1-B32 Supply and Installation of Bridge - 7 m		774			
	Supply and Installation of Bridge - 7 m	1.00	$ 76,300.00	$ 76,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 76,300.00**		
V::B33	**S1-B33 Supply and Installation of Bridge - 8 m**		**Unit Cost:**	**$ 87,200.00**	**1**	**$ 87,200.00**
	S1-B33 Supply and Installation of Bridge - 8 m		792			
	Supply and Installation of Bridge - 8 m	1.00	$ 87,200.00	$ 87,200.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 87,200.00**		
V::B34	**S1-B34 Supply and Installation of Bridge - 10 m**		**Unit Cost:**	**$ 109,000.00**	**1**	**$ 109,000.00**
	S1-B34 Supply and Installation of Bridge - 10 m		807			
	Supply and Installation of Bridge - 10 m	1.00	$ 109,000.00	$ 109,000.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 109,000.00**		
V::B35	**S1-B35 Supply and Installation of Bridge - 13 m**		**Unit Cost:**	**$ 141,700.00**	**0**	**$ -**
	S1-B35 Supply and Installation of Bridge - 13 m		822			
	Supply and Installation of Bridge - 13 m	1.00	$ 141,700.00	$ 141,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 141,700.00**		
V::B36	**S1-B36 Supply and Installation of Bridge - 14 m**		**Unit Cost:**	**$ 152,600.00**	**0**	**$ -**
	S1-B36 Supply and Installation of Bridge - 14 m		837			
	Supply and Installation of Bridge - 14 m	1.00	$ 152,600.00	$ 152,600.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 152,600.00**		
V::B37	**S1-B37 Supply and Installation of Bridge - 15 m**		**Unit Cost:**	**$ 163,500.00**	**0**	**$ -**
	S1-B37 Supply and Installation of Bridge - 15 m		872			
	Supply and Installation of Bridge - 15 m	1.00	$ 163,500.00	$ 163,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 163,500.00**		
V::B38	**S1-B38 Supply and Installation of Bridge - 16 m**		**Unit Cost:**	**$ 174,400.00**	**0**	**$ -**
	S1-B38 Supply and Installation of Bridge - 16 m		888			
	Supply and Installation of Bridge - 16 m	1.00	$ 174,400.00	$ 174,400.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 174,400.00**		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::B39	**S1-B39 Supply and Installation of Bridge - 25 m**		**Unit Cost:**	**$ 272,500.00**	**0**	**$ -**
	S1-B39 Supply and Installation of Bridge - 25 m		904			
	Supply and Installation of Bridge - 25 m	1.00	$ 272,500.00	$ 272,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 272,500.00**		
V::B40	**S1-B40 Supply and Installation of Bridge - 35 m**		**Unit Cost:**	**$ 381,500.00**	**0**	**$ -**
	S1-B40 Supply and Installation of Bridge - 35 m		920			
	Supply and Installation of Bridge - 35 m	1.00	$ 381,500.00	$ 381,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 381,500.00**		
V::B41	**S1-B41 Supply and Installation of Bridge - 50 m**		**Unit Cost:**	**$ 545,000.00**	**0**	**$ -**
	S1-B41 Supply and Installation of Bridge - 50 m		936			
	Supply and Installation of Bridge - 50 m	1.00	$ 545,000.00	$ 545,000.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 545,000.00**		
V::B42	**S1-B42 Supply and Installation of Bridge - 60 m**		**Unit Cost:**	**$ 654,000.00**	**1**	**$ 654,000.00**
	S1-B42 Supply and Installation of Bridge - 60 m		952			
	Supply and Installation of Bridge - 60 m	1.00	$ 654,000.00	$ 654,000.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 654,000.00**		
V::B43	**S1-B43 Supply and Installation of Bridge - 65 m**		**Unit Cost:**	**$ 708,500.00**	**0**	**$ -**
	S1-B43 Supply and Installation of Bridge - 65 m		968			
	Supply and Installation of Bridge - 65 m	1.00	$ 708,500.00	$ 708,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 708,500.00**		
V::B44	**S1-B44 Installation of Corduroy Road**		**Unit Cost:**	**$ 139.45**	**20**	**$ 2,788.98**
	S1-B44 Installation of Corduroy Road		984			
	Installation of Corduroy Road	1.00	$ 139.45	$ 139.45		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 139.45**		
V::B45	**S1-B45 Installation of Access Road - Access Class 3**		**Unit Cost:**	**$ 80,700.00**	**2**	**$ 161,400.00**
	S1-B45 Installation of Access Road - Access Class 3		1020			
	Installation of Access Road - Access Class 3	1.00	$ 80,700.00	$ 80,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 80,700.00**		
V::B46	**S1-B46 Installation of Access Road - Access Trail**		**Unit Cost:**	**$ 80,700.00**	**0**	**$ -**
	S1-B46 Installation of Access Road - Access Trail		1036			
	Installation of Access Road - Access Trail	1.00	$ 80,700.00	$ 80,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 80,700.00**		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::B47	**S1-B47 Installation of Access Road - Bypass Trail**		**Unit Cost:**	**$ 80,700.00**	**0**	**$ -**
	S1-B47 Installation of Access Road - Bypass Trail		1052			
	Installation of Access Road - Bypass Trail	1.00	$ 80,700.00	$ 80,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 80,700.00**		
V::C01	**S1-C1 Installation of Guy Wire Anchor in soil as per design drawings and technical specifi**		**Unit Cost:**	**$ 468.58**	**32500**	**$ 15,228,983.19**
	S1-C1 Installation of Guy Wire Anchor in soil as per design drawings and technical specification		1071			
	Guy Anchor in soil (/m)	1	$ 431.08	$ 431.08		
	Anchor Grout (l)	0	$ 1.73	$ -		
	Room and Board (day)	0.15	$ 250.01	$ 37.50		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 468.58**		
V::C02	**S1-C2 Installation of Guy Wire Anchor in rock as per design drawings and technical specif**		**Unit Cost:**	**$ 432.81**	**31500**	**$ 13,633,365.65**
	S1-C2 Installation of Guy Wire Anchor in rock as per design drawings and technical specification	Manhour Row:	1088			
	Guy Anchor in Rock (/m)	1	$ 395.30	$ 395.30		
	Anchor Grout (l)	0	$ 1.73	$ -		
	Room and Board (day)	0.15	$ 250.01	$ 37.50		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 432.81**		
V::C02-1	**S1-C2 Testing of Guy Wire Anchor up to 550kN as per design drawings and technical spec**		**Unit Cost:**	**$ 994.35**	**2892**	**$ 2,875,669.95**
	S1-C2 Testing of Guy Wire Anchor up to 550kN as per design drawings and technical specification	Manhour Row:	1105			
	Pull Test	1	$ 994.35	$ 994.35		
	Room and Board (day)	0	$ 250.01	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 994.35**		
V::C02-2	**S1-C2 Testing of Guy Wire Anchorup to 900kN as per design drawings and**		**Unit Cost:**	**$ 994.35**	**1572**	**$ 1,563,123.50**
	S1-C2 Testing of Guy Wire Anchorup to 900kN as per design drawings and technical specification	Manhour Row:	1120			
	Pull Test	1	$ 994.35	$ 994.35		
	Room and Board (day)	0	$ 250.01	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 994.35**		
V::C03	**S1-C3 Assembly and Installation of Foundation Types A1-1 (100 kPa) as per Dwg 505573-4**		**Unit Cost:**	**$ 278.62**	**36**	**$ 10,030.42**
	S1-C3 Assembly and Installation of Foundation Types A1-1 (100 kPa) as per Dwg 505573-4622-42[	Manhour Row:	1137			
	Screened Crushed Rock (Tonne)	5.88	$ 47.38	$ 278.62		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 278.62**		
V::C04	**S1-C4 Assembly and Installation of Foundation Types A2-1 (100 kPa) as per Dwg 505573-4**		**Unit Cost:**	**$ 468.98**	**17**	**$ 7,972.60**
	S1-C4 Assembly and Installation of Foundation Types A2-1 (100 kPa) as per Dwg 505573-4622-42[	Manhour Row:	1148			
	Screened Crushed Rock (Tonne)	9.90	$ 47.38	$ 468.98		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 468.98**		
V::C05	**S1-C5 Assembly and Installation of Foundation Types A3-1 (100 kPa) as per Dwg 505573-4**		**Unit Cost:**	**$ 377.13**	**1**	**$ 377.13**
	S1-C5 Assembly and Installation of Foundation Types A3-1 (100 kPa) as per Dwg 505573-4622-42[	Manhour Row:	1161			
	Screened Crushed Rock (Tonne)	7.96	$ 47.38	$ 377.13		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 377.13**		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C06	**S1-C6 Assembly and Installation of Foundation Types A4-1 (100 kPa) as per Dwg 505573-4**		**Unit Cost:**	**$ 468.98**	**0**	**$ -**
	S1-C6 Assembly and Installation of Foundation Types A4-1 (100 kPa) as per Dwg 505573-4622-42[		Manhour Row: 1174			
	Screened Crushed Rock (Tonne)	9.90	$ 47.38	$ 468.98		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 468.98**		
V::C07	**S1-C7 Assembly and Installation of Foundation Types B1-1 (100 kPa) as per Dwg 505573-4**		**Unit Cost:**	**$ 538.82**	**2**	**$ 1,077.65**
	S1-C7 Assembly and Installation of Foundation Types B1-1 (100 kPa) as per Dwg 505573-4622-42[		Manhour Row: 1187			
	Screened Crushed Rock (Tonne)	11.37	$ 47.38	$ 538.82		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 538.82**		
V::C08	**S1-C8 Assembly and Installation of Foundation Types B2-1 (100 kPa) as per Dwg 505573-4**		**Unit Cost:**	**$ 446.78**	**40**	**$ 17,871.26**
	S1-C8 Assembly and Installation of Foundation Types B2-1 (100 kPa) as per Dwg 505573-4622-42[		Manhour Row: 1200			
	Screened Crushed Rock (Tonne)	9.43	$ 47.38	$ 446.78		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 446.78**		
V::C09	**S1-C9 Assembly and Installation of Foundation Types A1-1A (250 kPa) as per Dwg 505573**		**Unit Cost:**	**$ 126.90**	**196**	**$ 24,872.91**
	S1-C9 Assembly and Installation of Foundation Types A1-1A (250 kPa) as per Dwg 505573-4622-4[		Manhour Row: 1213			
	Screened Crushed Rock (Tonne)	2.68	$ 47.38	$ 126.90		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 126.90**		
V::C10	**S1-C10 Assembly and Installation of Foundation Types A2-1A (250 kPa) as per Dwg 50557**		**Unit Cost:**	**$ 246.96**	**98**	**$ 24,202.19**
	S1-C10 Assembly and Installation of Foundation Types A2-1A (250 kPa) as per Dwg 505573-4622-4		Manhour Row: 1226			
	Screened Crushed Rock (Tonne)	5.21	$ 47.38	$ 246.96		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 246.96**		
V::C11	**S1-C11 Assembly and Installation of Foundation Types A3-1A (250 kPa) as per Dwg 50557**		**Unit Cost:**	**$ 168.54**	**6**	**$ 1,011.26**
	S1-C11 Assembly and Installation of Foundation Types A3-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for To		1239			
	Screened Crushed Rock (Tonne)	3.56	$ 47.38	$ 168.54		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 168.54**		
V::C12	**S1-C12 Assembly and Installation of Foundation Types A4-1A (250 kPa) as per Dwg 50557**		**Unit Cost:**	**$ 246.96**	**0**	**$ -**
	S1-C12 Assembly and Installation of Foundation Types A4-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for To		1252			
	Screened Crushed Rock (Tonne)	5.21	$ 47.38	$ 246.96		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 246.96**		
V::C13	**S1-C13 Assembly and Installation of Foundation Types B1-1A (250 kPa) as per Dwg 50557**		**Unit Cost:**	**$ 264.42**	**13**	**$ 3,437.50**
	S1-C13 Assembly and Installation of Foundation Types B1-1A (250 kPa) as per Dwg 505573-4622-4		Manhour Row: 1265			
	Screened Crushed Rock (Tonne)	5.58	$ 47.38	$ 264.42		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 264.42**		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C14	**S1-C14 Assembly and Installation of Foundation Types B2-1A (250 kPa) as per Dwg 50557**		**Unit Cost:**	**$ 446.78**	**0**	**$ -**
	S1-C14 Assembly and Installation of Foundation Types B2-1A (250 kPa) as per Dwg 505573-4622-4		Manhour Row: 1278			
	Screened Crushed Rock (Tonne)	9.43	$ 47.38	$ 446.78		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 446.78**		
V::C15	**S1-C15 Assembly and Installation of Foundation Types C1-1 (100 kPa) as per Dwg 505573-**		**Unit Cost:**	**$ 471.41**	**28**	**$ 13,199.40**
	S1-C15 Assembly and Installation of Foundation Types C1-1 (100 kPa) as per Dwg 505573-4622-4		Manhour Row: 1291			
	Screened Crushed Rock (Tonne)	9.95	$ 47.38	$ 471.41		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 471.41**		
V::C16	**S1-C16 Assembly and Installation of Foundation Types C2-1 (100 kPa) as per Dwg 505573-**		**Unit Cost:**	**$ 577.46**	**32**	**$ 18,478.65**
	S1-C16 Assembly and Installation of Foundation Types C2-1 (100 kPa) as per Dwg 505573-4622-4		Manhour Row: 1336			
	Screened Crushed Rock (Tonne)	12.19	$ 47.38	$ 577.46		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 577.46**		
V::C17	**S1-C17 Assembly and Installation of Foundation Types D1-1 (100 kPa) as per Dwg 505573-**		**Unit Cost:**	**$ 624.60**	**56**	**$ 34,977.53**
	S1-C17 Assembly and Installation of Foundation Types D1-1 (100 kPa) as per Dwg 505573-4622-4		Manhour Row: 1349			
	Screened Crushed Rock (Tonne)	13.18	$ 47.38	$ 624.60		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 624.60**		
V::C18	**S1-C18 Assembly and Installation of Foundation Types D2-1 (100 kPa) as per Dwg 505573-**		**Unit Cost:**	**$ 683.89**	**28**	**$ 19,148.99**
	S1-C18 Assembly and Installation of Foundation Types D2-1 (100 kPa) as per Dwg 505573-4622-4		Manhour Row: 1362			
	Screened Crushed Rock (Tonne)	14.43	$ 47.38	$ 683.89		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 683.89**		
V::C19	**S1-C19 Assembly and Installation of Foundation Types E1-1 (100 kPa) as per Dwg 505573-**		**Unit Cost:**	**$ 756.68**	**24**	**$ 18,160.37**
	S1-C19 Assembly and Installation of Foundation Types E1-1 (100 kPa) as per Dwg 505573-4622-4		Manhour Row: 1375			
	Screened Crushed Rock (Tonne)	15.97	$ 47.38	$ 756.68		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 756.68**		
V::C20	**S1-C20 Uplift testing per leg for Types C1-1, or D2-1, or E1-1 (100 kPa) as per technical sp**		**Unit Cost:**	**$ -**	**6**	**$ -**
	S1-C20 Uplift testing per leg for Types C1-1, or D2-1, or E1-1 (100 kPa) as per technical specificatio		Manhour Row: 1388			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::C21	**S1-C21 Downward, uplift, and lateral load testing per leg for Types C1-3, or D2-3, or E1-3 a**		**Unit Cost:**	**$ -**	**6**	**$ -**
	S1-C21 Downward, uplift, and lateral load testing per leg for Types C1-3, or D2-3, or E1-3 as per tec		Manhour Row: 1404			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C22	**S1-C22 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 1,909.69**	**253**	**$ 483,151.57**
	S1-C22 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0074 f		Manhour Row: 1421			
	Small Q Concrete (m^3)	1.66	$ 1,150.00	$ 1,909.69		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 1,909.69**		
V::C23	**S1-C23 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,798.41**	**125**	**$ 349,801.25**
	S1-C23 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0074 f		Manhour Row: 1438			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,798.41		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,798.41**		
V::C24	**S1-C24 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 1,909.69**	**7**	**$ 13,367.83**
	S1-C24 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0074 f		Manhour Row: 1455			
	Small Q Concrete (m^3)	1.66	$ 1,150.00	$ 1,909.69		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 1,909.69**		
V::C25	**S1-C25 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,798.41**	**0**	**$ -**
	S1-C25 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0074 f		Manhour Row: 1472			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,798.41		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,798.41**		
V::C26	**S1-C26 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,798.41**	**17**	**$ 47,572.97**
	S1-C26 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0074 f		Manhour Row: 1489			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,798.41		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,798.41**		
V::C27	**S1-C27 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**43**	**$ 120,104.16**
	S1-C27 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1506			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C28	**S1-C28 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 1,523.52**	**22**	**$ 33,517.44**
	S1-C28 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1523			
	Small Q Concrete (m^3)	1.32	$ 1,150.00	$ 1,523.52		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 1,523.52**		
V::C29	**S1-C29 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,541.85**	**11**	**$ 27,960.30**
	S1-C29 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1540			
	Small Q Concrete (m^3)	2.21	$ 1,150.00	$ 2,541.85		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,541.85**		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C30	**S1-C30 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,073.68**	**1**	**$ 2,073.68**
	S1-C30 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1557			
	Small Q Concrete (m^3)	1.80	$ 1,150.00	$ 2,073.68		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,073.68**		
V::C31	**S1-C31 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,541.85**	**0**	**$ -**
	S1-C31 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1574			
	Small Q Concrete (m^3)	2.21	$ 1,150.00	$ 2,541.85		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,541.85**		
V::C32	**S1-C32 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,708.48**	**3**	**$ 8,125.44**
	S1-C32 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1591			
	Small Q Concrete (m^3)	2.36	$ 1,150.00	$ 2,708.48		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,708.48**		
V::C33	**S1-C33 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 1,523.52**	**191**	**$ 290,992.32**
	S1-C33 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1608			
	Small Q Concrete (m^3)	1.32	$ 1,150.00	$ 1,523.52		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 1,523.52**		
V::C34	**S1-C34 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,541.85**	**94**	**$ 238,933.43**
	S1-C34 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1625			
	Small Q Concrete (m^3)	2.21	$ 1,150.00	$ 2,541.85		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,541.85**		
V::C35	**S1-C35 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,073.68**	**6**	**$ 12,442.08**
	S1-C35 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1642			
	Small Q Concrete (m^3)	1.80	$ 1,150.00	$ 2,073.68		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,073.68**		
V::C36	**S1-C36 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,541.85**	**0**	**$ -**
	S1-C36 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1659			
	Small Q Concrete (m^3)	2.21	$ 1,150.00	$ 2,541.85		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,541.85**		
V::C37	**S1-C37 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,708.48**	**13**	**$ 35,210.24**
	S1-C37 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1675			
	Small Q Concrete (m^3)	2.36	$ 1,150.00	$ 2,708.48		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,708.48**		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C38	**S1-C38 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**32**	**$ 89,379.84**
	S1-C38 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1692			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C39	**S1-C39 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**28**	**$ 78,207.36**
	S1-C39 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1709			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C40	**S1-C40 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**36**	**$ 100,552.32**
	S1-C40 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1726			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C41	**S1-C41 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**60**	**$ 167,587.20**
	S1-C41 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1743			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C42	**S1-C42 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**36**	**$ 100,552.32**
	S1-C42 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1760			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C43	**S1-C43 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**24**	**$ 67,034.88**
	S1-C43 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1777			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C44	**S1-C44 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**28**	**$ 78,207.36**
	S1-C44 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1794			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C45	**S1-C45 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**28**	**$ 78,207.36**
	S1-C45 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1811			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C46	**S1-C46 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**52**	**$ 145,242.24**
	S1-C46 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1828			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C47	**S1-C47 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**28**	**$ 78,207.36**
	S1-C47 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1846			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C48	**S1-C48 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**16**	**$ 44,689.92**
	S1-C48 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1863			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
	Non-Shrink grout (l)		$ 9.20	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C49	**S1-C49 Installation and Testing of 25M Mechanical Rock Anchor as per design drawings a**		**Unit Cost:**	**$ 23.48**	**10443**	**$ 245,237.77**
	S1-C49 Installation and Testing of 25M Mechanical Rock Anchor as per design drawings and techni		Manhour Row: 1880			
	Non-Shrink grout (l)	2.6	$ 9.20	$ 23.48		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 23.48**		
V::C50	**S1-C50 Installation and Testing of 29M Mechanical Rock Anchor as per design drawings a**		**Unit Cost:**	**$ 30.52**	**618**	**$ 18,860.81**
	S1-C50 Installation and Testing of 29M Mechanical Rock Anchor as per design drawings and techni		Manhour Row: 1896			
	Non-Shrink grout (l)	3.3	$ 9.20	$ 30.52		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 30.52**		
V::C51	**S1-C51 Installation and Testing of 32M Mechanical Rock Anchor as per design drawings a**		**Unit Cost:**	**$ 37.28**	**0**	**$ -**
	S1-C51 Installation and Testing of 32M Mechanical Rock Anchor as per design drawings and techni		Manhour Row: 1912			
	Non-Shrink grout (l)	4.1	$ 9.20	$ 37.28		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 37.28**		
V::C52	**S1-C52 Installation and Testing of 43M Mechanical Rock Anchor as per design drawings a**		**Unit Cost:**	**$ 46.03**	**22944**	**$ 1,056,056.83**
	S1-C52 Installation and Testing of 43M Mechanical Rock Anchor as per design drawings and techni		Manhour Row: 1928			
	Non-Shrink grout (l)	5.0	$ 9.20	$ 46.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 46.03**		
V::C53	**S1-C53 Installation and Testing of 57M Mechanical Rock Anchor as per design drawings a**		**Unit Cost:**	**$ 64.71**	**296**	**$ 19,154.46**
	S1-C53 Installation and Testing of 57M Mechanical Rock Anchor as per design drawings and techni		Manhour Row: 1944			
	Non-Shrink grout (l)	7.0	$ 9.20	$ 64.71		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 64.71**		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C54	**S1-C54 Installation and Testing of 64M Mechanical Rock Anchor as per design drawings a**		**Unit Cost:**	**$ 76.09**	**40**	**$ 3,043.46**
	S1-C54 Installation and Testing of 64M Mechanical Rock Anchor as per design drawings and technic		Manhour Row:	1961		
	Non-Shrink grout (l)	8.3	$ 9.20	$ 76.09		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 76.09**		
V::C55	**S1-C55 Design, Assembly and Installation of Foundation Type A1-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 44,266.30**	**7**	**$ 309,864.12**
	S1-C55 Design, Assembly and Installation of Foundation Type A1-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C55	1	$ 40,516.11	$ 40,516.11		
	Room and Board (day)	15	$ 250.01	$ 3,750.19		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 44,266.30**		
V::C56	**S1-C56 Design, Assembly and Installation of Foundation Type A2-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 44,266.30**	**3**	**$ 132,798.91**
	S1-C56 Design, Assembly and Installation of Foundation Type A2-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C56	1	$ 40,516.11	$ 40,516.11		
	Room and Board (day)	15	$ 250.01	$ 3,750.19		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 44,266.30**		
V::C57	**S1-C57 Design, Assembly and Installation of Foundation Type A3-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 44,266.30**	**0**	**$ -**
	S1-C57 Design, Assembly and Installation of Foundation Type A3-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C57	1	$ 40,516.11	$ 40,516.11		
	Room and Board (day)	15	$ 250.01	$ 3,750.19		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 44,266.30**		
V::C58	**S1-C58 Design, Assembly and Installation of Foundation Type A4-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 44,266.30**	**0**	**$ -**
	S1-C58 Design, Assembly and Installation of Foundation Type A4-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C58	1	$ 40,516.11	$ 40,516.11		
	Room and Board (day)	15	$ 250.01	$ 3,750.19		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 44,266.30**		
V::C59	**S1-C59 Design, Assembly and Installation of Foundation Type B1-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 44,266.30**	**0**	**$ -**
	S1-C59 Design, Assembly and Installation of Foundation Type B1-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C59	1	$ 40,516.11	$ 40,516.11		
	Room and Board (day)	15	$ 250.01	$ 3,750.19		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 44,266.30**		
V::C60	**S1-C60 Design, Assembly and Installation of Foundation Type B2-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 208,457.28**	**0**	**$ -**
	S1-C60 Design, Assembly and Installation of Foundation Type B2-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C60	1	$ 188,456.25	$ 188,456.25		
	Room and Board (day)	80	$ 250.01	$ 20,001.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 208,457.28**		
V::C61	**S1-C61 Design, Assembly and Installation of Foundation Type C1-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 208,457.28**	**0**	**$ -**
	S1-C61 Design, Assembly and Installation of Foundation Type C1-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C61	1	$ 188,456.25	$ 188,456.25		
	Room and Board (day)	80	$ 250.01	$ 20,001.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 208,457.28**		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C62	**S1-C62 Design, Assembly and Installation of Foundation Type C2-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 208,457.28**	**0**	**$ -**
	S1-C62 Design, Assembly and Installation of Foundation Type C2-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C62	1	$ 188,456.25	$ 188,456.25		
	Room and Board (day)	80	$ 250.01	$ 20,001.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 208,457.28**		
V::C63	**S1-C63 Design, Assembly and Installation of Foundation Type D1-3 per Dwg 505573-4622-**		**Unit Cost:**	**$ 208,457.28**	**0**	**$ -**
	S1-C63 Design, Assembly and Installation of Foundation Type D1-3 per Dwg 505573-4622-42DD-0(		Manhour Row:			
	NorthStar Price for Steel Piling Caps C63	1	$ 188,456.25	$ 188,456.25		
	Room and Board (day)	80	$ 250.01	$ 20,001.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 208,457.28**		
V::C64	**S1-C64 Design, Assembly and Installation of Foundation Type D2-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 208,457.28**	**4**	**$ 833,829.12**
	S1-C64 Design, Assembly and Installation of Foundation Type D2-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C64	1	$ 188,456.25	$ 188,456.25		
	Room and Board (day)	80	$ 250.01	$ 20,001.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 208,457.28**		
V::C65	**S1-C65 Design, Assembly and Installation of Foundation Type E1-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 208,457.28**	**0**	**$ -**
	S1-C65 Design, Assembly and Installation of Foundation Type E1-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C65	1	$ 188,456.25	$ 188,456.25		
	Room and Board (day)	80	$ 250.01	$ 20,001.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 208,457.28**		
V::C66	**S1-C66 Rock anchor to be installed with S1-C60 to S1-C65 item above as per the design d**		**Unit Cost:**	**$ 468.58**	**240**	**$ 112,460.18**
	S1-C66 Rock anchor to be installed with S1-C60 to S1-C65 item above as per the design drawings a		Manhour Row:			
	Guy Anchor in soil (/m)	1	$ 431.08	$ 431.08		
	Room and Board (day)	0.15	$ 250.01	$ 37.50		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 468.58**		
V::C67	**S1-C67 Supply, and installation of H-Piles, HP 360 x 108, Grade 350AT**		**Unit Cost:**	**$ 580.69**	**1680**	**$ 975,558.09**
	S1-C67 Supply, and installation of H-Piles, HP 360 x 108, Grade 350AT		Manhour Row:			
	NorthStar Price for piles by LM	1	$ 555.69	$ 555.69		
	Room and Board (day)	0.1	$ 250.01	$ 25.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 580.69**		
V::C68	**S1-C68 Supply and Installation of Cribs for excavation protection of tower types A1, A2, A**		**Unit Cost:**	**$ 254.37**	**10000**	**$ 2,543,685.00**
	S1-C68 Supply and Installation of Cribs for excavation protection of tower types A1, A2, A3, A4, B1, I		Manhour Row:			
	Bolt a Plate Culvert (m^2)	1	$ 254.37	$ 254.37		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 254.37**		
V::C69	**S1-C69 Transportation of native backfill**		**Unit Cost:**	**$ -**	**2000**	**$ -**
	S1-C69 Transportation of native backfill		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C70	**S1-C70 Supply and transportation of approved fill from an alternate source/processed ma**		**Unit Cost:**	**$ 106.61**	**20000**	**$ 2,132,100.00**
	S1-C70 Supply and transportation of approved fill from an alternate source/processed material/road		Manhour Row:			
	Screened Crushed Rock (Tonne)	2.25	$ 47.38	$ 106.61		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 106.61**		
V::C71	**S1-C71 Rock blasting/preparation**		**Unit Cost:**	**$ -**	**1100**	**$ -**
	S1-C71 Rock blasting/preparation					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D01	**S1-D1 Assembly and Erection of Suspension Tower Type "A1 + 0" as per dwg. 505573-462**		**Unit Cost:**	$ -	**40**	$ -
	S1-D1 Assembly and Erection of Suspension Tower Type "A1 + 0" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D02	**S1-D2 Assembly and Erection of Suspension Tower Type "A1 + 1.5" as per dwg. 505573-4**		**Unit Cost:**	**$ -**	**29**	**$ -**
	S1-D2 Assembly and Erection of Suspension Tower Type "A1 + 1.5" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D03	**S1-D3 Assembly and Erection of Suspension Tower Type "A1 + 3" as per dwg. 505573-46**		**Unit Cost:**	**$ -**	**46**	**$ -**
	S1-D3 Assembly and Erection of Suspension Tower Type "A1 + 3" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D04	**S1-D4 Assembly and Erection of Suspension Tower Type "A1 + 4.5" as per dwg. 505573-4**		**Unit Cost:**	**$ -**	**31**	**$ -**
	S1-D4 Assembly and Erection of Suspension Tower Type "A1 + 4.5" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D05	**S1-D5 Assembly and Erection of Suspension Tower Type "A1 + 6" as per dwg. 505573-46**		**Unit Cost:**	**$ -**	**138**	**$ -**
	S1-D5 Assembly and Erection of Suspension Tower Type "A1 + 6" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D06	**S1-D6 Assembly and Erection of Suspension Tower Type "A1 + 7.5" as per dwg. 505573-4**		**Unit Cost:**	**$ -**	**79**	**$ -**
	S1-D6 Assembly and Erection of Suspension Tower Type "A1 + 7.5" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D07	**S1-D7 Assembly and Erection of Suspension Tower Type "A1 + 9" as per dwg. 505573-46**		**Unit Cost:**	$ -	116	$ -
	S1-D7 Assembly and Erection of Suspension Tower Type "A1 + 9" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D08	**S1-D8 Assembly and Erection of Suspension Tower Type "A1 + 10.5" as per dwg. 505573-**		**Unit Cost:**	$ -	77	$ -
	S1-D8 Assembly and Erection of Suspension Tower Type "A1 + 10.5" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D09	**S1-D9 Assembly and Erection of Suspension Tower Type "A1 + 12" as per dwg. 505573-4**		**Unit Cost:**	$ -	147	$ -
	S1-D9 Assembly and Erection of Suspension Tower Type "A1 + 12" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D10	**S1-D10 Assembly and Erection of Suspension Tower Type "A1 + 13.5" as per dwg. 50557**		**Unit Cost:**	$ -	0	$ -
	S1-D10 Assembly and Erection of Suspension Tower Type "A1 + 13.5" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D11	**S1-D11 Assembly and Erection of Suspension Tower Type "A1 + 15" as per dwg. 505573-**		**Unit Cost:**	$ -	0	$ -
	S1-D11 Assembly and Erection of Suspension Tower Type "A1 + 15" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D12	**S1-D12 Assembly and Erection of Suspension Tower Type "A1 + 16.5" as per dwg. 50557**		**Unit Cost:**	$ -	0	$ -
	S1-D12 Assembly and Erection of Suspension Tower Type "A1 + 16.5" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D13	**S1-D13 Assembly and Erection of Suspension Tower Type "A1 + 18" as per dwg. 505573-**		**Unit Cost:**	$ -	0	$ -
	S1-D13 Assembly and Erection of Suspension Tower Type "A1 + 18" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D14	**S1-D14 Assembly and Erection of Suspension Tower Type "A2 + 0" as per dwg. 505573-46**		**Unit Cost:**	$ -	0	$ -
	S1-D14 Assembly and Erection of Suspension Tower Type "A2 + 0" as per dwg. 505573-4622-43DD-0044					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D15	S1-D15 Assembly and Erection of Suspension Tower Type "A2 + 1.5" as per dwg. 505573-		Unit Cost:	$ -	0	$ -
	S1-D15 Assembly and Erection of Suspension Tower Type "A2 + 1.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D16	S1-D16 Assembly and Erection of Suspension Tower Type "A2 + 3" as per dwg. 505573-4		Unit Cost:	$ -	1	$ -
	S1-D16 Assembly and Erection of Suspension Tower Type "A2 + 3" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D17	S1-D17 Assembly and Erection of Suspension Tower Type "A2 + 4.5" as per dwg. 505573-		Unit Cost:	$ -	30	$ -
	S1-D17 Assembly and Erection of Suspension Tower Type "A2 + 4.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D18	S1-D18 Assembly and Erection of Suspension Tower Type "A2 + 6" as per dwg. 505573-4		Unit Cost:	$ -	61	$ -
	S1-D18 Assembly and Erection of Suspension Tower Type "A2 + 6" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D19	S1-D19 Assembly and Erection of Suspension Tower Type "A2 + 7.5" as per dwg. 505573-		Unit Cost:	$ -	76	$ -
	S1-D19 Assembly and Erection of Suspension Tower Type "A2 + 7.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D20	S1-D20 Assembly and Erection of Suspension Tower Type "A2 + 9" as per dwg. 505573-4		Unit Cost:	$ -	77	$ -
	S1-D20 Assembly and Erection of Suspension Tower Type "A2 + 9" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D21	S1-D21 Assembly and Erection of Suspension Tower Type "A2 + 10.5" as per dwg. 50557		Unit Cost:	$ -	56	$ -
	S1-D21 Assembly and Erection of Suspension Tower Type "A2 + 10.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D22	S1-D22 Assembly and Erection of Suspension Tower Type "A2 + 12" as per dwg. 505573-		Unit Cost:	$ -	34	$ -
	S1-D22 Assembly and Erection of Suspension Tower Type "A2 + 12" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D23	**S1-D23 Assembly and Erection of Suspension Tower Type "A2 + 13.5" as per dwg. 50557**		**Unit Cost:**	$ -	9	$ -
	S1-D23 Assembly and Erection of Suspension Tower Type "A2 + 13.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D24	**S1-D24 Assembly and Erection of Suspension Tower Type "A2 + 15" as per dwg. 505573-**		**Unit Cost:**	$ -	3	$ -
	S1-D24 Assembly and Erection of Suspension Tower Type "A2 + 15" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D25	**S1-D25 Assembly and Erection of Suspension Tower Type "A2 + 16.5" as per dwg. 50557**		**Unit Cost:**	$ -	0	$ -
	S1-D25 Assembly and Erection of Suspension Tower Type "A2 + 16.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D26	**S1-D26 Assembly and Erection of Suspension Tower Type "A2 + 18" as per dwg. 505573-**		**Unit Cost:**	$ -	0	$ -
	S1-D26 Assembly and Erection of Suspension Tower Type "A2 + 18" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D27	**S1-D27 Assembly and Erection of Suspension Tower Type "A2 + 19.5" as per dwg. 505573**		**Unit Cost:**	$ -	0	$ -
	S1-D27 Assembly and Erection of Suspension Tower Type "A2 + 19.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D28	**S1-D28 Assembly and Erection of Suspension Tower Type "A3 + 0" as per dwg. 505573-46**		**Unit Cost:**	$ -	4	$ -
	S1-D28 Assembly and Erection of Suspension Tower Type "A3 + 0" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D29	**S1-D29 Assembly and Erection of Suspension Tower Type "A3 + 1.5" as per dwg. 505573-**		**Unit Cost:**	$ -	0	$ -
	S1-D29 Assembly and Erection of Suspension Tower Type "A3 + 1.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D30	S1-D30 Assembly and Erection of Suspension Tower Type "A3 + 3" as per dwg. 505573-4		Unit Cost:	$ -	0	$ -
	S1-D30 Assembly and Erection of Suspension Tower Type "A3 + 3" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D31	S1-D31 Assembly and Erection of Suspension Tower Type "A3 + 4.5" as per dwg. 505573		Unit Cost:	$ -	2	$ -
	S1-D31 Assembly and Erection of Suspension Tower Type "A3 + 4.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D32	S1-D32 Assembly and Erection of Suspension Tower Type "A3 + 6" as per dwg. 505573-4		Unit Cost:	$ -	0	$ -
	S1-D32 Assembly and Erection of Suspension Tower Type "A3 + 6" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D33	S1-D33 Assembly and Erection of Suspension Tower Type "A3 + 7.5" as per dwg. 505573		Unit Cost:	$ -	4	$ -
	S1-D33 Assembly and Erection of Suspension Tower Type "A3 + 7.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D34	S1-D34 Assembly and Erection of Suspension Tower Type "A3 + 9" as per dwg. 505573-4		Unit Cost:	$ -	0	$ -
	S1-D34 Assembly and Erection of Suspension Tower Type "A3 + 9" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D35	S1-D35 Assembly and Erection of Suspension Tower Type "A3 + 10.5" as per dwg. 50557		Unit Cost:	$ -	1	$ -
	S1-D35 Assembly and Erection of Suspension Tower Type "A3 + 10.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D36	**S1-D36 Assembly and Erection of Suspension Tower Type "A3 + 12" as per dwg. 505573-**		**Unit Cost:**	$ -	2	$ -
	S1-D36 Assembly and Erection of Suspension Tower Type "A3 + 12" as per dwg. 505573-4622-43[		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D37	**S1-D37 Assembly and Erection of Suspension Tower Type "A3 + 13.5" as per dwg. 50557**		**Unit Cost:**	$ -	0	$ -
	S1-D37 Assembly and Erection of Suspension Tower Type "A3 + 13.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D38	**S1-D38 Assembly and Erection of Suspension Tower Type "A3 + 15" as per dwg. 505573-**		**Unit Cost:**	$ -	4	$ -
	S1-D38 Assembly and Erection of Suspension Tower Type "A3 + 15" as per dwg. 505573-4622-43[		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D39	**S1-D39 Assembly and Erection of Suspension Tower Type "A3 + 16.5" as per dwg. 50557**		**Unit Cost:**	$ -	3	$ -
	S1-D39 Assembly and Erection of Suspension Tower Type "A3 + 16.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D40	**S1-D40 Assembly and Erection of Suspension Tower Type "A4 + 0" as per dwg. 505573-46**		**Unit Cost:**	$ -	0	$ -
	S1-D40 Assembly and Erection of Suspension Tower Type "A4 + 0" as per dwg. 505573-4622-43D[		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D41	**S1-D41 Assembly and Erection of Suspension Tower Type "A4 + 1.5" as per dwg. 505573-**		**Unit Cost:**	$ -	0	$ -
	S1-D41 Assembly and Erection of Suspension Tower Type "A4 + 1.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
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			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D42	**S1-D42 Assembly and Erection of Suspension Tower Type "A4 + 3" as per dwg. 505573-4**		**Unit Cost:**	$ -	0	$ -
	S1-D42 Assembly and Erection of Suspension Tower Type "A4 + 3" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D43	**S1-D43 Assembly and Erection of Suspension Tower Type "A4 + 4.5" as per dwg. 505573**		**Unit Cost:**	$ -	0	$ -
	S1-D43 Assembly and Erection of Suspension Tower Type "A4 + 4.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D44	**S1-D44 Assembly and Erection of Suspension Tower Type "A4 + 6" as per dwg. 505573-4**		**Unit Cost:**	$ -	0	$ -
	S1-D44 Assembly and Erection of Suspension Tower Type "A4 + 6" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D45	**S1-D45 Assembly and Erection of Suspension Tower Type "A4 + 7.5" as per dwg. 505573**		**Unit Cost:**	$ -	0	$ -
	S1-D45 Assembly and Erection of Suspension Tower Type "A4 + 7.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D46	**S1-D46 Assembly and Erection of Suspension Tower Type "A4 + 9" as per dwg. 505573-4**		**Unit Cost:**	$ -	0	$ -
	S1-D46 Assembly and Erection of Suspension Tower Type "A4 + 9" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D47	**S1-D47 Assembly and Erection of Suspension Tower Type "A4 + 10.5" as per dwg. 50557**		**Unit Cost:**	$ -	0	$ -
	S1-D47 Assembly and Erection of Suspension Tower Type "A4 + 10.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
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			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D48	**S1-D48 Assembly and Erection of Suspension Tower Type "A4 + 12" as per dwg. 505573-**		**Unit Cost:**	$ -	0	$ -
	S1-D48 Assembly and Erection of Suspension Tower Type "A4 + 12" as per dwg. 505573-4622-43(		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D49	**S1-D49 Assembly and Erection of Suspension Tower Type "A4 + 13.5" as per dwg. 50557**		**Unit Cost:**	$ -	0	$ -
	S1-D49 Assembly and Erection of Suspension Tower Type "A4 + 13.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D50	**S1-D50 Assembly and Erection of Suspension Tower Type "A4 + 15" as per dwg. 505573-**		**Unit Cost:**	$ -	0	$ -
	S1-D50 Assembly and Erection of Suspension Tower Type "A4 + 15" as per dwg. 505573-4622-43(		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D51	**S1-D51 Assembly and Erection of Suspension Tower Type "A4 + 16.5" as per dwg. 50557**		**Unit Cost:**	$ -	0	$ -
	S1-D51 Assembly and Erection of Suspension Tower Type "A4 + 16.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D52	**S1-D52 Assembly and Erection of Suspension Tower Type "A4 + 18" as per dwg. 505573-**		**Unit Cost:**	$ -	0	$ -
	S1-D52 Assembly and Erection of Suspension Tower Type "A4 + 18" as per dwg. 505573-4622-43(		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D53	**S1-D53 Assembly and Erection of Suspension Tower Type "A4 + 19.5" as per dwg. 50557**		**Unit Cost:**	$ -	0	$ -
	S1-D53 Assembly and Erection of Suspension Tower Type "A4 + 19.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
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			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
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			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D54	**S1-D54 Assembly and Erection of Suspension Tower Type "B1 + 0" as per dwg. 505573-46**		**Unit Cost:**	$ -	0	$ -
	S1-D54 Assembly and Erection of Suspension Tower Type "B1 + 0" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D55	**S1-D55 Assembly and Erection of Suspension Tower Type "B1 + 1.5" as per dwg. 505573**		**Unit Cost:**	$ -	0	$ -
	S1-D55 Assembly and Erection of Suspension Tower Type "B1 + 1.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D56	**S1-D56 Assembly and Erection of Suspension Tower Type "B1 + 3" as per dwg. 505573-4**		**Unit Cost:**	$ -	0	$ -
	S1-D56 Assembly and Erection of Suspension Tower Type "B1 + 3" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D57	**S1-D57 Assembly and Erection of Suspension Tower Type "B1 + 4.5" as per dwg. 505573**		**Unit Cost:**	$ -	0	$ -
	S1-D57 Assembly and Erection of Suspension Tower Type "B1 + 4.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D58	**S1-D58 Assembly and Erection of Suspension Tower Type "B1 + 6" as per dwg. 505573-4**		**Unit Cost:**	$ -	0	$ -
	S1-D58 Assembly and Erection of Suspension Tower Type "B1 + 6" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D59	**S1-D59 Assembly and Erection of Suspension Tower Type "B1 + 7.5" as per dwg. 505573**		**Unit Cost:**	$ -	5	$ -
	S1-D59 Assembly and Erection of Suspension Tower Type "B1 + 7.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D60	**S1-D60 Assembly and Erection of Suspension Tower Type "B1 + 9" as per dwg. 505573-4**		**Unit Cost:**	$ -	6	$ -
	S1-D60 Assembly and Erection of Suspension Tower Type "B1 + 9" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D61	**S1-D61 Assembly and Erection of Suspension Tower Type "B1 + 10.5" as per dwg. 50557**		**Unit Cost:**	$ -	11	$ -
	S1-D61 Assembly and Erection of Suspension Tower Type "B1 + 10.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D62	**S1-D62 Assembly and Erection of Suspension Tower Type "B1 + 12" as per dwg. 505573-**		**Unit Cost:**	$ -	9	$ -
	S1-D62 Assembly and Erection of Suspension Tower Type "B1 + 12" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D63	**S1-D63 Assembly and Erection of Suspension Tower Type "B1 + 13.5" as per dwg. 50557**		**Unit Cost:**	$ -	11	$ -
	S1-D63 Assembly and Erection of Suspension Tower Type "B1 + 13.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D64	**S1-D64 Assembly and Erection of Suspension Tower Type "B1 + 15" as per dwg. 505573-**		**Unit Cost:**	$ -	0	$ -
	S1-D64 Assembly and Erection of Suspension Tower Type "B1 + 15" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D65	**S1-D65 Assembly and Erection of Suspension Tower Type "B1 + 16.5" as per dwg. 50557**		**Unit Cost:**	$ -	1	$ -
	S1-D65 Assembly and Erection of Suspension Tower Type "B1 + 16.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D66	S1-D66 Assembly and Erection of Suspension Tower Type "B1 + 18" as per dwg. 505573-		Unit Cost:	$ -	1	$ -
	S1-D66 Assembly and Erection of Suspension Tower Type "B1 + 18" as per dwg. 505573-4622-43[		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D67	S1-D67 Assembly and Erection of Suspension Tower Type "B1 + 19.5" as per dwg. 505573		Unit Cost:	$ -	0	$ -
	S1-D67 Assembly and Erection of Suspension Tower Type "B1 + 19.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D68	S1-D68 Assembly and Erection of Suspension Tower Type "B1 + 21" as per dwg. 505573-4		Unit Cost:	$ -	0	$ -
	S1-D68 Assembly and Erection of Suspension Tower Type "B1 + 21" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
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			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D69	S1-D69 Assembly and Erection of Suspension Tower Type "B1 + 22.5" as per dwg. 505573		Unit Cost:	$ -	1	$ -
	S1-D69 Assembly and Erection of Suspension Tower Type "B1 + 22.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
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			$ -	$ -		
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			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D70	S1-D70 Assembly and Erection of Suspension Tower Type "B1 + 24" as per dwg. 505573-4		Unit Cost:	$ -	0	$ -
	S1-D70 Assembly and Erection of Suspension Tower Type "B1 + 24" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
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			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D71	S1-D71 Assembly and Erection of Suspension Tower Type "B1 + 25.5" as per dwg. 505573		Unit Cost:	$ -	0	$ -
	S1-D71 Assembly and Erection of Suspension Tower Type "B1 + 25.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
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			$ -	$ -		
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			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D72	**S1-D72 Assembly and Erection of Suspension Tower Type "B1 + 27" as per dwg. 505573-4**		**Unit Cost:**	$ -	1	$ -
	S1-D72 Assembly and Erection of Suspension Tower Type "B1 + 27" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D73	**S1-D73 Assembly and Erection of Medium Angle Tower Type "B2" Basic Body as per dwg**		**Unit Cost:**	$ -	28	$ -
	S1-D73 Assembly and Erection of Medium Angle Tower Type "B2" Basic Body as per dwg. 505573-		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D74	**S1-D74 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "I**		**Unit Cost:**	$ -	3	$ -
	S1-D74 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "B2" as per		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D75	**S1-D75 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type '**		**Unit Cost:**	$ -	0	$ -
	S1-D75 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "B2" as pe		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
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			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D76	**S1-D76 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "B2"**		**Unit Cost:**	$ -	8	$ -
	S1-D76 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "B2" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D77	**S1-D77 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "B2**		**Unit Cost:**	$ -	20	$ -
	S1-D77 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "B2" as per d		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D78	**S1-D78 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "B2"**		**Unit Cost:**	$ -	16	$ -
	S1-D78 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "B2" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D79	**S1-D79 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "B2**		**Unit Cost:**	$ -	24	$ -
	S1-D79 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "B2" as per d		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D80	**S1-D80 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "B2"**		**Unit Cost:**	$ -	28	$ -
	S1-D80 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "B2" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D81	**S1-D81 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "B2**		**Unit Cost:**	$ -	8	$ -
	S1-D81 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "B2" as per d		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D82	**S1-D82 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "B2"**		**Unit Cost:**	$ -	8	$ -
	S1-D82 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "B2" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D83	**S1-D83 Assembly and Erection of Medium Angle Tower Type "C1" Basic Body as per dwg**		**Unit Cost:**	$ -	21	$ -
	S1-D83 Assembly and Erection of Medium Angle Tower Type "C1" Basic Body as per dwg. 505573-		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D84	**S1-D84 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "(**		**Unit Cost:**	$ -	0	$ -
	S1-D84 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "C1" as per		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D85	**S1-D85 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type '**		**Unit Cost:**	$ -	0	$ -
	S1-D85 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "C1" as pe		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D86	**S1-D86 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C1"**		**Unit Cost:**	$ -	40	$ -
	S1-D86 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C1" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D87	**S1-D87 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C1**		**Unit Cost:**	$ -	4	$ -
	S1-D87 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C1" as per d		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D88	**S1-D88 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C1"**		**Unit Cost:**	$ -	16	$ -
	S1-D88 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C1" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D89	**S1-D89 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C1**		**Unit Cost:**	$ -	8	$ -
	S1-D89 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C1" as per c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D90	**S1-D90 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C1"**		**Unit Cost:**	$ -	8	$ -
	S1-D90 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C1" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D91	**S1-D91 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C1**		**Unit Cost:**	$ -	8	$ -
	S1-D91 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C1" as per c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D92	**S1-D92 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C1"**		**Unit Cost:**	$ -	0	$ -
	S1-D92 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C1" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D93	**S1-D93 Assembly and Erection of Medium Angle Tower Type "C2" Basic Body as per dwg**		**Unit Cost:**	$ -	24	$ -
	S1-D93 Assembly and Erection of Medium Angle Tower Type "C2" Basic Body as per dwg. 505573-		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D94	**S1-D94 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "(**		**Unit Cost:**	$ -	4	$ -
	S1-D94 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "C2" as per		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D95	**S1-D95 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type '**		**Unit Cost:**	$ -	0	$ -
	S1-D95 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "C2" as pe		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D96	**S1-D96 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C2"**		**Unit Cost:**	$ -	40	$ -
	S1-D96 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C2" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D97	**S1-D97 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C2**		**Unit Cost:**	$ -	12	$ -
	S1-D97 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C2" as per c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D98	**S1-D98 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C2"**		**Unit Cost:**	$ -	16	$ -
	S1-D98 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C2" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D99	**S1-D99 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C2**		**Unit Cost:**	$ -	4	$ -
	S1-D99 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C2" as per c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D100	**S1-D100 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C2'**		**Unit Cost:**	$ -	12	$ -
	S1-D100 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C2" as per d		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D101	**S1-D101 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C**		**Unit Cost:**	$ -	4	$ -
	S1-D101 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C2" as per		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D102	**S1-D102 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C2"**		**Unit Cost:**	$ -	8	$ -
	S1-D102 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C2" as per d		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D103	**S1-D103 Assembly and Erection of Dead-End Tower Type "D1" Basic Body as per dwg. 5(**		**Unit Cost:**	$ -	42	$ -
	S1-D103 Assembly and Erection of Dead-End Tower Type "D1" Basic Body as per dwg. 505573-46		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D104	**S1-D104 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D1"**		**Unit Cost:**	$ -	0	$ -
	S1-D104 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D1" as per dv		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D105	**S1-D105 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D1**		**Unit Cost:**	$ -	0	$ -
	S1-D105 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D1" as per c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D106	**S1-D106 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D1" as**		**Unit Cost:**	$ -	88	$ -
	S1-D106 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D1" as per dwg.		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D107	**S1-D107 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D1" a**		**Unit Cost:**	$ -	20	$ -
	S1-D107 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D1" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D108	S1-D108 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D1" as		Unit Cost:	$ -	16	$ -
	S1-D108 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D1" as per dwg.		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D109	S1-D109 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D1" a		Unit Cost:	$ -	4	$ -
	S1-D109 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D1" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D110	S1-D110 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D1" as		Unit Cost:	$ -	28	$ -
	S1-D110 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D1" as per dwg.		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D111	S1-D111 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D1" a		Unit Cost:	$ -	8	$ -
	S1-D111 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D1" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D112	S1-D112 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D1" as		Unit Cost:	$ -	4	$ -
	S1-D112 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D1" as per dwg.		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D113	S1-D113 Assembly and Erection of Dead-End Tower Type "D2" Basic Body as per dwg. 5(		Unit Cost:	$ -	24	$ -
	S1-D113 Assembly and Erection of Dead-End Tower Type "D2" Basic Body as per dwg. 505573-46		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D114	**S1-D114 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D2"**		**Unit Cost:**	$ -	0	$ -
	S1-D114 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D2" as per dv		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D115	**S1-D115 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D2**		**Unit Cost:**	$ -	0	$ -
	S1-D115 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D2" as per c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D116	**S1-D116 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D2" as**		**Unit Cost:**	$ -	32	$ -
	S1-D116 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D2" as per dwg.		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D117	**S1-D117 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D2" as**		**Unit Cost:**	$ -	16	$ -
	S1-D117 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D2" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D118	**S1-D118 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D2" as**		**Unit Cost:**	$ -	28	$ -
	S1-D118 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D2" as per dwg.		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D119	**S1-D119 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D2" as**		**Unit Cost:**	$ -	12	$ -
	S1-D119 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D2" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D120	**S1-D120 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D2" as**		**Unit Cost:**	$ -	0	$ -
	S1-D120 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D2" as per dwg.		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D121	**S1-D121 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D2" a**		**Unit Cost:**	$ -	0	$ -
	S1-D121 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D2" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D122	**S1-D122 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D2" as**		**Unit Cost:**	$ -	8	$ -
	S1-D122 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D2" as per dwg.		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D123	**S1-D123 Assembly and Erection of Dead-End Tower Type "E1" Basic Body as per dwg. 50**		**Unit Cost:**	$ -	16	$ -
	S1-D123 Assembly and Erection of Dead-End Tower Type "E1" Basic Body as per dwg. 505573-462		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D124	**S1-D124 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "E1"**		**Unit Cost:**	$ -	0	$ -
	S1-D124 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "E1" as per dv		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D125	**S1-D125 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "E1**		**Unit Cost:**	$ -	0	$ -
	S1-D125 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "E1" as per d		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D126	**S1-D126 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "E1" as p**		**Unit Cost:**	$ -	20	$ -
	S1-D126 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "E1" as per dwg. S		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D127	**S1-D127 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "E1" as**		**Unit Cost:**	$ -	12	$ -
	S1-D127 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "E1" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D128	**S1-D128 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "E1" as p**		**Unit Cost:**	$ -	8	$ -
	S1-D128 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "E1" as per dwg. S		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D129	**S1-D129 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "E1" as**		**Unit Cost:**	$ -	12	$ -
	S1-D129 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "E1" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D130	**S1-D130 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "E1" as p**		**Unit Cost:**	$ -	4	$ -
	S1-D130 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "E1" as per dwg. S		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D131	**S1-D131 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "E1" as**		**Unit Cost:**	$ -	8	$ -
	S1-D131 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "E1" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D132	**S1-D132 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "E1" as p**		**Unit Cost:**	$ -	0	$ -
	S1-D132 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "E1" as per dwg. S		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E01	**S1-E1 Installation of Counterpoise wire, connection with tower grounding**		**Unit Cost:**	$ -	397	$ -
	S1-E1 Installation of Counterpoise wire, connection with tower grounding		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E02	**S1-E2 Installation of ground rods at crossing obstacles in soil and rock**		**Unit Cost:**	$ -	200	$ -
	S1-E2 Installation of ground rods at crossing obstacles in soil and rock		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E03	**S1-E3 Tower Footing resistance measurement**		**Unit Cost:**	$ -	397	$ -
	S1-E3 Tower Footing resistance measurement		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E04	**S1-E4 S1 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conducto**		**Unit Cost:**	$ -	250	$ -
	S1-E4 S1 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, compl		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E05	**S1-E5 Installation of Conductor on Steel Towers - 1192.5 kcmil 54/19 ACSR Grackle Condu**		**Unit Cost:**	$ -	285	$ -
	S1-E5 Installation of Conductor on Steel Towers - 1192.5 kcmil 54/19 ACSR Grackle Conductor, co		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::E06	**S1-E6 Installation of Conductor on Steel Towers - 1590.0 kcmil 54/19 ACSR Falcon Condu**		**Unit Cost:**	$ -	99	$ -
	S1-E6 Installation of Conductor on Steel Towers - 1590.0 kcmil 54/19 ACSR Falcon Conductor, con		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E07	**S1-E7 Installation of Conductor on Wood Poles - 1192.5 kcmil 54/19 ACSR Grackle Condu**		**Unit Cost:**	$ -	18	$ -
	S1-E7 Installation of Conductor on Wood Poles - 1192.5 kcmil 54/19 ACSR Grackle Conductor, con		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E08	**S1-E8 Installation of Conductor on Wood Poles - 1590.0 kcmil 54/19 ACSR Falcon Conduc**		**Unit Cost:**	$ -	0	$ -
	S1-E8 Installation of Conductor on Wood Poles - 1590.0 kcmil 54/19 ACSR Falcon Conductor, com		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E09	**S1-E9 Installation of ADSS on Wood Poles**		**Unit Cost:**	$ -	18	$ -
	S1-E9 Installation of ADSS on Wood Poles		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E10	**S1-E10 ADSS splicing and tests including loss analysis**		**Unit Cost:**	$ -	6	$ -
	S1-E10 ADSS splicing and tests including loss analysis		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E11	**S1-E11 ADSS end to end test**		**Unit Cost:**	$ -	1	$ -
	S1-E11 ADSS end to end test		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::E12	**S1-E12 S1 - Installation of OPGW**		**Unit Cost:**	$ -	250	$ -
	S1-E12 S1 - Installation of OPGW	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E13	**S1-E13 OPGW Continuity tests before and after stringing**		**Unit Cost:**	$ -	2	$ -
	S1-E13 OPGW Continuity tests before and after stringing	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E14	**S1-E14 OPGW splicing and tests including loss analysis**		**Unit Cost:**	$ -	89	$ -
	S1-E14 OPGW splicing and tests including loss analysis	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E15	**S1-E15 OPGW end to end test**		**Unit Cost:**	$ -	2	$ -
	S1-E15 OPGW end to end test	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::F01	**S1-F1 Install 18" Aerial marker cones**		**Unit Cost:**	$ -	15	$ -
	S1-F1 Install 18" Aerial marker cones	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::G01	**S1-G1 Framing and Setting of Single Pole Tangent (0 - 1 deg) as per Drawing 505573-4633**		**Unit Cost:**	$ 2,300.00	241	$ 554,300.00
	S1-G1 Framing and Setting of Single Pole Tangent (0 - 1 deg) as per Drawing 505573-4633-4ZDD-	Manhour Row:				
	Wood pole 2 m blast	0.4	$ 5,750.00	$ 2,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 2,300.00		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::G02	**S1-G2 Framing and Setting of Single Pole Light angle (1 - 10 deg) with Guys as per Drawir**		**Unit Cost:**	**$ 2,300.00**	**13**	**$ 29,900.00**
	S1-G2 Framing and Setting of Single Pole Light angle (1 - 10 deg) with Guys as per Drawing 50557		Manhour Row:			
	Wood pole 2 m blast	0.4	$ 5,750.00	$ 2,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,300.00**		
V::G03	**S1-G3 Framing and Setting of Single Pole Heavy angle (10 - 30 deg) with Guys as per Drav**		**Unit Cost:**	**$ 2,300.00**	**7**	**$ 16,100.00**
	S1-G3 Framing and Setting of Single Pole Heavy angle (10 - 30 deg) with Guys as per Drawing 505		Manhour Row:			
	Wood pole 2 m blast	0.4	$ 5,750.00	$ 2,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,300.00**		
V::G04	**S1-G4 Framing and Setting of Single Pole Dead-end (30 - 90 deg) with Guys as per Drawin**		**Unit Cost:**	**$ 2,300.00**	**11**	**$ 25,300.00**
	S1-G4 Framing and Setting of Single Pole Dead-end (30 - 90 deg) with Guys as per Drawing 50557		Manhour Row:			
	Wood pole 2 m blast	0.4	$ 5,750.00	$ 2,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,300.00**		
V::G05	**S1-G5 Framing and Setting of Single Pole Floating Dead-end (0 - 1 deg) with Guys as per I**		**Unit Cost:**	**$ 2,300.00**	**9**	**$ 20,700.00**
	S1-G5 Framing and Setting of Single Pole Floating Dead-end (0 - 1 deg) with Guys as per Drawing 5		Manhour Row:			
	Wood pole 2 m blast	0.4	$ 5,750.00	$ 2,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,300.00**		
V::G06	**S1-G6 Framing and Setting of Two Pole Dead-end to tap to HVdc Tower in Labrador as pe**		**Unit Cost:**	**$ 2,300.00**	**1**	**$ 2,300.00**
	S1-G6 Framing and Setting of Two Pole Dead-end to tap to HVdc Tower in Labrador as per Drawing		Manhour Row:			
	Wood pole 2 m blast	0.4	$ 5,750.00	$ 2,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,300.00**		
V::I01	**S1-I1 Perform Geotechnical Investigation and Identify Foundation Type as per Design Dra**		**Unit Cost:**	**$ -**	**2**	**$ -**
	S1-I1 Perform Geotechnical Investigation and Identify Foundation Type as per Design Drawings and		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I02	**S1-I2 Design and supply of micropile option as replacement for H-pile design**		**Unit Cost:**	$ -	2	$ -
	S1-I2 Design and supply of micropile option as replacement for H-pile design	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I03	**S1-I3 Optional cost for mulching given area instead of salvaging**		**Unit Cost:**	$ -	2207	$ -
	S1-I3 Optional cost for mulching given area instead of salvaging	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I04	**S1-I4 Installation of Access Road - Alternative**		**Unit Cost:**	$ -	79	$ -
	S1-I4 Installation of Access Road - Alternative	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I05	**S1-I5 Slack Span Connections - Installation of all Conductor and OPGW from Terminal To**		**Unit Cost:**	$ -	2	$ -
	S1-I5 Slack Span Connections - Installation of all Conductor and OPGW from Terminal Tower to th	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I06	**S1-I6 Slack Span Connections - Installation of all Conductor and OPGW/ADSS from Termi**		**Unit Cost:**	$ -	1	$ -
	S1-I6 Slack Span Connections - Installation of all Conductor and OPGW/ADSS from Terminal Woo	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I07	**S1-I7 Supply and Installation of Culvert - 1000 mm**		**Unit Cost:**	$ -	44	$ -
	S1-I7 Supply and Installation of Culvert - 1000 mm	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I08	**S1-I8 Supply and Installation of Culvert - 1200 mm**		**Unit Cost:**	$ -	44	$ -
	S1-I8 Supply and Installation of Culvert - 1200 mm	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I09	**S1-I9 Supply and Installation of Culvert - 1600 mm**		**Unit Cost:**	$ -	44	$ -
	S1-I9 Supply and Installation of Culvert - 1600 mm	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I10	**S1-I10 Supply and Installation of Culvert - 2000 mm**		**Unit Cost:**	$ -	44	$ -
	S1-I10 Supply and Installation of Culvert - 2000 mm	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I11	**S1-I11 Supply and Installation of Culvert - 2400 mm**		**Unit Cost:**	$ -	44	$ -
	S1-I11 Supply and Installation of Culvert - 2400 mm	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I12	**S1-I12 Supply and Installation of Culvert - 3000 mm**		**Unit Cost:**	$ -	44	$ -
	S1-I12 Supply and Installation of Culvert - 3000 mm	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I13	**S1-I13 Assembly and Installation of Foundation Type A1-1/1A, per kg, to be used for weigh**		**Unit Cost:**	$ -	1	$ -
	S1-I13 Assembly and Installation of Foundation Type A1-1/1A, per kg, to be used for weight increase	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I14	**S1-I14 Assembly and Installation of Foundation Type A2-1/1A, per kg, to be used for weigl**		**Unit Cost:**	$ -	1	$ -
	S1-I14 Assembly and Installation of Foundation Type A2-1/1A, per kg, to be used for weight increase		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I15	**S1-I15 Assembly and Installation of Foundation Type A3-1/1A, per kg, to be used for weigl**		**Unit Cost:**	$ -	1	$ -
	S1-I15 Assembly and Installation of Foundation Type A3-1/1A, per kg, to be used for weight increase		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I16	**S1-I16 Assembly and Installation of Foundation Type A4-1/1A, per kg, to be used for weigl**		**Unit Cost:**	$ -	1	$ -
	S1-I16 Assembly and Installation of Foundation Type A4-1/1A, per kg, to be used for weight increase		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I17	**S1-I17 Assembly and Installation of Foundation Type B1-1/1A, per kg, to be used for weigl**		**Unit Cost:**	$ -	1	$ -
	S1-I17 Assembly and Installation of Foundation Type B1-1/1A, per kg, to be used for weight increase		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I18	**S1-I18 Assembly and Installation of Foundation Type B2-1/1A, per kg, to be used for weigl**		**Unit Cost:**	$ -	1	$ -
	S1-I18 Assembly and Installation of Foundation Type B2-1/1A, per kg, to be used for weight increase		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I19	**S1-I19 Assembly and Installation of Foundation Type C1-1, per kg, to be used for weight ir**		**Unit Cost:**	$ -	1	$ -
	S1-I19 Assembly and Installation of Foundation Type C1-1, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I20	**S1-I20 Assembly and Installation of Foundation Type C2-1, per kg, to be used for weight ir**		**Unit Cost:**	$ -	1	$ -
	S1-I20 Assembly and Installation of Foundation Type C2-1, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I21	**S1-I21 Assembly and Installation of Foundation Type D1-1, per kg, to be used for weight ir**		**Unit Cost:**	$ -	1	$ -
	S1-I21 Assembly and Installation of Foundation Type D1-1, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I22	**S1-I22 Assembly and Installation of Foundation Type D2-1, per kg, to be used for weight ir**		**Unit Cost:**	$ -	1	$ -
	S1-I22 Assembly and Installation of Foundation Type D2-1, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I23	**S1-I23 Assembly and Installation of Foundation Type E1-1, per kg, to be used for weight ir**		**Unit Cost:**	$ -	1	$ -
	S1-I23 Assembly and Installation of Foundation Type E1-1, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I24	**S1-I24 Assembly and Installation of Foundation Type A1-2, per kg, to be used for weight ir**		**Unit Cost:**	$ -	1	$ -
	S1-I24 Assembly and Installation of Foundation Type A1-2, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I25	**S1-I25 Assembly and Installation of Foundation Type A2-2, per kg, to be used for weight ir**		**Unit Cost:**	$ -	1	$ -
	S1-I25 Assembly and Installation of Foundation Type A2-2, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I26	**S1-I26 Assembly and Installation of Foundation Type A3-2, per kg, to be used for weight ir**		**Unit Cost:**	$ -	1	$ -
	S1-I26 Assembly and Installation of Foundation Type A3-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I27	**S1-I27 Assembly and Installation of Foundation Type A4-2, per kg, to be used for weight ir**		**Unit Cost:**	$ -	1	$ -
	S1-I27 Assembly and Installation of Foundation Type A4-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I28	**S1-I28 Assembly and Installation of Foundation Type B1-2, per kg, to be used for weight ir**		**Unit Cost:**	$ -	1	$ -
	S1-I28 Assembly and Installation of Foundation Type B1-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I29	**S1-I29 Assembly and Installation of Foundation Type B2-2, per kg, to be used for weight ir**		**Unit Cost:**	$ -	1	$ -
	S1-I29 Assembly and Installation of Foundation Type B2-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I30	**S1-I30 Assembly and Installation of Foundation Type C1-2, per kg, to be used for weight ir**		**Unit Cost:**	$ -	1	$ -
	S1-I30 Assembly and Installation of Foundation Type C1-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I31	**S1-I31 Assembly and Installation of Foundation Type C2-2, per kg, to be used for weight ir**		**Unit Cost:**	$ -	1	$ -
	S1-I31 Assembly and Installation of Foundation Type C2-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I32	**S1-I32 Assembly and Installation of Foundation Type D1-2, per kg, to be used for weight ir**		**Unit Cost:**	$ -	1	$ -
	S1-I32 Assembly and Installation of Foundation Type D1-2, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I33	**S1-I33 Assembly and Installation of Foundation Type D2-2, per kg, to be used for weight ir**		**Unit Cost:**	$ -	1	$ -
	S1-I33 Assembly and Installation of Foundation Type D2-2, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I34	**S1-I34 Assembly and Installation of Foundation Type E1-2, per kg, to be used for weight ir**		**Unit Cost:**	$ -	1	$ -
	S1-I34 Assembly and Installation of Foundation Type E1-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I35	**S1-I35 Assembly and Erection of Tower Type A1, per kg, to be used for weight increases c**		**Unit Cost:**	$ -	1	$ -
	S1-I35 Assembly and Erection of Tower Type A1, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I36	**S1-I36 Assembly and Erection of Tower Type A2, per kg, to be used for weight increases c**		**Unit Cost:**	$ -	1	$ -
	S1-I36 Assembly and Erection of Tower Type A2, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I37	**S1-I37 Assembly and Erection of Tower Type A3, per kg, to be used for weight increases c**		**Unit Cost:**	$ -	1	$ -
	S1-I37 Assembly and Erection of Tower Type A3, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I38	**S1-I38 Assembly and Erection of Tower Type A4, per kg, to be used for weight increases c**		**Unit Cost:**	$ -	1	$ -
	S1-I38 Assembly and Erection of Tower Type A4, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I39	**S1-I39 Assembly and Erection of Tower Type B1, per kg, to be used for weight increases c**		**Unit Cost:**	$ -	1	$ -
	S1-I39 Assembly and Erection of Tower Type B1, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I40	**S1-I40 Assembly and Erection of Tower Type B2, per kg, to be used for weight increases c**		**Unit Cost:**	$ -	1	$ -
	S1-I40 Assembly and Erection of Tower Type B2, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I41	**S1-I41 Assembly and Erection of Tower Type C1, per kg, to be used for weight increases c**		**Unit Cost:**	$ -	1	$ -
	S1-I41 Assembly and Erection of Tower Type C1, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I42	**S1-I42 Assembly and Erection of Tower Type C2, per kg, to be used for weight increases c**		**Unit Cost:**	$ -	1	$ -
	S1-I42 Assembly and Erection of Tower Type C2, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I43	**S1-I43 Assembly and Erection of Tower Type D1, per kg, to be used for weight increases c**		**Unit Cost:**	$ -	1	$ -
	S1-I43 Assembly and Erection of Tower Type D1, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I44	**S1-I44 Assembly and Erection of Tower Type D2, per kg, to be used for weight increases c**		**Unit Cost:**	$ -	1	$ -
	S1-I44 Assembly and Erection of Tower Type D2, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I45	**S1-I45 Assembly and Erection of Tower Type E1, per kg, to be used for weight increases c**		**Unit Cost:**	$ -	1	$ -
	S1-I45 Assembly and Erection of Tower Type E1, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I46	**S1-I46 Survey Cost**		**Unit Cost:**	$ 2,865,292.91	1	$ 2,865,292.91
	S1-I46 Survey Cost		Manhour Row:			
	Survey Cost Segment 1	1	$ 1,416,911.33	$ 1,416,911.33		
	Survey Cost Segment 2	1	$ 1,448,381.58	$ 1,448,381.58		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 2,865,292.91		
B-E(Rider)	**RiderPole**		**Unit Cost:**	$ 236.90	100	$ 23,690.00
	RiderPole		Manhour Row:			
	Screened Crushed Rock (Tonne)	5	$ 47.38	$ 236.90		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 236.90		

Total Materials: $ 194,969,967.79

Mobilization for main portion of project

External Data Input		Return?	no	(yes/no)
Link from Other Page		Distance (1-way):	5600	km
Link for Other Page		Average distance/hr.:	70	km/hr.

Personnel

Designation	Quantity	Rate	Hrs.
Supervisor	2	$ 142.83	80.00
Foreman	25	$ 120.15	80.00
Surveyor	10	$ 111.85	80.00
Lineman	30	$ 111.85	80.00
Apprentice - 4th Year	22	$ 103.90	80.00
Apprentice - 3rd Year	35	$ 95.95	80.00
Apprentice - 2nd Year	14	$ 87.99	80.00
Apprentice - 1st Year	6	$ 80.04	80.00
Equipment Operator	43	$ 96.49	80.00
Truck Driver / Picker Op.	36	$ 107.16	80.00
Labourer	6	$ 87.44	80.00

Equipment

Description	Quantity	Rate	Hrs.
Pickup	19	$ 24.36	80.00
Crew Cab Truck	61	$ 29.20	80.00
Conductor Splicing Truck	2	$ 46.02	80.00
OPGW Splicing Truck	2	$ 93.60	80.00
Picker - 17 Ton	11	$ 136.27	80.00
Picker - 38 Ton	3	$ 180.25	80.00
40T RT Crane	5	$ 195.70	80.00
60T RT Crane	1	$ 247.20	80.00
80T RT Crane	2	$ 345.05	80.00
Digger - TelElect 5052	4	$ 89.40	80.00
120' Gene Lift	3	$ 87.55	80.00
53' Tridem trailer	23	$ 11.85	80.00
T/A Gravel Truck	1	$ 68.13	80.00
T/A Rock Truck	1	$ 121.67	80.00
Tractor Trailer/Picker	6	$ 134.67	80.00
Tractor Trailer (Heavy)	7	$ 134.67	80.00
Crawler Tractors 750 JD	5	$ 165.83	80.00
JD 310 Back Hoe	1	$ 68.13	80.00
JD 554 Loader	19	$ 69.27	80.00
JD 290 Track-hoe	9	$ 130.60	80.00
Nodwells - Picker over 17 Ton	4	$ 228.25	80.00
Nodwell - Digger	1	$ 130.60	80.00
Trencher	1	$ 84.36	80.00
10T Tele-Handler	10	$ 53.00	80.00
Quad or Side by Side	13	$ 24.21	80.00
Reel Trailer	4	$ 72.10	80.00
Tensioner	1	$ 139.05	80.00
Puller	1	$ 139.05	80.00
1 Drum Puller	1	$ 77.25	80.00
Single Tensioner	1	$ 77.25	80.00
Single Traveller	150	$ 0.52	80.00
JD 350 LDC Excavator	6	$ 160.89	80.00
Compressor	3	$ 22.04	80.00
Grout truck	2	$ 82.40	80.00
Rock Drill	2	$ 103.00	80.00
Press & Pump, Genset, Light plant	21	$ 13.46	80.00
Water pump	4	$ 40.99	80.00
Pilot Line Winder	1	$ 92.70	80.00
Spacer Buggy	3	$ 46.35	80.00
Travellers (ea)	200	$ 1.24	80.00
Traffic Control Sign	2	$ 21.84	80.00
Hoe-Pack	2	$ 25.75	80.00
Survey Equipment	10	$ 56.65	80.00
Heavy Lift Helicopter - Operated	1	$ 17,725.89	16.00
Light Duty Helicopter - Operated	1	$ 1,905.50	20.00

Lowbedding

Description	Quantity	Rate	Hrs.
Dead-heads	70	$ 218.50	160.00
Direct-hauls	8	$ 218.50	80.00

Valard

NALCOR 350 kV HVdc Line Construction Front 1 (Labrador)
Project Estimate - Valard Construction Ltd.

Indirect Costs

Project Duration: 18 Months
450 Days

External Data Input	
Link from Other Page	
Link for Other Page	

	Positions	Hrs Day	Days	Hourly Rate
Quanta Executive Representative	1	11	225	N/C
Project manager	1	11	450	$ 200.00
Supervisors	5	11	450	$ 142.83
QA	5	11	450	$ 103.90
Human Resources Coordinator	0.5	11	450	$ 95.95
Environmental Lead	0.333333333	11	450	$ 200.00
Environmental Coordinator	1	11	450	$ 142.83
Environmental Monitor	2	11	450	$ 95.95
Project Administration	6	11	450	$ 95.95
Safety Supervisor	3	11	450	$ 142.83
Camp Field Medical Staff	5	12	450	$ 142.83
First Aid Attendant	5	11	450	$ 142.83
HS&E Manager	0.5	11	450	$ 142.83
Geotechnical consultant	0	11	450	$ 175.00
Material Manager c/w truck	2	11	450	$ 128.26
ROW Clearing Coordinator	8	11	450	$ 142.83
Mechanic	3	11	450	$ 111.85
Pick up Trucks For Above	41.33333333	11	450	$ 24.36

Facilities:

	Units	Quantity	Months	Monthly Rate
Office Trailer	each	6	20	$ 1,800.00
Storage Vans	each	15	20	$ 350.00
Washrooms	each	8	20	$ 150.00
Yard and Waste Handling	month	3	20	$ 2,500.00
Fuel Storage	Lump Sum	3	20	$ 2,500.00

Training & Orientation 8 Hours
Extra Training Allowance

Crew #	Crew	Hrs / Week		Total Hours	Hourly Rate	Crews
1	Hauling	1	273	281	$ 195.16	1
2	Site Preparation	1	34	42	$ 308.98	1
3	Blocking Crew	1	34	42	$ 192.44	1
4	Lattice Assembly	1	628	636	$ 835.34	1
6	Tower Topping	1	31	39	$ 950.45	1
7	Haul Travellers&Glass	1	36	44	$ 403.50	1
8	Hang Travellers	1	26	34	$ 840.02	1
9	Wire Hauling	1	125	133	$ 195.16	1
10	Pull Site Prep	1	50	58	$ 804.62	1
11	Stringing	1	56	64	$ 2,990.79	1
12	Tie -in	1	47	55	$ 418.85	1
13	Deadends	1	25	33	$ 835.88	1
15	OPGW Install	1	19	27	$ 1,458.94	1
16	Rider Pole Crew	1	8	16	$ 718.80	1
17	Foundation Haul	1	58	66	$ 195.16	1
18	Foundation Survey ($250/h)	1	3	11	$ 223.70	1
19	Found Excavation	1	130	138	$ 601.52	1
20	Grillage Installation	1	55	63	$ 627.54	1
21	Backfill and Compact	1	82	90	$ 432.84	1
22	Site Cleanup	1	48	56	$ 96.49	1
23	Grout Crew	1	83	91	$ 260.13	1
24	Concrete Foundations	1	116	124	$ 614.08	1
25	Ground Testing	1	11	19	$ 208.34	1
28	Camp Site Preparation	1	20	28	$ 465.55	1
29	Supervisory	1	24	32	$ 142.83	1
35	Anchor Crew	1	7	15	$ 419.75	1
36	Rock Foundations	1	101	109	$ 516.53	1
39	Guy Install	1	35	43	$ 795.31	1
40	Y- Tower Erection	1	45	53	$ 899.47	1
41	Tower Plumb	1	29	37	$ 711.72	1
42	OPGW Splice	1	104	112	$ 174.87	1
43	Counterpoise Instal	1	48	56	$ 424.98	1
45	Camp Setup	1	15	23	$ 1,293.35	1
46	Camp Haul	1	29	37	$ 107.16	1
47	Electrode Slack String	1	34	42	$ 2,578.79	1
48	Wood Assembly	1	9	17	$ 531.60	1
49	Wood Erection	1	6	14	$ 646.71	1
50	Wood Slack Stringing	1	2	10	$ 1,438.68	1
						1

Work activities:	Unit	Unit cost	Quantity
Road Flagging along Active Haul Roads - 2x flaggers	Days	$ 814.00	60
Aircraft - Cessna Conquest	Hours	$ 1,300.00	771
Executive Air Fare - Commercial 225 Tickets at $800.00 / trip	Each	$ 800.00	225
Air Fare - Commercial 2792 Tickets at $800.00 / trip	Each	$ 800.00	2792
Bid Preparation	LS	$ 80,000.00	5
Temporary Shop Facilities	Each	$ 60,000.00	3
Employee Drug Testing	test	$ 115.00	563
Buttdowns materials	Ea	$ 1,600.00	80
Grounding Material for slug sites	Ea	$ 20,000.00	2
Special grips for 3633 kcmil	Ea	$ 1,600.00	50
Special hoist (12t)	Ea	$ 2,400.00	20
Buttdown and grounding engineering costs	Hr	$ 175.00	120
Pullthrues engineering costs	Ea	$ 175.00	120
Engineered lifts	Ea	$ 175.00	200
Mappin cost (work planning, drawings)	Ea	$ 175.00	30
Implo storage and maintenance	Month	$ 5,000.00	18
Helicopter support Small	Hr	$ 1,905.50	1350
Helicopter support Medium	Hr	$ 3,071.98	2400
Property rental	Month	$ 3,500.00	18
Doctor support	Month	$ 5,000.00	18
S1 Additional culverts based on 2 culverts per/km over 1104km of all season road including reclamation (1104	ls	$ 951,900.00	1
S2 Additional culverts based on 2 culverts per/km over 1104km of all season road including reclamation (1104	ls	$ 504,340.00	1
S1 Additional culverts based on 2 culverts per/km over 1104km of all season road including reclamation (1104	ls	$ 1,214,100.00	1
S2 Additional culverts based on 2 culverts per/km over 1104km of all season road including reclamation (1104	ls	$ 643,260.00	1
Winter road maintenance/snowplowing	ea	$ 259,200.00	2
Environmental Response Material (per section)	LS	$ 50,000.00	2
Misc. Material (galvacon, pins, stakes, flagging, hoarding material)	LS	$ 40,000.00	2
New Blocking	LS	$ 100,000.00	5

Tools:

	Unit	Unit cost	Quantity
Traffic Accommdation Signage	Lump Sum	$ 37,000.00	2
IT System	Lump Sum	$ 30,000.00	1
Videoconference System	Lump Sum	$ 35,000.00	2
Computer & Office Equipment	ea	$ 3,000.00	15
Operate Cell Phone	unit-month	$ 400.00	50

Other:

Engineering Support	Lump Sum	$ 150,000.00	1

LOWER CHURCHILL PROJECT CT0327 CONSTRUCTION OF 350kV HVdc TRANSMISSION LINE:
SEGMENT 3
Valard Construction LP
Rev 00, 01-Nov-2013
SCHEDULE OF PRICE BREAKDOWN

Item No.	Description	Unit of Measure	Estimated Quantity	Unit Manhours(hrs)	Equipment($)	Material ($)	Labour($)	Total Unit Price($)	Subtotal Price ($)
S1-A	**General Works (S1-Ax)**								
	Mobilization and Demobilization								
S1-A1	Initial Mobilization	LS	1	$ -	$ -	$ -	$ -	$ 1,000,000.00	$ 1,000,000.00
S1-A2	Final Demobilization	LS	1	$ -	$ -	$ -	$ -		$ -
	Accommodation Camp								
S1-A3	Accommodation Camp Installation	LS	1	$ 238,379.04	$ 10,875,512.59	$ 4,493,742.02	$ 14,179,597.12	$ 29,548,851.73	$ 29,548,851.73
S1-A4	Boarding and Lodging for Company/Engineer with 3 meals per day	person-day	12,000	$ 26,400.00	$ 1,086,720.00	$ 463,680.00	$ 1,449,720.00	$ 250.01	$ 3,000,120.00
S1-A5	Meals for Company/Engineer visitors	meal	1,000	$ 366.74	$ 15,100.00	$ 6,440.00	$ 20,140.00	$ 41.68	$ 41,680.00
	Performance Security								
S1-A6	Parent Guarantee Article 7.4	LS	1	$ -	$ -	$ -	$ -	$ -	$ -
S1-A7	Letter Of Credit Article 7.6	LS	1	$ -	$ -	$ -	$ -	$ -	$ -
S1-A8	Performance Bonding Article 7.1	LS	1	$ -	$ -	$ -	$ -	$ -	$ -
S1-A9	Labour and Materials Bonding Article 7.2	LS	1	$ -	$ -	$ -	$ -	$ -	$ -
	Sub-total (S1-Ax): General Works			**265,145.78**	**$ 11,977,332.59**	**$ 4,963,862.02**	**$ 15,649,457.12**	**$ 30,549,143.42**	**$ 33,590,651.73**
S1-B	**Right-of-Way Clearing - Direct Costs (S1-Bx)**								
	Right-Of-Way Clearing								
S1-B1	ROW Clearing	Ha	1,292	$ 156,885.71	$ 12,629,300.00	$ -	$ 12,629,300.00	$ 19,550.00	$ 25,258,600.00
S1-B2	Removal of selected danger trees	EA	500	$ 652.17	$ 52,500.00	$ -	$ 52,500.00	$ 210.00	$ 105,000.00
S1-B3	Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2	LM	606	$ 962.09	$ 25,815.60	$ 154,893.60	$ 77,446.80	$ 426.00	$ 258,156.00
S1-B4	Supply and Installation of Bridge - 3 m	EA	71	$ 8,652.30	$ 232,170.00	$ 1,393,020.00	$ 696,510.00	$ 32,700.00	$ 2,321,700.00
S1-B5	Supply and Installation of Bridge - 4 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B6	Supply and Installation of Bridge - 5 m	EA	9	$ 1,827.95	$ 49,050.00	$ 294,300.00	$ 147,150.00	$ 54,500.00	$ 490,500.00
S1-B7	Supply and Installation of Bridge - 6 m	EA	1	$ 243.73	$ 6,540.00	$ 39,240.00	$ 19,620.00	$ 65,400.00	$ 65,400.00
S1-B8	Supply and Installation of Bridge - 7 m	EA	2	$ 568.70	$ 15,260.00	$ 91,560.00	$ 45,780.00	$ 76,300.00	$ 152,600.00
S1-B9	Supply and Installation of Bridge - 8 m	EA	1	$ 324.97	$ 8,720.00	$ 52,320.00	$ 26,160.00	$ 87,200.00	$ 87,200.00
S1-B10	Supply and Installation of Bridge - 10 m	EA	3	$ 1,218.63	$ 32,700.00	$ 196,200.00	$ 98,100.00	$ 109,000.00	$ 327,000.00
S1-B11	Supply and Installation of Bridge - 13 m	EA	1	$ 528.07	$ 14,170.00	$ 85,020.00	$ 42,510.00	$ 141,700.00	$ 141,700.00
S1-B12	Supply and Installation of Bridge - 14 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B13	Supply and Installation of Bridge - 15 m	EA	2	$ 1,218.63	$ 32,700.00	$ 196,200.00	$ 98,100.00	$ 163,500.00	$ 327,000.00
S1-B14	Supply and Installation of Bridge - 16 m	EA	1	$ 649.94	$ 17,440.00	$ 104,640.00	$ 52,320.00	$ 174,400.00	$ 174,400.00
S1-B15	Supply and Installation of Bridge - 25 m	EA	1	$ 1,015.53	$ 27,250.00	$ 163,500.00	$ 81,750.00	$ 272,500.00	$ 272,500.00
S1-B16	Supply and Installation of Bridge - 35 m	EA	1	$ 1,421.74	$ 38,150.00	$ 228,900.00	$ 114,450.00	$ 381,500.00	$ 381,500.00
S1-B17	Supply and Installation of Bridge - 50 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B18	Supply and Installation of Bridge - 60 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B19	Supply and Installation of Bridge - 65 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B20	Installation of Corduroy Road	LM	3,528	$ 1,833.45	$ 49,180.32	$ 295,187.76	$ 147,576.24	$ 139.44	$ 491,944.32
S1-B21	Installation of Access Road - Access Class 3	KM	173	$ 52,028.94	$ 1,396,110.00	$ 8,376,660.00	$ 4,188,330.00	$ 80,700.00	$ 13,961,100.00
S1-B22	Installation of Access Road - Access Trail	KM	11	$ 3,308.20	$ 88,770.00	$ 532,620.00	$ 266,310.00	$ 80,700.00	$ 887,700.00
S1-B23	Installation of Access Road - Bypass Trail	KM	18	$ 5,413.42	$ 145,260.00	$ 871,560.00	$ 435,780.00	$ 80,700.00	$ 1,452,600.00
S1-B24	Installation of Access Road - Ice Bridge	LM	64	$ 1,717.27	$ 46,080.00	$ 276,480.00	$ 138,240.00	$ 7,200.00	$ 460,800.00
	Sub-total (S1-Bx) : Right-of-Way Clearing - Direct Costs			**240,471.44**	**$ 14,907,165.92**	**$ 13,352,301.36**	**$ 19,357,933.04**	**$ 1,828,325.44**	**$ 47,617,400.32**
S1-B	**Right-of-Way Clearing for Wood Pole Electrode Line- Direct Costs (S1-Bx)**								
	Right-Of-Way Clearing								
S1-B25	ROW Clearing	Ha	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B26	Removal of selected danger trees	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B27	Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2	LM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B28	Supply and Installation of Bridge - 3 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B29	Supply and Installation of Bridge - 4 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B30	Supply and Installation of Bridge - 5 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B31	Supply and Installation of Bridge - 6 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B32	Supply and Installation of Bridge - 7 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B33	Supply and Installation of Bridge - 8 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B34	Supply and Installation of Bridge - 10 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B35	Supply and Installation of Bridge - 13 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B36	Supply and Installation of Bridge - 14 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B37	Supply and Installation of Bridge - 15 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B38	Supply and Installation of Bridge - 16 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B39	Supply and Installation of Bridge - 25 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B40	Supply and Installation of Bridge - 35 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B41	Supply and Installation of Bridge - 50 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B42	Supply and Installation of Bridge - 60 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B43	Supply and Installation of Bridge - 65 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B44	Installation of Corduroy Road	LM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B45	Installation of Access Road - Access Class 3	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B46	Installation of Access Road - Access Trail	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B47	Installation of Access Road - Bypass Trail	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
	tal (S1-Bx) : Right-of-Way Clearing for Wood Pole Electrode Line - Direct Costs			**-**	**$ -**	**$ -**	**$ -**	**$ -**	**$ -**
S1-C	**Tower Foundation Construction (S1-Cx)**								
	Guy Wire Anchors								
S1-C1	Installation of Guy Wire Anchor in soil as per design drawings and technical specification	LM	15,500	$ 46,317.96	$ 2,238,820.00	$ 812,510.00	$ 4,211,660.00	$ 468.58	$ 7,262,990.00
S1-C2	Installation of Guy Wire Anchor in rock as per design drawings and technical specification	LM	14,500	$ 40,322.09	$ 1,939,520.00	$ 683,095.00	$ 3,652,985.00	$ 432.80	$ 6,275,600.00
S1-C2	Testing of Guy Wire Anchor up to 550kN as per design drawings and technical specification	Ea	1,304	$ 3,698.59	$ 561,046.00	$ -	$ 836,789.84	$ 1,071.96	$ 1,397,835.84
S1-C2	Testing of Guy Wire Anchorup to 900kN as per design drawings and technical specification	Ea	720	$ 2,042.16	$ 309,780.00	$ -	$ 462,031.20	$ 1,071.96	$ 771,811.20
	Grillage Foundations								
S1-C3	Assembly and Installation of Foundation Types A1-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A1.	EA	15	$ 805.81	$ 95,640.00	$ 2,028.75	$ 107,333.70	$ 13,666.83	$ 205,002.45
S1-C4	Assembly and Installation of Foundation Types A2-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A2.	EA	3	$ 229.91	$ 26,789.88	$ 682.98	$ 30,696.60	$ 19,389.82	$ 58,169.46
S1-C5	Assembly and Installation of Foundation Types A3-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A3.	EA	1	$ 64.49	$ 7,589.79	$ 183.07	$ 8,597.62	$ 16,370.48	$ 16,370.48
S1-C6	Assembly and Installation of Foundation Types A4-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A4.	EA	6	$ 459.81	$ 53,579.76	$ 1,365.96	$ 61,393.20	$ 19,389.82	$ 116,338.92
S1-C7	Assembly and Installation of Foundation Types B1-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types B1.	EA	1	$ 85.78	$ 9,940.11	$ 261.57	$ 11,462.27	$ 21,663.95	$ 21,663.95
S1-C8	Assembly and Installation of Foundation Types B2-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types B2.	EA	92	$ 8,341.69	$ 1,005,849.80	$ 19,952.96	$ 1,109,517.24	$ 23,210.00	$ 2,135,320.00
S1-C9	Assembly and Installation of Foundation Types A1-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A1.	EA	85	$ 3,479.50	$ 414,650.40	$ 5,236.00	$ 463,992.05	$ 10,398.57	$ 883,878.45
S1-C10	Assembly and Installation of Foundation Types A2-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A2.	EA	16	$ 931.93	$ 111,785.12	$ 1,918.08	$ 124,256.96	$ 14,872.51	$ 237,960.16
S1-C11	Assembly and Installation of Foundation Types A3-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A3.	EA	6	$ 269.54	$ 32,049.48	$ 490.92	$ 35,937.06	$ 11,412.91	$ 68,477.46
S1-C12	Assembly and Installation of Foundation Types A4-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A4.	EA	32	$ 1,767.86	$ 207,845.12	$ 3,836.16	$ 236,033.28	$ 13,991.08	$ 447,714.56
S1-C13	Assembly and Installation of Foundation Types B1-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types B1.	EA	3	$ 176.37	$ 21,004.77	$ 385.08	$ 23,524.44	$ 14,971.43	$ 44,914.29
S1-C14	Assembly and Installation of Foundation Types B2-1A (250 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types B2.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C15	Assembly and Installation of Foundation Types C1-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types C1.	EA	28	$ 2,606.92	$ 314,205.92	$ 6,407.52	$ 346,724.56	$ 23,833.50	$ 667,338.00
S1-C16	Assembly and Installation of Foundation Types C2-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types C2.	EA	44	$ 4,655.15	$ 563,672.56	$ 12,334.08	$ 618,815.12	$ 27,155.04	$ 1,194,821.76

Item No.	Description	Unit of Measure	Estimated Quantity	Unit Manhours(hrs)	Equipment($)	Material ($)	Labour($)	Total Unit Price($)	Subtotal Price ($)
S1-C17	Assembly and Installation of Foundation Types D1-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types D1.	EA	32	$ 3,483.41	$ 418,333.12	$ 9,702.40	$ 463,285.12	$ 27,853.77	$ 891,320.64
S1-C18	Assembly and Installation of Foundation Types D2-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types D2.	EA	20	$ 2,321.87	$ 280,512.60	$ 6,639.80	$ 308,620.80	$ 29,788.66	$ 595,773.20
S1-C19	Assembly and Installation of Foundation Types E1-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types E1.	EA	20	$ 2,475.91	$ 295,979.20	$ 7,346.40	$ 329,428.60	$ 31,637.71	$ 632,754.20
S1-C20	Uplift testing per leg for Types C1-1, or D2-1, or E1-1 (100 kPa) as per technical specification for Tower Types C1, or D2, or E1.	EA	3	$ -	$ -	$ -	$ -	$ -	$ -
S1-C21	Downward, uplift, and lateral load testing per leg for Types C1-3, or D2-3, or E1-3 as per technical specification for Tower Types C1, or D2, or E1.	EA	3	$ -	$ -	$ -	$ -	$ -	$ -
	Rock Foundations								
S1-C22	Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A1	EA	109	$ 9,137.08	$ 983,014.32	$ 124,893.29	$ 1,210,107.10	$ 21,266.19	$ 2,318,014.71
S1-C23	Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A2	EA	20	$ 1,975.34	$ 209,832.40	$ 33,581.00	$ 261,227.40	$ 25,232.04	$ 504,640.80
S1-C24	Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A3	EA	10	$ 838.26	$ 90,184.80	$ 11,458.10	$ 111,019.00	$ 21,266.19	$ 212,661.90
S1-C25	Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A4	EA	40	$ 3,966.67	$ 422,286.00	$ 67,162.00	$ 524,534.80	$ 25,349.57	$ 1,013,982.80
S1-C26	Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0074 for Tower Type B1	EA	3	$ 297.50	$ 31,671.45	$ 5,037.15	$ 39,340.11	$ 25,349.57	$ 76,048.71
S1-C27	Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type B2	EA	100	$ 15,086.56	$ 1,568,162.00	$ 167,587.00	$ 2,005,835.00	$ 37,415.84	$ 3,741,584.00
S1-C28	Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A1 (Weak Surface Rock)	EA	9	$ 552.43	$ 59,695.38	$ 8,226.99	$ 73,128.78	$ 15,672.35	$ 141,051.15
S1-C29	Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A2 (Weak Surface Rock)	EA	2	$ 132.45	$ 14,116.42	$ 3,050.22	$ 17,440.78	$ 17,303.71	$ 34,607.42
S1-C30	Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A3 (Weak Surface Rock)	EA	1	$ 63.95	$ 6,855.20	$ 1,244.21	$ 8,441.01	$ 16,540.42	$ 16,540.42
S1-C31	Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A4 (Weak Surface Rock)	EA	4	$ 264.90	$ 28,232.84	$ 6,100.44	$ 34,881.56	$ 17,303.71	$ 69,214.84
S1-C32	Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type B1 (Weak Surface Rock)	EA	1	$ 67.00	$ 7,124.46	$ 1,625.09	$ 8,815.04	$ 17,564.59	$ 17,564.59
S1-C33	Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A1 (Sound Surface Rock)	EA	81	$ 4,487.70	$ 479,046.15	$ 74,042.91	$ 593,487.00	$ 14,155.26	$ 1,146,576.06
S1-C34	Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A2 (Sound Surface Rock)	EA	16	$ 963.98	$ 101,432.64	$ 24,401.76	$ 126,751.36	$ 15,786.61	$ 252,585.76
S1-C35	Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A3 (Sound Surface Rock)	EA	7	$ 405.83	$ 42,955.71	$ 8,709.47	$ 53,498.06	$ 15,023.32	$ 105,163.24
S1-C36	Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A4 (Sound Surface Rock)	EA	31	$ 1,867.72	$ 196,525.74	$ 47,278.41	$ 245,580.76	$ 15,786.61	$ 489,384.91
S1-C37	Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type B1 (Sound Surface Rock)	EA	3	$ 183.06	$ 19,217.34	$ 4,875.27	$ 24,049.86	$ 16,047.49	$ 48,142.47
S1-C38	Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type B2 (surface rock)	EA	88	$ 13,178.92	$ 1,372,455.04	$ 147,476.56	$ 1,751,913.68	$ 37,180.06	$ 3,271,845.28
S1-C39	Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C1	EA	32	$ 4,600.33	$ 475,956.16	$ 53,627.84	$ 611,414.08	$ 35,656.19	$ 1,140,998.08
S1-C40	Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C2	EA	48	$ 7,256.40	$ 753,867.84	$ 80,441.76	$ 964,820.64	$ 37,481.88	$ 1,799,130.24
S1-C41	Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D1	EA	36	$ 5,287.41	$ 544,122.72	$ 60,331.32	$ 703,072.08	$ 36,320.17	$ 1,307,526.12
S1-C42	Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D2	EA	20	$ 3,057.45	$ 316,739.40	$ 33,517.40	$ 406,624.20	$ 37,844.05	$ 756,881.00
S1-C43	Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type E1	EA	16	$ 2,372.60	$ 243,584.16	$ 26,813.92	$ 315,553.60	$ 36,621.98	$ 585,951.68
S1-C44	Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C1 (surface rock)	EA	24	$ 3,450.25	$ 356,967.12	$ 40,220.88	$ 458,560.56	$ 35,656.19	$ 855,748.56
S1-C45	Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C2 (surface rock)	EA	40	$ 6,047.00	$ 628,223.20	$ 67,034.80	$ 804,017.20	$ 37,481.88	$ 1,499,275.20
S1-C46	Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D1 (surface rock)	EA	28	$ 4,112.43	$ 423,206.56	$ 46,924.36	$ 546,833.84	$ 36,320.17	$ 1,016,964.76
S1-C47	Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D2 (surface rock)	EA	20	$ 3,057.45	$ 316,739.40	$ 33,517.40	$ 406,624.20	$ 37,844.05	$ 756,881.00
S1-C48	Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type E1 (surface rock)	EA	20	$ 2,965.75	$ 304,480.20	$ 33,517.40	$ 394,442.00	$ 36,621.98	$ 732,439.60
S1-C49	Installation and Testing of 25M Mechanical Rock Anchor as per design drawings and technical specification	LM	9,173	$ 10,718.21	$ 953,441.62	$ 193,917.22	$ 1,380,444.77	$ 275.57	$ 2,527,803.61
S1-C50	Installation and Testing of 29M Mechanical Rock Anchor as per design drawings and technical specification	LM	276	$ 336.64	$ 30,208.20	$ 7,581.72	$ 43,453.44	$ 294.36	$ 81,243.36
S1-C51	Installation and Testing of 32M Mechanical Rock Anchor as per design drawings and technical specification	LM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C52	Installation and Testing of 43M Mechanical Rock Anchor as per design drawings and technical specification	LM	24,108	$ 35,171.05	$ 3,083,654.28	$ 998,553.36	$ 4,502,892.24	$ 356.11	$ 8,585,099.88
S1-C53	Installation and Testing of 57M Mechanical Rock Anchor as per design drawings and technical specification	LM	145	$ 234.51	$ 20,489.95	$ 8,444.80	$ 29,959.90	$ 406.17	$ 58,894.65
S1-C54	Installation and Testing of 64M Mechanical Rock Anchor as per design drawings and technical specification	LM	9	$ 15.62	$ 1,353.33	$ 616.32	$ 1,989.27	$ 439.88	$ 3,958.92
	H-Pile Foundations								
S1-C55	Design, Assembly and Installation of Foundation Type A1-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A1 including supply and installation of steep cap.	EA	3	$ 585.00	$ 48,102.45	$ 42,254.91	$ 51,848.04	$ 47,401.80	$ 142,205.40
S1-C56	Design, Assembly and Installation of Foundation Type A2-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A2 including supply and installation of steep cap.	EA	1	$ 195.00	$ 16,034.15	$ 14,084.97	$ 17,282.68	$ 47,401.80	$ 47,401.80
S1-C57	Design, Assembly and Installation of Foundation Type A3-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A3 including supply and installation of steep cap.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C58	Design, Assembly and Installation of Foundation Type A4-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A4 including supply and installation of steep cap.	EA	1	$ 195.00	$ 16,034.15	$ 14,084.97	$ 17,282.68	$ 47,401.80	$ 47,401.80
S1-C59	Design, Assembly and Installation of Foundation Type B1-3 as per Dwg 505573-4622-42DD-0037 for Tower Type B1 including supply and installation of steep cap.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C60	Design, Assembly and Installation of Foundation Type B2-3 as per Dwg 505573-4622-42DD-0046 for Tower Type B2 including supply and installation of steep cap.	EA	4	$ 4,024.00	$ 287,272.52	$ 263,639.80	$ 311,496.56	$ 215,602.22	$ 862,408.88
S1-C61	Design, Assembly and Installation of Foundation Type C1-3 as per Dwg 505573-4622-42DD-0046 for Tower Type C1 including supply and installation of steel cap.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C62	Design, Assembly and Installation of Foundation Type C2-3 as per Dwg 505573-4622-42DD-0046 for Tower Type C2 including supply and installation of steel cap.	EA	4	$ 4,024.00	$ 287,272.52	$ 263,639.80	$ 311,496.56	$ 215,602.22	$ 862,408.88
S1-C63	Design, Assembly and Installation of Foundation Type D1-3 per Dwg 505573-4622-42DD-0046 for Tower Type D1 including supply and installation of steel cap.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C64	Design, Assembly and Installation of Foundation Type D2-3 as per Dwg 505573-4622-42DD-0046 for Tower Type D2 including supply and installation of steel cap.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C65	Design, Assembly and Installation of Foundation Type E1-3 as per Dwg 505573-4622-42DD-0046 for Tower Type E1 including supply and installation of steel cap.	EA	4	$ 4,024.00	$ 287,272.52	$ 263,639.80	$ 311,496.56	$ 215,602.22	$ 862,408.88
S1-C66	Rock anchor to be installed with S1-C60 to S1-C65 item above as per the design drawings and technical specifications (length in bog not considered)	LM	720	$ 2,151.54	$ 103,996.80	$ 37,742.40	$ 195,638.40	$ 468.58	$ 337,377.60
S1-C67	Supply, and installation of H-Piles, HP 360 x 108, Grade 350AT	LM	2,040	$ 2,488.80	$ 254,551.20	$ 669,344.40	$ 260,712.00	$ 580.69	$ 1,184,607.60
	Bog and Poor Soil								
S1-C68	Supply and Installation of Cribs for excavation protection of tower types A1, A2, A3, A4, B1, B2, C1, C2, D1, D2, E1 for any type of Foundation as per Dwg 505573-4622-42DD-0069 and 505573-4622-42DD-0071	M2	6,700	$ 15,879.00	$ 1,795,667.00	$ 1,704,279.00	$ 2,151,973.00	$ 843.57	$ 5,651,919.00
	Earthwork								
S1-C69	Transportation of native backfill	KM	1,000	$ 222.22	$ 36,410.00	$ -	$ 28,900.00	$ 65.31	$ 65,310.00
S1-C70	Supply and transportation of approved fill from an alternate source/processed material/road gravel	M3 * KM	14,000	$ 5,930.56	$ 663,180.00	$ 724,500.00	$ 606,200.00	$ 142.42	$ 1,993,880.00
S1-C71	Rock blasting/preparation	M3	1,000	$ 6,000.00	$ 722,460.00	$ -	$ 801,430.00	$ 1,523.89	$ 1,523,890.00
	Sub-total (S1-Cx): Tower Foundation Construction			**306,667.58**	**$ 26,641,862.97**	**$ 7,993,397.15**	**$ 35,870,773.42**	**$ 1,837,008.14**	**$ 72,675,680.58**

Item No.	Description	Unit of Measure	Estimated Quantity	Unit Manhours(hrs)	Equipment($)	Material ($)	Labour($)	Total Unit Price($)	Subtotal Price ($)
S1-D	**Tower Assembly and Erection (S1-Dx)**								
	Assembly and Erection of Suspension Tower Type "A1"								
S1-D1	Assembly and Erection of Suspension Tower Type "A1 + 0" as per dwg. 505573-4622-43DD-0042	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D2	Assembly and Erection of Suspension Tower Type "A1 + 1.5" as per dwg. 505573-4622-43DD-0042	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D3	Assembly and Erection of Suspension Tower Type "A1 + 3" as per dwg. 505573-4622-43DD-0042	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D4	Assembly and Erection of Suspension Tower Type "A1 + 4.5" as per dwg. 505573-4622-43DD-0042	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D5	Assembly and Erection of Suspension Tower Type "A1 + 6" as per dwg. 505573-4622-43DD-0042	EA	67	$ 21,105.11	$ 1,489,539.98	$ -	$ 2,910,687.70	$ 65,675.04	$ 4,400,227.68
S1-D6	Assembly and Erection of Suspension Tower Type "A1 + 7.5" as per dwg. 505573-4622-43DD-0042	EA	26	$ 8,311.92	$ 586,025.44	$ -	$ 1,146,397.72	$ 66,631.66	$ 1,732,423.16
S1-D7	Assembly and Erection of Suspension Tower Type "A1 + 9" as per dwg. 505573-4622-43DD-0042	EA	27	$ 8,730.94	$ 615,079.98	$ -	$ 1,204,242.93	$ 67,382.33	$ 1,819,322.91
S1-D8	Assembly and Erection of Suspension Tower Type "A1 + 10.5" as per dwg. 505573-4622-43DD-0042	EA	28	$ 9,252.10	$ 770,827.68	$ -	$ 1,156,241.24	$ 68,823.89	$ 1,927,068.92
S1-D9	Assembly and Erection of Suspension Tower Type "A1 + 12" as per dwg. 505573-4622-43DD-0042	EA	33	$ 11,014.91	$ 917,507.25	$ -	$ 1,376,261.04	$ 69,508.13	$ 2,293,768.29
S1-D10	Assembly and Erection of Suspension Tower Type "A1 + 13.5" as per dwg. 505573-4622-43DD-0042	EA	25	$ 8,461.83	$ 594,289.25	$ -	$ 1,167,329.50	$ 70,464.75	$ 1,761,618.75
S1-D11	Assembly and Erection of Suspension Tower Type "A1 + 15" as per dwg. 505573-4622-43DD-0042	EA	26	$ 8,922.18	$ 626,055.82	$ -	$ 1,230,899.54	$ 71,421.36	$ 1,856,955.36
S1-D12	Assembly and Erection of Suspension Tower Type "A1 + 16.5" as per dwg. 505573-4622-43DD-0042	EA	28	$ 9,711.50	$ 680,970.36	$ -	$ 1,339,846.48	$ 72,172.03	$ 2,020,816.84
S1-D13	Assembly and Erection of Suspension Tower Type "A1 + 18" as per dwg. 505573-4622-43DD-0042	EA	42	$ 14,723.12	$ 1,031,680.02	$ -	$ 2,031,353.10	$ 72,929.36	$ 3,063,033.12
	Assembly and Erection of Suspension Tower Type "A2"								
S1-D14	Assembly and Erection of Suspension Tower Type "A2 + 0" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D15	Assembly and Erection of Suspension Tower Type "A2 + 1.5" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D16	Assembly and Erection of Suspension Tower Type "A2 + 3" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D17	Assembly and Erection of Suspension Tower Type "A2 + 4.5" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D18	Assembly and Erection of Suspension Tower Type "A2 + 6" as per dwg. 505573-4622-43DD-0044	EA	6	$ 2,770.39	$ 198,521.64	$ -	$ 381,866.52	$ 96,731.36	$ 580,388.16
S1-D19	Assembly and Erection of Suspension Tower Type "A2 + 7.5" as per dwg. 505573-4622-43DD-0044	EA	6	$ 2,844.80	$ 203,403.18	$ -	$ 392,171.16	$ 99,262.39	$ 595,574.34
S1-D20	Assembly and Erection of Suspension Tower Type "A2 + 9" as per dwg. 505573-4622-43DD-0044	EA	11	$ 5,311.09	$ 379,177.59	$ -	$ 732,219.73	$ 101,036.12	$ 1,111,397.32
S1-D21	Assembly and Erection of Suspension Tower Type "A2 + 10.5" as per dwg. 505573-4622-43DD-0044	EA	5	$ 2,474.36	$ 176,303.95	$ -	$ 341,166.45	$ 103,494.08	$ 517,470.40
S1-D22	Assembly and Erection of Suspension Tower Type "A2 + 12" as per dwg. 505573-4622-43DD-0044	EA	12	$ 5,954.08	$ 424,154.52	$ -	$ 820,963.20	$ 103,759.81	$ 1,245,117.72
S1-D23	Assembly and Erection of Suspension Tower Type "A2 + 13.5" as per dwg. 505573-4622-43DD-0044	EA	4	$ 2,034.31	$ 144,639.20	$ -	$ 280,524.16	$ 106,290.84	$ 425,163.36
S1-D24	Assembly and Erection of Suspension Tower Type "A2 + 15" as per dwg. 505573-4622-43DD-0044	EA	4	$ 2,119.92	$ 150,998.56	$ -	$ 292,187.60	$ 110,796.54	$ 443,186.16
S1-D25	Assembly and Erection of Suspension Tower Type "A2 + 16.5" as per dwg. 505573-4622-43DD-0044	EA	6	$ 3,232.03	$ 229,918.74	$ -	$ 445,502.76	$ 112,570.25	$ 675,421.50
S1-D26	Assembly and Erection of Suspension Tower Type "A2 + 18" as per dwg. 505573-4622-43DD-0044	EA	1	$ 547.36	$ 38,889.95	$ -	$ 75,454.03	$ 114,343.98	$ 114,343.98
S1-D27	Assembly and Erection of Suspension Tower Type "A2 + 19.5" as per dwg. 505573-4622-43DD-0044	EA	2	$ 1,104.04	$ 78,390.62	$ -	$ 152,197.26	$ 115,293.94	$ 230,587.88
	Assembly and Erection of Suspension Tower Type "A3"								
S1-D28	Assembly and Erection of Suspension Tower Type "A3 + 0" as per dwg. 505573-4622-43DD-0050	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D29	Assembly and Erection of Suspension Tower Type "A3 + 1.5" as per dwg. 505573-4622-43DD-0050	EA	1	$ 340.49	$ 24,711.16	$ -	$ 46,859.11	$ 71,570.27	$ 71,570.27
S1-D30	Assembly and Erection of Suspension Tower Type "A3 + 3" as per dwg. 505573-4622-43DD-0050	EA	2	$ 689.96	$ 50,011.68	$ -	$ 94,962.36	$ 72,487.02	$ 144,974.04
S1-D31	Assembly and Erection of Suspension Tower Type "A3 + 4.5" as per dwg. 505573-4622-43DD-0050	EA	2	$ 704.94	$ 50,993.98	$ -	$ 97,035.90	$ 74,014.94	$ 148,029.88
S1-D32	Assembly and Erection of Suspension Tower Type "A3 + 6" as per dwg. 505573-4622-43DD-0050	EA	3	$ 1,061.60	$ 76,766.43	$ -	$ 146,135.37	$ 74,300.60	$ 222,901.80
S1-D33	Assembly and Erection of Suspension Tower Type "A3 + 7.5" as per dwg. 505573-4622-43DD-0050	EA	3	$ 1,080.06	$ 77,977.20	$ -	$ 148,691.25	$ 75,556.15	$ 226,668.45
S1-D34	Assembly and Erection of Suspension Tower Type "A3 + 9" as per dwg. 505573-4622-43DD-0050	EA	2	$ 727.53	$ 52,475.96	$ -	$ 100,164.28	$ 76,320.12	$ 152,640.24
S1-D35	Assembly and Erection of Suspension Tower Type "A3 + 10.5" as per dwg. 505573-4622-43DD-0050	EA	3	$ 1,115.90	$ 80,328.30	$ -	$ 153,654.27	$ 77,994.19	$ 233,982.57
S1-D36	Assembly and Erection of Suspension Tower Type "A3 + 12" as per dwg. 505573-4622-43DD-0050	EA	2	$ 749.40	$ 53,910.94	$ -	$ 103,193.48	$ 78,552.21	$ 157,104.42
S1-D37	Assembly and Erection of Suspension Tower Type "A3 + 13.5" as per dwg. 505573-4622-43DD-0050	EA	2	$ 761.71	$ 54,718.14	$ -	$ 104,897.40	$ 79,807.77	$ 159,615.54
S1-D38	Assembly and Erection of Suspension Tower Type "A3 + 15" as per dwg. 505573-4622-43DD-0050	EA	1	$ 387.01	$ 27,762.66	$ -	$ 53,300.66	$ 81,063.32	$ 81,063.32
S1-D39	Assembly and Erection of Suspension Tower Type "A3 + 16.5" as per dwg. 505573-4622-43DD-0050	EA	3	$ 1,172.35	$ 84,031.11	$ -	$ 161,470.65	$ 81,833.92	$ 245,501.76
	Assembly and Erection of Suspension Tower Type "A4"								
S1-D40	Assembly and Erection of Suspension Tower Type "A4 + 0" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D41	Assembly and Erection of Suspension Tower Type "A4 + 1.5" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D42	Assembly and Erection of Suspension Tower Type "A4 + 3" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D43	Assembly and Erection of Suspension Tower Type "A4 + 4.5" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D44	Assembly and Erection of Suspension Tower Type "A4 + 6" as per dwg. 505573-4622-43DD-0056	EA	25	$ 11,406.92	$ 811,397.75	$ -	$ 1,572,632.00	$ 95,361.19	$ 2,384,029.75
S1-D45	Assembly and Erection of Suspension Tower Type "A4 + 7.5" as per dwg. 505573-4622-43DD-0056	EA	12	$ 5,624.16	$ 399,234.00	$ -	$ 775,472.76	$ 97,892.23	$ 1,174,706.76
S1-D46	Assembly and Erection of Suspension Tower Type "A4 + 9" as per dwg. 505573-4622-43DD-0056	EA	21	$ 10,024.81	$ 710,632.65	$ -	$ 1,382,352.09	$ 99,665.94	$ 2,092,984.74
S1-D47	Assembly and Erection of Suspension Tower Type "A4 + 10.5" as per dwg. 505573-4622-43DD-0056	EA	18	$ 8,808.92	$ 623,297.16	$ -	$ 1,214,813.70	$ 102,117.27	$ 1,838,110.86
S1-D48	Assembly and Erection of Suspension Tower Type "A4 + 12" as per dwg. 505573-4622-43DD-0056	EA	10	$ 4,907.19	$ 347,151.70	$ -	$ 676,744.60	$ 102,389.63	$ 1,023,896.30
S1-D49	Assembly and Erection of Suspension Tower Type "A4 + 13.5" as per dwg. 505573-4622-43DD-0056	EA	12	$ 6,037.47	$ 426,345.12	$ -	$ 832,702.92	$ 104,920.67	$ 1,259,048.04
S1-D50	Assembly and Erection of Suspension Tower Type "A4 + 15" as per dwg. 505573-4622-43DD-0056	EA	4	$ 2,062.10	$ 145,369.40	$ -	$ 284,437.44	$ 107,451.71	$ 429,806.84
S1-D51	Assembly and Erection of Suspension Tower Type "A4 + 16.5" as per dwg. 505573-4622-43DD-0056	EA	4	$ 2,096.87	$ 147,650.04	$ -	$ 289,251.68	$ 109,225.43	$ 436,901.72
S1-D52	Assembly and Erection of Suspension Tower Type "A4 + 18" as per dwg. 505573-4622-43DD-0056	EA	1	$ 532.88	$ 37,480.53	$ -	$ 73,511.98	$ 110,992.51	$ 110,992.51
S1-D53	Assembly and Erection of Suspension Tower Type "A4 + 19.5" as per dwg. 505573-4622-43DD-0056	EA	6	$ 3,225.39	$ 226,728.18	$ -	$ 444,966.54	$ 111,949.12	$ 671,694.72
	Assembly and Erection of Suspension Tower Type "B1"								
S1-D54	Assembly and Erection of Suspension Tower Type "B1 + 0" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D55	Assembly and Erection of Suspension Tower Type "B1 + 1.5" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D56	Assembly and Erection of Suspension Tower Type "B1 + 3" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D57	Assembly and Erection of Suspension Tower Type "B1 + 4.5" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D58	Assembly and Erection of Suspension Tower Type "B1 + 6" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D59	Assembly and Erection of Suspension Tower Type "B1 + 7.5" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D60	Assembly and Erection of Suspension Tower Type "B1 + 9" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D61	Assembly and Erection of Suspension Tower Type "B1 + 10.5" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D62	Assembly and Erection of Suspension Tower Type "B1 + 12" as per dwg. 505573-4622-43DD-0002	EA	1	$ 666.69	$ 45,645.75	$ -	$ 92,088.34	$ 137,734.09	$ 137,734.09
S1-D63	Assembly and Erection of Suspension Tower Type "B1 + 13.5" as per dwg. 505573-4622-43DD-0002	EA	1	$ 687.96	$ 47,227.05	$ -	$ 94,986.17	$ 142,213.22	$ 142,213.22
S1-D64	Assembly and Erection of Suspension Tower Type "B1 + 15" as per dwg. 505573-4622-43DD-0002	EA	2	$ 1,400.53	$ 96,068.46	$ -	$ 193,380.18	$ 144,724.32	$ 289,448.64
S1-D65	Assembly and Erection of Suspension Tower Type "B1 + 16.5" as per dwg. 505573-4622-43DD-0002	EA	1	$ 711.20	$ 48,751.73	$ -	$ 98,204.69	$ 146,956.42	$ 146,956.42
S1-D66	Assembly and Erection of Suspension Tower Type "B1 + 18" as per dwg. 505573-4622-43DD-0002	EA	1	$ 722.17	$ 49,471.36	$ -	$ 99,723.79	$ 149,195.15	$ 149,195.15

Item No.	Description	Unit of Measure	Estimated Quantity	Unit Manhours(hrs)	Equipment($)	Material ($)	Labour($)	Total Unit Price($)	Subtotal Price ($)
S1-D67	Assembly and Erection of Suspension Tower Type "B1 + 19.5" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D68	Assembly and Erection of Suspension Tower Type "B1 + 21" as per dwg. 505573-4622-43DD-0002	EA	1	$ 763.73	$ 52,383.02	$ -	$ 105,429.93	$ 157,812.95	$ 157,812.95
S1-D69	Assembly and Erection of Suspension Tower Type "B1 + 22.5" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D70	Assembly and Erection of Suspension Tower Type "B1 + 24" as per dwg. 505573-4622-43DD-0002	EA	2	$ 1,609.94	$ 110,920.40	$ -	$ 222,090.54	$ 166,505.47	$ 333,010.94
S1-D71	Assembly and Erection of Suspension Tower Type "B1 + 25.5" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D72	Assembly and Erection of Suspension Tower Type "B1 + 27" as per dwg. 505573-4622-43DD-0002	EA	1	$ 828.21	$ 56,984.89	$ -	$ 114,263.79	$ 171,248.68	$ 171,248.68
	Assembly and Erection of Medium Angle Tower Type "B2"								
S1-D73	Assembly and Erection of Medium Angle Tower Type "B2" Basic Body as per dwg. 505573-4622-43DD-0058	EA	71	$ 46,959.40	$ 3,583,321.72	$ -	$ 6,505,252.17	$ 142,092.59	$ 10,088,573.89
S1-D74	Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058	EA	17	$ 2,926.19	$ 217,582.49	$ -	$ 405,707.38	$ 36,664.11	$ 623,289.87
S1-D75	Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058	EA	19	$ 5,520.74	$ 413,087.17	$ -	$ 765,610.32	$ 62,036.71	$ 1,178,697.49
S1-D76	Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	40	$ 361.98	$ 26,915.60	$ -	$ 50,187.20	$ 1,927.57	$ 77,102.80
S1-D77	Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	12	$ 152.03	$ 11,304.60	$ -	$ 21,078.60	$ 2,698.60	$ 32,383.20
S1-D78	Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	28	$ 634.43	$ 47,174.12	$ -	$ 87,961.44	$ 4,826.27	$ 135,135.56
S1-D79	Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	32	$ 845.58	$ 62,874.88	$ -	$ 117,237.12	$ 5,628.50	$ 180,112.00
S1-D80	Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	52	$ 1,535.85	$ 114,201.36	$ -	$ 212,941.56	$ 6,291.21	$ 327,142.92
S1-D81	Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	44	$ 1,541.89	$ 114,649.92	$ -	$ 213,777.96	$ 7,464.27	$ 328,427.88
S1-D82	Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	76	$ 3,400.88	$ 263,205.48	$ -	$ 472,225.24	$ 9,676.72	$ 735,430.72
	Assembly and Erection of Medium Angle Tower Type "C1"								
S1-D83	Assembly and Erection of Medium Angle Tower Type "C1" Basic Body as per dwg. 505573-4622-43DD-0004	EA	21	$ 15,829.62	$ 1,230,836.46	$ -	$ 2,194,157.70	$ 163,094.96	$ 3,424,994.16
S1-D84	Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004	EA	1	$ 151.72	$ 11,281.45	$ -	$ 21,035.55	$ 32,317.00	$ 32,317.00
S1-D85	Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004	EA	6	$ 1,694.16	$ 126,788.04	$ -	$ 234,946.20	$ 60,289.04	$ 361,734.24
S1-D86	Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D87	Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D88	Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	44	$ 1,142.38	$ 84,944.20	$ -	$ 158,388.12	$ 5,530.28	$ 243,332.32
S1-D89	Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	8	$ 257.76	$ 19,166.48	$ -	$ 35,738.00	$ 6,863.06	$ 54,904.48
S1-D90	Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	4	$ 159.60	$ 11,867.20	$ -	$ 22,127.72	$ 8,498.73	$ 33,994.92
S1-D91	Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	8	$ 373.04	$ 27,738.40	$ -	$ 51,721.36	$ 9,932.47	$ 79,459.76
S1-D92	Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	20	$ 1,136.01	$ 84,470.00	$ -	$ 157,503.80	$ 12,098.69	$ 241,973.80
	Assembly and Erection of Medium Angle Tower Type "C2"								
S1-D93	Assembly and Erection of Medium Angle Tower Type "C2" Basic Body as per dwg. 505573-4622-43DD-0012	EA	34	$ 23,251.43	$ 1,828,946.02	$ -	$ 3,222,230.32	$ 148,564.01	$ 5,051,176.34
S1-D94	Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012	EA	7	$ 1,136.97	$ 84,746.69	$ -	$ 157,617.74	$ 34,623.49	$ 242,364.43
S1-D95	Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D96	Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	16	$ 262.53	$ 19,568.48	$ -	$ 36,394.72	$ 3,497.70	$ 55,963.20
S1-D97	Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	4	$ 91.89	$ 6,848.96	$ -	$ 12,738.16	$ 4,896.78	$ 19,587.12
S1-D98	Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	28	$ 896.13	$ 66,795.40	$ -	$ 124,230.40	$ 6,822.35	$ 191,025.80
S1-D99	Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	20	$ 801.07	$ 59,709.60	$ -	$ 111,051.80	$ 8,538.07	$ 170,761.40
S1-D100	Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	24	$ 1,226.78	$ 91,441.20	$ -	$ 170,068.56	$ 10,896.24	$ 261,509.76
S1-D101	Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	24	$ 1,434.88	$ 106,951.68	$ -	$ 198,916.32	$ 12,744.50	$ 305,868.00
S1-D102	Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	20	$ 1,364.82	$ 101,730.00	$ -	$ 189,204.60	$ 14,546.73	$ 290,934.60
	Assembly and Erection of Dead-End Tower Type "D1"								
S1-D103	Assembly and Erection of Dead-End Tower Type "D1" Basic Body as per dwg. 505573-4622-43DD-0043	EA	24	$ 20,370.48	$ 1,579,657.20	$ -	$ 2,824,163.04	$ 183,492.51	$ 4,403,820.24
S1-D104	Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043	EA	3	$ 536.71	$ 39,810.81	$ -	$ 74,422.38	$ 38,077.73	$ 114,233.19
S1-D105	Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043	EA	3	$ 1,035.95	$ 76,842.51	$ -	$ 143,649.51	$ 73,497.34	$ 220,492.02
S1-D106	Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D107	Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D108	Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	40	$ 1,009.25	$ 74,862.40	$ -	$ 139,947.60	$ 5,370.25	$ 214,810.00
S1-D109	Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	16	$ 549.85	$ 40,785.76	$ -	$ 76,244.80	$ 7,314.41	$ 117,030.56
S1-D110	Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	28	$ 1,138.29	$ 84,433.44	$ -	$ 157,839.92	$ 8,652.62	$ 242,273.36
S1-D111	Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	12	$ 581.04	$ 43,099.08	$ -	$ 80,569.44	$ 10,305.71	$ 123,668.52
S1-D112	Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
	Assembly and Erection of Dead-End Tower Type "D2"								
S1-D113	Assembly and Erection of Dead-End Tower Type "D2" Basic Body as per dwg. 505573-4622-43DD-0045	EA	15	$ 12,541.38	$ 990,592.20	$ -	$ 1,739,498.40	$ 182,006.04	$ 2,730,090.60
S1-D114	Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045	EA	1	$ 245.15	$ 18,204.60	$ -	$ 33,991.80	$ 52,196.40	$ 52,196.40
S1-D115	Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D116	Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	16	$ 461.58	$ 34,276.64	$ -	$ 64,001.44	$ 6,142.38	$ 98,278.08
S1-D117	Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	20	$ 769.30	$ 57,127.60	$ -	$ 106,669.20	$ 8,189.84	$ 163,796.80
S1-D118	Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	8	$ 395.12	$ 29,341.20	$ -	$ 54,786.08	$ 10,515.91	$ 84,127.28
S1-D119	Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	4	$ 230.96	$ 17,151.04	$ -	$ 32,024.60	$ 12,293.91	$ 49,175.64
S1-D120	Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	8	$ 609.73	$ 45,277.52	$ -	$ 84,542.64	$ 16,227.52	$ 129,820.16
S1-D121	Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D122	Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	4	$ 357.21	$ 26,525.68	$ -	$ 49,529.00	$ 19,013.67	$ 76,054.68
	Assembly and Erection of Dead-End Tower Type "E1"								
S1-D123	Assembly and Erection of Dead-End Tower Type "E1" Basic Body as per dwg. 505573-4622-43DD-0007	EA	15	$ 15,050.74	$ 1,151,519.10	$ -	$ 2,087,443.95	$ 215,930.87	$ 3,238,963.05
S1-D124	Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007	EA	4	$ 982.79	$ 72,301.08	$ -	$ 136,336.28	$ 52,159.34	$ 208,637.36
S1-D125	Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D126	Assembly and Erection of +0 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	8	$ 239.68	$ 17,632.88	$ -	$ 33,249.76	$ 6,360.33	$ 50,882.64
S1-D127	Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	4	$ 159.79	$ 11,755.24	$ -	$ 22,166.52	$ 8,480.44	$ 33,921.76
S1-D128	Assembly and Erection of +3 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D129	Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	20	$ 1,277.87	$ 94,009.00	$ -	$ 177,270.40	$ 13,563.97	$ 271,279.40
S1-D130	Assembly and Erection of +6 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	16	$ 1,256.31	$ 92,422.72	$ -	$ 174,279.20	$ 16,668.87	$ 266,701.92
S1-D131	Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	12	$ 1,093.65	$ 80,456.40	$ -	$ 151,714.44	$ 19,347.57	$ 232,170.84
S1-D132	Assembly and Erection of +9 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -

Item No.	Description	Unit of Measure	Estimated Quantity	Unit Manhours(hrs)	Equipment($)	Material ($)	Labour($)	Total Unit Price($)	Subtotal Price ($)
	Sub-total (S1-Dx) : Tower Assembly & Erection			**375,516.65**	**$ 27,849,032.18**	**$ -**	**$ 51,649,320.45**	**$ 6,579,312.65**	**$ 79,498,352.63**
S1-E	**Installation of Wires and OPGW (S1-Ex)**								
S1-E1	Installation of Counterpoise wire, connection with tower grounding	KM	227	**$ 10,738.66**	**$ 1,115,788.99**	**$ -**	**$ 1,517,426.90**	$ 11,600.07	$ 2,633,215.89
S1-E2	Installation of ground rods at crossing obstacles in soil and rock	EA	120	**$ 120.00**	**$ 12,997.20**	**$ -**	**$ 16,987.20**	$ 249.87	$ 29,984.40
S1-E3	Tower Footing resistance measurement	EA	227	**$ 227.00**	**$ 8,076.66**	**$ -**	**$ 31,507.60**	$ 174.38	$ 39,584.26
S1-E4	S1 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S2-E4	S2 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S3-E4	S3 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles	KM	227	**$ 92,500.30**	**$ 13,181,858.22**	**$ -**	**$ 12,996,122.28**	$ 115,321.50	$ 26,177,980.50
S4-E4	S4 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S5-E4	S5 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-E5	Installation of Conductor on Steel Towers - 1192.5 kcmil 54/19 ACSR Grackle Conductor, complete for both electrodes	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-E6	Installation of Conductor on Steel Towers - 1590.0 kcmil 54/19 ACSR Falcon Conductor, complete for both electrodes	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-E7	Installation of Conductor on Wood Poles - 1192.5 kcmil 54/19 ACSR Grackle Conductor, complete for both electrodes	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-E8	Installation of Conductor on Wood Poles - 1590.0 kcmil 54/19 ACSR Falcon Conductor, complete for both electrodes	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-E9	Installation of ADSS on Wood Poles	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-E10	ADSS splicing and tests including loss analysis	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-E11	ADSS end to end test	LS	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-E12	S1 - Installation of OPGW	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S2-E12	S2 - Installation of OPGW	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S3-E12	S3 - Installation of OPGW	KM	227	**$ 19,001.94**	**$ 2,704,934.27**	**$ -**	**$ 2,566,691.27**	$ 23,223.02	$ 5,271,625.54
S4-E12	S4 - Installation of OPGW	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S5-E12	S5 - Installation of OPGW	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-E13	OPGW Continuity tests before and after stringing	LS	1	**$ 844.80**	**$ 69,110.57**	**$ -**	**$ 98,414.94**	$ 167,525.51	$ 167,525.51
S1-E14	OPGW splicing and tests including loss analysis	EA	50	**$ 2,000.00**	**$ 166,770.50**	**$ -**	**$ 251,405.50**	$ 8,363.52	$ 418,176.00
S1-E15	OPGW end to end test	LS	1	**$ 192.00**	**$ 15,706.95**	$ -	**$ 22,367.04**	$ 38,073.99	$ 38,073.99
	Sub-total (S1-Ex) : Installation of Wires and OPGW			**125,624.70**	**$ 17,275,243.36**	$ -	**$ 17,500,922.73**	**$ 364,531.86**	**$ 34,776,166.09**
S1-F	**Miscellaneous Tower Attachments and Accessories (S1-Fx)**								
S1-F1	Install 18" Aerial marker cones	EA	5	**$ 20.00**	$ 1,715.05	$ -	**$ 2,790.30**	$ 901.07	$ 4,505.35
	Sub-total (S1-Fx) : Miscellaneous Tower Attachment and Accessories			**20.00**	$ 1,715.05	$ -	**$ 2,790.30**	**$ 901.07**	**$ 4,505.35**
S1-G	**Framing and Setting of Wood Poles (S1-Gx)**								
S1-G1	Framing and Setting of Single Pole Tangent (0 - 1 deg) as per Drawing 505573-4633-4ZDD-0011	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-G2	Framing and Setting of Single Pole Light angle (1 - 10 deg) with Guys as per Drawing 505573-4633-4ZDD-0012	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-G3	Framing and Setting of Single Pole Heavy angle (10 - 30 deg) with Guys as per Drawing 505573-4633-4ZDD-0020	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-G4	Framing and Setting of Single Pole Dead-end (30 - 90 deg) with Guys as per Drawing 505573-4633-4ZDD-0021	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-G5	Framing and Setting of Single Pole Floating Dead-end (0 - 1 deg) with Guys as per Drawing 505573-4633-4ZDD-0013	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-G6	Framing and Setting of Two Pole Dead-end to tap to HVdc Tower in Labrador as per Drawing 505573-4633-4ZDD-0061	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
	Sub-total (S1-Gx) : Framing and Setting of Wood Poles			$ -	$ -	$ -	$ -	$ -	$ -
S1-I	**Optional Pricing (S1-Ix)**								
S1-I1	Perform Geotechnical Investigation and Identify Foundation Type as per Design Drawings and Technical Specifications	LS	1	$ -	$ -	$ -	$ -	$ -	$ -
S1-I2	Design and supply of micropile option as replacement for H-pile design	EA	17	$ -	$ -	$ -	$ -	$ -	$ -
S1-I3	Optional cost for mulching given area instead of salvaging	Ha	1,292	$ -	$ -	$ -	$ -	$ -	$ -
S1-I4	Installation of Access Road - Alternative	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-I5	Slack Span Connections - Installation of all Conductor and OPGW from Terminal Tower to the Substation Gantry	LS	1	**$ 238.00**	**$ 29,257.24**	$ -	**$ 33,509.02**	$ 62,766.26	$ 62,766.26
S1-I6	Slack Span Connections - Installation of all Conductor and OPGW/ADSS from Terminal Wood Pole to the Electrode Compound Gantry	LS	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-I7	Supply and Installation of Culvert - 1000 mm	LM	19	$ -	$ -	$ -	$ -	$ -	$ -
S1-I8	Supply and Installation of Culvert - 1200 mm	LM	19	$ -	$ -	$ -	$ -	$ -	$ -
S1-I9	Supply and Installation of Culvert - 1600 mm	LM	19	$ -	$ -	$ -	$ -	$ -	$ -
S1-I10	Supply and Installation of Culvert - 2000 mm	LM	19	$ -	$ -	$ -	$ -	$ -	$ -
S1-I11	Supply and Installation of Culvert - 2400 mm	LM	19	$ -	$ -	$ -	$ -	$ -	$ -
S1-I12	Supply and Installation of Culvert - 3000 mm	LM	19	$ -	$ -	$ -	$ -	$ -	$ -
S1-I13	Assembly and Installation of Foundation Type A1-1/1A, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.95**	$ -	**$ 1.27**	$ 2.22	$ 2.22
S1-I14	Assembly and Installation of Foundation Type A2-1/1A, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.95**	$ -	**$ 1.27**	$ 2.22	$ 2.22
S1-I15	Assembly and Installation of Foundation Type A3-1/1A, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.95**	$ -	**$ 1.27**	$ 2.22	$ 2.22
S1-I16	Assembly and Installation of Foundation Type A4-1/1A, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.95**	$ -	**$ 1.27**	$ 2.22	$ 2.22
S1-I17	Assembly and Installation of Foundation Type B1-1/1A, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.95**	$ -	**$ 1.27**	$ 2.22	$ 2.22
S1-I18	Assembly and Installation of Foundation Type B2-1/1A, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.80**	$ -	**$ 1.06**	$ 1.86	$ 1.86
S1-I19	Assembly and Installation of Foundation Type C1-1, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.95**	$ -	**$ 1.27**	$ 2.22	$ 2.22
S1-I20	Assembly and Installation of Foundation Type C2-1, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.95**	$ -	**$ 1.27**	$ 2.22	$ 2.22
S1-I21	Assembly and Installation of Foundation Type D1-1, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.80**	$ -	**$ 1.06**	$ 1.86	$ 1.86
S1-I22	Assembly and Installation of Foundation Type D1-1, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.95**	$ -	**$ 1.27**	$ 2.22	$ 2.22
S1-I23	Assembly and Installation of Foundation Type E1-1, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.95**	$ -	**$ 1.27**	$ 2.22	$ 2.22
S1-I24	Assembly and Installation of Foundation Type A1-2, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.95**	$ -	**$ 1.27**	$ 2.22	$ 2.22
S1-I25	Assembly and Installation of Foundation Type A2-2, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.95**	$ -	**$ 1.27**	$ 2.22	$ 2.22
S1-I26	Assembly and Installation of Foundation Type A3-2, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.95**	$ -	**$ 1.27**	$ 2.22	$ 2.22
S1-I27	Assembly and Installation of Foundation Type A4-2, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.95**	$ -	**$ 1.27**	$ 2.22	$ 2.22
S1-I28	Assembly and Installation of Foundation Type B1-2, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.95**	$ -	**$ 1.27**	$ 2.22	$ 2.22
S1-I29	Assembly and Installation of Foundation Type B2-2, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.95**	$ -	**$ 1.27**	$ 2.22	$ 2.22
S1-I30	Assembly and Installation of Foundation Type C1-2, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.95**	$ -	**$ 1.27**	$ 2.22	$ 2.22
S1-I31	Assembly and Installation of Foundation Type C2-2, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.95**	$ -	**$ 1.27**	$ 2.22	$ 2.22
S1-I32	Assembly and Installation of Foundation Type D1-2, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.95**	$ -	**$ 1.27**	$ 2.22	$ 2.22
S1-I33	Assembly and Installation of Foundation Type D1-2, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.95**	$ -	**$ 1.27**	$ 2.22	$ 2.22
S1-I34	Assembly and Installation of Foundation Type E1-2, per kg, to be used for weight increases or decreases	KG	1	**$ 0.01**	**$ 0.95**	$ -	**$ 1.27**	$ 2.22	$ 2.22
S1-I35	Assembly and Erection of Tower Type A1, per kg, to be used for weight increases or decreases	KG	1	**$ 0.03**	**$ 2.66**	$ -	**$ 4.07**	$ 6.73	$ 6.73
S1-I36	Assembly and Erection of Tower Type A2, per kg, to be used for weight increases or decreases	KG	1	**$ 0.03**	**$ 2.85**	$ -	**$ 4.22**	$ 7.07	$ 7.07
S1-I37	Assembly and Erection of Tower Type A3, per kg, to be used for weight increases or decreases	KG	1	**$ 0.03**	**$ 2.85**	$ -	**$ 4.22**	$ 7.07	$ 7.07
S1-I38	Assembly and Erection of Tower Type A4, per kg, to be used for weight increases or decreases	KG	1	**$ 0.03**	**$ 2.66**	$ -	**$ 4.07**	$ 6.73	$ 6.73
S1-I39	Assembly and Erection of Tower Type B1, per kg, to be used for weight increases or decreases	KG	1	**$ 0.03**	**$ 2.66**	$ -	**$ 4.07**	$ 6.73	$ 6.73
S1-I40	Assembly and Erection of Tower Type B2, per kg, to be used for weight increases or decreases	KG	1	**$ 0.03**	**$ 2.85**	$ -	**$ 4.22**	$ 7.07	$ 7.07

Item No.	Description	Unit of Measure	Estimated Quantity	Unit Manhours(hrs)	Equipment($)	Material ($)	Labour($)	Total Unit Price($)	Subtotal Price ($)
S1-I41	Assembly and Erection of Tower Type C1, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.88	$ -	$ 4.28	$ 7.16	$ 7.16
S1-I42	Assembly and Erection of Tower Type C2, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.88	$ -	$ 4.28	$ 7.16	$ 7.16
S1-I43	Assembly and Erection of Tower Type D1, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.88	$ -	$ 4.28	$ 7.16	$ 7.16
S1-I44	Assembly and Erection of Tower Type D2, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.88	$ -	$ 4.28	$ 7.16	$ 7.16
S1-I45	Assembly and Erection of Tower Type E1, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.88	$ -	$ 4.28	$ 7.16	$ 7.16
S1-I46	Survey Cost	LS	1	$ -	$ 803,293.50	$ 40,164.53	$ 495,366.83	$ 1,338,824.86	$ 1,338,824.86
	Sub-total (S1-Ix) : Optional Pricing			238.53	$ 29,308.77	$ -	$ 33,582.81	$ 62,891.58	$ 1,401,716.44
	TOTAL VALUE THIS PROPOSAL (Tax Excluded):								269,564,473.14

FOR THE LOWER CHURCHILL PROJECT - MUSKRAT FALLS	
This Appendix forms part of the Proposal submitted by:	
Name of Bidder:	
Request For Proposal no: 505573-CT0327	
Signature:	
Date of Proposal:	

Notes:

VH00

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Project Estimate - Valard Construction Ltd.

Man-Hour Estimate; Primary Structures and equipment

External Data Input	
Link from Other Page	
Link for Other Page	

Indirect Cost Percentage: 0.32
Hours Per Day: 11.00 Travel Time
Project Dates:

Segment 1 1
Segment 2 3
Segment 3 1.5

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
	2	3	4 5	6	7 8.00	9	10	11	12	13	14	15	16
V-H00	**S1-A General Works (S1-Ax)**												
V-H01	**Mobilization and Demobilization**												
V::A01	**S1-A1 Initial Mobilization**	**Total structure count:**	**1**		**LS**			$ -		$ -	$ -	$ -	$ -
	S1-A1 Initial Mobilization												
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
			0				$ -	$ -		$ -			
V::A02	**S1-A2 Final Demobilization**	**Total structure count:**	**1**		**LS**			$ -		$ -	$ -	$ -	$ -
	S1-A2 Final Demobilization												
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ -	$ -		$ -			
V::A03	**S1-A3 Accommodation Camp Installation**	**Total structure count:**	**1**		**LS**			**$ 2,325,747.00**		**$ 2,325,747.00**	**$ 26,449,822.55**	**$ 28,775,569.55**	**$ 26,449,822.55**
	S1-A3 Accommodation Camp Installation												
	0 New Camps		2 moves										
	Permitting and Supervise Installation (Supervisory)	each	1	29	200.00	$ 167.19	$ 33,438.41	$ 33,438.41	1	$ 33,438.41			
	Site Preparation (Camp Site Preparation)	each	1	28	600.00	$ 965.54	$ 579,322.21	$ 579,322.21	1	$ 579,322.21			
	Install Radio System (OPGW Splice)	each	1	42	310.00	$ 297.67	$ 92,278.96	$ 92,278.96	1	$ 92,278.96			
	Set up Camp (Camp Setup)	each	1	45	440.00	$ 2,100.51	$ 924,226.16	$ 924,226.16	1	$ 924,226.16			
		each	1			$ -	$ -	$ -	1	$ -			
	Mobilize Camp in third party	each	1			$ -	$ -	$ -	1	$ -			
	Camp Move (Camp Haul)	each	1	46	2880.00	$ 241.83	$ 696,481.25	$ 696,481.25	1	$ 696,481.25			
					$ 43,700.00		$ 2,325,747.00	$ 2,325,747.00		$ 2,325,747.00			
V::A04	**S1-A4 Boarding and Lodging for Company/Engineer with 3 meals per day**	**Total structure count:**	**12000**		**person-day**			$ -		$ -	**$ 250.01**	**$ 250.01**	**$ 3,000,154.50**
	S1-A4 Boarding and Lodging for Company/Engineer with 3 meals per day												
		each	12000			$ -	$ -	$ -	12000	$ -			
		each	12000			$ -	$ -	$ -	12000	$ -			
		each	12000			$ -	$ -	$ -	12000	$ -			
		each	12000			$ -	$ -	$ -	12000	$ -			
		each	12000			$ -	$ -	$ -	12000	$ -			
		each	12000			$ -	$ -	$ -	12000	$ -			
							$ -	$ -		$ -			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::A05	**S1-A5 Meals for Company/Engineer visitors** S1-A5 Meals for Company/Engineer visitors	**Total structure count:**	**1000**	**meal**			**$ -**		**$ -**	**$ 41.68**	**$ 41.68**	**$ 41,677.15**
		each 1000			$ -	$ -	$ -	1000	$ -			
		each 1000			$ -	$ -	$ -	1000	$ -			
		each 1000			$ -	$ -	$ -	1000	$ -			
		each 1000			$ -	$ -	$ -	1000	$ -			
		each 1000			$ -	$ -	$ -	1000	$ -			
		each 1000			$ -	$ -	$ -	1000	$ -			
						$ -	$ -		$ -			
V::A06	**S1-A6 Parent Guarantee Article 7.4** S1-A6 Parent Guarantee Article 7.4	**Total structure count:**	**1**	**LS**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::A07	**S1-A7 Letter Of Credit Article 7.6** S1-A7 Letter Of Credit Article 7.6	**Total structure count:**	**1**	**LS**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::A08	**S1-A8 Performance Bonding Article 7.1** S1-A8 Performance Bonding Article 7.1	**Total structure count:**	**1**	**LS**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::A09	**S1-A9 Labour and Materials Bonding Article 7.2** S1-A9 Labour and Materials Bonding Article 7.2	**Total structure count:**	**1**	**LS**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H04	**S1-B Right-of-Way Clearing - Direct Costs (S1-Bx)**											
V::B01	**S1-B1 ROW Clearing**	**Total structure count:**	**1292**	**Ha**			**$ -**		**$ -**	**$ 19,550.00**	**$ 19,550.00**	**$ 25,258,600.00**
	S1-B1 ROW Clearing											
		each 1292			$ -	$ -	$ -	1292	$ -			
		each 1292			$ -	$ -	$ -	1292	$ -			
		each 1292			$ -	$ -	$ -	1292	$ -			
		each 1292			$ -	$ -	$ -	1292	$ -			
		each 1292			$ -	$ -	$ -	1292	$ -			
		each 1292			$ -	$ -	$ -	1292	$ -			
		each 1292			$ -	$ -	$ -	1292	$ -			
		each 1292			$ -	$ -	$ -	1292	$ -			
		each 1292			$ -	$ -	$ -	1292	$ -			
						$ -	$ -		$ -			
V::B02	**S1-B2 Removal of selected danger trees**	**Total structure count:**	**500**	**EA**			**$ -**		**$ -**	**$ 210.00**	**$ 210.00**	**$ 105,000.00**
	S1-B2 Removal of selected danger trees											
		each 500			$ -	$ -	$ -	500	$ -			
		each 500			$ -	$ -	$ -	500	$ -			
		each 500			$ -	$ -	$ -	500	$ -			
		each 500			$ -	$ -	$ -	500	$ -			
		each 500			$ -	$ -	$ -	500	$ -			
		each 500			$ -	$ -	$ -	500	$ -			
		each 500			$ -	$ -	$ -	500	$ -			
		each 500			$ -	$ -	$ -	500	$ -			
		each 500			$ -	$ -	$ -	500	$ -			
						$ -	$ -		$ -			
V::B03	**S1-B3 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized**	**Total structure count:**	**606**	**LM**			**$ -**		**$ -**	**$ 426.01**	**$ 426.01**	**$ 258,159.64**
	S1-B3 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2											
		each 606			$ -	$ -	$ -	606	$ -			
		each 606			$ -	$ -	$ -	606	$ -			
		each 606			$ -	$ -	$ -	606	$ -			
		each 606			$ -	$ -	$ -	606	$ -			
		each 606			$ -	$ -	$ -	606	$ -			
		each 606			$ -	$ -	$ -	606	$ -			
		each 606			$ -	$ -	$ -	606	$ -			
		each 606			$ -	$ -	$ -	606	$ -			
		each 606			$ -	$ -	$ -	606	$ -			
						$ -	$ -		$ -			
V::B04	**S1-B4 Supply and Installation of Bridge - 3 m**	**Total structure count:**	**71**	**EA**			**$ -**		**$ -**	**$ 32,700.00**	**$ 32,700.00**	**$ 2,321,700.00**
	S1-B4 Supply and Installation of Bridge - 3 m											
		each 71			$ -	$ -	$ -	71	$ -			
		each 71			$ -	$ -	$ -	71	$ -			
		each 71			$ -	$ -	$ -	71	$ -			
		each 71			$ -	$ -	$ -	71	$ -			
		each 71			$ -	$ -	$ -	71	$ -			
		each 71			$ -	$ -	$ -	71	$ -			
		each 71			$ -	$ -	$ -	71	$ -			
		each 71			$ -	$ -	$ -	71	$ -			
		each 71			$ -	$ -	$ -	71	$ -			
		each 71			$ -	$ -	$ -	71	$ -			
						$ -	$ -		$ -			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B05	**S1-B5 Supply and Installation of Bridge - 4 m** S1-B5 Supply and Installation of Bridge - 4 m	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 43,600.00**	**$ 43,600.00**	**$ -**
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B06	**S1-B6 Supply and Installation of Bridge - 5 m** S1-B6 Supply and Installation of Bridge - 5 m	**Total structure count:**	**9**	**EA**			**$ -**		**$ -**	**$ 54,500.00**	**$ 54,500.00**	**$ 490,500.00**
		each 9			$ -	$ -	$ -	9	$ -			
		each 9			$ -	$ -	$ -	9	$ -			
		each 9			$ -	$ -	$ -	9	$ -			
		each 9			$ -	$ -	$ -	9	$ -			
		each 9			$ -	$ -	$ -	9	$ -			
		each 9			$ -	$ -	$ -	9	$ -			
		each 9			$ -	$ -	$ -	9	$ -			
		each 9			$ -	$ -	$ -	9	$ -			
		each 9			$ -	$ -	$ -	9	$ -			
		each 9			$ -	$ -	$ -	9	$ -			
		each 9			$ -	$ -	$ -	9	$ -			
		each 9			$ -	$ -	$ -	9	$ -			
						$ -	$ -		$ -			
V::B07	**S1-B7 Supply and Installation of Bridge - 6 m** S1-B7 Supply and Installation of Bridge - 6 m	**Total structure count:**	**1**	**EA**			**$ -**		**$ -**	**$ 65,400.00**	**$ 65,400.00**	**$ 65,400.00**
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B08	**S1-B8 Supply and Installation of Bridge - 7 m** S1-B8 Supply and Installation of Bridge - 7 m	**Total structure count:**	**2**	**EA**			**$ -**		**$ -**	**$ 76,300.00**	**$ 76,300.00**	**$ 152,600.00**
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
						$ -	$ -		$ -			
V::B09	**S1-B9 Supply and Installation of Bridge - 8 m** S1-B9 Supply and Installation of Bridge - 8 m	**Total structure count:**	**1**	**EA**			**$ -**		**$ -**	**$ 87,200.00**	**$ 87,200.00**	**$ 87,200.00**
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::B10	**S1-B10 Supply and Installation of Bridge - 10 m** S1-B10 Supply and Installation of Bridge - 10 m	**Total structure count:**	**3**	**EA**			**$ -**		**$ -**	**$ 109,000.00**	**$ 109,000.00**	**$ 327,000.00**
		each	3		$ -	$ -	$ -	3	$ -			
		each	3		$ -	$ -	$ -	3	$ -			
		each	3		$ -	$ -	$ -	3	$ -			
		each	3		$ -	$ -	$ -	3	$ -			
		each	3		$ -	$ -	$ -	3	$ -			
		each	3		$ -	$ -	$ -	3	$ -			
		each	3		$ -	$ -	$ -	3	$ -			
		each	3		$ -	$ -	$ -	3	$ -			
		each	3		$ -	$ -	$ -	3	$ -			
		each	3		$ -	$ -	$ -	3	$ -			
		each	3		$ -	$ -	$ -	3	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B11	**S1-B11 Supply and Installation of Bridge - 13 m** S1-B11 Supply and Installation of Bridge - 13 m	**Total structure count:**	**1**	**EA**			**$ -**		**$ -**	**$ 141,700.00**	**$ 141,700.00**	**$ 141,700.00**
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::B12	**S1-B12 Supply and Installation of Bridge - 14 m** S1-B12 Supply and Installation of Bridge - 14 m	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 152,600.00**	**$ 152,600.00**	**$ -**
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B13	**S1-B13 Supply and Installation of Bridge - 15 m** S1-B13 Supply and Installation of Bridge - 15 m	**Total structure count:**	**2**	**EA**			**$ -**		**$ -**	**$ 163,500.00**	**$ 163,500.00**	**$ 327,000.00**
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
		each 2			$ -	$ -	$ -	2	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B14	**S1-B14 Supply and Installation of Bridge - 16 m** S1-B14 Supply and Installation of Bridge - 16 m	**Total structure count:**	**1**	**EA**			**$ -**		**$ -**	**$ 174,400.00**	**$ 174,400.00**	**$ 174,400.00**
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::B15	**S1-B15 Supply and Installation of Bridge - 25 m** S1-B15 Supply and Installation of Bridge - 25 m	**Total structure count:**	**1**	**EA**			**$ -**		**$ -**	**$ 272,500.00**	**$ 272,500.00**	**$ 272,500.00**
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::B16	**S1-B16 Supply and Installation of Bridge - 35 m** S1-B16 Supply and Installation of Bridge - 35 m	**Total structure count:**	**1**	**EA**			**$ -**		**$ -**	**$ 381,500.00**	**$ 381,500.00**	**$ 381,500.00**
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::B17	**S1-B17 Supply and Installation of Bridge - 50 m** S1-B17 Supply and Installation of Bridge - 50 m	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 545,000.00**	**$ 545,000.00**	**$ -**
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B18	**S1-B18 Supply and Installation of Bridge - 60 m** S1-B18 Supply and Installation of Bridge - 60 m	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 654,000.00**	**$ 654,000.00**	**$ -**
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B19	**S1-B19 Supply and Installation of Bridge - 65 m** S1-B19 Supply and Installation of Bridge - 65 m	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 708,500.00**	**$ 708,500.00**	**$ -**
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B20	**S1-B20 Installation of Corduroy Road** S1-B20 Installation of Corduroy Road	**Total structure count:**	**3528**	**LM**			**$ -**		**$ -**	**$ 139.45**	**$ 139.45**	**$ 491,976.07**
		each 3528			$ -	$ -	$ -	3528	$ -			
		each 3528			$ -	$ -	$ -	3528	$ -			
		each 3528			$ -	$ -	$ -	3528	$ -			
		each 3528			$ -	$ -	$ -	3528	$ -			
		each 3528			$ -	$ -	$ -	3528	$ -			
		each 3528			$ -	$ -	$ -	3528	$ -			
		each 3528			$ -	$ -	$ -	3528	$ -			
		each 3528			$ -	$ -	$ -	3528	$ -			
		each 3528			$ -	$ -	$ -	3528	$ -			
						$ -	$ -		$ -			
V::B21	**S1-B21 Installation of Access Road - Access Class 3** S1-B21 Installation of Access Road - Access Class 3	**Total structure count:**	**173**	**KM**			**$ -**		**$ -**	**$ 80,700.00**	**$ 80,700.00**	**$ 13,961,100.00**
		each 173			$ -	$ -	$ -	173	$ -			
		each 173			$ -	$ -	$ -	173	$ -			
		each 173			$ -	$ -	$ -	173	$ -			
		each 173			$ -	$ -	$ -	173	$ -			
		each 173			$ -	$ -	$ -	173	$ -			
		each 173			$ -	$ -	$ -	173	$ -			
		each 173			$ -	$ -	$ -	173	$ -			
		each 173			$ -	$ -	$ -	173	$ -			
		each 173			$ -	$ -	$ -	173	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total		Crew No.	Crew Cost Hours per unit	 Hourly Rate	 Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B22	**S1-B22 Installation of Access Road - Access Trail** S1-B22 Installation of Access Road - Access Trail	**Total structure count:**	**11**		**KM**			**$ -**		**$ -**	**$ 80,700.00**	**$ 80,700.00**	**$ 887,700.00**
		each	11			$ -	$ -	$ -	11	$ -			
		each	11			$ -	$ -	$ -	11	$ -			
		each	11			$ -	$ -	$ -	11	$ -			
		each	11			$ -	$ -	$ -	11	$ -			
		each	11			$ -	$ -	$ -	11	$ -			
		each	11			$ -	$ -	$ -	11	$ -			
		each	11			$ -	$ -	$ -	11	$ -			
		each	11			$ -	$ -	$ -	11	$ -			
							$ -	$ -		$ -			
V::B23	**S1-B23 Installation of Access Road - Bypass Trail** S1-B23 Installation of Access Road - Bypass Trail	**Total structure count:**	**18**		**KM**			$ -		$ -	**$ 80,700.00**	**$ 80,700.00**	**$ 1,452,600.00**
		each	18			$ -	$ -	$ -	18	$ -			
		each	18			$ -	$ -	$ -	18	$ -			
		each	18			$ -	$ -	$ -	18	$ -			
		each	18			$ -	$ -	$ -	18	$ -			
		each	18			$ -	$ -	$ -	18	$ -			
		each	18			$ -	$ -	$ -	18	$ -			
		each	18			$ -	$ -	$ -	18	$ -			
		each	18			$ -	$ -	$ -	18	$ -			
							$ -	$ -		$ -			
V::B24	**S1-B24 Installation of Access Road - Ice Bridge** S1-B24 Installation of Access Road - Ice Bridge	**Total structure count:**	**64**	LM				**$ -**		**$ -**	**$ 7,200.00**	**$ 7,200.00**	**$ 460,800.00**
		each	64			$ -	$ -	$ -	64	$ -			
		each	64			$ -	$ -	$ -	64	$ -			
		each	64			$ -	$ -	$ -	64	$ -			
		each	64			$ -	$ -	$ -	64	$ -			
		each	64			$ -	$ -	$ -	64	$ -			
		each	64			$ -	$ -	$ -	64	$ -			
		each	64			$ -	$ -	$ -	64	$ -			
		each	64			$ -	$ -	$ -	64	$ -			
		each	64			$ -	$ -	$ -	64	$ -			
							$ -	$ -		$ -			
V-H06 V::B25	**S1-B Right-of-Way Clearing for Wood Pole Electrode Line- Direct Costs (S1-Bx)** **S1-B25 ROW Clearing** S1-B25 ROW Clearing	**Total structure count:**	**0**		**Ha**			**$ -**		**$ -**	**$ 19,550.00**	**$ 19,550.00**	**$ -**
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B26	**S1-B26 Removal of selected danger trees** S1-B26 Removal of selected danger trees	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 210.00**	**$ 210.00**	**$ -**
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B27	**S1-B27 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized** S1-B27 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2	**Total structure count:**	**0**	**LM**			**$ -**		**$ -**	**$ 426.01**	**$ 426.01**	**$ -**
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
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		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B28	**S1-B28 Supply and Installation of Bridge - 3 m** S1-B28 Supply and Installation of Bridge - 3 m	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 32,700.00**	**$ 32,700.00**	**$ -**
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
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		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B29	**S1-B29 Supply and Installation of Bridge - 4 m**	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 43,600.00**	**$ 43,600.00**	**$ -**
	S1-B29 Supply and Installation of Bridge - 4 m											
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
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		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
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		each	0			$ -	$ -	$ -	0	$ -		
							$ -	$ -		$ -		
V::B30	**S1-B30 Supply and Installation of Bridge - 5 m**	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 54,500.00**	**$ 54,500.00**	**$ -**
	S1-B30 Supply and Installation of Bridge - 5 m											
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
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		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
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		each	0			$ -	$ -	$ -	0	$ -		
							$ -	$ -		$ -		
V::B31	**S1-B31 Supply and Installation of Bridge - 6 m**	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 65,400.00**	**$ 65,400.00**	**$ -**
	S1-B31 Supply and Installation of Bridge - 6 m											
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
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							$ -	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units	Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B32	**S1-B32 Supply and Installation of Bridge - 7 m**	**Total structure count:**	**0**		**EA**			**$ -**		**$ -**	**$ 76,300.00**	**$ 76,300.00**	**$ -**
	S1-B32 Supply and Installation of Bridge - 7 m												
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
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		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			
V::B33	**S1-B33 Supply and Installation of Bridge - 8 m**	**Total structure count:**	**0**		**EA**			**$ -**		**$ -**	**$ 87,200.00**	**$ 87,200.00**	**$ -**
	S1-B33 Supply and Installation of Bridge - 8 m												
		each	0			$ -	$ -	$ -	0	$ -			
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							$ -	$ -		$ -			
V::B34	**S1-B34 Supply and Installation of Bridge - 10 m**	**Total structure count:**	**0**		**EA**			**$ -**		**$ -**	**$ 109,000.00**	**$ 109,000.00**	**$ -**
	S1-B34 Supply and Installation of Bridge - 10 m												
		each	0			$ -	$ -	$ -	0	$ -			
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		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B35	**S1-B35 Supply and Installation of Bridge - 13 m**	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 141,700.00**	**$ 141,700.00**	**$ -**
	S1-B35 Supply and Installation of Bridge - 13 m											
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
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		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B36	**S1-B36 Supply and Installation of Bridge - 14 m**	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 152,600.00**	**$ 152,600.00**	**$ -**
	S1-B36 Supply and Installation of Bridge - 14 m											
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
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		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B37	**S1-B37 Supply and Installation of Bridge - 15 m**	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 163,500.00**	**$ 163,500.00**	**$ -**
	S1-B37 Supply and Installation of Bridge - 15 m											
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
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NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units	Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B38	**S1-B38 Supply and Installation of Bridge - 16 m** S1-B38 Supply and Installation of Bridge - 16 m	**Total structure count:**	**0**		**EA**			**$ -**		**$ -**	**$ 174,400.00**	**$ 174,400.00**	**$ -**
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
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		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			
V::B39	**S1-B39 Supply and Installation of Bridge - 25 m** S1-B39 Supply and Installation of Bridge - 25 m	**Total structure count:**	**0**		**EA**			**$ -**		**$ -**	**$ 272,500.00**	**$ 272,500.00**	**$ -**
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
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		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			
V::B40	**S1-B40 Supply and Installation of Bridge - 35 m** S1-B40 Supply and Installation of Bridge - 35 m	**Total structure count:**	**0**		**EA**			**$ -**		**$ -**	**$ 381,500.00**	**$ 381,500.00**	**$ -**
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
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NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B41	**S1-B41 Supply and Installation of Bridge - 50 m** S1-B41 Supply and Installation of Bridge - 50 m	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 545,000.00**	**$ 545,000.00**	**$ -**
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
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		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B42	**S1-B42 Supply and Installation of Bridge - 60 m** S1-B42 Supply and Installation of Bridge - 60 m	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 654,000.00**	**$ 654,000.00**	**$ -**
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
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		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B43	**S1-B43 Supply and Installation of Bridge - 65 m** S1-B43 Supply and Installation of Bridge - 65 m	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 708,500.00**	**$ 708,500.00**	**$ -**
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units	Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B44	**S1-B44 Installation of Corduroy Road**	**Total structure count:**	**0**		**LM**			**$ -**		**$ -**	**$ 139.45**	**$ 139.45**	**$ -**
	S1-B44 Installation of Corduroy Road												
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			
V::B45	**S1-B45 Installation of Access Road - Access Class 3**	**Total structure count:**	**0**		**KM**			**$ -**		**$ -**	**$ 80,700.00**	**$ 80,700.00**	**$ -**
	S1-B45 Installation of Access Road - Access Class 3												
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			
V::B46	**S1-B46 Installation of Access Road - Access Trail**	**Total structure count:**	**0**		**KM**			**$ -**		**$ -**	**$ 80,700.00**	**$ 80,700.00**	**$ -**
	S1-B46 Installation of Access Road - Access Trail												
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B47	**S1-B47 Installation of Access Road - Bypass Trail**	**Total structure count:**	**0**	**KM**			**$ -**		**$ -**	**$ 80,700.00**	**$ 80,700.00**	**$ -**
	S1-B47 Installation of Access Road - Bypass Trail											
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			

Payment Item	Description	Units	Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)												
V-H07	**S1-C Tower Foundation Construction (S1-Cx)**												
V-H08	**Guy Wire Anchors**												
V::C01	**S1-C1 Installation of Guy Wire Anchor in soil as per design drawings and** **Total structure count:**		**15500**		**LM**			**$ -**		**$ -**	**$ 468.58**	**$ 468.58**	**$ 7,263,053.52**
	S1-C1 Installation of Guy Wire Anchor in soil as per design drawings and technical specification												
		each	15500			$ -	$ -	$ -	15500	$ -			
		each	15500			$ -	$ -	$ -	15500	$ -			
		each	15500			$ -	$ -	$ -	15500	$ -			
		each	15500			$ -	$ -	$ -	15500	$ -			
		each	15500			$ -	$ -	$ -	15500	$ -			
		each	15500			$ -	$ -	$ -	15500	$ -			
		each	15500			$ -	$ -	$ -	15500	$ -			
		each	15500			$ -	$ -	$ -	15500	$ -			
		each	15500			$ -	$ -	$ -	15500	$ -			
		each	15500			$ -	$ -	$ -	15500	$ -			
		each	15500			$ -	$ -	$ -	15500	$ -			
		each	15500			$ -	$ -	$ -	15500	$ -			
							$ -	$ -		$ -			
V::C02	**S1-C2 Installation of Guy Wire Anchor in rock as per design drawings and** **Total structure count:**		**14500**		**LM**			**$ -**		**$ -**	**$ 432.81**	**$ 432.81**	**$ 6,275,676.25**
	S1-C2 Installation of Guy Wire Anchor in rock as per design drawings and technical specification												
		each	14500			$ -	$ -	$ -	14500	$ -			
		each	14500			$ -	$ -	$ -	14500	$ -			
		each	14500			$ -	$ -	$ -	14500	$ -			
		each	14500			$ -	$ -	$ -	14500	$ -			
		each	14500			$ -	$ -	$ -	14500	$ -			
		each	14500			$ -	$ -	$ -	14500	$ -			
		each	14500			$ -	$ -	$ -	14500	$ -			
		each	14500			$ -	$ -	$ -	14500	$ -			
		each	14500			$ -	$ -	$ -	14500	$ -			
		each	14500			$ -	$ -	$ -	14500	$ -			
		each	14500			$ -	$ -	$ -	14500	$ -			
							$ -	$ -		$ -			
V::C02-1	**S1-C2 Testing of Guy Wire Anchor up to 550kN as per design drawings and** **Total structure count:**		**1304**		**Ea**			**$ 75,949.71**		**$ 58.24**	**$ 994.35**	**$ 1,052.60**	**$ 1,296,636.79**
	S1-C2 Testing of Guy Wire Anchor up to 550kN as per design drawings and technical specification												
	Supervise installation Supervisory	each	1304	29	0.25	$ 167.19	$ 41.80	$ 54,504.61	1304	$ 41.80			
	Placement survey Foundation Survey ($250/h)	each	1304	18	0.05	$ 328.91	$ 16.45	$ 21,445.10	1304	$ 16.45			
		each	1304			$ -	$ -	$ -	1304	$ -			
		each	1304			$ -	$ -	$ -	1304	$ -			
		each	1304			$ -	$ -	$ -	1304	$ -			
		each	1304			$ -	$ -	$ -	1304	$ -			
		each	1304			$ -	$ -	$ -	1304	$ -			
		each	1304			$ -	$ -	$ -	1304	$ -			
		each	1304			$ -	$ -	$ -	1304	$ -			
		each	1304			$ -	$ -	$ -	1304	$ -			
							$ 58.24	$ 75,949.71		$ 58.24			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C02-2	**S1-C2 Testing of Guy Wire Anchorup to 900kN as per design drawings and** S1-C2 Testing of Guy Wire Anchorup to 900kN as per design drawings and technical specification	**Total structure count:**	**720**	**Ea**			**$ 41,935.42**		**$ 58.24**	**$ 994.35**	**$ 1,052.60**	**$ 715,934.43**
	Supervise installation Supervisory	each	720	29	0.25	$ 167.19	$ 41.80	$ 30,094.57	720	$ 41.80		
	Placement survey Foundation Survey ($250/h)	each	720	18	0.05	$ 328.91	$ 16.45	$ 11,840.85	720	$ 16.45		
		each	720			$ -	$ -	$ -	720	$ -		
		each	720			$ -	$ -	$ -	720	$ -		
		each	720			$ -	$ -	$ -	720	$ -		
		each	720			$ -	$ -	$ -	720	$ -		
		each	720			$ -	$ -	$ -	720	$ -		
		each	720			$ -	$ -	$ -	720	$ -		
		each	720			$ -	$ -	$ -	720	$ -		
		each	720			$ -	$ -	$ -	720	$ -		
		each	720			$ -	$ -	$ -	720	$ -		
							$ 58.24	$ 41,935.42		$ 58.24		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H09	**Grillage Foundations**											
V::C03	**S1-C3 Assembly and Installation of Foundation Types A1-1 (100 kPa) as per Dwg Total structure count:**	**15**		**EA**			**$ 150,729.33**		**$ 10,048.62**	**$ 278.62**	**$ 10,327.24**	**$ 4,179.34**
	S1-C3 Assembly and Installation of Foundation Types A1-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A1.											

Steel Weight (lb) = 4718 Granular (m3) = 3 Excavation (m3) = 153 Backfill (m3) = 151

Haul	Foundation Haul	each	15	17	1.97	$ 441.04	$ 867.00	$ 13,005.00	15	$ 867.00	
Excavate	Found Excavation	each	15	19	2.70	$ 1,143.76	$ 3,092.67	$ 46,390.10	15	$ 3,092.67	
Assemble and Install	Grillage Installation	each	15	20	3.10	$ 1,002.72	$ 3,105.27	$ 46,579.06	15	$ 3,105.27	
Backfill & Compact	Backfill and Compact	each	15	21	2.70	$ 959.25	$ 2,593.76	$ 38,906.35	15	$ 2,593.76	
Cleanup	Site Cleanup	each	15	22	2.00	$ 194.96	$ 389.92	$ 5,848.82	15	$ 389.92	
		each	15			$ -	$ -	$ -	15	$ -	
							$ 10,048.62	$ 150,729.33		$ 10,048.62	

V::C04	**S1-C4 Assembly and Installation of Foundation Types A2-1 (100 kPa) as per Dwg Total structure count:**	**3**		**EA**			**$ 42,603.52**		**$ 14,201.17**	**$ 468.98**	**$ 14,670.15**	**$ 1,406.93**
	S1-C4 Assembly and Installation of Foundation Types A2-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A2.											

Steel Weight (lb) = 9259 Granular (m3) = 4 Excavation (m3) = 209 Backfill (m3) = 204

Haul	Foundation Haul	each	3	17	3.86	$ 441.04	$ 1,701.59	$ 5,104.77	3	$ 1,701.59	
Excavate	Found Excavation	each	3	19	3.32	$ 1,143.76	$ 3,796.45	$ 11,389.34	3	$ 3,796.45	
Install	Grillage Installation	each	3	20	5.12	$ 1,002.72	$ 5,129.22	$ 15,387.67	3	$ 5,129.22	
Backfill & Compact	Backfill and Compact	each	3	21	3.32	$ 959.25	$ 3,184.00	$ 9,551.99	3	$ 3,184.00	
Cleanup	Site Cleanup	each	3	22	2.00	$ 194.96	$ 389.92	$ 1,169.76	3	$ 389.92	
		each	3			$ -	$ -	$ -	3	$ -	
		each	3			$ -	$ -	$ -	3	$ -	
		each	3			$ -	$ -	$ -	3	$ -	
							$ 14,201.17	$ 42,603.52		$ 14,201.17	

V::C05	**S1-C5 Assembly and Installation of Foundation Types A3-1 (100 kPa) as per Dwg Total structure count:**	**1**		**EA**			**$ 12,003.92**		**$ 12,003.92**	**$ 377.13**	**$ 12,381.04**	**$ 377.13**
	S1-C5 Assembly and Installation of Foundation Types A3-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A3.											

Steel Weight (lb) = 6724 Granular (m3) = 4 Excavation (m3) = 183 Backfill (m3) = 179

Haul	Foundation Haul	each	1	17	2.80	$ 441.04	$ 1,235.68	$ 1,235.68	1	$ 1,235.68	
Excavate	Found Excavation	each	1	19	3.03	$ 1,143.76	$ 3,469.33	$ 3,469.33	1	$ 3,469.33	
Install	Grillage Installation	each	1	20	3.99	$ 1,002.72	$ 3,999.35	$ 3,999.35	1	$ 3,999.35	
Backfill & Compact	Backfill and Compact	each	1	21	3.03	$ 959.25	$ 2,909.65	$ 2,909.65	1	$ 2,909.65	
Cleanup	Site Cleanup	each	1	22	2.00	$ 194.96	$ 389.92	$ 389.92	1	$ 389.92	
		each	1			$ -	$ -	$ -	1	$ -	
		each	1			$ -	$ -	$ -	1	$ -	
		each	1			$ -	$ -	$ -	1	$ -	
							$ 12,003.92	$ 12,003.92		$ 12,003.92	

V::C06	**S1-C6 Assembly and Installation of Foundation Types A4-1 (100 kPa) as per Dwg Total structure count:**	**6**		**EA**			**$ 85,207.05**		**$ 14,201.17**	**$ 468.98**	**$ 14,670.15**	**$ 2,813.86**
	S1-C6 Assembly and Installation of Foundation Types A4-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A4.											

Steel Weight (lb) = 9259 Granular (m3) = 4 Excavation (m3) = 209 Backfill (m3) = 204

Haul	Foundation Haul	each	6	17	3.86	$ 441.04	$ 1,701.59	$ 10,209.53	6	$ 1,701.59	
Excavate	Found Excavation	each	6	19	3.32	$ 1,143.76	$ 3,796.45	$ 22,778.68	6	$ 3,796.45	
Install	Grillage Installation	each	6	20	5.12	$ 1,002.72	$ 5,129.22	$ 30,775.34	6	$ 5,129.22	
Backfill & Compact	Backfill and Compact	each	6	21	3.32	$ 959.25	$ 3,184.00	$ 19,103.97	6	$ 3,184.00	
Cleanup	Site Cleanup	each	6	22	2.00	$ 194.96	$ 389.92	$ 2,339.53	6	$ 389.92	
		each	6			$ -	$ -	$ -	6	$ -	
		each	6			$ -	$ -	$ -	6	$ -	
		each	6			$ -	$ -	$ -	6	$ -	
							$ 14,201.17	$ 85,207.05		$ 14,201.17	

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C07	**S1-C7 Assembly and Installation of Foundation Types B1-1 (100 kPa) as per Dwg Total structure count:**		**1**	**EA**			**$ 15,855.61**		**$ 15,855.61**	**$ 538.82**	**$ 16,394.43**	**$ 538.82**
	S1-C7 Assembly and Installation of Foundation Types B1-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types B1.											
	Steel Weight (lb) = 11155 Granular (m3) = 5 Excavation (m3) = 228 Backfill (m3) = 223											
	Haul (Foundation Haul)	each	1	17	4.65	$ 441.04	$ 2,050.01	$ 2,050.01	1	$ 2,050.01		
	Excavate (Found Excavation)	each	1	19	3.54	$ 1,143.76	$ 4,047.20	$ 4,047.20	1	$ 4,047.20		
	Install (Grillage Installation)	each	1	20	5.96	$ 1,002.72	$ 5,974.17	$ 5,974.17	1	$ 5,974.17		
	Backfill & Compact (Backfill and Compact)	each	1	21	3.54	$ 959.25	$ 3,394.30	$ 3,394.30	1	$ 3,394.30		
	Cleanup (Site Cleanup)	each	1	22	2.00	$ 194.96	$ 389.92	$ 389.92	1	$ 389.92		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
							$ 15,855.61	$ 15,855.61		$ 15,855.61		
V::C08	**S1-C8 Assembly and Installation of Foundation Types B2-1 (100 kPa) as per Dwg Total structure count:**		**92**	**EA**			**$ 1,571,829.03**		**$ 17,085.10**	**$ 446.78**	**$ 17,531.88**	**$ 41,103.90**
	S1-C8 Assembly and Installation of Foundation Types B2-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types B2.											
	Steel Weight (lb) = 8424 Granular (m3) = 4 Excavation (m3) = 355 Backfill (m3) = 350											
	Haul (Foundation Haul)	each	92	17	3.51	$ 441.04	$ 1,548.04	$ 142,419.71	92	$ 1,548.04		
	Excavate (Found Excavation)	each	92	19	4.94	$ 1,143.76	$ 5,650.95	$ 519,887.62	92	$ 5,650.95		
	Install (Grillage Installation)	each	92	20	4.74	$ 1,002.72	$ 4,756.86	$ 437,630.69	92	$ 4,756.86		
	Backfill & Compact (Backfill and Compact)	each	92	21	4.94	$ 959.25	$ 4,739.33	$ 436,018.25	92	$ 4,739.33		
	Cleanup (Site Cleanup)	each	92	22	2.00	$ 194.96	$ 389.92	$ 35,872.76	92	$ 389.92		
		each	92			$ -	$ -	$ -	92	$ -		
		each	92			$ -	$ -	$ -	92	$ -		
		each	92			$ -	$ -	$ -	92	$ -		
							$ 17,085.10	$ 1,571,829.03		$ 17,085.10		
V::C09	**S1-C9 Assembly and Installation of Foundation Types A1-1A (250 kPa) as per Total structure count:**		**85**	**EA**			**$ 655,305.38**		**$ 7,709.48**	**$ 126.90**	**$ 7,836.38**	**$ 10,786.72**
	S1-C9 Assembly and Installation of Foundation Types A1-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A1.											
	Steel Weight (lb) = 2866 Granular (m3) = 1 Excavation (m3) = 103 Backfill (m3) = 102											
	Haul (Foundation Haul)	each	85	17	1.19	$ 441.04	$ 526.68	$ 44,767.98	85	$ 526.68		
	Excavate (Found Excavation)	each	85	19	2.15	$ 1,143.76	$ 2,454.43	$ 208,626.34	85	$ 2,454.43		
	Install (Grillage Installation)	each	85	20	2.27	$ 1,002.72	$ 2,279.97	$ 193,797.45	85	$ 2,279.97		
	Backfill & Compact (Backfill and Compact)	each	85	21	2.15	$ 959.25	$ 2,058.47	$ 174,970.30	85	$ 2,058.47		
	Cleanup (Site Cleanup)	each	85	22	2.00	$ 194.96	$ 389.92	$ 33,143.31	85	$ 389.92		
		each	85			$ -	$ -	$ -	85	$ -		
		each	85			$ -	$ -	$ -	85	$ -		
		each	85			$ -	$ -	$ -	85	$ -		
							$ 7,709.48	$ 655,305.38		$ 7,709.48		
V::C10	**S1-C10 Assembly and Installation of Foundation Types A2-1A (250 kPa) as per Total structure count:**		**16**	**EA**			**$ 175,636.91**		**$ 10,977.31**	**$ 246.96**	**$ 11,224.27**	**$ 3,951.38**
	S1-C10 Assembly and Installation of Foundation Types A2-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A2.											
	Steel Weight (lb) = 5512 Granular (m3) = 2 Excavation (m3) = 143 Backfill (m3) = 141											
	Haul (Foundation Haul)	each	16	17	3.80	$ 441.04	$ 1,674.41	$ 26,790.61	16	$ 1,674.41		
	Excavate (Found Excavation)	each	16	19	2.59	$ 1,143.76	$ 2,966.26	$ 47,460.20	16	$ 2,966.26		
	Install (Grillage Installation)	each	16	20	3.45	$ 1,002.72	$ 3,458.97	$ 55,343.54	16	$ 3,458.97		
	Backfill & Compact (Backfill and Compact)	each	16	21	2.59	$ 959.25	$ 2,487.74	$ 39,803.82	16	$ 2,487.74		
	Cleanup (Site Cleanup)	each	16	22	2.00	$ 194.96	$ 389.92	$ 6,238.74	16	$ 389.92		
		each	16			$ -	$ -	$ -	16	$ -		
		each	16			$ -	$ -	$ -	16	$ -		
		each	16			$ -	$ -	$ -	16	$ -		
							$ 10,977.31	$ 175,636.91		$ 10,977.31		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C11	**S1-C11 Assembly and Installation of Foundation Types A3-1A (250 kPa) as per** **Total structure count:**		**6**	**EA**			**$ 50,637.26**		**$ 8,439.54**	**$ 168.54**	**$ 8,608.09**	**$ 1,011.26**
	S1-C11 Assembly and Installation of Foundation Types A3-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A3.											
	Steel Weight (lb) = 3483 Granular (m3) = 2 Excavation (m3) = 118 Backfill (m3) = 116											
	Haul (Foundation Haul)	each	6	17	1.45	$ 441.04	$ 640.12	$ 3,840.73	6	$ 640.12		
	Excavate (Found Excavation)	each	6	19	2.31	$ 1,143.76	$ 2,640.17	$ 15,841.04	6	$ 2,640.17		
	Install (Grillage Installation)	each	6	20	2.55	$ 1,002.72	$ 2,555.07	$ 15,330.42	6	$ 2,555.07		
	Backfill & Compact (Backfill and Compact)	each	6	21	2.31	$ 959.25	$ 2,214.26	$ 13,285.53	6	$ 2,214.26		
	Cleanup (Site Cleanup)	each	6	22	2.00	$ 194.96	$ 389.92	$ 2,339.53	6	$ 389.92		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
							$ 8,439.54	$ 50,637.26		$ 8,439.54		
V::C12	**S1-C12 Assembly and Installation of Foundation Types A4-1A (250 kPa) as per** **Total structure count:**		**32**	**EA**			**$ 330,103.81**		**$ 10,315.74**	**$ 246.96**	**$ 10,562.71**	**$ 7,902.76**
	S1-C12 Assembly and Installation of Foundation Types A4-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A4.											
	Steel Weight (lb) = 5512 Granular (m3) = 2 Excavation (m3) = 143 Backfill (m3) = 141											
	Haul (Foundation Haul)	each	32	17	2.30	$ 441.04	$ 1,012.85	$ 32,411.21	32	$ 1,012.85		
	Excavate (Found Excavation)	each	32	19	2.59	$ 1,143.76	$ 2,966.26	$ 94,920.40	32	$ 2,966.26		
	Install (Grillage Installation)	each	32	20	3.45	$ 1,002.72	$ 3,458.97	$ 110,687.08	32	$ 3,458.97		
	Backfill & Compact (Backfill and Compact)	each	32	21	2.59	$ 959.25	$ 2,487.74	$ 79,607.64	32	$ 2,487.74		
	Cleanup (Site Cleanup)	each	32	22	2.00	$ 194.96	$ 389.92	$ 12,477.48	32	$ 389.92		
		each	32			$ -	$ -	$ -	32	$ -		
		each	32			$ -	$ -	$ -	32	$ -		
		each	32			$ -	$ -	$ -	32	$ -		
							$ 10,315.74	$ 330,103.81		$ 10,315.74		
V::C13	**S1-C13 Assembly and Installation of Foundation Types B1-1A (250 kPa) as per** **Total structure count:**		**3**	**EA**			**$ 33,115.34**		**$ 11,038.45**	**$ 264.42**	**$ 11,302.87**	**$ 793.27**
	S1-C13 Assembly and Installation of Foundation Types B1-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types B1.											
	Steel Weight (lb) = 5754 Granular (m3) = 2 Excavation (m3) = 149 Backfill (m3) = 146											
	Haul (Foundation Haul)	each	3	17	3.40	$ 441.04	$ 1,498.46	$ 4,495.37	3	$ 1,498.46		
	Excavate (Found Excavation)	each	3	19	2.65	$ 1,143.76	$ 3,036.43	$ 9,109.30	3	$ 3,036.43		
	Install (Grillage Installation)	each	3	20	3.56	$ 1,002.72	$ 3,567.05	$ 10,701.14	3	$ 3,567.05		
	Backfill & Compact (Backfill and Compact)	each	3	21	2.65	$ 959.25	$ 2,546.59	$ 7,639.77	3	$ 2,546.59		
	Cleanup (Site Cleanup)	each	3	22	2.00	$ 194.96	$ 389.92	$ 1,169.76	3	$ 389.92		
		each	3			$ -	$ -	$ -	3	$ -		
		each	3			$ -	$ -	$ -	3	$ -		
		each	3			$ -	$ -	$ -	3	$ -		
							$ 11,038.45	$ 33,115.34		$ 11,038.45		
V::C14	**S1-C14 Assembly and Installation of Foundation Types B2-1A (250 kPa) as per** **Total structure count:**		**0**	**EA**			**$ -**		**$ 17,526.14**	**$ 446.78**	**$ 17,972.92**	**$ -**
	S1-C14 Assembly and Installation of Foundation Types B2-1A (250 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types B2.											
	Steel Weight (lb) = 8424 Granular (m3) = 4 Excavation (m3) = 355 Backfill (m3) = 350											
	Haul (Foundation Haul)	each	0	17	4.51	$ 441.04	$ 1,989.08	$ -	0	$ -		
	Excavate (Found Excavation)	each	0	19	4.94	$ 1,143.76	$ 5,650.95	$ -	0	$ -		
	Install (Grillage Installation)	each	0	20	4.74	$ 1,002.72	$ 4,756.86	$ -	0	$ -		
	Backfill & Compact (Backfill and Compact)	each	0	21	4.94	$ 959.25	$ 4,739.33	$ -	0	$ -		
	Cleanup (Site Cleanup)	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
							$ 17,526.14	$ -		$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C15	**S1-C15 Assembly and Installation of Foundation Types C1-1 (100 kPa) as per** **Total structure count:**		**28**	**EA**			**$ 490,968.52**		**$ 17,534.59**	**$ 471.41**	**$ 18,006.00**	**$ 13,199.40**
	S1-C15 Assembly and Installation of Foundation Types C1-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types C1.											
	Steel Weight (lb) = 8752 Granular (m3) = 4 Excavation (m3) = 365 Backfill (m3) = 361											
	Haul (Foundation Haul)	each	28	17	3.65	$ 441.04	$ 1,608.41	$ 45,035.37	28	$ 1,608.41		
	Excavate (Found Excavation)	each	28	19	5.06	$ 1,143.76	$ 5,782.97	$ 161,923.09	28	$ 5,782.97		
	Install (Grillage Installation)	each	28	20	4.89	$ 1,002.72	$ 4,903.25	$ 137,290.95	28	$ 4,903.25		
	Backfill & Compact (Backfill and Compact)	each	28	21	5.06	$ 959.25	$ 4,850.05	$ 135,801.32	28	$ 4,850.05		
	Cleanup (Site Cleanup)	each	28	22	2.00	$ 194.96	$ 389.92	$ 10,917.80	28	$ 389.92		
		each	28			$ -	$ -	$ -	28	$ -		
		each	28			$ -	$ -	$ -	28	$ -		
		each	28			$ -	$ -	$ -	28	$ -		
							$ 17,534.59	$ 490,968.52		$ 17,534.59		
V::C16	**S1-C16 Assembly and Installation of Foundation Types C2-1 (100 kPa) as per** **Total structure count:**		**44**	**EA**			$ 877,711.89		$ 19,948.00	**$ 577.46**	**$ 20,525.46**	**$ 25,408.15**
	S1-C16 Assembly and Installation of Foundation Types C2-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types C2.											
	Steel Weight (lb) = 10252 Granular (m3) = 5 Excavation (m3) = 409 Backfill (m3) = 404											
	Haul (Foundation Haul)	each	44	17	5.27	$ 441.04	$ 2,324.94	$ 102,297.51	44	$ 2,324.94		
	Excavate (Found Excavation)	each	44	19	5.55	$ 1,143.76	$ 6,342.48	$ 279,069.27	44	$ 6,342.48		
	Install (Grillage Installation)	each	44	20	5.56	$ 1,002.72	$ 5,571.35	$ 245,139.35	44	$ 5,571.35		
	Backfill & Compact (Backfill and Compact)	each	44	21	5.55	$ 959.25	$ 5,319.30	$ 234,049.22	44	$ 5,319.30		
	Cleanup (Site Cleanup)	each	44	22	2.00	$ 194.96	$ 389.92	$ 17,156.54	44	$ 389.92		
		each	44			$ -	$ -	$ -	44	$ -		
		each	44			$ -	$ -	$ -	44	$ -		
		each	44			$ -	$ -	$ -	44	$ -		
							$ 19,948.00	$ 877,711.89		$ 19,948.00		
V::C17	**S1-C17 Assembly and Installation of Foundation Types D1-1 (100 kPa) as per** **Total structure count:**		**32**	**EA**			**$ 653,985.60**		**$ 20,437.05**	**$ 624.60**	**$ 21,061.65**	**$ 19,987.16**
	S1-C17 Assembly and Installation of Foundation Types D1-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types D1.											
	Steel Weight (lb) = 11023 Granular (m3) = 6 Excavation (m3) = 428 Backfill (m3) = 422											
	Haul (Foundation Haul)	each	32	17	4.59	$ 441.04	$ 2,025.70	$ 64,822.41	32	$ 2,025.70		
	Excavate (Found Excavation)	each	32	19	5.76	$ 1,143.76	$ 6,584.19	$ 210,694.07	32	$ 6,584.19		
	Install (Grillage Installation)	each	32	20	5.90	$ 1,002.72	$ 5,915.22	$ 189,287.17	32	$ 5,915.22		
	Backfill & Compact (Backfill and Compact)	each	32	21	5.76	$ 959.25	$ 5,522.01	$ 176,704.46	32	$ 5,522.01		
	Cleanup (Site Cleanup)	each	32	22	2.00	$ 194.96	$ 389.92	$ 12,477.48	32	$ 389.92		
		each	32			$ -	$ -	$ -	32	$ -		
		each	32			$ -	$ -	$ -	32	$ -		
		each	32			$ -	$ -	$ -	32	$ -		
							$ 20,437.05	$ 653,985.60		$ 20,437.05		
V::C18	**S1-C18 Assembly and Installation of Foundation Types D2-1 (100 kPa) as per** **Total structure count:**		**20**	**EA**			**$ 436,895.89**		**$ 21,844.79**	**$ 683.89**	**$ 22,528.69**	**$ 13,677.85**
	S1-C18 Assembly and Installation of Foundation Types D2-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types D2.											
	Steel Weight (lb) = 11685 Granular (m3) = 6 Excavation (m3) = 452 Backfill (m3) = 445											
	Haul (Foundation Haul)	each	20	17	5.87	$ 441.04	$ 2,588.28	$ 51,765.69	20	$ 2,588.28		
	Excavate (Found Excavation)	each	20	19	6.02	$ 1,143.76	$ 6,883.54	$ 137,670.81	20	$ 6,883.54		
	Install (Grillage Installation)	each	20	20	6.19	$ 1,002.72	$ 6,209.97	$ 124,199.49	20	$ 6,209.97		
	Backfill & Compact (Backfill and Compact)	each	20	21	6.02	$ 959.25	$ 5,773.07	$ 115,461.47	20	$ 5,773.07		
	Cleanup (Site Cleanup)	each	20	22	2.00	$ 194.96	$ 389.92	$ 7,798.43	20	$ 389.92		
		each	20			$ -	$ -	$ -	20	$ -		
		each	20			$ -	$ -	$ -	20	$ -		
		each	20			$ -	$ -	$ -	20	$ -		
							$ 21,844.79	$ 436,895.89		$ 21,844.79		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description		Units	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C19	**S1-C19 Assembly and Installation of Foundation Types E1-1 (100 kPa) as per**		**Total structure count:**		**20**	**EA**			**$ 463,559.70**		**$ 23,177.98**	**$ 756.68**	**$ 23,934.67**	**$ 15,133.65**
	S1-C19 Assembly and Installation of Foundation Types E1-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types E1.													
	Steel Weight (lb) = 13448	Granular (m3) =	7	Excavation (m3) =	480	Backfill (m3) =	473							
	Haul	Foundation Haul	each	20	17	5.60	$ 441.04	$ 2,471.35	$ 49,427.09	20	$ 2,471.35			
	Excavate	Found Excavation	each	20	19	6.33	$ 1,143.76	$ 7,244.73	$ 144,894.69	20	$ 7,244.73			
	Install	Grillage Installation	each	20	20	6.98	$ 1,002.72	$ 6,995.98	$ 139,919.51	20	$ 6,995.98			
	Backfill & Compact	Backfill and Compact	each	20	21	6.33	$ 959.25	$ 6,076.00	$ 121,519.98	20	$ 6,076.00			
	Cleanup	Site Cleanup	each	20	22	2.00	$ 194.96	$ 389.92	$ 7,798.43	20	$ 389.92			
			each	20			$ -	$ -	$ -	20	$ -			
			each	20			$ -	$ -	$ -	20	$ -			
			each	20			$ -	$ -	$ -	20	$ -			
								$ 23,177.98	$ 463,559.70		$ 23,177.98			
V::C20	**S1-C20 Uplift testing per leg for Types C1-1, or D2-1, or E1-1 (100 kPa) as per**		**Total structure count:**		**3**	**EA**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-C20 Uplift testing per leg for Types C1-1, or D2-1, or E1-1 (100 kPa) as per technical specification for Tower Types C1, or D2, or E1.													
	Not included		each	3			$ -	$ -	$ -	3	$ -			
			each	3			$ -	$ -	$ -	3	$ -			
			each	3			$ -	$ -	$ -	3	$ -			
			each	3			$ -	$ -	$ -	3	$ -			
			each	3			$ -	$ -	$ -	3	$ -			
			each	3			$ -	$ -	$ -	3	$ -			
			each	3			$ -	$ -	$ -	3	$ -			
			each	3			$ -	$ -	$ -	3	$ -			
			each	3			$ -	$ -	$ -	3	$ -			
			each	3			$ -	$ -	$ -	3	$ -			
			each	3			$ -	$ -	$ -	3	$ -			
								$ -	$ -		$ -			
V::C21	**S1-C21 Downward, uplift, and lateral load testing per leg for Types C1-3, or D2-3,**		**Total structure count:**		**3**	**EA**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-C21 Downward, uplift, and lateral load testing per leg for Types C1-3, or D2-3, or E1-3 as per technical specification for Tower Types C1, or D2, or E1.													
	Not included		each	3			$ -	$ -	$ -	3	$ -			
			each	3			$ -	$ -	$ -	3	$ -			
			each	3			$ -	$ -	$ -	3	$ -			
			each	3			$ -	$ -	$ -	3	$ -			
			each	3			$ -	$ -	$ -	3	$ -			
			each	3			$ -	$ -	$ -	3	$ -			
			each	3			$ -	$ -	$ -	3	$ -			
			each	3			$ -	$ -	$ -	3	$ -			
			each	3			$ -	$ -	$ -	3	$ -			
			each	3			$ -	$ -	$ -	3	$ -			
			each	3			$ -	$ -	$ -	3	$ -			
								$ -	$ -		$ -			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H10	**Rock Foundations**											
V::C22	**S1-C22 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-** **Total structure count:**	**109**		**EA**			**$ 1,583,569.29**		**$ 14,528.16**	**$ 1,909.69**	**$ 16,437.85**	**$ 208,156.21**
	S1-C22 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A1											
	Pad: 1.9m x 1.9m x 0.4m Concrete (m3) = 1.66 / Steel Weight (lb) 1778 / Grout (l) 30.6 / Rebar (kg) 56.7 / Excavation (m3) 92.7 / BackFill Vol(m3) 91.0 / #Anchor Holes 4.00 / Hole Depth (m) 3.0 / Hole Dia. (mm) 50.0											
	Haul (Foundation Haul)	each	109	17	1.54	$ 441.04	$ 679.65	$ 74,081.93	109	$ 679.65		
	Excavate (Found Excavation)	each	109	19	1.53	$ 1,143.76	$ 1,749.87	$ 190,736.01	109	$ 1,749.87		
	Prepare Rock Surface (Found Excavation)	each	109	19	2.50	$ 1,143.76	$ 2,859.40	$ 311,674.48	109	$ 2,859.40		
	Rock drill Setup (Rock Foundations)	each	109	36	1.00	$ 920.20	$ 920.20	$ 100,302.21	109	$ 920.20		
	Install Footing, Form and Pour base (Concrete Foundations)	each	109	24	4.39	$ 935.63	$ 4,104.74	$ 447,416.41	109	$ 4,104.74		
	Backfill & Compact (Backfill and Compact)	each	109	21	3.01	$ 959.25	$ 2,888.75	$ 314,873.56	109	$ 2,888.75		
	Cleanup (Site Cleanup)	each	109	22	2.00	$ 194.96	$ 389.92	$ 42,501.42	109	$ 389.92		
	Heat and Hoard (Concrete Foundations)	each	109	24	1.00	$ 935.63	$ 935.63	$ 101,983.26	109	$ 935.63		
		each	109			$ -	$ -	$ -	109	$ -		
		each	109			$ -	$ -	$ -	109	$ -		
		each	109			$ -	$ -	$ -	109	$ -		
							$ 14,528.16	$ 1,583,569.29		$ 14,528.16		
V::C23	**S1-C23 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-** **Total structure count:**	**20**		**EA**			**$ 336,754.52**		**$ 16,837.73**	**$ 2,798.41**	**$ 19,636.14**	**$ 55,968.20**
	S1-C23 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A2											
	Pad: 2.3m x 2.3m x 0.4m Concrete (m3) = 2.43 / Steel Weight (lb) 2107 / Grout (l) 100.1 / Rebar (kg) 75.8 / Excavation (m3) 102.3 / BackFill Vol(m3) 99.9 / #Anchor Holes 4.00 / Hole Depth (m) 5.0 / Hole Dia. (mm) 70.0											
	Haul (Foundation Haul)	each	20	17	1.48	$ 441.04	$ 651.87	$ 13,037.41	20	$ 651.87		
	Excavate (Found Excavation)	each	20	19	1.64	$ 1,143.76	$ 1,872.23	$ 37,444.57	20	$ 1,872.23		
	Prepare Rock Surface (Found Excavation)	each	20	19	3.50	$ 1,143.76	$ 4,003.16	$ 80,063.17	20	$ 4,003.16		
	Rock drill Setup (Rock Foundations)	each	20	36	1.00	$ 920.20	$ 920.20	$ 18,404.08	20	$ 920.20		
	Install Footing, Form and Pour base (Concrete Foundations)	each	20	24	5.43	$ 935.63	$ 5,081.59	$ 101,631.75	20	$ 5,081.59		
	Backfill & Compact (Backfill and Compact)	each	20	21	3.11	$ 959.25	$ 2,983.13	$ 59,662.59	20	$ 2,983.13		
	Cleanup (Site Cleanup)	each	20	22	2.00	$ 194.96	$ 389.92	$ 7,798.43	20	$ 389.92		
	Heat and Hoard (Concrete Foundations)	each	20	24	1.00	$ 935.63	$ 935.63	$ 18,712.53	20	$ 935.63		
		each	20			$ -	$ -	$ -	20	$ -		
		each	20			$ -	$ -	$ -	20	$ -		
		each	20			$ -	$ -	$ -	20	$ -		
							$ 16,837.73	$ 336,754.52		$ 16,837.73		
V::C24	**S1-C24 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-** **Total structure count:**	**10**		**EA**			**$ 145,281.59**		**$ 14,528.16**	**$ 1,909.69**	**$ 16,437.85**	**$ 19,096.90**
	S1-C24 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A3											
	Pad: 1.9m x 1.9m x 0.4m Concrete (m3) = 1.66 / Steel Weight (lb) 1778 / Grout (l) 30.6 / Rebar (kg) 56.7 / Excavation (m3) 92.7 / BackFill Vol(m3) 91.0 / #Anchor Holes 4.00 / Hole Depth (m) 3.0 / Hole Dia. (mm) 50.0											
	Haul (Foundation Haul)	each	10	17	1.54	$ 441.04	$ 679.65	$ 6,796.51	10	$ 679.65		
	Excavate (Found Excavation)	each	10	19	1.53	$ 1,143.76	$ 1,749.87	$ 17,498.72	10	$ 1,749.87		
	Prepare Rock Surface (Found Excavation)	each	10	19	2.50	$ 1,143.76	$ 2,859.40	$ 28,593.99	10	$ 2,859.40		
	Rock drill Setup (Rock Foundations)	each	10	36	1.00	$ 920.20	$ 920.20	$ 9,202.04	10	$ 920.20		
	Install Footing, Form and Pour base (Concrete Foundations)	each	10	24	4.39	$ 935.63	$ 4,104.74	$ 41,047.38	10	$ 4,104.74		
	Backfill & Compact (Backfill and Compact)	each	10	21	3.01	$ 959.25	$ 2,888.75	$ 28,887.48	10	$ 2,888.75		
	Cleanup (Site Cleanup)	each	10	22	2.00	$ 194.96	$ 389.92	$ 3,899.21	10	$ 389.92		
	Heat and Hoard (Concrete Foundations)	each	10	24	1.00	$ 935.63	$ 935.63	$ 9,356.26	10	$ 935.63		
		each	10			$ -	$ -	$ -	10	$ -		
		each	10			$ -	$ -	$ -	10	$ -		
		each	10			$ -	$ -	$ -	10	$ -		
							$ 14,528.16	$ 145,281.59		$ 14,528.16		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C25	**S1-C25 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-** **Total structure count:**		**40**	**EA**			**$ 677,037.38**		**$ 16,925.93**	**$ 2,798.41**	**$ 19,724.34**	**$ 111,936.40**
	S1-C25 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A4											
	Pad: 2.3m x 2.3m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 2107	Grout (l) 100.1	Rebar (kg) 75.8	Excavation (m3) 102.3	BackFill Vol(m3) 99.9	#Anchor Holes 4.00	Hole Depth (m) 5.0	Hole Dia. (mm) 70.0			
	Haul	Foundation Haul	each	40	17	1.68	$ 441.04	$ 740.08	$ 29,603.16	40	$ 740.08	
	Excavate	Found Excavation	each	40	19	1.64	$ 1,143.76	$ 1,872.23	$ 74,889.14	40	$ 1,872.23	
	Prepare Rock Surface	Found Excavation	each	40	19	3.50	$ 1,143.76	$ 4,003.16	$ 160,126.34	40	$ 4,003.16	
	Rock drill Setup	Rock Foundations	each	40	36	1.00	$ 920.20	$ 920.20	$ 36,808.15	40	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	40	24	5.43	$ 935.63	$ 5,081.59	$ 203,263.51	40	$ 5,081.59	
	Backfill & Compact	Backfill and Compact	each	40	21	3.11	$ 959.25	$ 2,983.13	$ 119,325.18	40	$ 2,983.13	
	Cleanup	Site Cleanup	each	40	22	2.00	$ 194.96	$ 389.92	$ 15,596.85	40	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	40	24	1.00	$ 935.63	$ 935.63	$ 37,425.05	40	$ 935.63	
			each	40			$ -	$ -	$ -	40	$ -	
			each	40			$ -	$ -	$ -	40	$ -	
			each	40			$ -	$ -	$ -	40	$ -	
								$ 16,925.93	$ 677,037.38		$ 16,925.93	
V::C26	**S1-C26 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-** **Total structure count:**		**3**	**EA**			**$ 50,777.80**		**$ 16,925.93**	**$ 2,798.41**	**$ 19,724.34**	**$ 8,395.23**
	S1-C26 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0074 for Tower Type B1											
	Pad: 2.3m x 2.3m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 2107	Grout (l) 100.1	Rebar (kg) 75.8	Excavation (m3) 102.3	BackFill Vol(m3) 99.9	#Anchor Holes 4.00	Hole Depth (m) 5.0	Hole Dia. (mm) 70.0			
	Haul	Foundation Haul	each	3	17	1.68	$ 441.04	$ 740.08	$ 2,220.24	3	$ 740.08	
	Excavate	Found Excavation	each	3	19	1.64	$ 1,143.76	$ 1,872.23	$ 5,616.69	3	$ 1,872.23	
	Prepare Rock Surface	Found Excavation	each	3	19	3.50	$ 1,143.76	$ 4,003.16	$ 12,009.48	3	$ 4,003.16	
	Rock drill Setup	Rock Foundations	each	3	36	1.00	$ 920.20	$ 920.20	$ 2,760.61	3	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	3	24	5.43	$ 935.63	$ 5,081.59	$ 15,244.76	3	$ 5,081.59	
	Backfill & Compact	Backfill and Compact	each	3	21	3.11	$ 959.25	$ 2,983.13	$ 8,949.39	3	$ 2,983.13	
	Cleanup	Site Cleanup	each	3	22	2.00	$ 194.96	$ 389.92	$ 1,169.76	3	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	3	24	1.00	$ 935.63	$ 935.63	$ 2,806.88	3	$ 935.63	
			each	3			$ -	$ -	$ -	3	$ -	
			each	3			$ -	$ -	$ -	3	$ -	
			each	3			$ -	$ -	$ -	3	$ -	
								$ 16,925.93	$ 50,777.80		$ 16,925.93	
V::C27	**S1-C27 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-** **Total structure count:**		**100**	**EA**			**$ 2,598,634.87**		**$ 25,986.35**	**$ 2,793.12**	**$ 28,779.47**	**$ 279,312.00**
	S1-C27 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type B2											
	Pad: 2.3m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4527	Grout (l) 300.2	Rebar (kg) 163.4	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 6.0	Hole Dia. (mm) 70.0			
	Haul	Foundation Haul	each	100	17	2.89	$ 441.04	$ 1,272.96	$ 127,295.88	100	$ 1,272.96	
	Excavate	Found Excavation	each	100	19	3.00	$ 1,143.76	$ 3,426.56	$ 342,656.00	100	$ 3,426.56	
	Prepare Rock Surface	Found Excavation	each	100	19	4.50	$ 1,143.76	$ 5,146.92	$ 514,691.80	100	$ 5,146.92	
	Rock drill Setup	Rock Foundations	each	100	36	1.00	$ 920.20	$ 920.20	$ 92,020.38	100	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	100	24	10.27	$ 935.63	$ 9,607.40	$ 960,739.86	100	$ 9,607.40	
	Backfill & Compact	Backfill and Compact	each	100	21	4.47	$ 959.25	$ 4,286.76	$ 428,676.20	100	$ 4,286.76	
	Cleanup	Site Cleanup	each	100	22	2.00	$ 194.96	$ 389.92	$ 38,992.13	100	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	100	24	1.00	$ 935.63	$ 935.63	$ 93,562.63	100	$ 935.63	
			each	100			$ -	$ -	$ -	100	$ -	
			each	100			$ -	$ -	$ -	100	$ -	
			each	100			$ -	$ -	$ -	100	$ -	
								$ 25,986.35	$ 2,598,634.87		$ 25,986.35	

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C28	**S1-C28 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-** **Total structure count:**		**9**	**EA**			**$ 95,575.62**		**$ 10,619.51**	**$ 1,523.52**	**$ 12,143.03**	**$ 13,711.68**
	S1-C28 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A1 (Weak Surface Rock)											
	Pad: 1.2m x 1.2m x 0.8m Concrete (m3) = 1.32	Steel Weight (lb) 153	Grout (l) 6.0	Rebar (kg) 34.5	Excavation (m3) 5.0	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	9	17	1.06	$ 441.04	$ 469.22	$ 4,222.94	9	$ 469.22	
	Excavate	Found Excavation	each	9	19	0.56	$ 1,143.76	$ 635.64	$ 5,720.80	9	$ 635.64	
	Prepare Rock Surface	Found Excavation	each	9	19	2.50	$ 1,143.76	$ 2,859.40	$ 25,734.59	9	$ 2,859.40	
	Rock drill Setup	Rock Foundations	each	9	36	1.00	$ 920.20	$ 920.20	$ 8,281.83	9	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	9	24	2.66	$ 935.63	$ 2,491.01	$ 22,419.10	9	$ 2,491.01	
	Backfill & Compact	Backfill and Compact	each	9	21	2.00	$ 959.25	$ 1,918.49	$ 17,266.43	9	$ 1,918.49	
	Cleanup	Site Cleanup	each	9	22	2.00	$ 194.96	$ 389.92	$ 3,509.29	9	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	9	24	1.00	$ 935.63	$ 935.63	$ 8,420.64	9	$ 935.63	
			each	9			$ -	$ -	$ -	9	$ -	
			each	9			$ -	$ -	$ -	9	$ -	
			each	9			$ -	$ -	$ -	9	$ -	
								$ 10,619.51	$ 95,575.62		$ 10,619.51	
V::C29	**S1-C29 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-** **Total structure count:**		**2**	**EA**			$ 22,159.23		**$ 11,079.62**	**$ 2,541.85**	**$ 13,621.46**	**$ 5,083.69**
	S1-C29 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A2 (Weak Surface Rock)											
	Pad: 1.55m x 1.55m x 0.8m Concrete (m3) = 2.21	Steel Weight (lb) 304	Grout (l) 6.0	Rebar (kg) 49.8	Excavation (m3) 6.4	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	2	17	1.13	$ 441.04	$ 496.89	$ 993.78	2	$ 496.89	
	Excavate	Found Excavation	each	2	19	0.57	$ 1,143.76	$ 653.83	$ 1,307.65	2	$ 653.83	
	Prepare Rock Surface	Found Excavation	each	2	19	2.50	$ 1,143.76	$ 2,859.40	$ 5,718.80	2	$ 2,859.40	
	Rock drill Setup	Rock Foundations	each	2	36	1.00	$ 920.20	$ 920.20	$ 1,840.41	2	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	2	24	3.11	$ 935.63	$ 2,905.26	$ 5,810.52	2	$ 2,905.26	
	Backfill & Compact	Backfill and Compact	each	2	21	2.00	$ 959.25	$ 1,918.49	$ 3,836.98	2	$ 1,918.49	
	Cleanup	Site Cleanup	each	2	22	2.00	$ 194.96	$ 389.92	$ 779.84	2	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	2	24	1.00	$ 935.63	$ 935.63	$ 1,871.25	2	$ 935.63	
			each	2			$ -	$ -	$ -	2	$ -	
			each	2			$ -	$ -	$ -	2	$ -	
			each	2			$ -	$ -	$ -	2	$ -	
								$ 11,079.62	$ 22,159.23		$ 11,079.62	
V::C30	**S1-C30 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-** **Total structure count:**		**1**	**EA**			**$ 10,858.11**		**$ 10,858.11**	**$ 2,073.68**	**$ 12,931.79**	**$ 2,073.68**
	S1-C30 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A3 (Weak Surface Rock)											
	Pad: 1.4m x 1.4m x 0.8m Concrete (m3) = 1.80	Steel Weight (lb) 179	Grout (l) 6.0	Rebar (kg) 36.1	Excavation (m3) 5.8	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	1	17	1.07	$ 441.04	$ 473.90	$ 473.90	1	$ 473.90	
	Excavate	Found Excavation	each	1	19	0.56	$ 1,143.76	$ 645.75	$ 645.75	1	$ 645.75	
	Prepare Rock Surface	Found Excavation	each	1	19	2.50	$ 1,143.76	$ 2,859.40	$ 2,859.40	1	$ 2,859.40	
	Rock drill Setup	Rock Foundations	each	1	36	1.00	$ 920.20	$ 920.20	$ 920.20	1	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	1	24	2.90	$ 935.63	$ 2,714.81	$ 2,714.81	1	$ 2,714.81	
	Backfill & Compact	Backfill and Compact	each	1	21	2.00	$ 959.25	$ 1,918.49	$ 1,918.49	1	$ 1,918.49	
	Cleanup	Site Cleanup	each	1	22	2.00	$ 194.96	$ 389.92	$ 389.92	1	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	1	24	1.00	$ 935.63	$ 935.63	$ 935.63	1	$ 935.63	
			each	1			$ -	$ -	$ -	1	$ -	
			each	1			$ -	$ -	$ -	1	$ -	
			each	1			$ -	$ -	$ -	1	$ -	
								$ 10,858.11	$ 10,858.11		$ 10,858.11	

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C31	**S1-C31 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-** **Total structure count:**		**4**	**EA**			**$ 44,318.47**		**$ 11,079.62**	**$ 2,541.85**	**$ 13,621.46**	**$ 10,167.38**
	S1-C31 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A4 (Weak Surface Rock)											
	Pad: 1.55m x 1.55m x 0.8m Concrete (m3) = 2.21 / Steel Weight (lb) 304 / Grout (l) 6.0	Rebar (kg) 49.8	Excavation (m3) 6.4	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0					
	Haul (Foundation Haul)	each	4	17	1.13	$ 441.04	$ 496.89	$ 1,987.56	4	$ 496.89		
	Excavate (Found Excavation)	each	4	19	0.57	$ 1,143.76	$ 653.83	$ 2,615.30	4	$ 653.83		
	Prepare Rock Surface (Found Excavation)	each	4	19	2.50	$ 1,143.76	$ 2,859.40	$ 11,437.60	4	$ 2,859.40		
	Rock drill Setup (Rock Foundations)	each	4	36	1.00	$ 920.20	$ 920.20	$ 3,680.82	4	$ 920.20		
	Install Footing, Form and Pour base (Concrete Foundations)	each	4	24	3.11	$ 935.63	$ 2,905.26	$ 11,621.04	4	$ 2,905.26		
	Backfill & Compact (Backfill and Compact)	each	4	21	2.00	$ 959.25	$ 1,918.49	$ 7,673.97	4	$ 1,918.49		
	Cleanup (Site Cleanup)	each	4	22	2.00	$ 194.96	$ 389.92	$ 1,559.69	4	$ 389.92		
	Heat and Hoard (Concrete Foundations)	each	4	24	1.00	$ 935.63	$ 935.63	$ 3,742.51	4	$ 935.63		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
							$ 11,079.62	$ 44,318.47		$ 11,079.62		
V::C32	**S1-C32 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-** **Total structure count:**		**1**	**EA**			**$ 11,150.35**		**$ 11,150.35**	**$ 2,708.48**	**$ 13,858.83**	**$ 2,708.48**
	S1-C32 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type B1 (Weak Surface Rock)											
	Pad: 1.6m x 1.6m x 0.8m Concrete (m3) = 2.36 / Steel Weight (lb) 305 / Grout (l) 6.0	Rebar (kg) 50.2	Excavation (m3) 6.7	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0					
	Haul (Foundation Haul)	each	1	17	1.13	$ 441.04	$ 497.05	$ 497.05	1	$ 497.05		
	Excavate (Found Excavation)	each	1	19	0.57	$ 1,143.76	$ 656.61	$ 656.61	1	$ 656.61		
	Prepare Rock Surface (Found Excavation)	each	1	19	2.50	$ 1,143.76	$ 2,859.40	$ 2,859.40	1	$ 2,859.40		
	Rock drill Setup (Rock Foundations)	each	1	36	1.00	$ 920.20	$ 920.20	$ 920.20	1	$ 920.20		
	Install Footing, Form and Pour base (Concrete Foundations)	each	1	24	3.18	$ 935.63	$ 2,973.05	$ 2,973.05	1	$ 2,973.05		
	Backfill & Compact (Backfill and Compact)	each	1	21	2.00	$ 959.25	$ 1,918.49	$ 1,918.49	1	$ 1,918.49		
	Cleanup (Site Cleanup)	each	1	22	2.00	$ 194.96	$ 389.92	$ 389.92	1	$ 389.92		
	Heat and Hoard (Concrete Foundations)	each	1	24	1.00	$ 935.63	$ 935.63	$ 935.63	1	$ 935.63		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
							$ 11,150.35	$ 11,150.35		$ 11,150.35		
V::C33	**S1-C33 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-** **Total structure count:**		**81**	**EA**			**$ 767,948.21**		**$ 9,480.84**	**$ 1,523.52**	**$ 11,004.36**	**$ 123,405.12**
	S1-C33 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A1 (Sound Surface Rock)											
	Pad: 1.2m x 1.2m x 0.8m Concrete (m3) = 1.32 / Steel Weight (lb) 181 / Grout (l) 6.0	Rebar (kg) 47.1	Excavation (m3) 5.0	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0					
	Haul (Foundation Haul)	each	81	17	1.08	$ 441.04	$ 474.30	$ 38,418.62	81	$ 474.30		
	Excavate (Found Excavation)	each	81	19	0.56	$ 1,143.76	$ 635.64	$ 51,487.19	81	$ 635.64		
	Prepare Rock Surface (Found Excavation)	each	81	19	1.50	$ 1,143.76	$ 1,715.64	$ 138,966.79	81	$ 1,715.64		
	Rock drill Setup (Rock Foundations)	each	81	36	1.00	$ 920.20	$ 920.20	$ 74,536.50	81	$ 920.20		
	Install Footing, Form and Pour base (Concrete Foundations)	each	81	24	2.66	$ 935.63	$ 2,491.01	$ 201,771.92	81	$ 2,491.01		
	Backfill & Compact (Backfill and Compact)	each	81	21	2.00	$ 959.25	$ 1,918.49	$ 155,397.83	81	$ 1,918.49		
	Cleanup (Site Cleanup)	each	81	22	2.00	$ 194.96	$ 389.92	$ 31,583.62	81	$ 389.92		
	Heat and Hoard (Concrete Foundations)	each	81	24	1.00	$ 935.63	$ 935.63	$ 75,785.73	81	$ 935.63		
		each	81			$ -	$ -	$ -	81	$ -		
		each	81			$ -	$ -	$ -	81	$ -		
		each	81			$ -	$ -	$ -	81	$ -		
							$ 9,480.84	$ 767,948.21		$ 9,480.84		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C34	**S1-C34 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-** **Total structure count:**		**16**	**EA**			**$ 159,055.13**		**$ 9,940.95**	**$ 2,541.85**	**$ 12,482.79**	**$ 40,669.52**
	S1-C34 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A2 (Sound Surface Rock)											
	Pad: 1.55m x 1.55m x 0.8m Concrete (m3) = 2.21 / Steel Weight (lb) 332 / Grout (l) 6.0	Rebar (kg) 62.4	Excavation (m3) 6.4	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0					
	Haul (Foundation Haul)	each	16	17	1.14	$ 441.04	$ 501.98	$ 8,031.65	16	$ 501.98		
	Excavate (Found Excavation)	each	16	19	0.57	$ 1,143.76	$ 653.83	$ 10,461.21	16	$ 653.83		
	Prepare Rock Surface (Found Excavation)	each	16	19	1.50	$ 1,143.76	$ 1,715.64	$ 27,450.23	16	$ 1,715.64		
	Rock drill Setup (Rock Foundations)	each	16	36	1.00	$ 920.20	$ 920.20	$ 14,723.26	16	$ 920.20		
	Install Footing, Form and Pour base (Concrete Foundations)	each	16	24	3.11	$ 935.63	$ 2,905.26	$ 46,484.16	16	$ 2,905.26		
	Backfill & Compact (Backfill and Compact)	each	16	21	2.00	$ 959.25	$ 1,918.49	$ 30,695.87	16	$ 1,918.49		
	Cleanup (Site Cleanup)	each	16	22	2.00	$ 194.96	$ 389.92	$ 6,238.74	16	$ 389.92		
	Heat and Hoard (Concrete Foundations)	each	16	24	1.00	$ 935.63	$ 935.63	$ 14,970.02	16	$ 935.63		
		each	16			$ -	$ -	$ -	16	$ -		
		each	16			$ -	$ -	$ -	16	$ -		
		each	16			$ -	$ -	$ -	16	$ -		
							$ 9,940.95	$ 159,055.13		$ 9,940.95		
V::C35	**S1-C35 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-** **Total structure count:**		**7**	**EA**			**$ 68,036.04**		**$ 9,719.43**	**$ 2,073.68**	**$ 11,793.11**	**$ 14,515.76**
	S1-C35 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A3 (Sound Surface Rock)											
	Pad: 1.4m x 1.4m x 0.8m Concrete (m3) = 1.80 / Steel Weight (lb) 207 / Grout (l) 6.0	Rebar (kg) 48.7	Excavation (m3) 5.8	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0					
	Haul (Foundation Haul)	each	7	17	1.09	$ 441.04	$ 478.99	$ 3,352.94	7	$ 478.99		
	Excavate (Found Excavation)	each	7	19	0.56	$ 1,143.76	$ 645.75	$ 4,520.23	7	$ 645.75		
	Prepare Rock Surface (Found Excavation)	each	7	19	1.50	$ 1,143.76	$ 1,715.64	$ 12,009.48	7	$ 1,715.64		
	Rock drill Setup (Rock Foundations)	each	7	36	1.00	$ 920.20	$ 920.20	$ 6,441.43	7	$ 920.20		
	Install Footing, Form and Pour base (Concrete Foundations)	each	7	24	2.90	$ 935.63	$ 2,714.81	$ 19,003.69	7	$ 2,714.81		
	Backfill & Compact (Backfill and Compact)	each	7	21	2.00	$ 959.25	$ 1,918.49	$ 13,429.44	7	$ 1,918.49		
	Cleanup (Site Cleanup)	each	7	22	2.00	$ 194.96	$ 389.92	$ 2,729.45	7	$ 389.92		
	Heat and Hoard (Concrete Foundations)	each	7	24	1.00	$ 935.63	$ 935.63	$ 6,549.38	7	$ 935.63		
		each	7			$ -	$ -	$ -	7	$ -		
		each	7			$ -	$ -	$ -	7	$ -		
		each	7			$ -	$ -	$ -	7	$ -		
							$ 9,719.43	$ 68,036.04		$ 9,719.43		
V::C36	**S1-C36 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-** **Total structure count:**		**31**	**EA**			**$ 308,169.32**		**$ 9,940.95**	**$ 2,541.85**	**$ 12,482.79**	**$ 78,797.20**
	S1-C36 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A4 (Sound Surface Rock)											
	Pad: 1.55m x 1.55m x 0.8m Concrete (m3) = 2.21 / Steel Weight (lb) 332 / Grout (l) 6.0	Rebar (kg) 62.4	Excavation (m3) 6.4	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0					
	Haul (Foundation Haul)	each	31	17	1.14	$ 441.04	$ 501.98	$ 15,561.32	31	$ 501.98		
	Excavate (Found Excavation)	each	31	19	0.57	$ 1,143.76	$ 653.83	$ 20,268.59	31	$ 653.83		
	Prepare Rock Surface (Found Excavation)	each	31	19	1.50	$ 1,143.76	$ 1,715.64	$ 53,184.82	31	$ 1,715.64		
	Rock drill Setup (Rock Foundations)	each	31	36	1.00	$ 920.20	$ 920.20	$ 28,526.32	31	$ 920.20		
	Install Footing, Form and Pour base (Concrete Foundations)	each	31	24	3.11	$ 935.63	$ 2,905.26	$ 90,063.06	31	$ 2,905.26		
	Backfill & Compact (Backfill and Compact)	each	31	21	2.00	$ 959.25	$ 1,918.49	$ 59,473.24	31	$ 1,918.49		
	Cleanup (Site Cleanup)	each	31	22	2.00	$ 194.96	$ 389.92	$ 12,087.56	31	$ 389.92		
	Heat and Hoard (Concrete Foundations)	each	31	24	1.00	$ 935.63	$ 935.63	$ 29,004.41	31	$ 935.63		
		each	31			$ -	$ -	$ -	31	$ -		
		each	31			$ -	$ -	$ -	31	$ -		
							$ 9,940.95	$ 308,169.32		$ 9,940.95		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C37	**S1-C37 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-** **Total structure count:**		**3**	**EA**			**$ 30,035.04**		**$ 10,011.68**	**$ 2,708.48**	**$ 12,720.16**	**$ 8,125.44**
	S1-C37 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type B1 (Sound Surface Rock)											
	Pad: 1.6m x 1.6m x 0.8m Concrete (m3) = 2.36 / Steel Weight (lb) 332 / Grout (l) 6.0	Rebar (kg) 62.8	Excavation (m3) 6.7	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0					
	Haul (Foundation Haul)	each	3	17	1.14	$ 441.04	$ 502.14	$ 1,506.41	3	$ 502.14		
	Excavate (Found Excavation)	each	3	19	0.57	$ 1,143.76	$ 656.61	$ 1,969.84	3	$ 656.61		
	Prepare Rock Surface (Found Excavation)	each	3	19	1.50	$ 1,143.76	$ 1,715.64	$ 5,146.92	3	$ 1,715.64		
	Rock drill Setup (Rock Foundations)	each	3	36	1.00	$ 920.20	$ 920.20	$ 2,760.61	3	$ 920.20		
	Install Footing, Form and Pour base (Concrete Foundations)	each	3	24	3.18	$ 935.63	$ 2,973.05	$ 8,919.14	3	$ 2,973.05		
	Backfill & Compact (Backfill and Compact)	each	3	21	2.00	$ 959.25	$ 1,918.49	$ 5,755.48	3	$ 1,918.49		
	Cleanup (Site Cleanup)	each	3	22	2.00	$ 194.96	$ 389.92	$ 1,169.76	3	$ 389.92		
	Heat and Hoard (Concrete Foundations)	each	3	24	1.00	$ 935.63	$ 935.63	$ 2,806.88	3	$ 935.63		
		each	3			$ -	$ -	$ -	3	$ -		
		each	3			$ -	$ -	$ -	3	$ -		
		each	3			$ -	$ -	$ -	3	$ -		
							$ 10,011.68	$ 30,035.04		$ 10,011.68		
V::C38	**S1-C38 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-** **Total structure count:**		**88**	**EA**			**$ 2,271,225.35**		**$ 25,809.38**	**$ 2,793.12**	**$ 28,602.50**	**$ 245,794.56**
	S1-C38 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type B2 (surface rock)											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43 / Steel Weight (lb) 4441 / Grout (l) 199.0	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 6.0	Hole Dia. (mm) 57.0					
	Haul (Foundation Haul)	each	88	17	2.85	$ 441.04	$ 1,257.13	$ 110,627.75	88	$ 1,257.13		
	Excavate (Found Excavation)	each	88	19	3.00	$ 1,143.76	$ 3,426.56	$ 301,537.28	88	$ 3,426.56		
	Prepare Rock Surface (Found Excavation)	each	88	19	4.50	$ 1,143.76	$ 5,146.92	$ 452,928.78	88	$ 5,146.92		
	Rock drill Setup (Rock Foundations)	each	88	36	1.00	$ 920.20	$ 920.20	$ 80,977.93	88	$ 920.20		
	Install Footing, Form and Pour base (Concrete Foundations)	each	88	24	10.10	$ 935.63	$ 9,446.25	$ 831,270.36	88	$ 9,446.25		
	Backfill & Compact (Backfill and Compact)	each	88	21	4.47	$ 959.25	$ 4,286.76	$ 377,235.06	88	$ 4,286.76		
	Cleanup (Site Cleanup)	each	88	22	2.00	$ 194.96	$ 389.92	$ 34,313.07	88	$ 389.92		
	Heat and Hoard (Concrete Foundations)	each	88	24	1.00	$ 935.63	$ 935.63	$ 82,335.11	88	$ 935.63		
		each	88			$ -	$ -	$ -	88	$ -		
		each	88			$ -	$ -	$ -	88	$ -		
		each	88			$ -	$ -	$ -	88	$ -		
							$ 25,809.38	$ 2,271,225.35		$ 25,809.38		
V::C39	**S1-C39 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-** **Total structure count:**		**32**	**EA**			**$ 789,299.82**		**$ 24,665.62**	**$ 2,793.12**	**$ 27,458.74**	**$ 89,379.84**
	S1-C39 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C1											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43 / Steel Weight (lb) 4441 / Grout (l) 199.0	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 6.0	Hole Dia. (mm) 57.0					
	Haul (Foundation Haul)	each	32	17	2.85	$ 441.04	$ 1,257.13	$ 40,228.27	32	$ 1,257.13		
	Excavate (Found Excavation)	each	32	19	3.00	$ 1,143.76	$ 3,426.56	$ 109,649.92	32	$ 3,426.56		
	Prepare Rock Surface (Found Excavation)	each	32	19	3.50	$ 1,143.76	$ 4,003.16	$ 128,101.07	32	$ 4,003.16		
	Rock drill Setup (Rock Foundations)	each	32	36	1.00	$ 920.20	$ 920.20	$ 29,446.52	32	$ 920.20		
	Install Footing, Form and Pour base (Concrete Foundations)	each	32	24	10.10	$ 935.63	$ 9,446.25	$ 302,280.13	32	$ 9,446.25		
	Backfill & Compact (Backfill and Compact)	each	32	21	4.47	$ 959.25	$ 4,286.76	$ 137,176.39	32	$ 4,286.76		
	Cleanup (Site Cleanup)	each	32	22	2.00	$ 194.96	$ 389.92	$ 12,477.48	32	$ 389.92		
	Heat and Hoard (Concrete Foundations)	each	32	24	1.00	$ 935.63	$ 935.63	$ 29,940.04	32	$ 935.63		
		each	32			$ -	$ -	$ -	32	$ -		
		each	32			$ -	$ -	$ -	32	$ -		
		each	32			$ -	$ -	$ -	32	$ -		
							$ 24,665.62	$ 789,299.82		$ 24,665.62		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C40	**S1-C40 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-** **Total structure count:**		**48**	**EA**			**$ 1,249,723.55**		**$ 26,035.91**	**$ 2,793.12**	**$ 28,829.03**	**$ 134,069.76**
	S1-C40 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C2											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4551	Grout (l) 199.0	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 6.0	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul		each	48	17	2.90	$ 441.04	$ 1,277.39	$ 61,314.74	48	$ 1,277.39
	Excavate	Found Excavation		each	48	19	3.00	$ 1,143.76	$ 3,426.56	$ 164,474.88	48	$ 3,426.56
	Prepare Rock Surface	Found Excavation		each	48	19	4.50	$ 1,143.76	$ 5,146.92	$ 247,052.06	48	$ 5,146.92
	Rock drill Setup	Rock Foundations		each	48	36	1.00	$ 920.20	$ 920.20	$ 44,169.78	48	$ 920.20
	Install Footing, Form and Pour base	Concrete Foundations		each	48	24	10.32	$ 935.63	$ 9,652.53	$ 463,321.22	48	$ 9,652.53
	Backfill & Compact	Backfill and Compact		each	48	21	4.47	$ 959.25	$ 4,286.76	$ 205,764.58	48	$ 4,286.76
	Cleanup	Site Cleanup		each	48	22	2.00	$ 194.96	$ 389.92	$ 18,716.22	48	$ 389.92
	Heat and Hoard	Concrete Foundations		each	48	24	1.00	$ 935.63	$ 935.63	$ 44,910.06	48	$ 935.63
				each	48			$ -	$ -	$ -	48	$ -
				each	48			$ -	$ -	$ -	48	$ -
				each	48			$ -	$ -	$ -	48	$ -
									$ 26,035.91	$ 1,249,723.55		$ 26,035.91
V::C41	**S1-C41 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-** **Total structure count:**		**36**	**EA**			**$ 905,903.35**		**$ 25,163.98**	**$ 2,793.12**	**$ 27,957.10**	**$ 100,552.32**
	S1-C41 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D1											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4683	Grout (l) 215.6	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 6.5	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul		each	36	17	2.95	$ 441.04	$ 1,301.70	$ 46,861.16	36	$ 1,301.70
	Excavate	Found Excavation		each	36	19	3.00	$ 1,143.76	$ 3,426.56	$ 123,356.16	36	$ 3,426.56
	Prepare Rock Surface	Found Excavation		each	36	19	3.50	$ 1,143.76	$ 4,003.16	$ 144,113.70	36	$ 4,003.16
	Rock drill Setup	Rock Foundations		each	36	36	1.00	$ 920.20	$ 920.20	$ 33,127.34	36	$ 920.20
	Install Footing, Form and Pour base	Concrete Foundations		each	36	24	10.58	$ 935.63	$ 9,900.05	$ 356,401.84	36	$ 9,900.05
	Backfill & Compact	Backfill and Compact		each	36	21	4.47	$ 959.25	$ 4,286.76	$ 154,323.43	36	$ 4,286.76
	Cleanup	Site Cleanup		each	36	22	2.00	$ 194.96	$ 389.92	$ 14,037.17	36	$ 389.92
	Heat and Hoard	Concrete Foundations		each	36	24	1.00	$ 935.63	$ 935.63	$ 33,682.55	36	$ 935.63
				each	36			$ -	$ -	$ -	36	$ -
				each	36			$ -	$ -	$ -	36	$ -
				each	36			$ -	$ -	$ -	36	$ -
									$ 25,163.98	$ 905,903.35		$ 25,163.98
V::C42	**S1-C42 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-** **Total structure count:**		**20**	**ea**			**$ 526,154.83**		**$ 26,307.74**	**$ 2,793.12**	**$ 29,100.86**	**$ 55,862.40**
	S1-C42 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D2											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4683	Grout (l) 215.6	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 6.5	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul		each	20	17	2.95	$ 441.04	$ 1,301.70	$ 26,033.98	20	$ 1,301.70
	Excavate	Found Excavation		each	20	19	3.00	$ 1,143.76	$ 3,426.56	$ 68,531.20	20	$ 3,426.56
	Prepare Rock Surface	Found Excavation		each	20	19	4.50	$ 1,143.76	$ 5,146.92	$ 102,938.36	20	$ 5,146.92
	Rock drill Setup	Rock Foundations		each	20	36	1.00	$ 920.20	$ 920.20	$ 18,404.08	20	$ 920.20
	Install Footing, Form and Pour base	Concrete Foundations		each	20	24	10.58	$ 935.63	$ 9,900.05	$ 198,001.02	20	$ 9,900.05
	Backfill & Compact	Backfill and Compact		each	20	21	4.47	$ 959.25	$ 4,286.76	$ 85,735.24	20	$ 4,286.76
	Cleanup	Site Cleanup		each	20	22	2.00	$ 194.96	$ 389.92	$ 7,798.43	20	$ 389.92
	Heat and Hoard	Concrete Foundations		each	20	24	1.00	$ 935.63	$ 935.63	$ 18,712.53	20	$ 935.63
				each	20			$ -	$ -	$ -	20	$ -
				each	20			$ -	$ -	$ -	20	$ -
				each	20			$ -	$ -	$ -	20	$ -
									$ 26,307.74	$ 526,154.83		$ 26,307.74

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C43	**S1-C43 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-** **Total structure count:**		**16**	**ea**			**$ 406,248.16**		**$ 25,390.51**	**$ 2,793.12**	**$ 28,183.63**	**$ 44,689.92**
	S1-C43 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type E1											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4794	Grout (l) 232.2	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 7.0	Hole Dia. (mm) 57.0				
	Haul	Foundation Haul		each	16	17	3.00	$ 441.04	$ 1,321.96	$ 21,151.29	16	$ 1,321.96
	Excavate	Found Excavation		each	16	19	3.00	$ 1,143.76	$ 3,426.56	$ 54,824.96	16	$ 3,426.56
	Prepare Rock Surface	Found Excavation		each	16	19	3.50	$ 1,143.76	$ 4,003.16	$ 64,050.54	16	$ 4,003.16
	Rock drill Setup	Rock Foundations		each	16	36	1.00	$ 920.20	$ 920.20	$ 14,723.26	16	$ 920.20
	Install Footing, Form and Pour base	Concrete Foundations		each	16	24	10.80	$ 935.63	$ 10,106.32	$ 161,701.16	16	$ 10,106.32
	Backfill & Compact	Backfill and Compact		each	16	21	4.47	$ 959.25	$ 4,286.76	$ 68,588.19	16	$ 4,286.76
	Cleanup	Site Cleanup		each	16	22	2.00	$ 194.96	$ 389.92	$ 6,238.74	16	$ 389.92
	Heat and Hoard	Concrete Foundations		each	16	24	1.00	$ 935.63	$ 935.63	$ 14,970.02	16	$ 935.63
				each	16			$ -	$ -	$ -	16	$ -
				each	16			$ -	$ -	$ -	16	$ -
				each	16			$ -	$ -	$ -	16	$ -
									$ 25,390.51	$ 406,248.16		$ 25,390.51
V::C44	**S1-C44 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-** **Total structure count:**		**24**	**ea**			**$ 591,974.87**		**$ 24,665.62**	**$ 2,793.12**	**$ 27,458.74**	**$ 67,034.88**
	S1-C44 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C1 (surface rock)											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4441	Grout (l) 149.3	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 4.5	Hole Dia. (mm) 57.0				
	Haul	Foundation Haul		each	24	17	2.85	$ 441.04	$ 1,257.13	$ 30,171.20	24	$ 1,257.13
	Excavate	Found Excavation		each	24	19	3.00	$ 1,143.76	$ 3,426.56	$ 82,237.44	24	$ 3,426.56
	Prepare Rock Surface	Found Excavation		each	24	19	3.50	$ 1,143.76	$ 4,003.16	$ 96,075.80	24	$ 4,003.16
	Rock drill Setup	Rock Foundations		each	24	36	1.00	$ 920.20	$ 920.20	$ 22,084.89	24	$ 920.20
	Install Footing, Form and Pour base	Concrete Foundations		each	24	24	10.10	$ 935.63	$ 9,446.25	$ 226,710.10	24	$ 9,446.25
	Backfill & Compact	Backfill and Compact		each	24	21	4.47	$ 959.25	$ 4,286.76	$ 102,882.29	24	$ 4,286.76
	Cleanup	Site Cleanup		each	24	22	2.00	$ 194.96	$ 389.92	$ 9,358.11	24	$ 389.92
	Heat and Hoard	Concrete Foundations		each	24	24	1.00	$ 935.63	$ 935.63	$ 22,455.03	24	$ 935.63
				each	24			$ -	$ -	$ -	24	$ -
				each	24			$ -	$ -	$ -	24	$ -
				each	24			$ -	$ -	$ -	24	$ -
									$ 24,665.62	$ 591,974.87		$ 24,665.62
V::C45	**S1-C45 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-** **Total structure count:**		**40**	**EA**			**$ 1,041,436.29**		**$ 26,035.91**	**$ 2,793.12**	**$ 28,829.03**	**$ 111,724.80**
	S1-C45 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C2 (surface rock)-- 7.2mm clad steel wire; 3000m reels at 250kg/km or ~800kg /											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4551	Grout (l) 165.9	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 5.0	Hole Dia. (mm) 57.0				
	Haul	Foundation Haul		each	40	17	2.90	$ 441.04	$ 1,277.39	$ 51,095.62	40	$ 1,277.39
	Excavate	Found Excavation		each	40	19	3.00	$ 1,143.76	$ 3,426.56	$ 137,062.40	40	$ 3,426.56
	Prepare Rock Surface	Found Excavation		each	40	19	4.50	$ 1,143.76	$ 5,146.92	$ 205,876.72	40	$ 5,146.92
	Rock drill Setup	Rock Foundations		each	40	36	1.00	$ 920.20	$ 920.20	$ 36,808.15	40	$ 920.20
	Install Footing, Form and Pour base	Concrete Foundations		each	40	24	10.32	$ 935.63	$ 9,652.53	$ 386,101.02	40	$ 9,652.53
	Backfill & Compact	Backfill and Compact		each	40	21	4.47	$ 959.25	$ 4,286.76	$ 171,470.48	40	$ 4,286.76
	Cleanup	Site Cleanup		each	40	22	2.00	$ 194.96	$ 389.92	$ 15,596.85	40	$ 389.92
	Heat and Hoard	Concrete Foundations		each	40	24	1.00	$ 935.63	$ 935.63	$ 37,425.05	40	$ 935.63
				each	40			$ -	$ -	$ -	40	$ -
				each	40			$ -	$ -	$ -	40	$ -
				each	40			$ -	$ -	$ -	40	$ -
									$ 26,035.91	$ 1,041,436.29		$ 26,035.91

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C46	**S1-C46 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-** **Total structure count:**		**28**	**EA**			**$ 704,591.49**		**$ 25,163.98**	**$ 2,793.12**	**$ 27,957.10**	**$ 78,207.36**
	S1-C46 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D1 (surface rock)											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4683	Grout (l) 165.9	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 5.0	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	28	17	2.95	$ 441.04	$ 1,301.70	$ 36,447.57	28	$ 1,301.70	
	Excavate	Found Excavation	each	28	19	3.00	$ 1,143.76	$ 3,426.56	$ 95,943.68	28	$ 3,426.56	
	Prepare Rock Surface	Found Excavation	each	28	19	3.50	$ 1,143.76	$ 4,003.16	$ 112,088.44	28	$ 4,003.16	
	Rock drill Setup	Rock Foundations	each	28	36	1.00	$ 920.20	$ 920.20	$ 25,765.71	28	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	28	24	10.58	$ 935.63	$ 9,900.05	$ 277,201.43	28	$ 9,900.05	
	Backfill & Compact	Backfill and Compact	each	28	21	4.47	$ 959.25	$ 4,286.76	$ 120,029.34	28	$ 4,286.76	
	Cleanup	Site Cleanup	each	28	22	2.00	$ 194.96	$ 389.92	$ 10,917.80	28	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	28	24	1.00	$ 935.63	$ 935.63	$ 26,197.54	28	$ 935.63	
			each	28			$ -	$ -	$ -	28	$ -	
			each	28			$ -	$ -	$ -	28	$ -	
			each	28			$ -	$ -	$ -	28	$ -	
			each	28			$ -	$ -	$ -	28	$ -	
								$ 25,163.98	$ 704,591.49		$ 25,163.98	
V::C47	**S1-C47 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-** **Total structure count:**		**20**	**EA**			**$ 526,154.83**		**$ 26,307.74**	**$ 2,793.12**	**$ 29,100.86**	**$ 55,862.40**
	S1-C47 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D2 (surface rock)											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4683	Grout (l) 165.9	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 5.0	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	20	17	2.95	$ 441.04	$ 1,301.70	$ 26,033.98	20	$ 1,301.70	
	Excavate	Found Excavation	each	20	19	3.00	$ 1,143.76	$ 3,426.56	$ 68,531.20	20	$ 3,426.56	
	Prepare Rock Surface	Found Excavation	each	20	19	4.50	$ 1,143.76	$ 5,146.92	$ 102,938.36	20	$ 5,146.92	
	Rock drill Setup	Rock Foundations	each	20	36	1.00	$ 920.20	$ 920.20	$ 18,404.08	20	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	20	24	10.58	$ 935.63	$ 9,900.05	$ 198,001.02	20	$ 9,900.05	
	Backfill & Compact	Backfill and Compact	each	20	21	4.47	$ 959.25	$ 4,286.76	$ 85,735.24	20	$ 4,286.76	
	Cleanup	Site Cleanup	each	20	22	2.00	$ 194.96	$ 389.92	$ 7,798.43	20	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	20	24	1.00	$ 935.63	$ 935.63	$ 18,712.53	20	$ 935.63	
			each	20			$ -	$ -	$ -	20	$ -	
			each	20			$ -	$ -	$ -	20	$ -	
			each	20			$ -	$ -	$ -	20	$ -	
								$ 26,307.74	$ 526,154.83		$ 26,307.74	
V::C48	**S1-C48 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-** **Total structure count:**		**20**	**EA**			**$ 507,810.20**		**$ 25,390.51**	**$ 2,793.12**	**$ 28,183.63**	**$ 55,862.40**
	S1-C48 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type E1 (surface rock)											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4794	Grout (l) 165.9	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 5.0	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	20	17	3.00	$ 441.04	$ 1,321.96	$ 26,439.12	20	$ 1,321.96	
	Excavate	Found Excavation	each	20	19	3.00	$ 1,143.76	$ 3,426.56	$ 68,531.20	20	$ 3,426.56	
	Prepare Rock Surface	Found Excavation	each	20	19	3.50	$ 1,143.76	$ 4,003.16	$ 80,063.17	20	$ 4,003.16	
	Rock drill Setup	Rock Foundations	each	20	36	1.00	$ 920.20	$ 920.20	$ 18,404.08	20	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	20	24	10.80	$ 935.63	$ 10,106.32	$ 202,126.45	20	$ 10,106.32	
	Backfill & Compact	Backfill and Compact	each	20	21	4.47	$ 959.25	$ 4,286.76	$ 85,735.24	20	$ 4,286.76	
	Cleanup	Site Cleanup	each	20	22	2.00	$ 194.96	$ 389.92	$ 7,798.43	20	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	20	24	1.00	$ 935.63	$ 935.63	$ 18,712.53	20	$ 935.63	
			each	20			$ -	$ -	$ -	20	$ -	
			each	20			$ -	$ -	$ -	20	$ -	
			each	20			$ -	$ -	$ -	20	$ -	
								$ 25,390.51	$ 507,810.20		$ 25,390.51	

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C49	**S1-C49 Installation and Testing of 25M Mechanical Rock Anchor as per design** **Total structure count:**		**9173**	**LM**			**$ 1,735,557.74**		**$ 189.20**	**$ 23.48**	**$ 212.69**	**$ 215,413.78**
	S1-C49 Installation and Testing of 25M Mechanical Rock Anchor as per design drawings and technical specification											
	Grout (l) 2.6 / Grout (unit) 0.3			#Anchor Holes 1.00	Hole Depth (m) 1.0	Hole Dia. (mm) 50.0						
Drill and Install Rock Anchors	Rock Foundations	each	9173	36	0.14	$ 920.20	$ 130.14	$ 1,193,741.77	9173	$ 130.14		
Grout Anchor	Grout Crew	each	9173	23	0.15	$ 393.78	$ 59.07	$ 541,815.97	9173	$ 59.07		
		each	9173			$ -	$ -	$ -	9173	$ -		
		each	9173			$ -	$ -	$ -	9173	$ -		
		each	9173			$ -	$ -	$ -	9173	$ -		
		each	9173			$ -	$ -	$ -	9173	$ -		
		each	9173			$ -	$ -	$ -	9173	$ -		
		each	9173			$ -	$ -	$ -	9173	$ -		
		each	9173			$ -	$ -	$ -	9173	$ -		
							$ 189.20	$ 1,735,557.74		$ 189.20		
V::C50	**S1-C50 Installation and Testing of 29M Mechanical Rock Anchor as per design** **Total structure count:**		**276**	**LM**			**$ 54,651.89**		**$ 198.01**	**$ 30.52**	**$ 228.53**	**$ 8,423.27**
	S1-C50 Installation and Testing of 29M Mechanical Rock Anchor as per design drawings and technical specification											
	Grout (l) 3.3 / Grout (unit) 0.3			#Anchor Holes 1.00	Hole Depth (m) 1.0	Hole Dia. (mm) 57.0						
Drill and Install Rock Anchors	Rock Foundations	each	276	36	0.15	$ 920.20	$ 138.95	$ 38,349.57	276	$ 138.95		
Grout Anchor	Grout Crew	each	276	23	0.15	$ 393.78	$ 59.07	$ 16,302.32	276	$ 59.07		
		each	276			$ -	$ -	$ -	276	$ -		
		each	276			$ -	$ -	$ -	276	$ -		
		each	276			$ -	$ -	$ -	276	$ -		
		each	276			$ -	$ -	$ -	276	$ -		
		each	276			$ -	$ -	$ -	276	$ -		
		each	276			$ -	$ -	$ -	276	$ -		
		each	276			$ -	$ -	$ -	276	$ -		
		each	276			$ -	$ -	$ -	276	$ -		
							$ 198.01	$ 54,651.89		$ 198.01		
V::C51	**S1-C51 Installation and Testing of 32M Mechanical Rock Anchor as per design** **Total structure count:**		**0**	**LM**			**$ -**		**$ 214.99**	**$ 37.28**	**$ 252.27**	**$ -**
	S1-C51 Installation and Testing of 32M Mechanical Rock Anchor as per design drawings and technical specification											
	Grout (l) 4.1 / Grout (unit) 0.4			#Anchor Holes 1.00	Hole Depth (m) 1.0	Hole Dia. (mm) 63.0						
Drill and Install Rock Anchors	Rock Foundations	each	0	36	0.16	$ 920.20	$ 146.08	$ -	0	$ -		
Grout Anchor	Grout Crew	each	0	23	0.18	$ 393.78	$ 68.91	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
							$ 214.99	$ -		$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units	Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C52	**S1-C52 Installation and Testing of 43M Mechanical Rock Anchor as per design** **Total structure count:**		**24108**		**LM**			**$ 5,610,768.67**		**$ 232.73**	**$ 46.03**	**$ 278.76**	**$ 1,109,632.94**
	S1-C52 Installation and Testing of 43M Mechanical Rock Anchor as per design drawings and technical specification												
	Grout (l): 5.0 / Grout (unit): 0.5				#Anchor Holes: 1.00	Hole Depth (m): 1.0	Hole Dia. (mm): 70.0						
	Drill and Install Rock Anchors (Rock Foundations)	each	24108	36	0.17	$ 920.20	$ 153.98	$ 3,712,138.73	24108	$ 153.98			
	Grout Anchor (Grout Crew)	each	24108	23	0.20	$ 393.78	$ 78.76	$ 1,898,629.94	24108	$ 78.76			
		each	24108			$ -	$ -	$ -	24108	$ -			
		each	24108			$ -	$ -	$ -	24108	$ -			
		each	24108			$ -	$ -	$ -	24108	$ -			
		each	24108			$ -	$ -	$ -	24108	$ -			
		each	24108			$ -	$ -	$ -	24108	$ -			
		each	24108			$ -	$ -	$ -	24108	$ -			
		each	24108			$ -	$ -	$ -	24108	$ -			
		each	24108			$ -	$ -	$ -	24108	$ -			
							$ 232.73	$ 5,610,768.67		$ 232.73			
V::C53	**S1-C53 Installation and Testing of 57M Mechanical Rock Anchor as per design** **Total structure count:**		**145**		**LM**			**$ 37,158.96**		**$ 256.27**	**$ 64.71**	**$ 320.98**	**$ 9,383.10**
	S1-C53 Installation and Testing of 57M Mechanical Rock Anchor as per design drawings and technical specification												
	Grout (l): 7.0 / Grout (unit): 0.6				#Anchor Holes: 1.00	Hole Depth (m): 1.0	Hole Dia. (mm): 83.0						
	Drill and Install Rock Anchors (Rock Foundations)	each	145	36	0.18	$ 920.20	$ 167.67	$ 24,312.02	145	$ 167.67			
	Grout Anchor (Grout Crew)	each	145	23	0.23	$ 393.78	$ 88.60	$ 12,846.94	145	$ 88.60			
		each	145			$ -	$ -	$ -	145	$ -			
		each	145			$ -	$ -	$ -	145	$ -			
		each	145			$ -	$ -	$ -	145	$ -			
		each	145			$ -	$ -	$ -	145	$ -			
		each	145			$ -	$ -	$ -	145	$ -			
		each	145			$ -	$ -	$ -	145	$ -			
		each	145			$ -	$ -	$ -	145	$ -			
		each	145			$ -	$ -	$ -	145	$ -			
		each	145			$ -	$ -	$ -	145	$ -			
							$ 256.27	$ 37,158.96		$ 256.27			
		381	97.53007652										
V::C54	**S1-C54 Installation and Testing of 64M Mechanical Rock Anchor as per design** **Total structure count:**		**9**		**LM**			**$ 2,457.36**		**$ 273.04**	**$ 76.09**	**$ 349.13**	**$ 684.78**
	S1-C54 Installation and Testing of 64M Mechanical Rock Anchor as per design drawings and technical specification												
	Grout (l): 8.3 / Grout (unit): 0.7				#Anchor Holes: 1.00	Hole Depth (m): 1.0	Hole Dia. (mm): 90.0						
	Drill and Install Rock Anchors (Rock Foundations)	each	9	36	0.19	$ 920.20	$ 174.60	$ 1,571.37	9	$ 174.60			
	Grout Anchor (Grout Crew)	each	9	23	0.25	$ 393.78	$ 98.44	$ 886.00	9	$ 98.44			
		each	9			$ -	$ -	$ -	9	$ -			
		each	9			$ -	$ -	$ -	9	$ -			
		each	9			$ -	$ -	$ -	9	$ -			
		each	9			$ -	$ -	$ -	9	$ -			
		each	9			$ -	$ -	$ -	9	$ -			
		each	9			$ -	$ -	$ -	9	$ -			
		each	9			$ -	$ -	$ -	9	$ -			
		each	9			$ -	$ -	$ -	9	$ -			
							$ 273.04	$ 2,457.36		$ 273.04			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H11	**H-Pile Foundations**											
V::C55	**S1-C55 Design, Assembly and Installation of Foundation Type A1-3 as per Dwg** **Total structure count:**		**3**		**EA**		**$ 7,060.19**		**$ 2,353.40**	**$ 44,266.30**	**$ 46,619.70**	**$ 132,798.91**
	S1-C55 Design, Assembly and Installation of Foundation Type A1-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A1 including supply and installation of steep cap.											
	Site Preparation (Site Preparation)	each	3	2	2.00	$ 675.12	$ 1,350.24	$ 4,050.73	3	$ 1,350.24		
	supervisor (Supervisory)	each	3	29	6.00	$ 167.19	$ 1,003.15	$ 3,009.46	3	$ 1,003.15		
		each	3			$ -	$ -	$ -	3	$ -		
		each	3			$ -	$ -	$ -	3	$ -		
		each	3			$ -	$ -	$ -	3	$ -		
							$ 2,353.40	$ 7,060.19		$ 2,353.40		
V::C56	**S1-C56 Design, Assembly and Installation of Foundation Type A2-3 as per Dwg** **Total structure count:**		**1**		**EA**		**$ 2,353.40**		**$ 2,353.40**	**$ 44,266.30**	**$ 46,619.70**	**$ 44,266.30**
	S1-C56 Design, Assembly and Installation of Foundation Type A2-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A2 including supply and installation of steep cap.											
	Site Preparation (Site Preparation)	each	1	2	2.00	$ 675.12	$ 1,350.24	$ 1,350.24	1	$ 1,350.24		
	supervisor (Supervisory)	each	1	29	6.00	$ 167.19	$ 1,003.15	$ 1,003.15	1	$ 1,003.15		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
							$ 2,353.40	$ 2,353.40		$ 2,353.40		
V::C57	**S1-C57 Design, Assembly and Installation of Foundation Type A3-3 as per Dwg** **Total structure count:**		**0**		**EA**		**$ -**		**$ 2,353.40**	**$ 44,266.30**	**$ 46,619.70**	**$ -**
	S1-C57 Design, Assembly and Installation of Foundation Type A3-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A3 including supply and installation of steep cap.											
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	supervisor (Supervisory)	each	0	29	6.00	$ 167.19	$ 1,003.15	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
							$ 2,353.40	$ -		$ -		
V::C58	**S1-C58 Design, Assembly and Installation of Foundation Type A4-3 as per Dwg** **Total structure count:**		**1**		**EA**		**$ 2,353.40**		**$ 2,353.40**	**$ 44,266.30**	**$ 46,619.70**	**$ 44,266.30**
	S1-C58 Design, Assembly and Installation of Foundation Type A4-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A4 including supply and installation of steep cap.											
	Site Preparation (Site Preparation)	each	1	2	2.00	$ 675.12	$ 1,350.24	$ 1,350.24	1	$ 1,350.24		
	supervisor (Supervisory)	each	1	29	6.00	$ 167.19	$ 1,003.15	$ 1,003.15	1	$ 1,003.15		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
							$ 2,353.40	$ 2,353.40		$ 2,353.40		
V::C59	**S1-C59 Design, Assembly and Installation of Foundation Type B1-3 as per Dwg** **Total structure count:**		**0**		**EA**		**$ -**		**$ 2,353.40**	**$ 44,266.30**	**$ 46,619.70**	**$ -**
	S1-C59 Design, Assembly and Installation of Foundation Type B1-3 as per Dwg 505573-4622-42DD-0037 for Tower Type B1 including supply and installation of steep cap.											
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	supervisor (Supervisory)	each	0	29	6.00	$ 167.19	$ 1,003.15	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
							$ 2,353.40	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C60	**S1-C60 Design, Assembly and Installation of Foundation Type B2-3 as per Dwg** **Total structure count:**		**4**	**EA**			**$ 21,451.42**		**$ 5,362.85**	**$ 208,457.28**	**$ 213,820.13**	**$ 833,829.12**
	S1-C60 Design, Assembly and Installation of Foundation Type B2-3 as per Dwg 505573-4622-42DD-0046 for Tower Type B2 including supply and installation of steep cap.											
	Site Preparation (Site Preparation)	each 4	2	2.00	$ 675.12	$ 1,350.24	$ 5,400.98	4	$ 1,350.24			
	supervisor (Supervisory)	each 4	29	24.00	$ 167.19	$ 4,012.61	$ 16,050.44	4	$ 4,012.61			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
						$ 5,362.85	$ 21,451.42		$ 5,362.85			
V::C61	**S1-C61 Design, Assembly and Installation of Foundation Type C1-3 as per Dwg** **Total structure count:**		**0**	**EA**			**$ -**		**$ 5,362.85**	**$ 208,457.28**	**$ 213,820.13**	**$ -**
	S1-C61 Design, Assembly and Installation of Foundation Type C1-3 as per Dwg 505573-4622-42DD-0046 for Tower Type C1 including supply and installation of steel cap.											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	supervisor (Supervisory)	each 0	29	24.00	$ 167.19	$ 4,012.61	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ 5,362.85	$ -		$ -			
V::C62	**S1-C62 Design, Assembly and Installation of Foundation Type C2-3 as per Dwg** **Total structure count:**		**4**	**EA**			**$ 21,451.42**		**$ 5,362.85**	**$ 208,457.28**	**$ 213,820.13**	**$ 833,829.12**
	S1-C62 Design, Assembly and Installation of Foundation Type C2-3 as per Dwg 505573-4622-42DD-0046 for Tower Type C2 including supply and installation of steel cap.											
	Site Preparation (Site Preparation)	each 4	2	2.00	$ 675.12	$ 1,350.24	$ 5,400.98	4	$ 1,350.24			
	supervisor (Supervisory)	each 4	29	24.00	$ 167.19	$ 4,012.61	$ 16,050.44	4	$ 4,012.61			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
						$ 5,362.85	$ 21,451.42		$ 5,362.85			
V::C63	**S1-C63 Design, Assembly and Installation of Foundation Type D1-3 per Dwg** **Total structure count:**		**0**	**EA**			**$ -**		**$ 5,362.85**	**$ 208,457.28**	**$ 213,820.13**	**$ -**
	S1-C63 Design, Assembly and Installation of Foundation Type D1-3 per Dwg 505573-4622-42DD-0046 for Tower Type D1 including supply and installation of steel cap.											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	supervisor (Supervisory)	each 0	29	24.00	$ 167.19	$ 4,012.61	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ 5,362.85	$ -		$ -			
V::C64	**S1-C64 Design, Assembly and Installation of Foundation Type D2-3 as per Dwg** **Total structure count:**		**0**	**EA**			**$ -**		**$ 5,362.85**	**$ 208,457.28**	**$ 213,820.13**	**$ -**
	S1-C64 Design, Assembly and Installation of Foundation Type D2-3 as per Dwg 505573-4622-42DD-0046 for Tower Type D2 including supply and installation of steel cap.											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	supervisor (Supervisory)	each 0	29	24.00	$ 167.19	$ 4,012.61	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ 5,362.85	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C65	**S1-C65 Design, Assembly and Installation of Foundation Type E1-3 as per Dwg** **Total structure count:**		**4**	**EA**			**$ 21,451.42**		**$ 5,362.85**	**$ 208,457.28**	**$ 213,820.13**	**$ 833,829.12**
	S1-C65 Design, Assembly and Installation of Foundation Type E1-3 as per Dwg 505573-4622-42DD-0046 for Tower Type E1 including supply and installation of steel cap.											
	Site Preparation (Site Preparation)	each	4	2	2.00	$ 675.12	$ 1,350.24	$ 5,400.98	4	$ 1,350.24		
	supervisor (Supervisory)	each	4	29	24.00	$ 167.19	$ 4,012.61	$ 16,050.44	4	$ 4,012.61		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
							$ 5,362.85	$ 21,451.42		$ 5,362.85		
V::C66	**S1-C66 Rock anchor to be installed with S1-C60 to S1-C65 item above as per the** **Total structure count:**		**720**	**LM**			**$ -**		**$ -**	**$ 468.58**	**$ 468.58**	**$ 337,380.55**
	S1-C66 Rock anchor to be installed with S1-C60 to S1-C65 item above as per the design drawings and technical specifications (length in bog not considered)											
		each	720			$ -	$ -	$ -	720	$ -		
		each	720			$ -	$ -	$ -	720	$ -		
		each	720			$ -	$ -	$ -	720	$ -		
		each	720			$ -	$ -	$ -	720	$ -		
		each	720			$ -	$ -	$ -	720	$ -		
		each	720			$ -	$ -	$ -	720	$ -		
		each	720			$ -	$ -	$ -	720	$ -		
		each	720			$ -	$ -	$ -	720	$ -		
		each	720			$ -	$ -	$ -	720	$ -		
							$ -	$ -		$ -		
V::C67	**S1-C67 Supply, and installation of H-Piles, HP 360 x 108, Grade 350AT** **Total structure count:**		**2040**	**LM**			**$ -**		**$ -**	**$ 580.69**	**$ 580.69**	**$ 1,184,606.25**
	S1-C67 Supply, and installation of H-Piles, HP 360 x 108, Grade 350AT											
		each	2040			$ -	$ -	$ -	2040	$ -		
		each	2040			$ -	$ -	$ -	2040	$ -		
		each	2040			$ -	$ -	$ -	2040	$ -		
		each	2040			$ -	$ -	$ -	2040	$ -		
		each	2040			$ -	$ -	$ -	2040	$ -		
		each	2040			$ -	$ -	$ -	2040	$ -		
		each	2040			$ -	$ -	$ -	2040	$ -		
		each	2040			$ -	$ -	$ -	2040	$ -		
		each	2040			$ -	$ -	$ -	2040	$ -		
							$ -	$ -		$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description		Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H12	**Bog and Poor Soil**												
V::C68	**S1-C68 Supply and Installation of Cribs for excavation protection of tower types** **Total structure count:**		**6700**		**M2**			**$ 2,962,865.07**		**$ 442.22**	**$ 254.37**	**$ 696.59**	**$ 1,704,268.95**
	S1-C68 Supply and Installation of Cribs for excavation protection of tower types A1, A2, A3, A4, B1, B2, C1, C2, D1, D2, E1 for any type of Foundation as per Dwg 505573-4622-42DD-0069 and												
	Hauling (Hauling)	each	6700	1	0.30	$ 441.04	$ 132.31	$ 886,494.39	6700	$ 132.31			
	Assembly (Grillage Installation)	each	6700	20	0.13	$ 1,002.72	$ 125.34	$ 839,776.79	6700	$ 125.34			
	Installation (Grillage Installation)	each	6700	20	0.05	$ 1,002.72	$ 50.14	$ 335,910.71	6700	$ 50.14			
	extra excavation and De-watering (Found Excavation)	each	6700	19	0.10	$ 1,143.76	$ 114.38	$ 766,318.90	6700	$ 114.38			
	Remove Top section (Grillage Installation)	each	6700	20	0.02	$ 1,002.72	$ 20.05	$ 134,364.29	6700	$ 20.05			
							$ 442.22	$ 2,962,865.07		$ 442.22			
V-H13	**Earthwork**												
V::C69	**S1-C69 Transportation of native backfill** **Total structure count:**		**1000**		**KM**			**$ 49,004.66**		$ 49.00	**$ -**	**$ 49.00**	**$ -**
	S1-C69 Transportation of native backfill												
	Hauling (Foundation Haul)	each	1000	17	0.11	$ 441.04	$ 49.00	$ 49,004.66	1000	$ 49.00			
		each	1000			$ -	$ -	$ -	1000	$ -			
		each	1000			$ -	$ -	$ -	1000	$ -			
		each	1000			$ -	$ -	$ -	1000	$ -			
		each	1000			$ -	$ -	$ -	1000	$ -			
		each	1000			$ -	$ -	$ -	1000	$ -			
		each	1000			$ -	$ -	$ -	1000	$ -			
		each	1000			$ -	$ -	$ -	1000	$ -			
		each	1000			$ -	$ -	$ -	1000	$ -			
							$ 49.00	$ 49,004.66		$ 49.00			
V::C70	**S1-C70 Supply and transportation of approved fill from an alternate** **Total structure count:**		**14000**		**M3 * KM**			**$ 376,185.86**		**$ 26.87**	**$ 106.61**	**$ 133.48**	**$ 1,492,470.00**
	S1-C70 Supply and transportation of approved fill from an alternate source/processed material/road gravel												
	Hauling (Camp Haul)	each	14000	46	0.11	$ 241.83	$ 26.87	$ 376,185.86	14000	$ 26.87			
		each	14000			$ -	$ -	$ -	14000	$ -			
		each	14000			$ -	$ -	$ -	14000	$ -			
		each	14000			$ -	$ -	$ -	14000	$ -			
		each	14000			$ -	$ -	$ -	14000	$ -			
		each	14000			$ -	$ -	$ -	14000	$ -			
		each	14000			$ -	$ -	$ -	14000	$ -			
		each	14000			$ -	$ -	$ -	14000	$ -			
		each	14000			$ -	$ -	$ -	14000	$ -			
							$ 26.87	$ 376,185.86		$ 26.87			
V::C71	**S1-C71 Rock blasting/preparation** **Total structure count:**		**1000**		**M3**			**$ 1,143,759.55**		**$ 1,143.76**	**$ -**	**$ 1,143.76**	**$ -**
	S1-C71 Rock blasting/preparation												
	Site Prep (Found Excavation)	each	1000	19	1.00	$ 1,143.76	$ 1,143.76	$ 1,143,759.55	1000	$ 1,143.76			
		each	1000			$ -	$ -	$ -	1000	$ -			
		each	1000			$ -	$ -	$ -	1000	$ -			
		each	1000			$ -	$ -	$ -	1000	$ -			
		each	1000			$ -	$ -	$ -	1000	$ -			
		each	1000			$ -	$ -	$ -	1000	$ -			
		each	1000			$ -	$ -	$ -	1000	$ -			
		each	1000			$ -	$ -	$ -	1000	$ -			
		each	1000			$ -	$ -	$ -	1000	$ -			
							$ 1,143.76	$ 1,143,759.55		$ 1,143.76			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H14	**S1-D Tower Assembly and Erection (S1-Dx)**		**Tower Setting Ratio**	**0.00 Helicopter**			**100% Crane**					
V-H15	**Assembly and Erection of Suspension Tower Type "A1"**											
V::D01	**S1-D1 Assembly and Erection of Suspension Tower Type "A1 + 0" as per dwg.** **Total structure count:**		**0**	**EA**			$ -		$ 46,415.93	$ -	$ 46,415.93	$ -
	S1-D1 Assembly and Erection of Suspension Tower Type "A1 + 0" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 14925 Total Tower Height(ft) = 123 Section Weight (lb) = 13999											
	Site Preparation — Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul — Hauling	each	0	1	7.37	$ 441.04	$ 3,250.98	$ -	0	$ -		
	Setup Blocks — Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower — Lattice Assembly	each	0	4	24.00	$ 1,183.92	$ 28,410.51	$ -	0	$ -		
	Install Guy Strand — Guy Install	each	0	39	2.00	$ 1,258.65	$ 2,517.30	$ -	0	$ -		
	Helicopter Set — HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set — Y- Tower Erection	each	0	40	2.50	$ 1,482.09	$ 3,705.24	$ -	0	$ -		
	Plumb Tower — Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers — Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers — Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -		
	Tie -in — Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -		
	Total Cost = $ 2.877	per pound					$ 46,415.93	$ -		$ -		
V::D02	**S1-D2 Assembly and Erection of Suspension Tower Type "A1 + 1.5" as per dwg.** **Total structure count:**		**0**	**EA**			$ -		$ 47,467.99	$ -	$ 47,467.99	$ -
	S1-D2 Assembly and Erection of Suspension Tower Type "A1 + 1.5" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 15440 Total Tower Height(ft) = 128 Section Weight (lb) = 14465											
	Site Preparation — Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul — Hauling	each	0	1	7.62	$ 441.04	$ 3,359.00	$ -	0	$ -		
	Setup Blocks — Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower — Lattice Assembly	each	0	4	24.79	$ 1,183.92	$ 29,354.54	$ -	0	$ -		
	Install Guy Strand — Guy Install	each	0	39	2.00	$ 1,258.65	$ 2,517.30	$ -	0	$ -		
	Helicopter Set — HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set — Y- Tower Erection	each	0	40	2.50	$ 1,482.09	$ 3,705.24	$ -	0	$ -		
	Plumb Tower — Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers — Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers — Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -		
	Tie -in — Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -		
	Total Cost = $ 2.857	per pound				$ -	$ -	$ -	0	$ -		
							$ 47,467.99	$ -		$ -		
V::D03	**S1-D3 Assembly and Erection of Suspension Tower Type "A1 + 3" as per dwg.** **Total structure count:**		**0**	**EA**			$ -		$ 48,061.33	$ -	$ 48,061.33	$ -
	S1-D3 Assembly and Erection of Suspension Tower Type "A1 + 3" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 15753 Total Tower Height(ft) = 133 Section Weight (lb) = 14727											
	Site Preparation — Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul — Hauling	each	0	1	7.75	$ 441.04	$ 3,419.92	$ -	0	$ -		
	Setup Blocks — Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower — Lattice Assembly	each	0	4	25.24	$ 1,183.92	$ 29,886.96	$ -	0	$ -		
	Install Guy Strand — Guy Install	each	0	39	2.00	$ 1,258.65	$ 2,517.30	$ -	0	$ -		
	Helicopter Set — HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set — Y- Tower Erection	each	0	40	2.50	$ 1,482.09	$ 3,705.24	$ -	0	$ -		
	Plumb Tower — Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers — Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers — Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -		
	Tie -in — Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -		
	Total Cost = $ 2.938	per pound				$ -	$ -	$ -	0	$ -		
							$ 48,061.33	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D04	**S1-D4 Assembly and Erection of Suspension Tower Type "A1 + 4.5" as per dwg. Total structure count:**		**0**	**EA**			**$ -**		**$ 49,113.39**	**$ -**	**$ 49,113.39**	**$ -**
	S1-D4 Assembly and Erection of Suspension Tower Type "A1 + 4.5" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 16268 Total Tower Height(ft) = 138 Section Weight (lb) = 15192											
	Site Preparation Site Preparation	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul Hauling	each 0	1	8.00	$ 441.04	$ 3,527.95	$ -	0	$ -			
	Setup Blocks Blocking Crew	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower Lattice Assembly	each 0	4	26.04	$ 1,183.92	$ 30,831.00	$ -	0	$ -			
	Install Guy Strand Guy Install	each 0	39	2.00	$ 1,258.65	$ 2,517.30	$ -	0	$ -			
	Helicopter Set HL Helicopter	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set Y- Tower Erection	each 0	40	2.50	$ 1,482.09	$ 3,705.24	$ -	0	$ -			
	Plumb Tower Tower Plumb	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers Haul Travellers&Glass	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers Hang Travellers	each 0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -			
	Tie -in Tie -in	each 0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -			
	Total Cost = $ 2.917	per pound			$ -	$ -	$ -	0	$ -			
						$ 49,113.39	$ -		$ -			
V::D05	**S1-D5 Assembly and Erection of Suspension Tower Type "A1 + 6" as per dwg. Total structure count:**		**67**	**EA**			**$ 3,302,623.59**		**$ 49,292.89**	**$ -**	**$ 49,292.89**	**$ -**
	S1-D5 Assembly and Erection of Suspension Tower Type "A1 + 6" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 16398 Total Tower Height(ft) = 143 Section Weight (lb) = 15272											
	Site Preparation Site Preparation	each 67	2	2.00	$ 675.12	$ 1,350.24	$ 90,466.41	67	$ 1,350.24			
	Haul Hauling	each 67	1	8.04	$ 441.04	$ 3,546.38	$ 237,607.46	67	$ 3,546.38			
	Setup Blocks Blocking Crew	each 67	3	2.00	$ 281.84	$ 563.68	$ 37,766.87	67	$ 563.68			
	Assemble Tower Lattice Assembly	each 67	4	26.18	$ 1,183.92	$ 30,992.06	$ 2,076,468.24	67	$ 30,992.06			
	Install Guy Strand Guy Install	each 67	39	2.00	$ 1,258.65	$ 2,517.30	$ 168,659.07	67	$ 2,517.30			
	Helicopter Set HL Helicopter	each 67	27	0.00	$ 21,899.72	$ -	$ -	67	$ -			
	Crane Set Y- Tower Erection	each 67	40	2.50	$ 1,482.09	$ 3,705.24	$ 248,250.77	67	$ 3,705.24			
	Plumb Tower Tower Plumb	each 67	41	2.00	$ 913.00	$ 1,826.00	$ 122,342.20	67	$ 1,826.00			
	haul Insulators and Travellers Haul Travellers&Glass	each 67	7	2.00	$ 636.64	$ 1,273.27	$ 85,309.41	67	$ 1,273.27			
	Hang Travellers Hang Travellers	each 67	8	1.50	$ 1,444.07	$ 2,166.10	$ 145,128.73	67	$ 2,166.10			
	Tie -in Tie -in	each 67	12	2.00	$ 676.30	$ 1,352.60	$ 90,624.44	67	$ 1,352.60			
	Total Cost = $ 2.914	per pound			$ -	$ -	$ -	67	$ -			
						$ 49,292.89	$ 3,302,623.59		$ 49,292.89			
V::D06	**S1-D6 Assembly and Erection of Suspension Tower Type "A1 + 7.5" as per dwg. Total structure count:**		**26**	**EA**			**$ 1,300,282.94**		**$ 50,010.88**	**$ -**	**$ 50,010.88**	**$ -**
	S1-D6 Assembly and Erection of Suspension Tower Type "A1 + 7.5" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 16766 Total Tower Height(ft) = 148 Section Weight (lb) = 15589											
	Site Preparation Site Preparation	each 26	2	2.00	$ 675.12	$ 1,350.24	$ 35,106.37	26	$ 1,350.24			
	Haul Hauling	each 26	1	8.21	$ 441.04	$ 3,620.10	$ 94,122.68	26	$ 3,620.10			
	Setup Blocks Blocking Crew	each 26	3	2.00	$ 281.84	$ 563.68	$ 14,655.80	26	$ 563.68			
	Assemble Tower Lattice Assembly	each 26	4	26.72	$ 1,183.92	$ 31,636.33	$ 822,544.66	26	$ 31,636.33			
	Install Guy Strand Guy Install	each 26	39	2.00	$ 1,258.65	$ 2,517.30	$ 65,449.79	26	$ 2,517.30			
	Helicopter Set HL Helicopter	each 26	27	0.00	$ 21,899.72	$ -	$ -	26	$ -			
	Crane Set Y- Tower Erection	each 26	40	2.50	$ 1,482.09	$ 3,705.24	$ 96,336.12	26	$ 3,705.24			
	Plumb Tower Tower Plumb	each 26	41	2.00	$ 913.00	$ 1,826.00	$ 47,476.08	26	$ 1,826.00			
	haul Insulators and Travellers Haul Travellers&Glass	each 26	7	2.00	$ 636.64	$ 1,273.27	$ 33,105.14	26	$ 1,273.27			
	Hang Travellers Hang Travellers	each 26	8	1.50	$ 1,444.07	$ 2,166.10	$ 56,318.61	26	$ 2,166.10			
	Tie -in Tie -in	each 26	12	2.00	$ 676.30	$ 1,352.60	$ 35,167.69	26	$ 1,352.60			
		each 26			$ -	$ -	$ -	26	$ -			
	Total Cost = $ 2.901	per pound				$ 50,010.88	$ 1,300,282.94		$ 50,010.88			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D07	**S1-D7 Assembly and Erection of Suspension Tower Type "A1 + 9" as per dwg. Total structure count:**		**27**	**EA**			**$ 1,365,506.29**		**$ 50,574.31**	**$ -**	**$ 50,574.31**	**$ -**
	S1-D7 Assembly and Erection of Suspension Tower Type "A1 + 9" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 17066 Total Tower Height(ft) = 153 Section Weight (lb) = 15838											
	Site Preparation (Site Preparation)	each 27	2	2.00	$ 675.12	$ 1,350.24	$ 36,456.61	27	$ 1,350.24			
	Haul (Hauling)	each 27	1	8.34	$ 441.04	$ 3,677.95	$ 99,304.78	27	$ 3,677.95			
	Setup Blocks (Blocking Crew)	each 27	3	2.00	$ 281.84	$ 563.68	$ 15,219.48	27	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 27	4	27.15	$ 1,183.92	$ 32,141.91	$ 867,831.46	27	$ 32,141.91			
	Install Guy Strand (Guy Install)	each 27	39	2.00	$ 1,258.65	$ 2,517.30	$ 67,967.09	27	$ 2,517.30			
	Helicopter Set (HL Helicopter)	each 27	27	0.00	$ 21,899.72	$ -	$ -	27	$ -			
	Crane Set (Y- Tower Erection)	each 27	40	2.50	$ 1,482.09	$ 3,705.24	$ 100,041.35	27	$ 3,705.24			
	Plumb Tower (Tower Plumb)	each 27	41	2.00	$ 913.00	$ 1,826.00	$ 49,302.08	27	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 27	7	2.00	$ 636.64	$ 1,273.27	$ 34,378.42	27	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 27	8	1.50	$ 1,444.07	$ 2,166.10	$ 58,484.71	27	$ 2,166.10			
	Tie -in (Tie -in)	each 27	12	2.00	$ 676.30	$ 1,352.60	$ 36,520.29	27	$ 1,352.60			
		each 27			$ -	$ -	$ -	27	$ -			
		each 27			$ -	$ -	$ -	27	$ -			
	Total Cost = $ 2.891	per pound				$ 50,574.31	$ 1,365,506.29		$ 50,574.31			
V::D08	**S1-D8 Assembly and Erection of Suspension Tower Type "A1 + 10.5" as per Total structure count:**		**28**	**EA**			**$ 1,446,375.90**		**$ 51,656.28**	**$ -**	**$ 51,656.28**	**$ -**
	S1-D8 Assembly and Erection of Suspension Tower Type "A1 + 10.5" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 17594 Total Tower Height(ft) = 158 Section Weight (lb) = 16316											
	Site Preparation (Site Preparation)	each 28	2	2.00	$ 675.12	$ 1,350.24	$ 37,806.86	28	$ 1,350.24			
	Haul (Hauling)	each 28	1	8.59	$ 441.04	$ 3,789.05	$ 106,093.44	28	$ 3,789.05			
	Setup Blocks (Blocking Crew)	each 28	3	2.00	$ 281.84	$ 563.68	$ 15,783.17	28	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 28	4	27.97	$ 1,183.92	$ 33,112.78	$ 927,157.97	28	$ 33,112.78			
	Install Guy Strand (Guy Install)	each 28	39	2.00	$ 1,258.65	$ 2,517.30	$ 70,484.39	28	$ 2,517.30			
	Helicopter Set (HL Helicopter)	each 28	27	0.00	$ 21,899.72	$ -	$ -	28	$ -			
	Crane Set (Y- Tower Erection)	each 28	40	2.50	$ 1,482.09	$ 3,705.24	$ 103,746.59	28	$ 3,705.24			
	Plumb Tower (Tower Plumb)	each 28	41	2.00	$ 913.00	$ 1,826.00	$ 51,128.09	28	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 28	7	2.00	$ 636.64	$ 1,273.27	$ 35,651.69	28	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 28	8	1.50	$ 1,444.07	$ 2,166.10	$ 60,650.81	28	$ 2,166.10			
	Tie -in (Tie -in)	each 28	12	2.00	$ 676.30	$ 1,352.60	$ 37,872.90	28	$ 1,352.60			
		each 28			$ -	$ -	$ -	28	$ -			
	Total Cost = $ 2.872	per pound				$ 51,656.28	$ 1,446,375.90		$ 51,656.28			
V::D09	**S1-D9 Assembly and Erection of Suspension Tower Type "A1 + 12" as per dwg. Total structure count:**		**33**	**EA**			**$ 1,721,604.94**		**$ 52,169.85**	**$ -**	**$ 52,169.85**	**$ -**
	S1-D9 Assembly and Erection of Suspension Tower Type "A1 + 12" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 17872 Total Tower Height(ft) = 163 Section Weight (lb) = 16544											
	Site Preparation (Site Preparation)	each 33	2	2.00	$ 675.12	$ 1,350.24	$ 44,558.08	33	$ 1,350.24			
	Haul (Hauling)	each 33	1	8.71	$ 441.04	$ 3,841.78	$ 126,778.86	33	$ 3,841.78			
	Setup Blocks (Blocking Crew)	each 33	3	2.00	$ 281.84	$ 563.68	$ 18,601.59	33	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 33	4	28.36	$ 1,183.92	$ 33,573.62	$ 1,107,929.35	33	$ 33,573.62			
	Install Guy Strand (Guy Install)	each 33	39	2.00	$ 1,258.65	$ 2,517.30	$ 83,070.88	33	$ 2,517.30			
	Helicopter Set (HL Helicopter)	each 33	27	0.00	$ 21,899.72	$ -	$ -	33	$ -			
	Crane Set (Y- Tower Erection)	each 33	40	2.50	$ 1,482.09	$ 3,705.24	$ 122,272.77	33	$ 3,705.24			
	Plumb Tower (Tower Plumb)	each 33	41	2.00	$ 913.00	$ 1,826.00	$ 60,258.10	33	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 33	7	2.00	$ 636.64	$ 1,273.27	$ 42,018.07	33	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 33	8	1.50	$ 1,444.07	$ 2,166.10	$ 71,481.31	33	$ 2,166.10			
	Tie -in (Tie -in)	each 33	12	2.00	$ 676.30	$ 1,352.60	$ 44,635.92	33	$ 1,352.60			
		each 33			$ -	$ -	$ -	33	$ -			
	Total Cost = $ 2.864	per pound				$ 52,169.85	$ 1,721,604.94		$ 52,169.85			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D10	**S1-D10 Assembly and Erection of Suspension Tower Type "A1 + 13.5" as per** **Total structure count:**		**25**	**EA**			**$ 1,322,195.98**		**$ 52,887.84**	**$ -**	**$ 52,887.84**	**$ -**
	S1-D10 Assembly and Erection of Suspension Tower Type "A1 + 13.5" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 18240 Total Tower Height(ft) = 168 Section Weight (lb) = 16861											
	Site Preparation (Site Preparation)	each 25	2	2.00	$ 675.12	$ 1,350.24	$ 33,756.12	25	$ 1,350.24			
	Haul (Hauling)	each 25	1	8.88	$ 441.04	$ 3,915.51	$ 97,887.67	25	$ 3,915.51			
	Setup Blocks (Blocking Crew)	each 25	3	2.00	$ 281.84	$ 563.68	$ 14,092.11	25	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 25	4	28.90	$ 1,183.92	$ 34,217.89	$ 855,447.16	25	$ 34,217.89			
	Install Guy Strand (Guy Install)	each 25	39	2.00	$ 1,258.65	$ 2,517.30	$ 62,932.49	25	$ 2,517.30			
	Helicopter Set (HL Helicopter)	each 25	27	0.00	$ 21,899.72	$ -	$ -	25	$ -			
	Crane Set (Y- Tower Erection)	each 25	40	2.50	$ 1,482.09	$ 3,705.24	$ 92,630.88	25	$ 3,705.24			
	Plumb Tower (Tower Plumb)	each 25	41	2.00	$ 913.00	$ 1,826.00	$ 45,650.08	25	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 25	7	2.00	$ 636.64	$ 1,273.27	$ 31,831.87	25	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 25	8	1.50	$ 1,444.07	$ 2,166.10	$ 54,152.51	25	$ 2,166.10			
	Tie -in (Tie -in)	each 25	12	2.00	$ 676.30	$ 1,352.60	$ 33,815.09	25	$ 1,352.60			
		each 25			$ -	$ -	$ -	25	$ -			
	Total Cost = $ 2.852	per pound				$ 52,887.84	$ 1,322,195.98		$ 52,887.84			
V::D11	**S1-D11 Assembly and Erection of Suspension Tower Type "A1 + 15" as per dwg.** **Total structure count:**		**26**	**EA**			**$ 1,393,751.63**		**$ 53,605.83**	**$ -**	**$ 53,605.83**	**$ -**
	S1-D11 Assembly and Erection of Suspension Tower Type "A1 + 15" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 18608 Total Tower Height(ft) = 172 Section Weight (lb) = 17179											
	Site Preparation (Site Preparation)	each 26	2	2.00	$ 675.12	$ 1,350.24	$ 35,106.37	26	$ 1,350.24			
	Haul (Hauling)	each 26	1	9.05	$ 441.04	$ 3,989.23	$ 103,719.97	26	$ 3,989.23			
	Setup Blocks (Blocking Crew)	each 26	3	2.00	$ 281.84	$ 563.68	$ 14,655.80	26	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 26	4	29.45	$ 1,183.92	$ 34,862.16	$ 906,416.07	26	$ 34,862.16			
	Install Guy Strand (Guy Install)	each 26	39	2.00	$ 1,258.65	$ 2,517.30	$ 65,449.79	26	$ 2,517.30			
	Helicopter Set (HL Helicopter)	each 26	27	0.00	$ 21,899.72	$ -	$ -	26	$ -			
	Crane Set (Y- Tower Erection)	each 26	40	2.50	$ 1,482.09	$ 3,705.24	$ 96,336.12	26	$ 3,705.24			
	Plumb Tower (Tower Plumb)	each 26	41	2.00	$ 913.00	$ 1,826.00	$ 47,476.08	26	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 26	7	2.00	$ 636.64	$ 1,273.27	$ 33,105.14	26	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 26	8	1.50	$ 1,444.07	$ 2,166.10	$ 56,318.61	26	$ 2,166.10			
	Tie -in (Tie -in)	each 26	12	2.00	$ 676.30	$ 1,352.60	$ 35,167.69	26	$ 1,352.60			
		each 26			$ -	$ -	$ -	26	$ -			
	Total Cost = $ 2.842	per pound				$ 53,605.83	$ 1,393,751.63		$ 53,605.83			
V::D12	**S1-D12 Assembly and Erection of Suspension Tower Type "A1 + 16.5" as per** **Total structure count:**		**28**	**EA**			**$ 1,516,739.19**		**$ 54,169.26**	**$ -**	**$ 54,169.26**	**$ -**
	S1-D12 Assembly and Erection of Suspension Tower Type "A1 + 16.5" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 18907 Total Tower Height(ft) = 177 Section Weight (lb) = 17428											
	Site Preparation (Site Preparation)	each 28	2	2.00	$ 675.12	$ 1,350.24	$ 37,806.86	28	$ 1,350.24			
	Haul (Hauling)	each 28	1	9.18	$ 441.04	$ 4,047.08	$ 113,318.28	28	$ 4,047.08			
	Setup Blocks (Blocking Crew)	each 28	3	2.00	$ 281.84	$ 563.68	$ 15,783.17	28	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 28	4	29.87	$ 1,183.92	$ 35,367.73	$ 990,296.42	28	$ 35,367.73			
	Install Guy Strand (Guy Install)	each 28	39	2.00	$ 1,258.65	$ 2,517.30	$ 70,484.39	28	$ 2,517.30			
	Helicopter Set (HL Helicopter)	each 28	27	0.00	$ 21,899.72	$ -	$ -	28	$ -			
	Crane Set (Y- Tower Erection)	each 28	40	2.50	$ 1,482.09	$ 3,705.24	$ 103,746.59	28	$ 3,705.24			
	Plumb Tower (Tower Plumb)	each 28	41	2.00	$ 913.00	$ 1,826.00	$ 51,128.09	28	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 28	7	2.00	$ 636.64	$ 1,273.27	$ 35,651.69	28	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 28	8	1.50	$ 1,444.07	$ 2,166.10	$ 60,650.81	28	$ 2,166.10			
	Tie -in (Tie -in)	each 28	12	2.00	$ 676.30	$ 1,352.60	$ 37,872.90	28	$ 1,352.60			
		each 28			$ -	$ -	$ -	28	$ -			
	Total Cost = $ 2.833	per pound				$ 54,169.26	$ 1,516,739.19		$ 54,169.26			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D13	**S1-D13 Assembly and Erection of Suspension Tower Type "A1 + 18" as per dwg. Total structure count:**		**42**	**EA**			**$ 2,298,982.05**		**$ 54,737.67**	**$ -**	**$ 54,737.67**	**$ -**
	S1-D13 Assembly and Erection of Suspension Tower Type "A1 + 18" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 19209 Total Tower Height(ft) = 182 Section Weight (lb) = 17679											
	Site Preparation (Site Preparation)	each 42	2	2.00	$ 675.12	$ 1,350.24	$ 56,710.29	42	$ 1,350.24			
	Haul (Hauling)	each 42	1	9.31	$ 441.04	$ 4,105.45	$ 172,428.71	42	$ 4,105.45			
	Setup Blocks (Blocking Crew)	each 42	3	2.00	$ 281.84	$ 563.68	$ 23,674.75	42	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 42	4	30.30	$ 1,183.92	$ 35,877.78	$ 1,506,866.60	42	$ 35,877.78			
	Install Guy Strand (Guy Install)	each 42	39	2.00	$ 1,258.65	$ 2,517.30	$ 105,726.58	42	$ 2,517.30			
	Helicopter Set (HL Helicopter)	each 42	27	0.00	$ 21,899.72	$ -	$ -	42	$ -			
	Crane Set (Y- Tower Erection)	each 42	40	2.50	$ 1,482.09	$ 3,705.24	$ 155,619.88	42	$ 3,705.24			
	Plumb Tower (Tower Plumb)	each 42	41	2.00	$ 913.00	$ 1,826.00	$ 76,692.13	42	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 42	7	2.00	$ 636.64	$ 1,273.27	$ 53,477.54	42	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 42	8	1.50	$ 1,444.07	$ 2,166.10	$ 90,976.22	42	$ 2,166.10			
	Tie -in (Tie -in)	each 42	12	2.00	$ 676.30	$ 1,352.60	$ 56,809.35	42	$ 1,352.60			
		each 42			$ -	$ -	$ -	42	$ -			
	Total Cost = $ 2.825	per pound				$ 54,737.67	$ 2,298,982.05		$ 54,737.67			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H16	**Assembly and Erection of Suspension Tower Type "A2"**		**Tower Setting Ratio**	**0.00 Helicopter**			**100% Crane**					
V::D14	**S1-D14 Assembly and Erection of Suspension Tower Type "A2 + 0" as per dwg.** **Total structure count:**	**0**	**EA**				**$ -**		**$ 67,332.18**	**$ -**	**$ 67,332.18**	**$ -**
	S1-D14 Assembly and Erection of Suspension Tower Type "A2 + 0" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 22259 Total Tower Height(ft) = 107 Section Weight (lb) = 20779											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	14.94	$ 441.04	$ 6,589.44	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	35.62	$ 1,183.92	$ 42,168.36	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.994	per pound				$ 67,332.18	$ -		$ -			
V::D15	**S1-D15 Assembly and Erection of Suspension Tower Type "A2 + 1.5" as per** **Total structure count:**	**0**	**EA**				**$ -**		**$ 69,172.04**	**$ -**	**$ 69,172.04**	**$ -**
	S1-D15 Assembly and Erection of Suspension Tower Type "A2 + 1.5" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 23188 Total Tower Height(ft) = 112 Section Weight (lb) = 21592											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	15.37	$ 441.04	$ 6,778.35	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	37.01	$ 1,183.92	$ 43,819.30	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.966	per pound				$ 69,172.04	$ -		$ -			
V::D16	**S1-D16 Assembly and Erection of Suspension Tower Type "A2 + 3" as per dwg.** **Total structure count:**	**0**	**EA**				**$ -**		**$ 70,503.31**	**$ -**	**$ 70,503.31**	**$ -**
	S1-D16 Assembly and Erection of Suspension Tower Type "A2 + 3" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 23893 Total Tower Height(ft) = 116 Section Weight (lb) = 22181											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	15.68	$ 441.04	$ 6,915.05	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	38.02	$ 1,183.92	$ 45,013.88	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.947	per pound				$ 70,503.31	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D17	**S1-D17 Assembly and Erection of Suspension Tower Type "A2 + 4.5" as per**	**Total structure count:**	**0**	**EA**			**$ -**		**$ 72,348.16**	**$ -**	**$ 72,348.16**	**$ -**
	S1-D17 Assembly and Erection of Suspension Tower Type "A2 + 4.5" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 24825	Total Tower Height(ft) = 121	Section Weight (lb) = 22997									
Site Preparation	Site Preparation	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
Haul	Hauling	each 0	1	16.11	$ 441.04	$ 7,104.47	$ -	0	$ -			
Setup Blocks	Blocking Crew	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
Assemble Tower	Lattice Assembly	each 0	4	39.42	$ 1,183.92	$ 46,669.30	$ -	0	$ -			
Install Guy Strand	Guy Install	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
Helicopter Set	HL Helicopter	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
Crane Set	Y- Tower Erection	each 0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -			
Plumb Tower	Tower Plumb	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
haul Insulators and Travellers	Haul Travellers&Glass	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
Hang Travellers	Hang Travellers	each 0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -			
Tie -in	Tie -in	each 0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.923	per pound				$ 72,348.16	$ -		$ -			
V::D18	**S1-D18 Assembly and Erection of Suspension Tower Type "A2 + 6" as per dwg.**	**Total structure count:**	**6**	**EA**			**$ 435,614.67**		**$ 72,602.45**	**$ -**	**$ 72,602.45**	**$ -**
	S1-D18 Assembly and Erection of Suspension Tower Type "A2 + 6" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 25053	Total Tower Height(ft) = 126	Section Weight (lb) = 23109									
Site Preparation	Site Preparation	each 6	2	2.00	$ 675.12	$ 1,350.24	$ 8,101.47	6	$ 1,350.24			
Haul	Hauling	each 6	1	16.17	$ 441.04	$ 7,130.58	$ 42,783.50	6	$ 7,130.58			
Setup Blocks	Blocking Crew	each 6	3	2.00	$ 281.84	$ 563.68	$ 3,382.11	6	$ 563.68			
Assemble Tower	Lattice Assembly	each 6	4	39.61	$ 1,183.92	$ 46,897.47	$ 281,384.85	6	$ 46,897.47			
Install Guy Strand	Guy Install	each 6	39	3.00	$ 1,258.65	$ 3,775.95	$ 22,655.70	6	$ 3,775.95			
Helicopter Set	HL Helicopter	each 6	27	0.00	$ 21,899.72	$ -	$ -	6	$ -			
Crane Set	Y- Tower Erection	each 6	40	4.00	$ 1,482.09	$ 5,928.38	$ 35,570.26	6	$ 5,928.38			
Plumb Tower	Tower Plumb	each 6	41	2.00	$ 913.00	$ 1,826.00	$ 10,956.02	6	$ 1,826.00			
haul Insulators and Travellers	Haul Travellers&Glass	each 6	7	2.00	$ 636.64	$ 1,273.27	$ 7,639.65	6	$ 1,273.27			
Hang Travellers	Hang Travellers	each 6	8	1.50	$ 1,444.07	$ 2,166.10	$ 12,996.60	6	$ 2,166.10			
Tie -in	Tie -in	each 6	12	2.50	$ 676.30	$ 1,690.75	$ 10,144.53	6	$ 1,690.75			
		each 6			$ -	$ -	$ -	6	$ -			
	Total Cost = $ 2.920	per pound				$ 72,602.45	$ 435,614.67		$ 72,602.45			
V::D19	**S1-D19 Assembly and Erection of Suspension Tower Type "A2 + 7.5" as per**	**Total structure count:**	**6**	**EA**			**$ 447,012.81**		**$ 74,502.13**	**$ -**	**$ 74,502.13**	**$ -**
	S1-D19 Assembly and Erection of Suspension Tower Type "A2 + 7.5" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 26009	Total Tower Height(ft) = 131	Section Weight (lb) = 23949									
Site Preparation	Site Preparation	each 6	2	2.00	$ 675.12	$ 1,350.24	$ 8,101.47	6	$ 1,350.24			
Haul	Hauling	each 6	1	16.61	$ 441.04	$ 7,325.64	$ 43,953.85	6	$ 7,325.64			
Setup Blocks	Blocking Crew	each 6	3	2.00	$ 281.84	$ 563.68	$ 3,382.11	6	$ 563.68			
Assemble Tower	Lattice Assembly	each 6	4	41.05	$ 1,183.92	$ 48,602.11	$ 291,612.63	6	$ 48,602.11			
Install Guy Strand	Guy Install	each 6	39	3.00	$ 1,258.65	$ 3,775.95	$ 22,655.70	6	$ 3,775.95			
Helicopter Set	HL Helicopter	each 6	27	0.00	$ 21,899.72	$ -	$ -	6	$ -			
Crane Set	Y- Tower Erection	each 6	40	4.00	$ 1,482.09	$ 5,928.38	$ 35,570.26	6	$ 5,928.38			
Plumb Tower	Tower Plumb	each 6	41	2.00	$ 913.00	$ 1,826.00	$ 10,956.02	6	$ 1,826.00			
haul Insulators and Travellers	Haul Travellers&Glass	each 6	7	2.00	$ 636.64	$ 1,273.27	$ 7,639.65	6	$ 1,273.27			
Hang Travellers	Hang Travellers	each 6	8	1.50	$ 1,444.07	$ 2,166.10	$ 12,996.60	6	$ 2,166.10			
Tie -in	Tie -in	each 6	12	2.50	$ 676.30	$ 1,690.75	$ 10,144.53	6	$ 1,690.75			
		each 6			$ -	$ -	$ -	6	$ -			
	Total Cost = $ 2.897	per pound				$ 74,502.13	$ 447,012.81		$ 74,502.13			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D20	**S1-D20 Assembly and Erection of Suspension Tower Type "A2 + 9" as per dwg. Total structure count:**		**11**	**EA**			**$ 834,167.54**		**$ 75,833.41**	**$ -**	**$ 75,833.41**	**$ -**
	S1-D20 Assembly and Erection of Suspension Tower Type "A2 + 9" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 26713	Total Tower Height(ft) = 136	Section Weight (lb) = 24538									
	Site Preparation	Site Preparation each 11	2	2.00	$ 675.12	$ 1,350.24	$ 14,852.69	11	$ 1,350.24			
	Haul	Hauling each 11	1	16.92	$ 441.04	$ 7,462.34	$ 82,085.70	11	$ 7,462.34			
	Setup Blocks	Blocking Crew each 11	3	2.00	$ 281.84	$ 563.68	$ 6,200.53	11	$ 563.68			
	Assemble Tower	Lattice Assembly each 11	4	42.06	$ 1,183.92	$ 49,796.69	$ 547,763.58	11	$ 49,796.69			
	Install Guy Strand	Guy Install each 11	39	3.00	$ 1,258.65	$ 3,775.95	$ 41,535.44	11	$ 3,775.95			
	Helicopter Set	HL Helicopter each 11	27	0.00	$ 21,899.72	$ -	$ -	11	$ -			
	Crane Set	Y- Tower Erection each 11	40	4.00	$ 1,482.09	$ 5,928.38	$ 65,212.14	11	$ 5,928.38			
	Plumb Tower	Tower Plumb each 11	41	2.00	$ 913.00	$ 1,826.00	$ 20,086.03	11	$ 1,826.00			
	haul Insulators and Travellers	Haul Travellers&Glass each 11	7	2.00	$ 636.64	$ 1,273.27	$ 14,006.02	11	$ 1,273.27			
	Hang Travellers	Hang Travellers each 11	8	1.50	$ 1,444.07	$ 2,166.10	$ 23,827.10	11	$ 2,166.10			
	Tie -in	Tie -in each 11	12	2.50	$ 676.30	$ 1,690.75	$ 18,598.30	11	$ 1,690.75			
		each 11			$ -	$ -	$ -	11	$ -			
	Total Cost = $ 2.881	per pound				$ 75,833.41	$ 834,167.54		$ 75,833.41			
V::D21	**S1-D21 Assembly and Erection of Suspension Tower Type "A2 + 10.5" as per Total structure count:**		**5**	**EA**			**$ 388,391.28**		**$ 77,678.26**	**$ -**	**$ 77,678.26**	**$ -**
	S1-D21 Assembly and Erection of Suspension Tower Type "A2 + 10.5" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 27645	Total Tower Height(ft) = 141	Section Weight (lb) = 25353									
	Site Preparation	Site Preparation each 5	2	2.00	$ 675.12	$ 1,350.24	$ 6,751.22	5	$ 1,350.24			
	Haul	Hauling each 5	1	17.35	$ 441.04	$ 7,651.76	$ 38,258.81	5	$ 7,651.76			
	Setup Blocks	Blocking Crew each 5	3	2.00	$ 281.84	$ 563.68	$ 2,818.42	5	$ 563.68			
	Assemble Tower	Lattice Assembly each 5	4	43.46	$ 1,183.92	$ 51,452.10	$ 257,260.52	5	$ 51,452.10			
	Install Guy Strand	Guy Install each 5	39	3.00	$ 1,258.65	$ 3,775.95	$ 18,879.75	5	$ 3,775.95			
	Helicopter Set	HL Helicopter each 5	27	0.00	$ 21,899.72	$ -	$ -	5	$ -			
	Crane Set	Y- Tower Erection each 5	40	4.00	$ 1,482.09	$ 5,928.38	$ 29,641.88	5	$ 5,928.38			
	Plumb Tower	Tower Plumb each 5	41	2.00	$ 913.00	$ 1,826.00	$ 9,130.02	5	$ 1,826.00			
	haul Insulators and Travellers	Haul Travellers&Glass each 5	7	2.00	$ 636.64	$ 1,273.27	$ 6,366.37	5	$ 1,273.27			
	Hang Travellers	Hang Travellers each 5	8	1.50	$ 1,444.07	$ 2,166.10	$ 10,830.50	5	$ 2,166.10			
	Tie -in	Tie -in each 5	12	2.50	$ 676.30	$ 1,690.75	$ 8,453.77	5	$ 1,690.75			
		each 5			$ -	$ -	$ -	5	$ -			
	Total Cost = $ 2.861	per pound				$ 77,678.26	$ 388,391.28		$ 77,678.26			
V::D22	**S1-D22 Assembly and Erection of Suspension Tower Type "A2 + 12" as per dwg. Total structure count:**		**12**	**EA**			**$ 934,532.37**		**$ 77,877.70**	**$ -**	**$ 77,877.70**	**$ -**
	S1-D22 Assembly and Erection of Suspension Tower Type "A2 + 12" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 27849	Total Tower Height(ft) = 146	Section Weight (lb) = 25441									
	Site Preparation	Site Preparation each 12	2	2.00	$ 675.12	$ 1,350.24	$ 16,202.94	12	$ 1,350.24			
	Haul	Hauling each 12	1	17.40	$ 441.04	$ 7,672.24	$ 92,066.90	12	$ 7,672.24			
	Setup Blocks	Blocking Crew each 12	3	2.00	$ 281.84	$ 563.68	$ 6,764.21	12	$ 563.68			
	Assemble Tower	Lattice Assembly each 12	4	43.61	$ 1,183.92	$ 51,631.07	$ 619,572.82	12	$ 51,631.07			
	Install Guy Strand	Guy Install each 12	39	3.00	$ 1,258.65	$ 3,775.95	$ 45,311.39	12	$ 3,775.95			
	Helicopter Set	HL Helicopter each 12	27	0.00	$ 21,899.72	$ -	$ -	12	$ -			
	Crane Set	Y- Tower Erection each 12	40	4.00	$ 1,482.09	$ 5,928.38	$ 71,140.52	12	$ 5,928.38			
	Plumb Tower	Tower Plumb each 12	41	2.00	$ 913.00	$ 1,826.00	$ 21,912.04	12	$ 1,826.00			
	haul Insulators and Travellers	Haul Travellers&Glass each 12	7	2.00	$ 636.64	$ 1,273.27	$ 15,279.30	12	$ 1,273.27			
	Hang Travellers	Hang Travellers each 12	8	1.50	$ 1,444.07	$ 2,166.10	$ 25,993.21	12	$ 2,166.10			
	Tie -in	Tie -in each 12	12	2.50	$ 676.30	$ 1,690.75	$ 20,289.05	12	$ 1,690.75			
		each 12			$ -	$ -	$ -	12	$ -			
	Total Cost = $ 2.859	per pound				$ 77,877.70	$ 934,532.37		$ 77,877.70			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D23	**S1-D23 Assembly and Erection of Suspension Tower Type "A2 + 13.5" as per** **Total structure count:**	**4**		**EA**			**$ 319,109.55**		**$ 79,777.39**	**$ -**	**$ 79,777.39**	**$ -**
	S1-D23 Assembly and Erection of Suspension Tower Type "A2 + 13.5" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 28805 Total Tower Height(ft) = 151 Section Weight (lb) = 26281											
	Site Preparation (Site Preparation)	each 4	2	2.00	$ 675.12	$ 1,350.24	$ 5,400.98	4	$ 1,350.24			
	Haul (Hauling)	each 4	1	17.84	$ 441.04	$ 7,867.30	$ 31,469.20	4	$ 7,867.30			
	Setup Blocks (Blocking Crew)	each 4	3	2.00	$ 281.84	$ 563.68	$ 2,254.74	4	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 4	4	45.05	$ 1,183.92	$ 53,335.70	$ 213,342.80	4	$ 53,335.70			
	Install Guy Strand (Guy Install)	each 4	39	3.00	$ 1,258.65	$ 3,775.95	$ 15,103.80	4	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 4	27	0.00	$ 21,899.72	$ -	$ -	4	$ -			
	Crane Set (Y- Tower Erection)	each 4	40	4.00	$ 1,482.09	$ 5,928.38	$ 23,713.51	4	$ 5,928.38			
	Plumb Tower (Tower Plumb)	each 4	41	2.00	$ 913.00	$ 1,826.00	$ 7,304.01	4	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 4	7	2.00	$ 636.64	$ 1,273.27	$ 5,093.10	4	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 4	8	1.50	$ 1,444.07	$ 2,166.10	$ 8,664.40	4	$ 2,166.10			
	Tie -in (Tie -in)	each 4	12	2.50	$ 676.30	$ 1,690.75	$ 6,763.02	4	$ 1,690.75			
		each 4			$ -	$ -	$ -	4	$ -			
	Total Cost = $ 2.840	per pound				$ 79,777.39	$ 319,109.55		$ 79,777.39			
V::D24	**S1-D24 Assembly and Erection of Suspension Tower Type "A2 + 15" as per dwg.** **Total structure count:**	**4**		**EA**			**$ 332,636.68**		**$ 83,159.17**	**$ -**	**$ 83,159.17**	**$ -**
	S1-D24 Assembly and Erection of Suspension Tower Type "A2 + 15" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 29761 Total Tower Height(ft) = 156 Section Weight (lb) = 27121											
	Site Preparation (Site Preparation)	each 4	2	2.00	$ 675.12	$ 1,350.24	$ 5,400.98	4	$ 1,350.24			
	Haul (Hauling)	each 4	1	18.28	$ 441.04	$ 8,062.36	$ 32,249.43	4	$ 8,062.36			
	Setup Blocks (Blocking Crew)	each 4	3	2.00	$ 281.84	$ 563.68	$ 2,254.74	4	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 4	4	46.49	$ 1,183.92	$ 55,040.33	$ 220,161.32	4	$ 55,040.33			
	Install Guy Strand (Guy Install)	each 4	39	3.00	$ 1,258.65	$ 3,775.95	$ 15,103.80	4	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 4	27	0.00	$ 21,899.72	$ -	$ -	4	$ -			
	Crane Set (Y- Tower Erection)	each 4	40	5.00	$ 1,482.09	$ 7,410.47	$ 29,641.88	4	$ 7,410.47			
	Plumb Tower (Tower Plumb)	each 4	41	2.00	$ 913.00	$ 1,826.00	$ 7,304.01	4	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 4	7	2.00	$ 636.64	$ 1,273.27	$ 5,093.10	4	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 4	8	1.50	$ 1,444.07	$ 2,166.10	$ 8,664.40	4	$ 2,166.10			
	Tie -in (Tie -in)	each 4	12	2.50	$ 676.30	$ 1,690.75	$ 6,763.02	4	$ 1,690.75			
		each 4			$ -	$ -	$ -	4	$ -			
	Total Cost = $ 2.877	per pound				$ 83,159.17	$ 332,636.68		$ 83,159.17			
V::D25	**S1-D25 Assembly and Erection of Suspension Tower Type "A2 + 16.5" as per** **Total structure count:**	**6**		**EA**			**$ 506,942.69**		**$ 84,490.45**	**$ -**	**$ 84,490.45**	**$ -**
	S1-D25 Assembly and Erection of Suspension Tower Type "A2 + 16.5" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 30466 Total Tower Height(ft) = 161 Section Weight (lb) = 27710											
	Site Preparation (Site Preparation)	each 6	2	2.00	$ 675.12	$ 1,350.24	$ 8,101.47	6	$ 1,350.24			
	Haul (Hauling)	each 6	1	18.59	$ 441.04	$ 8,199.05	$ 49,194.32	6	$ 8,199.05			
	Setup Blocks (Blocking Crew)	each 6	3	2.00	$ 281.84	$ 563.68	$ 3,382.11	6	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 6	4	47.50	$ 1,183.92	$ 56,234.91	$ 337,409.48	6	$ 56,234.91			
	Install Guy Strand (Guy Install)	each 6	39	3.00	$ 1,258.65	$ 3,775.95	$ 22,655.70	6	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 6	27	0.00	$ 21,899.72	$ -	$ -	6	$ -			
	Crane Set (Y- Tower Erection)	each 6	40	5.00	$ 1,482.09	$ 7,410.47	$ 44,462.82	6	$ 7,410.47			
	Plumb Tower (Tower Plumb)	each 6	41	2.00	$ 913.00	$ 1,826.00	$ 10,956.02	6	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 6	7	2.00	$ 636.64	$ 1,273.27	$ 7,639.65	6	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 6	8	1.50	$ 1,444.07	$ 2,166.10	$ 12,996.60	6	$ 2,166.10			
	Tie -in (Tie -in)	each 6	12	2.50	$ 676.30	$ 1,690.75	$ 10,144.53	6	$ 1,690.75			
		each 6			$ -	$ -	$ -	6	$ -			
	Total Cost = $ 2.864	per pound				$ 84,490.45	$ 506,942.69		$ 84,490.45			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D26	**S1-D26 Assembly and Erection of Suspension Tower Type "A2 + 18" as per dwg. Total structure count:**		**1**	**EA**			**$ 85,821.73**		**$ 85,821.73**	**$ -**	**$ 85,821.73**	**$ -**
	S1-D26 Assembly and Erection of Suspension Tower Type "A2 + 18" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 31170 Total Tower Height(ft) = 166 Section Weight (lb) = 28299											
	Site Preparation (Site Preparation)	each 1	2	2.00	$ 675.12	$ 1,350.24	$ 1,350.24	1	$ 1,350.24			
	Haul (Hauling)	each 1	1	18.90	$ 441.04	$ 8,335.75	$ 8,335.75	1	$ 8,335.75			
	Setup Blocks (Blocking Crew)	each 1	3	2.00	$ 281.84	$ 563.68	$ 563.68	1	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 1	4	48.51	$ 1,183.92	$ 57,429.50	$ 57,429.50	1	$ 57,429.50			
	Install Guy Strand (Guy Install)	each 1	39	3.00	$ 1,258.65	$ 3,775.95	$ 3,775.95	1	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 1	27	0.00	$ 21,899.72	$ -	$ -	1	$ -			
	Crane Set (Y- Tower Erection)	each 1	40	5.00	$ 1,482.09	$ 7,410.47	$ 7,410.47	1	$ 7,410.47			
	Plumb Tower (Tower Plumb)	each 1	41	2.00	$ 913.00	$ 1,826.00	$ 1,826.00	1	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 1	7	2.00	$ 636.64	$ 1,273.27	$ 1,273.27	1	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 1	8	1.50	$ 1,444.07	$ 2,166.10	$ 2,166.10	1	$ 2,166.10			
	Tie -in (Tie -in)	each 1	12	2.50	$ 676.30	$ 1,690.75	$ 1,690.75	1	$ 1,690.75			
		each 1			$ -	$ -	$ -	1	$ -			
	Total Cost = $ 2.851	per pound				$ 85,821.73	$ 85,821.73		$ 85,821.73			
V::D27	**S1-D27 Assembly and Erection of Suspension Tower Type "A2 + 19.5" as per Total structure count:**		**2**	**EA**			**$ 173,069.47**		**$ 86,534.73**	**$ -**	**$ 86,534.73**	**$ -**
	S1-D27 Assembly and Erection of Suspension Tower Type "A2 + 19.5" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 32326 Total Tower Height(ft) = 171 Section Weight (lb) = 28614											
	Site Preparation (Site Preparation)	each 2	2	2.00	$ 675.12	$ 1,350.24	$ 2,700.49	2	$ 1,350.24			
	Haul (Hauling)	each 2	1	19.07	$ 441.04	$ 8,408.96	$ 16,817.92	2	$ 8,408.96			
	Setup Blocks (Blocking Crew)	each 2	3	2.00	$ 281.84	$ 563.68	$ 1,127.37	2	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 2	4	49.05	$ 1,183.92	$ 58,069.29	$ 116,138.59	2	$ 58,069.29			
	Install Guy Strand (Guy Install)	each 2	39	3.00	$ 1,258.65	$ 3,775.95	$ 7,551.90	2	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 2	27	0.00	$ 21,899.72	$ -	$ -	2	$ -			
	Crane Set (Y- Tower Erection)	each 2	40	5.00	$ 1,482.09	$ 7,410.47	$ 14,820.94	2	$ 7,410.47			
	Plumb Tower (Tower Plumb)	each 2	41	2.00	$ 913.00	$ 1,826.00	$ 3,652.01	2	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 2	7	2.00	$ 636.64	$ 1,273.27	$ 2,546.55	2	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 2	8	1.50	$ 1,444.07	$ 2,166.10	$ 4,332.20	2	$ 2,166.10			
	Tie -in (Tie -in)	each 2	12	2.50	$ 676.30	$ 1,690.75	$ 3,381.51	2	$ 1,690.75			
		each 2			$ -	$ -	$ -	2	$ -			
	Total Cost = $ 2.845	per pound				$ 86,534.73	$ 173,069.47		$ 86,534.73			
V-H17	**Assembly and Erection of Suspension Tower Type "A3"**			**Tower Setting Ratio**		**0.00 Helicopter**			**100% Crane**			
V::D28	**S1-D28 Assembly and Erection of Suspension Tower Type "A3 + 0" as per dwg. Total structure count:**		**0**	**EA**			**$ -**		**$ 52,570.80**	**$ -**	**$ 52,570.80**	**$ -**
	S1-D28 Assembly and Erection of Suspension Tower Type "A3 + 0" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 16808 Total Tower Height(ft) = 147 Section Weight (lb) = 15745											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	12.29	$ 441.04	$ 5,420.62	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	26.99	$ 1,183.92	$ 31,953.99	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	2.00	$ 1,258.65	$ 2,517.30	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	1.50	$ 636.64	$ 954.96	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 3.101	per pound				$ 52,570.80	$ -		$ -			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D29	**S1-D29 Assembly and Erection of Suspension Tower Type "A3 + 1.5" as per** **Total structure count:**		**1**	**EA**			**$ 53,717.60**		**$ 53,717.60**	**$ -**	**$ 53,717.60**	**$ -**
	S1-D29 Assembly and Erection of Suspension Tower Type "A3 + 1.5" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 17366 Total Tower Height(ft) = 152 Section Weight (lb) = 16253											
	Site Preparation (Site Preparation)	each 1	2	2.00	$ 675.12	$ 1,350.24	$ 1,350.24	1	$ 1,350.24			
	Haul (Hauling)	each 1	1	12.56	$ 441.04	$ 5,538.37	$ 5,538.37	1	$ 5,538.37			
	Setup Blocks (Blocking Crew)	each 1	3	2.00	$ 281.84	$ 563.68	$ 563.68	1	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 1	4	27.86	$ 1,183.92	$ 32,983.04	$ 32,983.04	1	$ 32,983.04			
	Install Guy Strand (Guy Install)	each 1	39	2.00	$ 1,258.65	$ 2,517.30	$ 2,517.30	1	$ 2,517.30			
	Helicopter Set (HL Helicopter)	each 1	27	0.00	$ 21,899.72	$ -	$ -	1	$ -			
	Crane Set (Y- Tower Erection)	each 1	40	3.50	$ 1,482.09	$ 5,187.33	$ 5,187.33	1	$ 5,187.33			
	Plumb Tower (Tower Plumb)	each 1	41	2.00	$ 913.00	$ 1,826.00	$ 1,826.00	1	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 1	7	1.50	$ 636.64	$ 954.96	$ 954.96	1	$ 954.96			
	Hang Travellers (Hang Travellers)	each 1	8	1.00	$ 1,444.07	$ 1,444.07	$ 1,444.07	1	$ 1,444.07			
	Tie -in (Tie -in)	each 1	12	2.00	$ 676.30	$ 1,352.60	$ 1,352.60	1	$ 1,352.60			
		each 1			$ -	$ -	$ -	1	$ -			
	Total Cost = $ 3.074	per pound				$ 53,717.60	$ 53,717.60		$ 53,717.60			
V::D30	**S1-D30 Assembly and Erection of Suspension Tower Type "A3 + 3" as per dwg.** **Total structure count:**		**2**	**EA**			**$ 108,811.35**		**$ 54,405.67**	**$ -**	**$ 54,405.67**	**$ -**
	S1-D30 Assembly and Erection of Suspension Tower Type "A3 + 3" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 17720 Total Tower Height(ft) = 157 Section Weight (lb) = 16557											
	Site Preparation (Site Preparation)	each 2	2	2.00	$ 675.12	$ 1,350.24	$ 2,700.49	2	$ 1,350.24			
	Haul (Hauling)	each 2	1	12.72	$ 441.04	$ 5,609.02	$ 11,218.05	2	$ 5,609.02			
	Setup Blocks (Blocking Crew)	each 2	3	2.00	$ 281.84	$ 563.68	$ 1,127.37	2	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 2	4	28.38	$ 1,183.92	$ 33,600.46	$ 67,200.92	2	$ 33,600.46			
	Install Guy Strand (Guy Install)	each 2	39	2.00	$ 1,258.65	$ 2,517.30	$ 5,034.60	2	$ 2,517.30			
	Helicopter Set (HL Helicopter)	each 2	27	0.00	$ 21,899.72	$ -	$ -	2	$ -			
	Crane Set (Y- Tower Erection)	each 2	40	3.50	$ 1,482.09	$ 5,187.33	$ 10,374.66	2	$ 5,187.33			
	Plumb Tower (Tower Plumb)	each 2	41	2.00	$ 913.00	$ 1,826.00	$ 3,652.01	2	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 2	7	1.50	$ 636.64	$ 954.96	$ 1,909.91	2	$ 954.96			
	Hang Travellers (Hang Travellers)	each 2	8	1.00	$ 1,444.07	$ 1,444.07	$ 2,888.13	2	$ 1,444.07			
	Tie -in (Tie -in)	each 2	12	2.00	$ 676.30	$ 1,352.60	$ 2,705.21	2	$ 1,352.60			
		each 2			$ -	$ -	$ -	2	$ -			
	Total Cost = $ 3.059	per pound				$ 54,405.67	$ 108,811.35		$ 54,405.67			
V::D31	**S1-D31 Assembly and Erection of Suspension Tower Type "A3 + 4.5" as per** **Total structure count:**		**2**	**EA**			**$ 111,104.93**		**$ 55,552.47**	**$ -**	**$ 55,552.47**	**$ -**
	S1-D31 Assembly and Erection of Suspension Tower Type "A3 + 4.5" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 18278 Total Tower Height(ft) = 162 Section Weight (lb) = 17064											
	Site Preparation (Site Preparation)	each 2	2	2.00	$ 675.12	$ 1,350.24	$ 2,700.49	2	$ 1,350.24			
	Haul (Hauling)	each 2	1	12.98	$ 441.04	$ 5,726.78	$ 11,453.55	2	$ 5,726.78			
	Setup Blocks (Blocking Crew)	each 2	3	2.00	$ 281.84	$ 563.68	$ 1,127.37	2	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 2	4	29.25	$ 1,183.92	$ 34,629.50	$ 69,259.01	2	$ 34,629.50			
	Install Guy Strand (Guy Install)	each 2	39	2.00	$ 1,258.65	$ 2,517.30	$ 5,034.60	2	$ 2,517.30			
	Helicopter Set (HL Helicopter)	each 2	27	0.00	$ 21,899.72	$ -	$ -	2	$ -			
	Crane Set (Y- Tower Erection)	each 2	40	3.50	$ 1,482.09	$ 5,187.33	$ 10,374.66	2	$ 5,187.33			
	Plumb Tower (Tower Plumb)	each 2	41	2.00	$ 913.00	$ 1,826.00	$ 3,652.01	2	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 2	7	1.50	$ 636.64	$ 954.96	$ 1,909.91	2	$ 954.96			
	Hang Travellers (Hang Travellers)	each 2	8	1.00	$ 1,444.07	$ 1,444.07	$ 2,888.13	2	$ 1,444.07			
	Tie -in (Tie -in)	each 2	12	2.00	$ 676.30	$ 1,352.60	$ 2,705.21	2	$ 1,352.60			
		each 2			$ -	$ -	$ -	2	$ -			
	Total Cost = $ 3.036	per pound				$ 55,552.47	$ 111,104.93		$ 55,552.47			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D32	**S1-D32 Assembly and Erection of Suspension Tower Type "A3 + 6" as per dwg. Total structure count:**		3	EA			$ 167,300.60		$ 55,766.87	$ -	$ 55,766.87	$ -
	S1-D32 Assembly and Erection of Suspension Tower Type "A3 + 6" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 18423	Total Tower Height(ft) = 167	Section Weight (lb) = 17159									
	Site Preparation	Site Preparation	each 3	2	2.00	$ 675.12	$ 1,350.24	$ 4,050.73	3	$ 1,350.24		
	Haul	Hauling	each 3	1	13.03	$ 441.04	$ 5,748.79	$ 17,246.37	3	$ 5,748.79		
	Setup Blocks	Blocking Crew	each 3	3	2.00	$ 281.84	$ 563.68	$ 1,691.05	3	$ 563.68		
	Assemble Tower	Lattice Assembly	each 3	4	29.41	$ 1,183.92	$ 34,821.89	$ 104,465.67	3	$ 34,821.89		
	Install Guy Strand	Guy Install	each 3	39	2.00	$ 1,258.65	$ 2,517.30	$ 7,551.90	3	$ 2,517.30		
	Helicopter Set	HL Helicopter	each 3	27	0.00	$ 21,899.72	$ -	$ -	3	$ -		
	Crane Set	Y- Tower Erection	each 3	40	3.50	$ 1,482.09	$ 5,187.33	$ 15,561.99	3	$ 5,187.33		
	Plumb Tower	Tower Plumb	each 3	41	2.00	$ 913.00	$ 1,826.00	$ 5,478.01	3	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each 3	7	1.50	$ 636.64	$ 954.96	$ 2,864.87	3	$ 954.96		
	Hang Travellers	Hang Travellers	each 3	8	1.00	$ 1,444.07	$ 1,444.07	$ 4,332.20	3	$ 1,444.07		
	Tie -in	Tie -in	each 3	12	2.00	$ 676.30	$ 1,352.60	$ 4,057.81	3	$ 1,352.60		
			each 3			$ -	$ -	$ -	3	$ -		
	Total Cost = $ 3.031	per pound					$ 55,766.87	$ 167,300.60		$ 55,766.87		
V::D33	**S1-D33 Assembly and Erection of Suspension Tower Type "A3 + 7.5" as per Total structure count:**		3	EA			$ 170,127.70		$ 56,709.23	$ -	$ 56,709.23	$ -
	S1-D33 Assembly and Erection of Suspension Tower Type "A3 + 7.5" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 18890	Total Tower Height(ft) = 172	Section Weight (lb) = 17575									
	Site Preparation	Site Preparation	each 3	2	2.00	$ 675.12	$ 1,350.24	$ 4,050.73	3	$ 1,350.24		
	Haul	Hauling	each 3	1	13.25	$ 441.04	$ 5,845.55	$ 17,536.65	3	$ 5,845.55		
	Setup Blocks	Blocking Crew	each 3	3	2.00	$ 281.84	$ 563.68	$ 1,691.05	3	$ 563.68		
	Assemble Tower	Lattice Assembly	each 3	4	30.13	$ 1,183.92	$ 35,667.49	$ 107,002.48	3	$ 35,667.49		
	Install Guy Strand	Guy Install	each 3	39	2.00	$ 1,258.65	$ 2,517.30	$ 7,551.90	3	$ 2,517.30		
	Helicopter Set	HL Helicopter	each 3	27	0.00	$ 21,899.72	$ -	$ -	3	$ -		
	Crane Set	Y- Tower Erection	each 3	40	3.50	$ 1,482.09	$ 5,187.33	$ 15,561.99	3	$ 5,187.33		
	Plumb Tower	Tower Plumb	each 3	41	2.00	$ 913.00	$ 1,826.00	$ 5,478.01	3	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each 3	7	1.50	$ 636.64	$ 954.96	$ 2,864.87	3	$ 954.96		
	Hang Travellers	Hang Travellers	each 3	8	1.00	$ 1,444.07	$ 1,444.07	$ 4,332.20	3	$ 1,444.07		
	Tie -in	Tie -in	each 3	12	2.00	$ 676.30	$ 1,352.60	$ 4,057.81	3	$ 1,352.60		
			each 3			$ -	$ -	$ -	3	$ -		
	Total Cost = $ 3.013	per pound					$ 56,709.23	$ 170,127.70		$ 56,709.23		
V::D34	**S1-D34 Assembly and Erection of Suspension Tower Type "A3 + 9" as per dwg. Total structure count:**		2	EA			$ 114,565.26		$ 57,282.63	$ -	$ 57,282.63	$ -
	S1-D34 Assembly and Erection of Suspension Tower Type "A3 + 9" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 19194	Total Tower Height(ft) = 177	Section Weight (lb) = 17829									
	Site Preparation	Site Preparation	each 2	2	2.00	$ 675.12	$ 1,350.24	$ 2,700.49	2	$ 1,350.24		
	Haul	Hauling	each 2	1	13.39	$ 441.04	$ 5,904.43	$ 11,808.85	2	$ 5,904.43		
	Setup Blocks	Blocking Crew	each 2	3	2.00	$ 281.84	$ 563.68	$ 1,127.37	2	$ 563.68		
	Assemble Tower	Lattice Assembly	each 2	4	30.56	$ 1,183.92	$ 36,182.01	$ 72,364.03	2	$ 36,182.01		
	Install Guy Strand	Guy Install	each 2	39	2.00	$ 1,258.65	$ 2,517.30	$ 5,034.60	2	$ 2,517.30		
	Helicopter Set	HL Helicopter	each 2	27	0.00	$ 21,899.72	$ -	$ -	2	$ -		
	Crane Set	Y- Tower Erection	each 2	40	3.50	$ 1,482.09	$ 5,187.33	$ 10,374.66	2	$ 5,187.33		
	Plumb Tower	Tower Plumb	each 2	41	2.00	$ 913.00	$ 1,826.00	$ 3,652.01	2	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each 2	7	1.50	$ 636.64	$ 954.96	$ 1,909.91	2	$ 954.96		
	Hang Travellers	Hang Travellers	each 2	8	1.00	$ 1,444.07	$ 1,444.07	$ 2,888.13	2	$ 1,444.07		
	Tie -in	Tie -in	each 2	12	2.00	$ 676.30	$ 1,352.60	$ 2,705.21	2	$ 1,352.60		
			each 2			$ -	$ -	$ -	2	$ -		
	Total Cost = $ 3.002	per pound					$ 57,282.63	$ 114,565.26		$ 57,282.63		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D35	**S1-D35 Assembly and Erection of Suspension Tower Type "A3 + 10.5" as per** **Total structure count:**	**3**		**EA**			**$ 175,617.35**		**$ 58,539.12**	**$ -**	**$ 58,539.12**	**$ -**
	S1-D35 Assembly and Erection of Suspension Tower Type "A3 + 10.5" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 19800 Total Tower Height(ft) = 182 Section Weight (lb) = 18384											
	Site Preparation	each 3	2	2.00	$ 675.12	$ 1,350.24	$ 4,050.73	3	$ 1,350.24			
	Haul	each 3	1	13.68	$ 441.04	$ 6,033.44	$ 18,100.33	3	$ 6,033.44			
	Setup Blocks	each 3	3	2.00	$ 281.84	$ 563.68	$ 1,691.05	3	$ 563.68			
	Assemble Tower	each 3	4	31.51	$ 1,183.92	$ 37,309.49	$ 111,928.46	3	$ 37,309.49			
	Install Guy Strand	each 3	39	2.00	$ 1,258.65	$ 2,517.30	$ 7,551.90	3	$ 2,517.30			
	Helicopter Set	each 3	27	0.00	$ 21,899.72	$ -	$ -	3	$ -			
	Crane Set	each 3	40	3.50	$ 1,482.09	$ 5,187.33	$ 15,561.99	3	$ 5,187.33			
	Plumb Tower	each 3	41	2.00	$ 913.00	$ 1,826.00	$ 5,478.01	3	$ 1,826.00			
	haul Insulators and Travellers	each 3	7	1.50	$ 636.64	$ 954.96	$ 2,864.87	3	$ 954.96			
	Hang Travellers	each 3	8	1.00	$ 1,444.07	$ 1,444.07	$ 4,332.20	3	$ 1,444.07			
	Tie -in	each 3	12	2.00	$ 676.30	$ 1,352.60	$ 4,057.81	3	$ 1,352.60			
		each 3			$ -	$ -	$ -	3	$ -			
	Total Cost = $ 2.980	per pound				$ 58,539.12	$ 175,617.35		$ 58,539.12			
V::D36	**S1-D36 Assembly and Erection of Suspension Tower Type "A3 + 12" as per dwg. Total structure count:**	**2**		**EA**			**$ 117,915.89**		**$ 58,957.95**	**$ -**	**$ 58,957.95**	**$ -**
	S1-D36 Assembly and Erection of Suspension Tower Type "A3 + 12" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 20036 Total Tower Height(ft) = 187 Section Weight (lb) = 18570											
	Site Preparation	each 2	2	2.00	$ 675.12	$ 1,350.24	$ 2,700.49	2	$ 1,350.24			
	Haul	each 2	1	13.78	$ 441.04	$ 6,076.45	$ 12,152.89	2	$ 6,076.45			
	Setup Blocks	each 2	3	2.00	$ 281.84	$ 563.68	$ 1,127.37	2	$ 563.68			
	Assemble Tower	each 2	4	31.83	$ 1,183.92	$ 37,685.31	$ 75,370.62	2	$ 37,685.31			
	Install Guy Strand	each 2	39	2.00	$ 1,258.65	$ 2,517.30	$ 5,034.60	2	$ 2,517.30			
	Helicopter Set	each 2	27	0.00	$ 21,899.72	$ -	$ -	2	$ -			
	Crane Set	each 2	40	3.50	$ 1,482.09	$ 5,187.33	$ 10,374.66	2	$ 5,187.33			
	Plumb Tower	each 2	41	2.00	$ 913.00	$ 1,826.00	$ 3,652.01	2	$ 1,826.00			
	haul Insulators and Travellers	each 2	7	1.50	$ 636.64	$ 954.96	$ 1,909.91	2	$ 954.96			
	Hang Travellers	each 2	8	1.00	$ 1,444.07	$ 1,444.07	$ 2,888.13	2	$ 1,444.07			
	Tie -in	each 2	12	2.00	$ 676.30	$ 1,352.60	$ 2,705.21	2	$ 1,352.60			
		each 2			$ -	$ -	$ -	2	$ -			
	Total Cost = $ 2.973	per pound				$ 58,957.95	$ 117,915.89		$ 58,957.95			
V::D37	**S1-D37 Assembly and Erection of Suspension Tower Type "A3 + 13.5" as per** **Total structure count:**	**2**		**EA**			**$ 119,800.62**		**$ 59,900.31**	**$ -**	**$ 59,900.31**	**$ -**
	S1-D37 Assembly and Erection of Suspension Tower Type "A3 + 13.5" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 20503 Total Tower Height(ft) = 192 Section Weight (lb) = 18986											
	Site Preparation	each 2	2	2.00	$ 675.12	$ 1,350.24	$ 2,700.49	2	$ 1,350.24			
	Haul	each 2	1	14.00	$ 441.04	$ 6,173.21	$ 12,346.42	2	$ 6,173.21			
	Setup Blocks	each 2	3	2.00	$ 281.84	$ 563.68	$ 1,127.37	2	$ 563.68			
	Assemble Tower	each 2	4	32.55	$ 1,183.92	$ 38,530.92	$ 77,061.83	2	$ 38,530.92			
	Install Guy Strand	each 2	39	2.00	$ 1,258.65	$ 2,517.30	$ 5,034.60	2	$ 2,517.30			
	Helicopter Set	each 2	27	0.00	$ 21,899.72	$ -	$ -	2	$ -			
	Crane Set	each 2	40	3.50	$ 1,482.09	$ 5,187.33	$ 10,374.66	2	$ 5,187.33			
	Plumb Tower	each 2	41	2.00	$ 913.00	$ 1,826.00	$ 3,652.01	2	$ 1,826.00			
	haul Insulators and Travellers	each 2	7	1.50	$ 636.64	$ 954.96	$ 1,909.91	2	$ 954.96			
	Hang Travellers	each 2	8	1.00	$ 1,444.07	$ 1,444.07	$ 2,888.13	2	$ 1,444.07			
	Tie -in	each 2	12	2.00	$ 676.30	$ 1,352.60	$ 2,705.21	2	$ 1,352.60			
		each 2			$ -	$ -	$ -	2	$ -			
	Total Cost = $ 2.957	per pound				$ 59,900.31	$ 119,800.62		$ 59,900.31			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D38	**S1-D38 Assembly and Erection of Suspension Tower Type "A3 + 15" as per dwg. Total structure count:**		**1**	**EA**			**$ 60,842.68**		**$ 60,842.68**	**$ -**	**$ 60,842.68**	**$ -**
	S1-D38 Assembly and Erection of Suspension Tower Type "A3 + 15" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 20970 Total Tower Height(ft) = 197 Section Weight (lb) = 19403											
	Site Preparation (Site Preparation)	each 1	2	2.00	$ 675.12	$ 1,350.24	$ 1,350.24	1	$ 1,350.24			
	Haul (Hauling)	each 1	1	14.22	$ 441.04	$ 6,269.97	$ 6,269.97	1	$ 6,269.97			
	Setup Blocks (Blocking Crew)	each 1	3	2.00	$ 281.84	$ 563.68	$ 563.68	1	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 1	4	33.26	$ 1,183.92	$ 39,376.52	$ 39,376.52	1	$ 39,376.52			
	Install Guy Strand (Guy Install)	each 1	39	2.00	$ 1,258.65	$ 2,517.30	$ 2,517.30	1	$ 2,517.30			
	Helicopter Set (HL Helicopter)	each 1	27	0.00	$ 21,899.72	$ -	$ -	1	$ -			
	Crane Set (Y- Tower Erection)	each 1	40	3.50	$ 1,482.09	$ 5,187.33	$ 5,187.33	1	$ 5,187.33			
	Plumb Tower (Tower Plumb)	each 1	41	2.00	$ 913.00	$ 1,826.00	$ 1,826.00	1	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 1	7	1.50	$ 636.64	$ 954.96	$ 954.96	1	$ 954.96			
	Hang Travellers (Hang Travellers)	each 1	8	1.00	$ 1,444.07	$ 1,444.07	$ 1,444.07	1	$ 1,444.07			
	Tie -in (Tie -in)	each 1	12	2.00	$ 676.30	$ 1,352.60	$ 1,352.60	1	$ 1,352.60			
		each 1			$ -	$ -	$ -	1	$ -			
	Total Cost = $ 2.942	per pound				$ 60,842.68	$ 60,842.68		$ 60,842.68			
V::D39	**S1-D39 Assembly and Erection of Suspension Tower Type "A3 + 16.5" as per Total structure count:**		**3**	**EA**			**$ 184,263.18**		**$ 61,421.06**	**$ -**	**$ 61,421.06**	**$ -**
	S1-D39 Assembly and Erection of Suspension Tower Type "A3 + 16.5" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 21276 Total Tower Height(ft) = 202 Section Weight (lb) = 19659											
	Site Preparation (Site Preparation)	each 3	2	2.00	$ 675.12	$ 1,350.24	$ 4,050.73	3	$ 1,350.24			
	Haul (Hauling)	each 3	1	14.35	$ 441.04	$ 6,329.36	$ 18,988.07	3	$ 6,329.36			
	Setup Blocks (Blocking Crew)	each 3	3	2.00	$ 281.84	$ 563.68	$ 1,691.05	3	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 3	4	33.70	$ 1,183.92	$ 39,895.51	$ 119,686.54	3	$ 39,895.51			
	Install Guy Strand (Guy Install)	each 3	39	2.00	$ 1,258.65	$ 2,517.30	$ 7,551.90	3	$ 2,517.30			
	Helicopter Set (HL Helicopter)	each 3	27	0.00	$ 21,899.72	$ -	$ -	3	$ -			
	Crane Set (Y- Tower Erection)	each 3	40	3.50	$ 1,482.09	$ 5,187.33	$ 15,561.99	3	$ 5,187.33			
	Plumb Tower (Tower Plumb)	each 3	41	2.00	$ 913.00	$ 1,826.00	$ 5,478.01	3	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 3	7	1.50	$ 636.64	$ 954.96	$ 2,864.87	3	$ 954.96			
	Hang Travellers (Hang Travellers)	each 3	8	1.00	$ 1,444.07	$ 1,444.07	$ 4,332.20	3	$ 1,444.07			
	Tie -in (Tie -in)	each 3	12	2.00	$ 676.30	$ 1,352.60	$ 4,057.81	3	$ 1,352.60			
		each 3			$ -	$ -	$ -	3	$ -			
	Total Cost = $ 2.934	per pound				$ 61,421.06	$ 184,263.18		$ 61,421.06			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H18	**Assembly and Erection of Suspension Tower Type "A4"**		**Tower Setting Ratio**	**0.00 Helicopter**			**100% Crane**					
V::D40	**S1-D40 Assembly and Erection of Suspension Tower Type "A4 + 0" as per dwg.** **Total structure count:**		**0**	**EA**			**$ -**		**$ 66,617.12**	**$ -**	**$ 66,617.12**	**$ -**
	S1-D40 Assembly and Erection of Suspension Tower Type "A4 + 0" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 21808 Total Tower Height(ft) = 107 Section Weight (lb) = 21118											
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul (Hauling)	each	0	1	15.12	$ 441.04	$ 6,668.28	$ -	0	$ -		
	Setup Blocks (Blocking Crew)	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower (Lattice Assembly)	each	0	4	36.20	$ 1,183.92	$ 42,857.37	$ -	0	$ -		
	Install Guy Strand (Guy Install)	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set (HL Helicopter)	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set (Y- Tower Erection)	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -		
	Plumb Tower (Tower Plumb)	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers (Haul Travellers&Glass)	each	0	7	2.50	$ 636.64	$ 1,591.59	$ -	0	$ -		
	Hang Travellers (Hang Travellers)	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in (Tie -in)	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.947	per pound					$ 66,617.12	$ -		$ -		
V::D41	**S1-D41 Assembly and Erection of Suspension Tower Type "A4 + 1.5" as per** **Total structure count:**		**0**	**EA**			**$ -**		**$ 68,143.64**	**$ -**	**$ 68,143.64**	**$ -**
	S1-D41 Assembly and Erection of Suspension Tower Type "A4 + 1.5" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 22674 Total Tower Height(ft) = 112 Section Weight (lb) = 21934											
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul (Hauling)	each	0	1	15.55	$ 441.04	$ 6,857.71	$ -	0	$ -		
	Setup Blocks (Blocking Crew)	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower (Lattice Assembly)	each	0	4	37.60	$ 1,183.92	$ 44,512.78	$ -	0	$ -		
	Install Guy Strand (Guy Install)	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set (HL Helicopter)	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set (Y- Tower Erection)	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -		
	Plumb Tower (Tower Plumb)	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers (Haul Travellers&Glass)	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers (Hang Travellers)	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in (Tie -in)	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.921	per pound					$ 68,143.64	$ -		$ -		
V::D42	**S1-D42 Assembly and Erection of Suspension Tower Type "A4 + 3" as per dwg.** **Total structure count:**		**0**	**EA**			**$ -**		**$ 69,474.92**	**$ -**	**$ 69,474.92**	**$ -**
	S1-D42 Assembly and Erection of Suspension Tower Type "A4 + 3" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 23313 Total Tower Height(ft) = 116 Section Weight (lb) = 22523											
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul (Hauling)	each	0	1	15.86	$ 441.04	$ 6,994.40	$ -	0	$ -		
	Setup Blocks (Blocking Crew)	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower (Lattice Assembly)	each	0	4	38.61	$ 1,183.92	$ 45,707.37	$ -	0	$ -		
	Install Guy Strand (Guy Install)	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set (HL Helicopter)	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set (Y- Tower Erection)	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -		
	Plumb Tower (Tower Plumb)	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers (Haul Travellers&Glass)	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers (Hang Travellers)	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in (Tie -in)	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.904	per pound					$ 69,474.92	$ -		$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D43	**S1-D43 Assembly and Erection of Suspension Tower Type "A4 + 4.5" as per** **Total structure count:**		**0**	**EA**			**$ -**		**$ 71,314.78**	**$ -**	**$ 71,314.78**	**$ -**
	S1-D43 Assembly and Erection of Suspension Tower Type "A4 + 4.5" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 24177 Total Tower Height(ft) = 121 Section Weight (lb) = 23336											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	16.29	$ 441.04	$ 7,183.32	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	40.00	$ 1,183.92	$ 47,358.31	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.882	per pound				$ 71,314.78	$ -		$ -			
V::D44	**S1-D44 Assembly and Erection of Suspension Tower Type "A4 + 6" as per dwg.** **Total structure count:**		**25**	**EA**			**$ 1,789,351.34**		**$ 71,574.05**	**$ -**	**$ 71,574.05**	**$ -**
	S1-D44 Assembly and Erection of Suspension Tower Type "A4 + 6" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 24342 Total Tower Height(ft) = 126 Section Weight (lb) = 23451											
	Site Preparation (Site Preparation)	each 25	2	2.00	$ 675.12	$ 1,350.24	$ 33,756.12	25	$ 1,350.24			
	Haul (Hauling)	each 25	1	16.35	$ 441.04	$ 7,209.94	$ 180,248.43	25	$ 7,209.94			
	Setup Blocks (Blocking Crew)	each 25	3	2.00	$ 281.84	$ 563.68	$ 14,092.11	25	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 25	4	40.20	$ 1,183.92	$ 47,590.96	$ 1,189,773.99	25	$ 47,590.96			
	Install Guy Strand (Guy Install)	each 25	39	3.00	$ 1,258.65	$ 3,775.95	$ 94,398.73	25	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 25	27	0.00	$ 21,899.72	$ -	$ -	25	$ -			
	Crane Set (Y- Tower Erection)	each 25	40	3.50	$ 1,482.09	$ 5,187.33	$ 129,683.24	25	$ 5,187.33			
	Plumb Tower (Tower Plumb)	each 25	41	2.00	$ 913.00	$ 1,826.00	$ 45,650.08	25	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 25	7	2.00	$ 636.64	$ 1,273.27	$ 31,831.87	25	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 25	8	1.00	$ 1,444.07	$ 1,444.07	$ 36,101.67	25	$ 1,444.07			
	Tie -in (Tie -in)	each 25	12	2.00	$ 676.30	$ 1,352.60	$ 33,815.09	25	$ 1,352.60			
		each 25			$ -	$ -	$ -	25	$ -			
	Total Cost = $ 2.879	per pound				$ 71,574.05	$ 1,789,351.34		$ 71,574.05			
V::D45	**S1-D45 Assembly and Erection of Suspension Tower Type "A4 + 7.5" as per** **Total structure count:**		**12**	**EA**			**$ 881,684.91**		**$ 73,473.74**	**$ -**	**$ 73,473.74**	**$ -**
	S1-D45 Assembly and Erection of Suspension Tower Type "A4 + 7.5" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 25232 Total Tower Height(ft) = 131 Section Weight (lb) = 24291											
	Site Preparation (Site Preparation)	each 12	2	2.00	$ 675.12	$ 1,350.24	$ 16,202.94	12	$ 1,350.24			
	Haul (Hauling)	each 12	1	16.79	$ 441.04	$ 7,405.00	$ 88,859.95	12	$ 7,405.00			
	Setup Blocks (Blocking Crew)	each 12	3	2.00	$ 281.84	$ 563.68	$ 6,764.21	12	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 12	4	41.64	$ 1,183.92	$ 49,295.59	$ 591,547.08	12	$ 49,295.59			
	Install Guy Strand (Guy Install)	each 12	39	3.00	$ 1,258.65	$ 3,775.95	$ 45,311.39	12	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 12	27	0.00	$ 21,899.72	$ -	$ -	12	$ -			
	Crane Set (Y- Tower Erection)	each 12	40	3.50	$ 1,482.09	$ 5,187.33	$ 62,247.95	12	$ 5,187.33			
	Plumb Tower (Tower Plumb)	each 12	41	2.00	$ 913.00	$ 1,826.00	$ 21,912.04	12	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 12	7	2.00	$ 636.64	$ 1,273.27	$ 15,279.30	12	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 12	8	1.00	$ 1,444.07	$ 1,444.07	$ 17,328.80	12	$ 1,444.07			
	Tie -in (Tie -in)	each 12	12	2.00	$ 676.30	$ 1,352.60	$ 16,231.24	12	$ 1,352.60			
		each 12			$ -	$ -	$ -	12	$ -			
	Total Cost = $ 2.857	per pound				$ 73,473.74	$ 881,684.91		$ 73,473.74			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D46	**S1-D46 Assembly and Erection of Suspension Tower Type "A4 + 9" as per dwg. Total structure count:**		**21**	**EA**			**$ 1,570,905.44**		**$ 74,805.02**	**$ -**	**$ 74,805.02**	**$ -**
	S1-D46 Assembly and Erection of Suspension Tower Type "A4 + 9" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 25871 Total Tower Height(ft) = 136 Section Weight (lb) = 24879											
	Site Preparation (Site Preparation)	each 21	2	2.00	$ 675.12	$ 1,350.24	$ 28,355.14	21	$ 1,350.24			
	Haul (Hauling)	each 21	1	17.10	$ 441.04	$ 7,541.69	$ 158,375.50	21	$ 7,541.69			
	Setup Blocks (Blocking Crew)	each 21	3	2.00	$ 281.84	$ 563.68	$ 11,837.38	21	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 21	4	42.65	$ 1,183.92	$ 50,490.17	$ 1,060,293.65	21	$ 50,490.17			
	Install Guy Strand (Guy Install)	each 21	39	3.00	$ 1,258.65	$ 3,775.95	$ 79,294.94	21	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 21	27	0.00	$ 21,899.72	$ -	$ -	21	$ -			
	Crane Set (Y- Tower Erection)	each 21	40	3.50	$ 1,482.09	$ 5,187.33	$ 108,933.92	21	$ 5,187.33			
	Plumb Tower (Tower Plumb)	each 21	41	2.00	$ 913.00	$ 1,826.00	$ 38,346.06	21	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 21	7	2.00	$ 636.64	$ 1,273.27	$ 26,738.77	21	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 21	8	1.00	$ 1,444.07	$ 1,444.07	$ 30,325.41	21	$ 1,444.07			
	Tie -in (Tie -in)	each 21	12	2.00	$ 676.30	$ 1,352.60	$ 28,404.67	21	$ 1,352.60			
		each 21			$ -	$ -	$ -	21	$ -			
	Total Cost = $ 2.843	per pound				$ 74,805.02	$ 1,570,905.44		$ 74,805.02			
V::D47	**S1-D47 Assembly and Erection of Suspension Tower Type "A4 + 10.5" as per Total structure count:**		**18**	**EA**			**$ 1,379,607.79**		**$ 76,644.88**	**$ -**	**$ 76,644.88**	**$ -**
	S1-D47 Assembly and Erection of Suspension Tower Type "A4 + 10.5" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 26735 Total Tower Height(ft) = 141 Section Weight (lb) = 25693											
	Site Preparation (Site Preparation)	each 18	2	2.00	$ 675.12	$ 1,350.24	$ 24,304.41	18	$ 1,350.24			
	Haul (Hauling)	each 18	1	17.53	$ 441.04	$ 7,730.61	$ 139,150.90	18	$ 7,730.61			
	Setup Blocks (Blocking Crew)	each 18	3	2.00	$ 281.84	$ 563.68	$ 10,146.32	18	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 18	4	44.04	$ 1,183.92	$ 52,141.12	$ 938,540.07	18	$ 52,141.12			
	Install Guy Strand (Guy Install)	each 18	39	3.00	$ 1,258.65	$ 3,775.95	$ 67,967.09	18	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 18	27	0.00	$ 21,899.72	$ -	$ -	18	$ -			
	Crane Set (Y- Tower Erection)	each 18	40	3.50	$ 1,482.09	$ 5,187.33	$ 93,371.93	18	$ 5,187.33			
	Plumb Tower (Tower Plumb)	each 18	41	2.00	$ 913.00	$ 1,826.00	$ 32,868.06	18	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 18	7	2.00	$ 636.64	$ 1,273.27	$ 22,918.95	18	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 18	8	1.00	$ 1,444.07	$ 1,444.07	$ 25,993.21	18	$ 1,444.07			
	Tie -in (Tie -in)	each 18	12	2.00	$ 676.30	$ 1,352.60	$ 24,346.86	18	$ 1,352.60			
		each 18			$ -	$ -	$ -	18	$ -			
	Total Cost = $ 2.825	per pound				$ 76,644.88	$ 1,379,607.79		$ 76,644.88			
V::D48	**S1-D48 Assembly and Erection of Suspension Tower Type "A4 + 12" as per dwg. Total structure count:**		**10**	**EA**			**$ 768,493.06**		**$ 76,849.31**	**$ -**	**$ 76,849.31**	**$ -**
	S1-D48 Assembly and Erection of Suspension Tower Type "A4 + 12" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 26876 Total Tower Height(ft) = 146 Section Weight (lb) = 25783											
	Site Preparation (Site Preparation)	each 10	2	2.00	$ 675.12	$ 1,350.24	$ 13,502.45	10	$ 1,350.24			
	Haul (Hauling)	each 10	1	17.58	$ 441.04	$ 7,751.60	$ 77,515.96	10	$ 7,751.60			
	Setup Blocks (Blocking Crew)	each 10	3	2.00	$ 281.84	$ 563.68	$ 5,636.85	10	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 10	4	44.20	$ 1,183.92	$ 52,324.55	$ 523,245.53	10	$ 52,324.55			
	Install Guy Strand (Guy Install)	each 10	39	3.00	$ 1,258.65	$ 3,775.95	$ 37,759.49	10	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 10	27	0.00	$ 21,899.72	$ -	$ -	10	$ -			
	Crane Set (Y- Tower Erection)	each 10	40	3.50	$ 1,482.09	$ 5,187.33	$ 51,873.29	10	$ 5,187.33			
	Plumb Tower (Tower Plumb)	each 10	41	2.00	$ 913.00	$ 1,826.00	$ 18,260.03	10	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 10	7	2.00	$ 636.64	$ 1,273.27	$ 12,732.75	10	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 10	8	1.00	$ 1,444.07	$ 1,444.07	$ 14,440.67	10	$ 1,444.07			
	Tie -in (Tie -in)	each 10	12	2.00	$ 676.30	$ 1,352.60	$ 13,526.04	10	$ 1,352.60			
		each 10			$ -	$ -	$ -	10	$ -			
	Total Cost = $ 2.823	per pound				$ 76,849.31	$ 768,493.06		$ 76,849.31			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D49	**S1-D49 Assembly and Erection of Suspension Tower Type "A4 + 13.5" as per** **Total structure count:**	**12**		**EA**			**$ 944,987.94**		**$ 78,748.99**	**$ -**	**$ 78,748.99**	**$ -**
	S1-D49 Assembly and Erection of Suspension Tower Type "A4 + 13.5" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 27766 Total Tower Height(ft) = 151 Section Weight (lb) = 26623											
	Site Preparation (Site Preparation)	each 12	2	2.00	$ 675.12	$ 1,350.24	$ 16,202.94	12	$ 1,350.24			
	Haul (Hauling)	each 12	1	18.02	$ 441.04	$ 7,946.65	$ 95,359.86	12	$ 7,946.65			
	Setup Blocks (Blocking Crew)	each 12	3	2.00	$ 281.84	$ 563.68	$ 6,764.21	12	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 12	4	45.64	$ 1,183.92	$ 54,029.18	$ 648,350.21	12	$ 54,029.18			
	Install Guy Strand (Guy Install)	each 12	39	3.00	$ 1,258.65	$ 3,775.95	$ 45,311.39	12	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 12	27	0.00	$ 21,899.72	$ -	$ -	12	$ -			
	Crane Set (Y- Tower Erection)	each 12	40	3.50	$ 1,482.09	$ 5,187.33	$ 62,247.95	12	$ 5,187.33			
	Plumb Tower (Tower Plumb)	each 12	41	2.00	$ 913.00	$ 1,826.00	$ 21,912.04	12	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 12	7	2.00	$ 636.64	$ 1,273.27	$ 15,279.30	12	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 12	8	1.00	$ 1,444.07	$ 1,444.07	$ 17,328.80	12	$ 1,444.07			
	Tie -in (Tie -in)	each 12	12	2.00	$ 676.30	$ 1,352.60	$ 16,231.24	12	$ 1,352.60			
		each 12			$ -	$ -	$ -	12	$ -			
	Total Cost = $ 2.805	per pound				$ 78,748.99	$ 944,987.94		$ 78,748.99			
V::D50	**S1-D50 Assembly and Erection of Suspension Tower Type "A4 + 15" as per dwg.** **Total structure count:**	**4**		**EA**			**$ 322,594.74**		**$ 80,648.68**	**$ -**	**$ 80,648.68**	**$ -**
	S1-D50 Assembly and Erection of Suspension Tower Type "A4 + 15" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 28657 Total Tower Height(ft) = 156 Section Weight (lb) = 27463											
	Site Preparation (Site Preparation)	each 4	2	2.00	$ 675.12	$ 1,350.24	$ 5,400.98	4	$ 1,350.24			
	Haul (Hauling)	each 4	1	18.46	$ 441.04	$ 8,141.71	$ 32,566.85	4	$ 8,141.71			
	Setup Blocks (Blocking Crew)	each 4	3	2.00	$ 281.84	$ 563.68	$ 2,254.74	4	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 4	4	47.08	$ 1,183.92	$ 55,733.81	$ 222,935.26	4	$ 55,733.81			
	Install Guy Strand (Guy Install)	each 4	39	3.00	$ 1,258.65	$ 3,775.95	$ 15,103.80	4	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 4	27	0.00	$ 21,899.72	$ -	$ -	4	$ -			
	Crane Set (Y- Tower Erection)	each 4	40	3.50	$ 1,482.09	$ 5,187.33	$ 20,749.32	4	$ 5,187.33			
	Plumb Tower (Tower Plumb)	each 4	41	2.00	$ 913.00	$ 1,826.00	$ 7,304.01	4	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 4	7	2.00	$ 636.64	$ 1,273.27	$ 5,093.10	4	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 4	8	1.00	$ 1,444.07	$ 1,444.07	$ 5,776.27	4	$ 1,444.07			
	Tie -in (Tie -in)	each 4	12	2.00	$ 676.30	$ 1,352.60	$ 5,410.41	4	$ 1,352.60			
		each 4			$ -	$ -	$ -	4	$ -			
	Total Cost = $ 2.788	per pound				$ 80,648.68	$ 322,594.74		$ 80,648.68			
V::D51	**S1-D51 Assembly and Erection of Suspension Tower Type "A4 + 16.5" as per** **Total structure count:**	**4**		**EA**			**$ 327,919.85**		**$ 81,979.96**	**$ -**	**$ 81,979.96**	**$ -**
	S1-D51 Assembly and Erection of Suspension Tower Type "A4 + 16.5" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 29296 Total Tower Height(ft) = 161 Section Weight (lb) = 28052											
	Site Preparation (Site Preparation)	each 4	2	2.00	$ 675.12	$ 1,350.24	$ 5,400.98	4	$ 1,350.24			
	Haul (Hauling)	each 4	1	18.77	$ 441.04	$ 8,278.41	$ 33,113.63	4	$ 8,278.41			
	Setup Blocks (Blocking Crew)	each 4	3	2.00	$ 281.84	$ 563.68	$ 2,254.74	4	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 4	4	48.08	$ 1,183.92	$ 56,928.40	$ 227,713.59	4	$ 56,928.40			
	Install Guy Strand (Guy Install)	each 4	39	3.00	$ 1,258.65	$ 3,775.95	$ 15,103.80	4	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 4	27	0.00	$ 21,899.72	$ -	$ -	4	$ -			
	Crane Set (Y- Tower Erection)	each 4	40	3.50	$ 1,482.09	$ 5,187.33	$ 20,749.32	4	$ 5,187.33			
	Plumb Tower (Tower Plumb)	each 4	41	2.00	$ 913.00	$ 1,826.00	$ 7,304.01	4	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 4	7	2.00	$ 636.64	$ 1,273.27	$ 5,093.10	4	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 4	8	1.00	$ 1,444.07	$ 1,444.07	$ 5,776.27	4	$ 1,444.07			
	Tie -in (Tie -in)	each 4	12	2.00	$ 676.30	$ 1,352.60	$ 5,410.41	4	$ 1,352.60			
		each 4			$ -	$ -	$ -	4	$ -			
	Total Cost = $ 2.777	per pound				$ 81,979.96	$ 327,919.85		$ 81,979.96			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D52	**S1-D52 Assembly and Erection of Suspension Tower Type "A4 + 18" as per dwg. Total structure count:**		**1**	**EA**			**$ 83,306.25**		**$ 83,306.25**	**$ -**	**$ 83,306.25**	**$ -**
	S1-D52 Assembly and Erection of Suspension Tower Type "A4 + 18" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 29933 Total Tower Height(ft) = 166 Section Weight (lb) = 28638											
	Site Preparation (Site Preparation)	each 1	2	2.00	$ 675.12	$ 1,350.24	$ 1,350.24	1	$ 1,350.24			
	Haul (Hauling)	each 1	1	19.08	$ 441.04	$ 8,414.59	$ 8,414.59	1	$ 8,414.59			
	Setup Blocks (Blocking Crew)	each 1	3	2.00	$ 281.84	$ 563.68	$ 563.68	1	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 1	4	49.09	$ 1,183.92	$ 58,118.51	$ 58,118.51	1	$ 58,118.51			
	Install Guy Strand (Guy Install)	each 1	39	3.00	$ 1,258.65	$ 3,775.95	$ 3,775.95	1	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 1	27	0.00	$ 21,899.72	$ -	$ -	1	$ -			
	Crane Set (Y- Tower Erection)	each 1	40	3.50	$ 1,482.09	$ 5,187.33	$ 5,187.33	1	$ 5,187.33			
	Plumb Tower (Tower Plumb)	each 1	41	2.00	$ 913.00	$ 1,826.00	$ 1,826.00	1	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 1	7	2.00	$ 636.64	$ 1,273.27	$ 1,273.27	1	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 1	8	1.00	$ 1,444.07	$ 1,444.07	$ 1,444.07	1	$ 1,444.07			
	Tie -in (Tie -in)	each 1	12	2.00	$ 676.30	$ 1,352.60	$ 1,352.60	1	$ 1,352.60			
		each 1			$ -	$ -	$ -	1	$ -			
	Total Cost = $ 2.767	per pound				$ 83,306.25	$ 83,306.25		$ 83,306.25			
V::D53	**S1-D53 Assembly and Erection of Suspension Tower Type "A4 + 19.5" as per Total structure count:**		**6**	**EA**			**$ 504,145.48**		**$ 84,024.25**	**$ -**	**$ 84,024.25**	**$ -**
	S1-D53 Assembly and Erection of Suspension Tower Type "A4 + 19.5" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 30300 Total Tower Height(ft) = 171 Section Weight (lb) = 28956											
	Site Preparation (Site Preparation)	each 6	2	2.00	$ 675.12	$ 1,350.24	$ 8,101.47	6	$ 1,350.24			
	Haul (Hauling)	each 6	1	19.25	$ 441.04	$ 8,488.31	$ 50,929.88	6	$ 8,488.31			
	Setup Blocks (Blocking Crew)	each 6	3	2.00	$ 281.84	$ 563.68	$ 3,382.11	6	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 6	4	49.63	$ 1,183.92	$ 58,762.78	$ 352,576.66	6	$ 58,762.78			
	Install Guy Strand (Guy Install)	each 6	39	3.00	$ 1,258.65	$ 3,775.95	$ 22,655.70	6	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 6	27	0.00	$ 21,899.72	$ -	$ -	6	$ -			
	Crane Set (Y- Tower Erection)	each 6	40	3.50	$ 1,482.09	$ 5,187.33	$ 31,123.98	6	$ 5,187.33			
	Plumb Tower (Tower Plumb)	each 6	41	2.00	$ 913.00	$ 1,826.00	$ 10,956.02	6	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 6	7	2.00	$ 636.64	$ 1,273.27	$ 7,639.65	6	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 6	8	1.00	$ 1,444.07	$ 1,444.07	$ 8,664.40	6	$ 1,444.07			
	Tie -in (Tie -in)	each 6	12	2.00	$ 676.30	$ 1,352.60	$ 8,115.62	6	$ 1,352.60			
		each 6			$ -	$ -	$ -	6	$ -			
	Total Cost = $ 2.761	per pound				$ 84,024.25	$ 504,145.48		$ 84,024.25			
V-H19	**Assembly and Erection of Suspension Tower Type "B1"**			**Tower Setting Ratio**		**0.00 Helicopter**			**100% Crane**			
V::D54	**S1-D54 Assembly and Erection of Suspension Tower Type "B1 + 0" as per dwg. Total structure count:**		**0**	**EA**			**$ -**		**$ 86,290.12**	**$ -**	**$ 86,290.12**	**$ -**
	S1-D54 Assembly and Erection of Suspension Tower Type "B1 + 0" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 31846 Total Tower Height(ft) = 122 Section Weight (lb) = 30111											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	15.85	$ 441.04	$ 6,992.41	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	51.61	$ 1,183.92	$ 61,107.20	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.708	per pound				$ 86,290.12	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D55	**S1-D55 Assembly and Erection of Suspension Tower Type "B1 + 1.5" as per**	**Total structure count:**	**0**	**EA**			**$ -**		**$ 89,405.62**	**$ -**	**$ 89,405.62**	**$ -**
	S1-D55 Assembly and Erection of Suspension Tower Type "B1 + 1.5" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 33198	Total Tower Height(ft) = 127		Section Weight (lb) = 31348								
	Site Preparation	Site Preparation	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	Hauling	each 0	1	16.51	$ 441.04	$ 7,279.63	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	Lattice Assembly	each 0	4	53.73	$ 1,183.92	$ 63,617.17	$ -	0	$ -		
	Install Guy Strand	Guy Install	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set	HL Helicopter	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	Y- Tower Erection	each 0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -		
	Plumb Tower	Tower Plumb	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	Haul Travellers&Glass	each 0	7	2.50	$ 636.64	$ 1,591.59	$ -	0	$ -		
	Hang Travellers	Hang Travellers	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in	Tie -in	each 0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -		
			each 0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.691	per pound					$ 89,405.62	$ -		$ -		
V::D56	**S1-D56 Assembly and Erection of Suspension Tower Type "B1 + 3" as per dwg.**	**Total structure count:**	**0**	**EA**			**$ -**		**$ 90,917.19**	**$ -**	**$ 90,917.19**	**$ -**
	S1-D56 Assembly and Erection of Suspension Tower Type "B1 + 3" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 34123	Total Tower Height(ft) = 132		Section Weight (lb) = 32157								
	Site Preparation	Site Preparation	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	Hauling	each 0	1	16.93	$ 441.04	$ 7,467.52	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	Lattice Assembly	each 0	4	55.12	$ 1,183.92	$ 65,259.16	$ -	0	$ -		
	Install Guy Strand	Guy Install	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set	HL Helicopter	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	Y- Tower Erection	each 0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -		
	Plumb Tower	Tower Plumb	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	Haul Travellers&Glass	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers	Hang Travellers	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in	Tie -in	each 0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -		
			each 0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.680	per pound					$ 90,917.19	$ -		$ -		
V::D57	**S1-D57 Assembly and Erection of Suspension Tower Type "B1 + 4.5" as per**	**Total structure count:**	**0**	**EA**			**$ -**		**$ 93,714.37**	**$ -**	**$ 93,714.37**	**$ -**
	S1-D57 Assembly and Erection of Suspension Tower Type "B1 + 4.5" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 35476	Total Tower Height(ft) = 137		Section Weight (lb) = 33394								
	Site Preparation	Site Preparation	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	Hauling	each 0	1	17.58	$ 441.04	$ 7,754.73	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	Lattice Assembly	each 0	4	57.24	$ 1,183.92	$ 67,769.13	$ -	0	$ -		
	Install Guy Strand	Guy Install	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set	HL Helicopter	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	Y- Tower Erection	each 0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -		
	Plumb Tower	Tower Plumb	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	Haul Travellers&Glass	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers	Hang Travellers	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in	Tie -in	each 0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -		
			each 0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.664	per pound					$ 93,714.37	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D58	**S1-D58 Assembly and Erection of Suspension Tower Type "B1 + 6" as per dwg. Total structure count:**		**0**	**EA**			**$ -**		**$ 94,831.25**	**$ -**	**$ 94,831.25**	**$ -**
	S1-D58 Assembly and Erection of Suspension Tower Type "B1 + 6" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 36086 Total Tower Height(ft) = 142 Section Weight (lb) = 33887											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	17.84	$ 441.04	$ 7,869.41	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	58.09	$ 1,183.92	$ 68,771.33	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.658	per pound				$ 94,831.25	$ -		$ -			
V::D59	**S1-D59 Assembly and Erection of Suspension Tower Type "B1 + 7.5" as per Total structure count:**		**0**	**EA**			**$ -**		**$ 96,701.02**	**$ -**	**$ 96,701.02**	**$ -**
	S1-D59 Assembly and Erection of Suspension Tower Type "B1 + 7.5" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 37029 Total Tower Height(ft) = 147 Section Weight (lb) = 34714											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	18.28	$ 441.04	$ 8,061.40	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	59.50	$ 1,183.92	$ 70,449.12	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.649	per pound				$ 96,701.02	$ -		$ -			
V::D60	**S1-D60 Assembly and Erection of Suspension Tower Type "B1 + 9" as per dwg. Total structure count:**		**0**	**EA**			**$ -**		**$ 98,391.29**	**$ -**	**$ 98,391.29**	**$ -**
	S1-D60 Assembly and Erection of Suspension Tower Type "B1 + 9" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 37892 Total Tower Height(ft) = 152 Section Weight (lb) = 35462											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	18.67	$ 441.04	$ 8,234.95	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	60.79	$ 1,183.92	$ 71,965.83	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.641	per pound				$ 98,391.29	$ -		$ -			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D61	**S1-D61 Assembly and Erection of Suspension Tower Type "B1 + 10.5" as per** **Total structure count:**		**0**	**EA**			**$ -**		**$ 101,343.04**	**$ -**	**$ 101,343.04**	**$ -**
	S1-D61 Assembly and Erection of Suspension Tower Type "B1 + 10.5" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 39313 Total Tower Height(ft) = 157 Section Weight (lb) = 36767											
	Site Preparation	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul	each 0	1	19.36	$ 441.04	$ 8,538.04	$ -	0	$ -			
	Setup Blocks	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower	each 0	4	63.02	$ 1,183.92	$ 74,614.50	$ -	0	$ -			
	Install Guy Strand	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set	each 0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -			
	Plumb Tower	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in	each 0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.627	per pound				$ 101,343.04	$ -		$ -			
V::D62	**S1-D62 Assembly and Erection of Suspension Tower Type "B1 + 12" as per dwg. Total structure count:**		**1**	**EA**			**$ 103,377.35**		**$ 103,377.35**	**$ -**	**$ 103,377.35**	**$ -**
	S1-D62 Assembly and Erection of Suspension Tower Type "B1 + 12" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 40328 Total Tower Height(ft) = 161 Section Weight (lb) = 37666											
	Site Preparation	each 1	2	2.00	$ 675.12	$ 1,350.24	$ 1,350.24	1	$ 1,350.24			
	Haul	each 1	1	19.83	$ 441.04	$ 8,746.92	$ 8,746.92	1	$ 8,746.92			
	Setup Blocks	each 1	3	2.00	$ 281.84	$ 563.68	$ 563.68	1	$ 563.68			
	Assemble Tower	each 1	4	64.57	$ 1,183.92	$ 76,439.93	$ 76,439.93	1	$ 76,439.93			
	Install Guy Strand	each 1	39	3.00	$ 1,258.65	$ 3,775.95	$ 3,775.95	1	$ 3,775.95			
	Helicopter Set	each 1	27	0.00	$ 21,899.72	$ -	$ -	1	$ -			
	Crane Set	each 1	40	4.00	$ 1,482.09	$ 5,928.38	$ 5,928.38	1	$ 5,928.38			
	Plumb Tower	each 1	41	2.00	$ 913.00	$ 1,826.00	$ 1,826.00	1	$ 1,826.00			
	haul Insulators and Travellers	each 1	7	2.00	$ 636.64	$ 1,273.27	$ 1,273.27	1	$ 1,273.27			
	Hang Travellers	each 1	8	1.00	$ 1,444.07	$ 1,444.07	$ 1,444.07	1	$ 1,444.07			
	Tie -in	each 1	12	3.00	$ 676.30	$ 2,028.91	$ 2,028.91	1	$ 2,028.91			
		each 1			$ -	$ -	$ -	1	$ -			
	Total Cost = $ 2.619	per pound				$ 103,377.35	$ 103,377.35		$ 103,377.35			
V::D63	**S1-D63 Assembly and Erection of Suspension Tower Type "B1 + 13.5" as per** **Total structure count:**		**1**	**EA**			**$ 106,739.19**		**$ 106,739.19**	**$ -**	**$ 106,739.19**	**$ -**
	S1-D63 Assembly and Erection of Suspension Tower Type "B1 + 13.5" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 41275 Total Tower Height(ft) = 166 Section Weight (lb) = 38497											
	Site Preparation	each 1	2	2.00	$ 675.12	$ 1,350.24	$ 1,350.24	1	$ 1,350.24			
	Haul	each 1	1	20.27	$ 441.04	$ 8,939.93	$ 8,939.93	1	$ 8,939.93			
	Setup Blocks	each 1	3	2.00	$ 281.84	$ 563.68	$ 563.68	1	$ 563.68			
	Assemble Tower	each 1	4	65.99	$ 1,183.92	$ 78,126.67	$ 78,126.67	1	$ 78,126.67			
	Install Guy Strand	each 1	39	3.00	$ 1,258.65	$ 3,775.95	$ 3,775.95	1	$ 3,775.95			
	Helicopter Set	each 1	27	0.00	$ 21,899.72	$ -	$ -	1	$ -			
	Crane Set	each 1	40	5.00	$ 1,482.09	$ 7,410.47	$ 7,410.47	1	$ 7,410.47			
	Plumb Tower	each 1	41	2.00	$ 913.00	$ 1,826.00	$ 1,826.00	1	$ 1,826.00			
	haul Insulators and Travellers	each 1	7	2.00	$ 636.64	$ 1,273.27	$ 1,273.27	1	$ 1,273.27			
	Hang Travellers	each 1	8	1.00	$ 1,444.07	$ 1,444.07	$ 1,444.07	1	$ 1,444.07			
	Tie -in	each 1	12	3.00	$ 676.30	$ 2,028.91	$ 2,028.91	1	$ 2,028.91			
		each 1			$ -	$ -	$ -	1	$ -			
	Total Cost = $ 2.649	per pound				$ 106,739.19	$ 106,739.19		$ 106,739.19			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D64	**S1-D64 Assembly and Erection of Suspension Tower Type "B1 + 15" as per dwg. Total structure count:**		**2**	**EA**			**$ 217,247.85**		**$ 108,623.92**	**$ -**	**$ 108,623.92**	**$ -**
	S1-D64 Assembly and Erection of Suspension Tower Type "B1 + 15" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 42225 Total Tower Height(ft) = 171 Section Weight (lb) = 39331											
	Site Preparation (Site Preparation)	each 2	2	2.00	$ 675.12	$ 1,350.24	$ 2,700.49	2	$ 1,350.24			
	Haul (Hauling)	each 2	1	20.71	$ 441.04	$ 9,133.45	$ 18,266.90	2	$ 9,133.45			
	Setup Blocks (Blocking Crew)	each 2	3	2.00	$ 281.84	$ 563.68	$ 1,127.37	2	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 2	4	67.42	$ 1,183.92	$ 79,817.87	$ 159,635.75	2	$ 79,817.87			
	Install Guy Strand (Guy Install)	each 2	39	3.00	$ 1,258.65	$ 3,775.95	$ 7,551.90	2	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 2	27	0.00	$ 21,899.72	$ -	$ -	2	$ -			
	Crane Set (Y- Tower Erection)	each 2	40	5.00	$ 1,482.09	$ 7,410.47	$ 14,820.94	2	$ 7,410.47			
	Plumb Tower (Tower Plumb)	each 2	41	2.00	$ 913.00	$ 1,826.00	$ 3,652.01	2	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 2	7	2.00	$ 636.64	$ 1,273.27	$ 2,546.55	2	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 2	8	1.00	$ 1,444.07	$ 1,444.07	$ 2,888.13	2	$ 1,444.07			
	Tie -in (Tie -in)	each 2	12	3.00	$ 676.30	$ 2,028.91	$ 4,057.81	2	$ 2,028.91			
		each 2			$ -	$ -	$ -	2	$ -			
	Total Cost = $ 2.641	per pound				$ 108,623.92	$ 217,247.85		$ 108,623.92			
V::D65	**S1-D65 Assembly and Erection of Suspension Tower Type "B1 + 16.5" as per Total structure count:**		**1**	**EA**			**$ 110,299.24**		**$ 110,299.24**	**$ -**	**$ 110,299.24**	**$ -**
	S1-D65 Assembly and Erection of Suspension Tower Type "B1 + 16.5" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 43081 Total Tower Height(ft) = 176 Section Weight (lb) = 40071											
	Site Preparation (Site Preparation)	each 1	2	2.00	$ 675.12	$ 1,350.24	$ 1,350.24	1	$ 1,350.24			
	Haul (Hauling)	each 1	1	21.10	$ 441.04	$ 9,305.47	$ 9,305.47	1	$ 9,305.47			
	Setup Blocks (Blocking Crew)	each 1	3	2.00	$ 281.84	$ 563.68	$ 563.68	1	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 1	4	68.69	$ 1,183.92	$ 81,321.17	$ 81,321.17	1	$ 81,321.17			
	Install Guy Strand (Guy Install)	each 1	39	3.00	$ 1,258.65	$ 3,775.95	$ 3,775.95	1	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 1	27	0.00	$ 21,899.72	$ -	$ -	1	$ -			
	Crane Set (Y- Tower Erection)	each 1	40	5.00	$ 1,482.09	$ 7,410.47	$ 7,410.47	1	$ 7,410.47			
	Plumb Tower (Tower Plumb)	each 1	41	2.00	$ 913.00	$ 1,826.00	$ 1,826.00	1	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 1	7	2.00	$ 636.64	$ 1,273.27	$ 1,273.27	1	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 1	8	1.00	$ 1,444.07	$ 1,444.07	$ 1,444.07	1	$ 1,444.07			
	Tie -in (Tie -in)	each 1	12	3.00	$ 676.30	$ 2,028.91	$ 2,028.91	1	$ 2,028.91			
		each 1			$ -	$ -	$ -	1	$ -			
	Total Cost = $ 2.634	per pound				$ 110,299.24	$ 110,299.24		$ 110,299.24			
V::D66	**S1-D66 Assembly and Erection of Suspension Tower Type "B1 + 18" as per dwg. Total structure count:**		**1**	**EA**			**$ 111,979.54**		**$ 111,979.54**	**$ -**	**$ 111,979.54**	**$ -**
	S1-D66 Assembly and Erection of Suspension Tower Type "B1 + 18" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 43940 Total Tower Height(ft) = 181 Section Weight (lb) = 40814											
	Site Preparation (Site Preparation)	each 1	2	2.00	$ 675.12	$ 1,350.24	$ 1,350.24	1	$ 1,350.24			
	Haul (Hauling)	each 1	1	21.49	$ 441.04	$ 9,478.00	$ 9,478.00	1	$ 9,478.00			
	Setup Blocks (Blocking Crew)	each 1	3	2.00	$ 281.84	$ 563.68	$ 563.68	1	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 1	4	69.96	$ 1,183.92	$ 82,828.94	$ 82,828.94	1	$ 82,828.94			
	Install Guy Strand (Guy Install)	each 1	39	3.00	$ 1,258.65	$ 3,775.95	$ 3,775.95	1	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 1	27	0.00	$ 21,899.72	$ -	$ -	1	$ -			
	Crane Set (Y- Tower Erection)	each 1	40	5.00	$ 1,482.09	$ 7,410.47	$ 7,410.47	1	$ 7,410.47			
	Plumb Tower (Tower Plumb)	each 1	41	2.00	$ 913.00	$ 1,826.00	$ 1,826.00	1	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 1	7	2.00	$ 636.64	$ 1,273.27	$ 1,273.27	1	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 1	8	1.00	$ 1,444.07	$ 1,444.07	$ 1,444.07	1	$ 1,444.07			
	Tie -in (Tie -in)	each 1	12	3.00	$ 676.30	$ 2,028.91	$ 2,028.91	1	$ 2,028.91			
		each 1			$ -	$ -	$ -	1	$ -			
	Total Cost = $ 2.627	per pound				$ 111,979.54	$ 111,979.54		$ 111,979.54			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D67	**S1-D67 Assembly and Erection of Suspension Tower Type "B1 + 19.5" as per** **Total structure count:**		**0**	**EA**			**$ -**		**$ 115,285.30**	**$ -**	**$ 115,285.30**	**$ -**
	S1-D67 Assembly and Erection of Suspension Tower Type "B1 + 19.5" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 45518 Total Tower Height(ft) = 186 Section Weight (lb) = 42276											
	Site Preparation — Site Preparation	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul — Hauling	each 0	1	22.26	$ 441.04	$ 9,817.44	$ -	0	$ -			
	Setup Blocks — Blocking Crew	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower — Lattice Assembly	each 0	4	72.47	$ 1,183.92	$ 85,795.27	$ -	0	$ -			
	Install Guy Strand — Guy Install	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set — HL Helicopter	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set — Y- Tower Erection	each 0	40	5.00	$ 1,482.09	$ 7,410.47	$ -	0	$ -			
	Plumb Tower — Tower Plumb	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers — Haul Travellers&Glass	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers — Hang Travellers	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in — Tie -in	each 0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.615	per pound				$ 115,285.30	$ -		$ -			
V::D68	**S1-D68 Assembly and Erection of Suspension Tower Type "B1 + 21" as per dwg.** **Total structure count:**		**1**	**EA**			**$ 118,447.70**		**$ 118,447.70**	**$ -**	**$ 118,447.70**	**$ -**
	S1-D68 Assembly and Erection of Suspension Tower Type "B1 + 21" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 46377 Total Tower Height(ft) = 191 Section Weight (lb) = 43019											
	Site Preparation — Site Preparation	each 1	2	2.00	$ 675.12	$ 1,350.24	$ 1,350.24	1	$ 1,350.24			
	Haul — Hauling	each 1	1	22.65	$ 441.04	$ 9,989.97	$ 9,989.97	1	$ 9,989.97			
	Setup Blocks — Blocking Crew	each 1	3	2.00	$ 281.84	$ 563.68	$ 563.68	1	$ 563.68			
	Assemble Tower — Lattice Assembly	each 1	4	73.74	$ 1,183.92	$ 87,303.04	$ 87,303.04	1	$ 87,303.04			
	Install Guy Strand — Guy Install	each 1	39	3.00	$ 1,258.65	$ 3,775.95	$ 3,775.95	1	$ 3,775.95			
	Helicopter Set — HL Helicopter	each 1	27	0.00	$ 21,899.72	$ -	$ -	1	$ -			
	Crane Set — Y- Tower Erection	each 1	40	6.00	$ 1,482.09	$ 8,892.56	$ 8,892.56	1	$ 8,892.56			
	Plumb Tower — Tower Plumb	each 1	41	2.00	$ 913.00	$ 1,826.00	$ 1,826.00	1	$ 1,826.00			
	haul Insulators and Travellers — Haul Travellers&Glass	each 1	7	2.00	$ 636.64	$ 1,273.27	$ 1,273.27	1	$ 1,273.27			
	Hang Travellers — Hang Travellers	each 1	8	1.00	$ 1,444.07	$ 1,444.07	$ 1,444.07	1	$ 1,444.07			
	Tie -in — Tie -in	each 1	12	3.00	$ 676.30	$ 2,028.91	$ 2,028.91	1	$ 2,028.91			
		each 1			$ -	$ -	$ -	1	$ -			
	Total Cost = $ 2.643	per pound				$ 118,447.70	$ 118,447.70		$ 118,447.70			
V::D69	**S1-D69 Assembly and Erection of Suspension Tower Type "B1 + 22.5" as per** **Total structure count:**		**0**	**EA**			**$ -**		**$ 120,531.87**	**$ -**	**$ 120,531.87**	**$ -**
	S1-D69 Assembly and Erection of Suspension Tower Type "B1 + 22.5" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 47414 Total Tower Height(ft) = 196 Section Weight (lb) = 43941											
	Site Preparation — Site Preparation	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul — Hauling	each 0	1	23.14	$ 441.04	$ 10,203.97	$ -	0	$ -			
	Setup Blocks — Blocking Crew	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower — Lattice Assembly	each 0	4	75.32	$ 1,183.92	$ 89,173.21	$ -	0	$ -			
	Install Guy Strand — Guy Install	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set — HL Helicopter	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set — Y- Tower Erection	each 0	40	6.00	$ 1,482.09	$ 8,892.56	$ -	0	$ -			
	Plumb Tower — Tower Plumb	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers — Haul Travellers&Glass	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers — Hang Travellers	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in — Tie -in	each 0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.635	per pound				$ 120,531.87	$ -		$ -			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D70	**S1-D70 Assembly and Erection of Suspension Tower Type "B1 + 24" as per dwg. Total structure count:**		**2**	**EA**			**$ 249,943.87**		**$ 124,971.93**	**$ -**	**$ 124,971.93**	**$ -**
	S1-D70 Assembly and Erection of Suspension Tower Type "B1 + 24" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 48183 Total Tower Height(ft) = 201 Section Weight (lb) = 44593											
	Site Preparation (Site Preparation)	each 2	2	2.00	$ 675.12	$ 1,350.24	$ 2,700.49	2	$ 1,350.24			
	Haul (Hauling)	each 2	1	23.48	$ 441.04	$ 10,355.51	$ 20,711.02	2	$ 10,355.51			
	Setup Blocks (Blocking Crew)	each 2	3	2.00	$ 281.84	$ 563.68	$ 1,127.37	2	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 2	4	76.44	$ 1,183.92	$ 90,497.54	$ 180,995.08	2	$ 90,497.54			
	Install Guy Strand (Guy Install)	each 2	39	3.00	$ 1,258.65	$ 3,775.95	$ 7,551.90	2	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 2	27	0.00	$ 21,899.72	$ -	$ -	2	$ -			
	Crane Set (Y- Tower Erection)	each 2	40	8.00	$ 1,482.09	$ 11,856.75	$ 23,713.51	2	$ 11,856.75			
	Plumb Tower (Tower Plumb)	each 2	41	2.00	$ 913.00	$ 1,826.00	$ 3,652.01	2	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 2	7	2.00	$ 636.64	$ 1,273.27	$ 2,546.55	2	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 2	8	1.00	$ 1,444.07	$ 1,444.07	$ 2,888.13	2	$ 1,444.07			
	Tie -in (Tie -in)	each 2	12	3.00	$ 676.30	$ 2,028.91	$ 4,057.81	2	$ 2,028.91			
		each 2			$ -	$ -	$ -	2	$ -			
	Total Cost = $ 2.696	per pound				$ 124,971.93	$ 249,943.87		$ 124,971.93			
V::D71	**S1-D71 Assembly and Erection of Suspension Tower Type "B1 + 25.5" as per Total structure count:**		**0**	**EA**			**$ -**		**$ 126,851.68**	**$ -**	**$ 126,851.68**	**$ -**
	S1-D71 Assembly and Erection of Suspension Tower Type "B1 + 25.5" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 49130 Total Tower Height(ft) = 206 Section Weight (lb) = 45424											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	23.92	$ 441.04	$ 10,548.52	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	77.86	$ 1,183.92	$ 92,184.27	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	8.00	$ 1,482.09	$ 11,856.75	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.688	per pound				$ 126,851.68	$ -		$ -			
V::D72	**S1-D72 Assembly and Erection of Suspension Tower Type "B1 + 27" as per dwg. Total structure count:**		**1**	**EA**			**$ 128,531.98**		**$ 128,531.98**	**$ -**	**$ 128,531.98**	**$ -**
	S1-D72 Assembly and Erection of Suspension Tower Type "B1 + 27" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 49989 Total Tower Height(ft) = 211 Section Weight (lb) = 46167											
	Site Preparation (Site Preparation)	each 1	2	2.00	$ 675.12	$ 1,350.24	$ 1,350.24	1	$ 1,350.24			
	Haul (Hauling)	each 1	1	24.31	$ 441.04	$ 10,721.05	$ 10,721.05	1	$ 10,721.05			
	Setup Blocks (Blocking Crew)	each 1	3	2.00	$ 281.84	$ 563.68	$ 563.68	1	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 1	4	79.14	$ 1,183.92	$ 93,692.05	$ 93,692.05	1	$ 93,692.05			
	Install Guy Strand (Guy Install)	each 1	39	3.00	$ 1,258.65	$ 3,775.95	$ 3,775.95	1	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 1	27	0.00	$ 21,899.72	$ -	$ -	1	$ -			
	Crane Set (Y- Tower Erection)	each 1	40	8.00	$ 1,482.09	$ 11,856.75	$ 11,856.75	1	$ 11,856.75			
	Plumb Tower (Tower Plumb)	each 1	41	2.00	$ 913.00	$ 1,826.00	$ 1,826.00	1	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 1	7	2.00	$ 636.64	$ 1,273.27	$ 1,273.27	1	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 1	8	1.00	$ 1,444.07	$ 1,444.07	$ 1,444.07	1	$ 1,444.07			
	Tie -in (Tie -in)	each 1	12	3.00	$ 676.30	$ 2,028.91	$ 2,028.91	1	$ 2,028.91			
		each 1			$ -	$ -	$ -	1	$ -			
	Total Cost = $ 2.681	per pound				$ 128,531.98	$ 128,531.98		$ 128,531.98			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units	Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H20	**Assembly and Erection of Medium Angle Tower Type "B2"**												
V::D73	**S1-D73 Assembly and Erection of Medium Angle Tower Type "B2" Basic Body as** **Total structure count:**			**71**	**EA**			**$ 7,572,054.43**		**$ 106,648.65**	**$ -**	**$ 106,648.65**	**$ -**
	S1-D73 Assembly and Erection of Medium Angle Tower Type "B2" Basic Body as per dwg. 505573-4622-43DD-0058												
	Total Tower Weight With Guys and Ext. (lb) = 38332 Total Tower Height(ft) = 131 Section Weight (lb) = 38332												
	Site Preparation (Site Preparation)	each	71	2	2.00	$ 675.12	$ 1,350.24	$ 95,867.39	71	$ 1,350.24			
	Haul (Hauling)	each	71	1	24.22	$ 441.04	$ 10,681.84	$ 758,410.50	71	$ 10,681.84			
	Setup Blocks (Blocking Crew)	each	71	3	2.00	$ 281.84	$ 563.68	$ 40,021.61	71	$ 563.68			
	Assemble (Lattice Assembly)	each	71	4	56.37	$ 1,183.92	$ 66,738.29	$ 4,738,418.45	71	$ 66,738.29			
	Erect Tower (Tower Topping)	each	71	6	11.11	$ 1,656.68	$ 18,406.94	$ 1,306,892.94	71	$ 18,406.94			
	haul Insulators and Travellers (Haul Travellers&Glass)	each	71	7	4.00	$ 636.64	$ 2,546.55	$ 180,805.02	71	$ 2,546.55			
	Hang Travellers (Hang Travellers)	each	71	8	3.00	$ 1,444.07	$ 4,332.20	$ 307,586.26	71	$ 4,332.20			
	Tie -in (Tie -in)	each	71	12	3.00	$ 676.30	$ 2,028.91	$ 144,052.27	71	$ 2,028.91			
		each	71			$ -	$ -	$ -	71	$ -			
		each	71			$ -	$ -	$ -	71	$ -			
		each	71			$ -	$ -	$ -	71	$ -			
	Total Cost = $ 2.729	per pound					$ 106,648.65	$ 7,572,054.43		$ 106,648.65			
V::D74	**S1-D74 Assembly and Erection of +4.5 m body extension for Medium Angle** **Total structure count:**			**17**	**EA**			**$ 467,814.89**		**$ 27,518.52**	**$ -**	**$ 27,518.52**	**$ -**
	S1-D74 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058												
	Total Tower Weight With Guys and Ext. (lb) = 11008 Total Tower Height(ft) = 146 Section Weight (lb) = 11008												
	Site Preparation (Site Preparation)	each	17	2		$ 675.12	$ -	$ -	17	$ -			
	Haul (Hauling)	each	17	1	6.96	$ 441.04	$ 3,067.49	$ 52,147.30	17	$ 3,067.49			
		each	17			$ -	$ -	$ -	17	$ -			
	Assemble Bottom (Lattice Assembly)	each	17	4	16.19	$ 1,183.92	$ 19,165.14	$ 325,807.36	17	$ 19,165.14			
		each	17			$ -	$ -	$ -	17	$ -			
		each	17			$ -	$ -	$ -	17	$ -			
	Set Extension (Tower Topping)	each	17	6	3.19	$ 1,656.68	$ 5,285.90	$ 89,860.22	17	$ 5,285.90			
		each	17			$ -	$ -	$ -	17	$ -			
		each	17			$ -	$ -	$ -	17	$ -			
		each	17			$ -	$ -	$ -	17	$ -			
		each	17			$ -	$ -	$ -	17	$ -			
	Total Cost = $ 2.500	per pound					$ 27,518.52	$ 467,814.89		$ 27,518.52			
V::D75	**S1-D75 Assembly and Erection of +10.5 m body extension for Medium Angle** **Total structure count:**			**19**	**EA**			**$ 884,680.08**		**$ 46,562.11**	**$ -**	**$ 46,562.11**	**$ -**
	S1-D75 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058												
	Total Tower Weight With Guys and Ext. (lb) = 18294 Total Tower Height(ft) = 165 Section Weight (lb) = 18294												
	Site Preparation (Site Preparation)	each	19	2		$ 675.12	$ -	$ -	19	$ -			
	Haul (Hauling)	each	19	1	11.56	$ 441.04	$ 5,097.94	$ 96,860.87	19	$ 5,097.94			
		each	19			$ -	$ -	$ -	19	$ -			
	Assemble Bottom (Lattice Assembly)	each	19	4	26.90	$ 1,183.92	$ 31,851.06	$ 605,170.07	19	$ 31,851.06			
		each	19			$ -	$ -	$ -	19	$ -			
		each	19			$ -	$ -	$ -	19	$ -			
	Set Extension (Tower Topping)	each	19	6	5.80	$ 1,656.68	$ 9,613.11	$ 182,649.14	19	$ 9,613.11			
		each	19			$ -	$ -	$ -	19	$ -			
		each	19			$ -	$ -	$ -	19	$ -			
		each	19			$ -	$ -	$ -	19	$ -			
		each	19			$ -	$ -	$ -	19	$ -			
	Total Cost = $ 2.545	per pound					$ 46,562.11	$ 884,680.08		$ 46,562.11			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D76	**S1-D76 Assembly and Erection of +0 m leg extension for Medium Angle Tower** **Total structure count:**	**40**		**EA**			**$ 57,869.92**		**$ 1,446.75**	**$ -**	**$ 1,446.75**	**$ -**
	S1-D76 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 2315 Total Tower Height(ft) = 131 Section Weight (lb) = 579											
	Site Preparation (Site Preparation)	each 40	2		$ 675.12	$ -	$ -	40	$ -			
	Haul (Hauling)	each 40	1	0.37	$ 441.04	$ 161.27	$ 6,450.76	40	$ 161.27			
	Setup Blocks (Blocking Crew)	each 40	3		$ 281.84	$ -	$ -	40	$ -			
	Assemble Bottom (Lattice Assembly)	each 40	4	0.85	$ 1,183.92	$ 1,007.58	$ 40,303.22	40	$ 1,007.58			
	Panel Bottom (Lattice Erection)	each 40	5		$ 1,519.02	$ -	$ -	40	$ -			
	Assemble Tops (Lattice Assembly)	each 40	4		$ 1,183.92	$ -	$ -	40	$ -			
	Set Leg (Tower Topping)	each 40	6	0.17	$ 1,656.68	$ 277.90	$ 11,115.94	40	$ 277.90			
		each 40			$ -	$ -	$ -	40	$ -			
		each 40			$ -	$ -	$ -	40	$ -			
		each 40			$ -	$ -	$ -	40	$ -			
		each 40			$ -	$ -	$ -	40	$ -			
	Total Cost = $ 2.500	per pound				$ 1,446.75	$ 57,869.92		$ 1,446.75			
V::D77	**S1-D77 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower** **Total structure count:**	**12**		**EA**			**$ 24,305.36**		**$ 2,025.45**	**$ -**	**$ 2,025.45**	**$ -**
	S1-D77 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 3241 Total Tower Height(ft) = 136 Section Weight (lb) = 810											
	Site Preparation (Site Preparation)	each 12	2		$ 675.12	$ -	$ -	12	$ -			
	Haul (Hauling)	each 12	1	0.51	$ 441.04	$ 225.78	$ 2,709.32	12	$ 225.78			
	Setup Blocks (Blocking Crew)	each 12	3		$ 281.84	$ -	$ -	12	$ -			
	Assemble Bottom (Lattice Assembly)	each 12	4	1.19	$ 1,183.92	$ 1,410.61	$ 16,927.35	12	$ 1,410.61			
	Panel Bottom (Lattice Erection)	each 12	5		$ 1,519.02	$ -	$ -	12	$ -			
	Assemble Tops (Lattice Assembly)	each 12	4		$ 1,183.92	$ -	$ -	12	$ -			
	Set Leg (Tower Topping)	each 12	6	0.23	$ 1,656.68	$ 389.06	$ 4,668.70	12	$ 389.06			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
	Total Cost = $ 2.500	per pound				$ 2,025.45	$ 24,305.36		$ 2,025.45			
V::D78	**S1-D78 Assembly and Erection of +3 m leg extension for Medium Angle Tower** **Total structure count:**	**28**		**EA**			**$ 101,426.67**		**$ 3,622.38**	**$ -**	**$ 3,622.38**	**$ -**
	S1-D78 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 5796 Total Tower Height(ft) = 141 Section Weight (lb) = 1449											
	Site Preparation (Site Preparation)	each 28	2		$ 675.12	$ -	$ -	28	$ -			
	Haul (Hauling)	each 28	1	0.92	$ 441.04	$ 403.79	$ 11,306.03	28	$ 403.79			
	Setup Blocks (Blocking Crew)	each 28	3		$ 281.84	$ -	$ -	28	$ -			
	Assemble Bottom (Lattice Assembly)	each 28	4	2.13	$ 1,183.92	$ 2,522.79	$ 70,638.10	28	$ 2,522.79			
	Panel Bottom (Lattice Erection)	each 28	5		$ 1,519.02	$ -	$ -	28	$ -			
	Assemble Tops (Lattice Assembly)	each 28	4		$ 1,183.92	$ -	$ -	28	$ -			
	Set Leg (Tower Topping)	each 28	6	0.42	$ 1,656.68	$ 695.81	$ 19,482.54	28	$ 695.81			
		each 28			$ -	$ -	$ -	28	$ -			
		each 28			$ -	$ -	$ -	28	$ -			
		each 28			$ -	$ -	$ -	28	$ -			
		each 28			$ -	$ -	$ -	28	$ -			
	Total Cost = $ 2.500	per pound				$ 3,622.38	$ 101,426.67		$ 3,622.38			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D79	**S1-D79 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower** **Total structure count:**	**32**		**EA**			**$ 135,184.12**		**$ 4,224.50**	**$ -**	**$ 4,224.50**	**$ -**
	S1-D79 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 6759 Total Tower Height(ft) = 146 Section Weight (lb) = 1690											
	Site Preparation (Site Preparation)	each 32	2		$ 675.12	$ -	$ -	32	$ -			
	Haul (Hauling)	each 32	1	1.07	$ 441.04	$ 470.91	$ 15,068.97	32	$ 470.91			
	Setup Blocks (Blocking Crew)	each 32	3		$ 281.84	$ -	$ -	32	$ -			
	Assemble Bottom (Lattice Assembly)	each 32	4	2.49	$ 1,183.92	$ 2,942.13	$ 94,148.31	32	$ 2,942.13			
	Panel Bottom (Lattice Erection)	each 32	5		$ 1,519.02	$ -	$ -	32	$ -			
	Assemble Tops (Lattice Assembly)	each 32	4		$ 1,183.92	$ -	$ -	32	$ -			
	Set Leg (Tower Topping)	each 32	6	0.49	$ 1,656.68	$ 811.46	$ 25,966.84	32	$ 811.46			
		each 32			$ -	$ -	$ -	32	$ -			
		each 32			$ -	$ -	$ -	32	$ -			
		each 32			$ -	$ -	$ -	32	$ -			
		each 32			$ -	$ -	$ -	32	$ -			
	Total Cost = $ 2.500	per pound				$ 4,224.50	$ 135,184.12		$ 4,224.50			
V::D80	**S1-D80 Assembly and Erection of +6 m leg extension for Medium Angle Tower** **Total structure count:**	**52**		**EA**			**$ 245,539.30**		**$ 4,721.91**	**$ -**	**$ 4,721.91**	**$ -**
	S1-D80 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 7555 Total Tower Height(ft) = 151 Section Weight (lb) = 1889											
	Site Preparation (Site Preparation)	each 52	2		$ 675.12	$ -	$ -	52	$ -			
	Haul (Hauling)	each 52	1	1.19	$ 441.04	$ 526.35	$ 27,370.25	52	$ 526.35			
	Setup Blocks (Blocking Crew)	each 52	3		$ 281.84	$ -	$ -	52	$ -			
	Assemble Bottom (Lattice Assembly)	each 52	4	2.78	$ 1,183.92	$ 3,288.55	$ 171,004.63	52	$ 3,288.55			
	Panel Bottom (Lattice Erection)	each 52	5		$ 1,519.02	$ -	$ -	52	$ -			
	Assemble Tops (Lattice Assembly)	each 52	4		$ 1,183.92	$ -	$ -	52	$ -			
	Set Leg (Tower Topping)	each 52	6	0.55	$ 1,656.68	$ 907.01	$ 47,164.42	52	$ 907.01			
		each 52			$ -	$ -	$ -	52	$ -			
		each 52			$ -	$ -	$ -	52	$ -			
		each 52			$ -	$ -	$ -	52	$ -			
		each 52			$ -	$ -	$ -	52	$ -			
	Total Cost = $ 2.500	per pound				$ 4,721.91	$ 245,539.30		$ 4,721.91			
V::D81	**S1-D81 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower** **Total structure count:**	**44**		**EA**			**$ 246,503.79**		**$ 5,602.36**	**$ -**	**$ 5,602.36**	**$ -**
	S1-D81 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 8964 Total Tower Height(ft) = 156 Section Weight (lb) = 2241											
	Site Preparation (Site Preparation)	each 44	2		$ 675.12	$ -	$ -	44	$ -			
	Haul (Hauling)	each 44	1	1.42	$ 441.04	$ 624.49	$ 27,477.76	44	$ 624.49			
	Setup Blocks (Blocking Crew)	each 44	3		$ 281.84	$ -	$ -	44	$ -			
	Assemble Bottom (Lattice Assembly)	each 44	4	3.30	$ 1,183.92	$ 3,901.74	$ 171,676.35	44	$ 3,901.74			
	Panel Bottom (Lattice Erection)	each 44	5		$ 1,519.02	$ -	$ -	44	$ -			
	Assemble Tops (Lattice Assembly)	each 44	4		$ 1,183.92	$ -	$ -	44	$ -			
	Set Leg (Tower Topping)	each 44	6	0.65	$ 1,656.68	$ 1,076.13	$ 47,349.68	44	$ 1,076.13			
		each 44			$ -	$ -	$ -	44	$ -			
		each 44			$ -	$ -	$ -	44	$ -			
		each 44			$ -	$ -	$ -	44	$ -			
	Total Cost = $ 2.500	per pound				$ 5,602.36	$ 246,503.79		$ 5,602.36			
V::D82	**S1-D82 Assembly and Erection of +9 m leg extension for Medium Angle Tower** **Total structure count:**	**76**		**EA**			**$ 551,982.32**		**$ 7,262.93**	**$ -**	**$ 7,262.93**	**$ -**
	S1-D82 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 10296 Total Tower Height(ft) = 160 Section Weight (lb) = 2574											
	Site Preparation (Site Preparation)	each 76	2		$ 675.12	$ -	$ -	76	$ -			
	Haul (Hauling)	each 76	1	1.63	$ 441.04	$ 717.26	$ 54,511.96	76	$ 717.26			
	Setup Blocks (Blocking Crew)	each 76	3		$ 281.84	$ -	$ -	76	$ -			
	Assemble Bottom (Lattice Assembly)	each 76	4	3.79	$ 1,183.92	$ 4,481.33	$ 340,581.37	76	$ 4,481.33			
	Panel Bottom (Lattice Erection)	each 76	5		$ 1,519.02	$ -	$ -	76	$ -			
	Assemble Tops (Lattice Assembly)	each 76	4		$ 1,183.92	$ -	$ -	76	$ -			
	Set Leg (Tower Topping)	each 76	6	1.25	$ 1,656.68	$ 2,064.33	$ 156,888.99	76	$ 2,064.33			
		each 76			$ -	$ -	$ -	76	$ -			
		each 76			$ -	$ -	$ -	76	$ -			
		each 76			$ -	$ -	$ -	76	$ -			
	Total Cost = $ 2.822	per pound				$ 7,262.93	$ 551,982.32		$ 7,262.93			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units	Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H21	**Assembly and Erection of Medium Angle Tower Type "C1"**												
V::D83	**S1-D83 Assembly and Erection of Medium Angle Tower Type "C1" Basic Body as** **Total structure count:**		**21**		**EA**			**$ 2,570,655.05**		**$ 122,412.15**	**$ -**	**$ 122,412.15**	**$ -**
	S1-D83 Assembly and Erection of Medium Angle Tower Type "C1" Basic Body as per dwg. 505573-4622-43DD-0004												
	Total Tower Weight With Guys and Ext. (lb) = 39636 Total Tower Height(ft) = 119 Section Weight (lb) = 39636												
	Site Preparation (Site Preparation)	each	21	2	2.00	$ 675.12	$ 1,350.24	$ 28,355.14	21	$ 1,350.24			
	Haul (Hauling)	each	21	1	25.04	$ 441.04	$ 11,045.23	$ 231,949.84	21	$ 11,045.23			
	Setup Blocks (Blocking Crew)	each	21	3	2.00	$ 281.84	$ 563.68	$ 11,837.38	21	$ 563.68			
	Assemble (Lattice Assembly)	each	21	4	58.29	$ 1,183.92	$ 69,008.70	$ 1,449,182.75	21	$ 69,008.70			
	Erect Tower (Tower Topping)	each	21	6	11.49	$ 1,656.68	$ 19,033.14	$ 399,695.96	21	$ 19,033.14			
	haul Insulators and Travellers (Haul Travellers&Glass)	each	21	7	3.00	$ 636.64	$ 1,909.91	$ 40,108.16	21	$ 1,909.91			
	Hang Travellers (Hang Travellers)	each	21	8	2.00	$ 1,444.07	$ 2,888.13	$ 60,650.81	21	$ 2,888.13			
	Dead-end (Deadends)	each	21	13	12.00	$ 1,384.42	$ 16,613.10	$ 348,875.01	21	$ 16,613.10			
		each	21			$ -	$ -	$ -	21	$ -			
		each	21			$ -	$ -	$ -	21	$ -			
		each	21			$ -	$ -	$ -	21	$ -			
	Total Cost = $ 2.669	per pound					$ 122,412.15	$ 2,570,655.05		$ 122,412.15			
V::D84	**S1-D84 Assembly and Erection of +4.5 m body extension for Medium Angle** **Total structure count:**		**1**		**EA**			**$ 24,255.76**		**$ 24,255.76**	**$ -**	**$ 24,255.76**	**$ -**
	S1-D84 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004												
	Total Tower Weight With Guys and Ext. (lb) = 9703 Total Tower Height(ft) = 134 Section Weight (lb) = 9703												
	Site Preparation (Site Preparation)	each	1	2		$ 675.12	$ -	$ -	1	$ -			
	Haul (Hauling)	each	1	1	6.13	$ 441.04	$ 2,703.79	$ 2,703.79	1	$ 2,703.79			
	Setup Blocks (Blocking Crew)	each	1	3		$ 281.84	$ -	$ -	1	$ -			
	Assemble Bottom (Lattice Assembly)	each	1	4	14.27	$ 1,183.92	$ 16,892.81	$ 16,892.81	1	$ 16,892.81			
	Panel Bottom (Lattice Erection)	each	1	5		$ 1,519.02	$ -	$ -	1	$ -			
	Assemble Tops (Lattice Assembly)	each	1	4		$ 1,183.92	$ -	$ -	1	$ -			
	Top / Assembly Tower (Tower Topping)	each	1	6	2.81	$ 1,656.68	$ 4,659.17	$ 4,659.17	1	$ 4,659.17			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
	Total Cost = $ 2.500	per pound					$ 24,255.76	$ 24,255.76		$ 24,255.76			
V::D85	**S1-D85 Assembly and Erection of +10.5 m body extension for Medium Angle** **Total structure count:**		**6**		**EA**			**$ 271,502.35**		**$ 45,250.39**	**$ -**	**$ 45,250.39**	**$ -**
	S1-D85 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004												
	Total Tower Weight With Guys and Ext. (lb) = 17769 Total Tower Height(ft) = 169 Section Weight (lb) = 17769												
	Site Preparation (Site Preparation)	each	6	2		$ 675.12	$ -	$ -	6	$ -			
	Haul (Hauling)	each	6	1	11.23	$ 441.04	$ 4,951.72	$ 29,710.34	6	$ 4,951.72			
	Setup Blocks (Blocking Crew)	each	6	3		$ 281.84	$ -	$ -	6	$ -			
	Assemble Bottom (Lattice Assembly)	each	6	4	26.13	$ 1,183.92	$ 30,937.52	$ 185,625.10	6	$ 30,937.52			
	Panel Bottom (Lattice Erection)	each	6	5		$ 1,519.02	$ -	$ -	6	$ -			
	Assemble Tops (Lattice Assembly)	each	6	4		$ 1,183.92	$ -	$ -	6	$ -			
	Top / Assembly Tower (Tower Topping)	each	6	6	5.65	$ 1,656.68	$ 9,361.15	$ 56,166.91	6	$ 9,361.15			
		each	6			$ -	$ -	$ -	6	$ -			
		each	6			$ -	$ -	$ -	6	$ -			
		each	6			$ -	$ -	$ -	6	$ -			
		each	6			$ -	$ -	$ -	6	$ -			
	Total Cost = $ 2.547	per pound					$ 45,250.39	$ 271,502.35		$ 45,250.39			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D86	**S1-D86 Assembly and Erection of +0 m leg extension for Medium Angle Tower** **Total structure count:**		0	EA			$ -		$ 2,270.02	$ -	$ 2,270.02	$ -
	S1-D86 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 3632 Total Tower Height(ft) = 119 Section Weight (lb) = 908											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	0.57	$ 441.04	$ 253.04	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	1.34	$ 1,183.92	$ 1,580.94	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	0.26	$ 1,656.68	$ 436.04	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.500	per pound				$ 2,270.02	$ -		$ -			
V::D87	**S1-D87 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower** **Total structure count:**		0	EA			$ -		$ 3,178.02	$ -	$ 3,178.02	$ -
	S1-D87 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 5085 Total Tower Height(ft) = 124 Section Weight (lb) = 1271											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	0.80	$ 441.04	$ 354.25	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	1.87	$ 1,183.92	$ 2,213.32	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	0.37	$ 1,656.68	$ 610.45	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.500	per pound				$ 3,178.02	$ -		$ -			
V::D88	**S1-D88 Assembly and Erection of +3 m leg extension for Medium Angle Tower** **Total structure count:**		44	EA			$ 182,634.70		$ 4,150.79	$ -	$ 4,150.79	$ -
	S1-D88 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 6641 Total Tower Height(ft) = 129 Section Weight (lb) = 1660											
	Site Preparation (Site Preparation)	each 44	2		$ 675.12	$ -	$ -	44	$ -			
	Haul (Hauling)	each 44	1	1.05	$ 441.04	$ 462.69	$ 20,358.28	44	$ 462.69			
	Setup Blocks (Blocking Crew)	each 44	3		$ 281.84	$ -	$ -	44	$ -			
	Assemble Bottom (Lattice Assembly)	each 44	4	2.44	$ 1,183.92	$ 2,890.80	$ 127,195.03	44	$ 2,890.80			
	Panel Bottom (Lattice Erection)	each 44	5		$ 1,519.02	$ -	$ -	44	$ -			
	Assemble Tops (Lattice Assembly)	each 44	4		$ 1,183.92	$ -	$ -	44	$ -			
	Top / Assembly Tower (Tower Topping)	each 44	6	0.48	$ 1,656.68	$ 797.30	$ 35,081.39	44	$ 797.30			
		each 44			$ -	$ -	$ -	44	$ -			
		each 44			$ -	$ -	$ -	44	$ -			
		each 44			$ -	$ -	$ -	44	$ -			
		each 44			$ -	$ -	$ -	44	$ -			
	Total Cost = $ 2.500	per pound				$ 4,150.79	$ 182,634.70		$ 4,150.79			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D89	**S1-D89 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower** **Total structure count:**	**8**		**EA**			**$ 41,208.89**		**$ 5,151.11**	**$ -**	**$ 5,151.11**	**$ -**
	S1-D89 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 8242 Total Tower Height(ft) = 134 Section Weight (lb) = 2061											
	Site Preparation (Site Preparation)	each 8	2		$ 675.12	$ -	$ -	8	$ -			
	Haul (Hauling)	each 8	1	1.30	$ 441.04	$ 574.19	$ 4,593.55	8	$ 574.19			
	Setup Blocks (Blocking Crew)	each 8	3		$ 281.84	$ -	$ -	8	$ -			
	Assemble Bottom (Lattice Assembly)	each 8	4	3.03	$ 1,183.92	$ 3,587.47	$ 28,699.73	8	$ 3,587.47			
	Panel Bottom (Lattice Erection)	each 8	5		$ 1,519.02	$ -	$ -	8	$ -			
	Assemble Tops (Lattice Assembly)	each 8	4		$ 1,183.92	$ -	$ -	8	$ -			
	Top / Assembly Tower (Tower Topping)	each 8	6	0.60	$ 1,656.68	$ 989.45	$ 7,915.61	8	$ 989.45			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
	Total Cost = $ 2.500	per pound				$ 5,151.11	$ 41,208.89		$ 5,151.11			
V::D90	**S1-D90 Assembly and Erection of +6 m leg extension for Medium Angle Tower** **Total structure count:**	**4**		**EA**			**$ 25,515.12**		**$ 6,378.78**	**$ -**	**$ 6,378.78**	**$ -**
	S1-D90 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 10206 Total Tower Height(ft) = 139 Section Weight (lb) = 2552											
	Site Preparation (Site Preparation)	each 4	2		$ 675.12	$ -	$ -	4	$ -			
	Haul (Hauling)	each 4	1	1.61	$ 441.04	$ 711.04	$ 2,844.17	4	$ 711.04			
	Setup Blocks (Blocking Crew)	each 4	3		$ 281.84	$ -	$ -	4	$ -			
	Assemble Bottom (Lattice Assembly)	each 4	4	3.75	$ 1,183.92	$ 4,442.47	$ 17,769.88	4	$ 4,442.47			
	Panel Bottom (Lattice Erection)	each 4	5		$ 1,519.02	$ -	$ -	4	$ -			
	Assemble Tops (Lattice Assembly)	each 4	4		$ 1,183.92	$ -	$ -	4	$ -			
	Top / Assembly Tower (Tower Topping)	each 4	6	0.74	$ 1,656.68	$ 1,225.27	$ 4,901.07	4	$ 1,225.27			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
	Total Cost = $ 2.500	per pound				$ 6,378.78	$ 25,515.12		$ 6,378.78			
V::D91	**S1-D91 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower** **Total structure count:**	**8**		**EA**			**$ 59,639.08**		**$ 7,454.89**	**$ -**	**$ 7,454.89**	**$ -**
	S1-D91 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 11928 Total Tower Height(ft) = 144 Section Weight (lb) = 2982											
	Site Preparation (Site Preparation)	each 8	2		$ 675.12	$ -	$ -	8	$ -			
	Haul (Hauling)	each 8	1	1.88	$ 441.04	$ 831.00	$ 6,647.97	8	$ 831.00			
	Setup Blocks (Blocking Crew)	each 8	3		$ 281.84	$ -	$ -	8	$ -			
	Assemble Bottom (Lattice Assembly)	each 8	4	4.39	$ 1,183.92	$ 5,191.92	$ 41,535.34	8	$ 5,191.92			
	Panel Bottom (Lattice Erection)	each 8	5		$ 1,519.02	$ -	$ -	8	$ -			
	Assemble Tops (Lattice Assembly)	each 8	4		$ 1,183.92	$ -	$ -	8	$ -			
	Top / Assembly Tower (Tower Topping)	each 8	6	0.86	$ 1,656.68	$ 1,431.97	$ 11,455.77	8	$ 1,431.97			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
	Total Cost = $ 2.500	per pound				$ 7,454.89	$ 59,639.08		$ 7,454.89			
V::D92	**S1-D92 Assembly and Erection of +9 m leg extension for Medium Angle Tower** **Total structure count:**	**20**		**EA**			**$ 181,615.09**		**$ 9,080.75**	**$ -**	**$ 9,080.75**	**$ -**
	S1-D92 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 14530 Total Tower Height(ft) = 149 Section Weight (lb) = 3632											
	Site Preparation (Site Preparation)	each 20	2		$ 675.12	$ -	$ -	20	$ -			
	Haul (Hauling)	each 20	1	2.30	$ 441.04	$ 1,012.23	$ 20,244.62	20	$ 1,012.23			
	Setup Blocks (Blocking Crew)	each 20	3		$ 281.84	$ -	$ -	20	$ -			
	Assemble Bottom (Lattice Assembly)	each 20	4	5.34	$ 1,183.92	$ 6,324.25	$ 126,484.93	20	$ 6,324.25			
	Panel Bottom (Lattice Erection)	each 20	5		$ 1,519.02	$ -	$ -	20	$ -			
	Assemble Tops (Lattice Assembly)	each 20	4		$ 1,183.92	$ -	$ -	20	$ -			
	Top / Assembly Tower (Tower Topping)	each 20	6	1.05	$ 1,656.68	$ 1,744.28	$ 34,885.53	20	$ 1,744.28			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
	Total Cost = $ 2.500	per pound				$ 9,080.75	$ 181,615.09		$ 9,080.75			

V-H22 **Assembly and Erection of Medium Angle Tower Type "C2"**

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D93	**S1-D93 Assembly and Erection of Medium Angle Tower Type "C2" Basic Body as** **Total structure count:**	**34**	**EA**				**$ 3,791,198.17**		**$ 111,505.83**	**$ -**	**$ 111,505.83**	**$ -**
	S1-D93 Assembly and Erection of Medium Angle Tower Type "C2" Basic Body as per dwg. 505573-4622-43DD-0012											
	Total Tower Weight With Guys and Ext. (lb) = 33817 Total Tower Height(ft) = 104 Section Weight (lb) = 33817											
	Site Preparation (Site Preparation)	each 34	2	2.00	$ 675.12	$ 1,350.24	$ 45,908.33	34	$ 1,350.24			
	Haul (Hauling)	each 34	1	21.90	$ 441.04	$ 9,659.22	$ 328,413.62	34	$ 9,659.22			
	Setup Blocks (Blocking Crew)	each 34	3	2.00	$ 281.84	$ 563.68	$ 19,165.28	34	$ 563.68			
	Assemble Bottom (Lattice Assembly)	each 34	4	49.73	$ 1,183.92	$ 58,877.24	$ 2,001,826.21	34	$ 58,877.24			
	Panel Bottom (Lattice Erection)	each 34	5		$ 1,519.02	$ -	$ -	34	$ -			
	Assemble Tops (Lattice Assembly)	each 34	4		$ 1,183.92	$ -	$ -	34	$ -			
	Erect Tower (Tower Topping)	each 34	6	9.80	$ 1,656.68	$ 16,238.80	$ 552,119.36	34	$ 16,238.80			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 34	7	4.00	$ 636.64	$ 2,546.55	$ 86,582.68	34	$ 2,546.55			
	Hang Travellers (Hang Travellers)	each 34	8	2.00	$ 1,444.07	$ 2,888.13	$ 98,196.55	34	$ 2,888.13			
	Dead-end (Deadends)	each 34	13	14.00	$ 1,384.42	$ 19,381.95	$ 658,986.14	34	$ 19,381.95			
		each 34			$ -	$ -	$ -	34	$ -			
	Total Cost = $ 2.563	per pound				$ 111,505.83	$ 3,791,198.17		$ 111,505.83			
V::D94	**S1-D94 Assembly and Erection of +4.5 m body extension for Medium Angle** **Total structure count:**	**7**	**EA**				**$ 181,908.42**		**$ 25,986.92**	**$ -**	**$ 25,986.92**	**$ -**
	S1-D94 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012											
	Total Tower Weight With Guys and Ext. (lb) = 10366 Total Tower Height(ft) = 119 Section Weight (lb) = 10366											
	Site Preparation (Site Preparation)	each 7	2		$ 675.12	$ -	$ -	7	$ -			
	Haul (Hauling)	each 7	1	6.71	$ 441.04	$ 2,960.93	$ 20,726.49	7	$ 2,960.93			
	Setup Blocks (Blocking Crew)	each 7	3		$ 281.84	$ -	$ -	7	$ -			
	Assemble Bottom (Lattice Assembly)	each 7	4	15.24	$ 1,183.92	$ 18,048.16	$ 126,337.15	7	$ 18,048.16			
	Panel Bottom (Lattice Erection)	each 7	5		$ 1,519.02	$ -	$ -	7	$ -			
	Assemble Tops (Lattice Assembly)	each 7	4		$ 1,183.92	$ -	$ -	7	$ -			
	Top / Assembly Tower (Tower Topping)	each 7	6	3.00	$ 1,656.68	$ 4,977.83	$ 34,844.78	7	$ 4,977.83			
		each 7			$ -	$ -	$ -	7	$ -			
		each 7			$ -	$ -	$ -	7	$ -			
		each 7			$ -	$ -	$ -	7	$ -			
		each 7			$ -	$ -	$ -	7	$ -			
	Total Cost = $ 2.507	per pound				$ 25,986.92	$ 181,908.42		$ 25,986.92			
V::D95	**S1-D95 Assembly and Erection of +10.5 m body extension for Medium Angle** **Total structure count:**	**0**	**EA**				**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-D95 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012											
	Total Tower Weight With Guys and Ext. (lb) = 26024 Total Tower Height(ft) = 139 Section Weight (lb) = 0											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	0.00	$ 441.04	$ -	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	0.00	$ 1,183.92	$ -	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	0.00	$ 1,656.68	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = #DIV/0!	per pound				$ -	$ -		$ -			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D96	**S1-D96 Assembly and Erection of +0 m leg extension for Medium Angle Tower** **Total structure count:**		**16**	**EA**			**$ 42,003.52**		**$ 2,625.22**	**$ -**	**$ 2,625.22**	**$ -**
	S1-D96 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 4189 Total Tower Height(ft) = 104 Section Weight (lb) = 1047											
	Site Preparation (Site Preparation)	each 16	2		$ 675.12	$ -	$ -	16	$ -			
	Haul (Hauling)	each 16	1	0.68	$ 441.04	$ 299.12	$ 4,785.85	16	$ 299.12			
	Setup Blocks (Blocking Crew)	each 16	3		$ 281.84	$ -	$ -	16	$ -			
	Assemble Bottom (Lattice Assembly)	each 16	4	1.54	$ 1,183.92	$ 1,823.24	$ 29,171.85	16	$ 1,823.24			
	Panel Bottom (Lattice Erection)	each 16	5		$ 1,519.02	$ -	$ -	16	$ -			
	Assemble Tops (Lattice Assembly)	each 16	4		$ 1,183.92	$ -	$ -	16	$ -			
	Top / Assembly Tower (Tower Topping)	each 16	6	0.30	$ 1,656.68	$ 502.86	$ 8,045.83	16	$ 502.86			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
	Total Cost = $ 2.507	per pound				$ 2,625.22	$ 42,003.52		$ 2,625.22			
V::D97	**S1-D97 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower** **Total structure count:**		**4**	**EA**			**$ 14,701.23**		**$ 3,675.31**	**$ -**	**$ 3,675.31**	**$ -**
	S1-D97 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 5864 Total Tower Height(ft) = 109 Section Weight (lb) = 1466											
	Site Preparation (Site Preparation)	each 4	2		$ 675.12	$ -	$ -	4	$ -			
	Haul (Hauling)	each 4	1	0.95	$ 441.04	$ 418.76	$ 1,675.05	4	$ 418.76			
	Setup Blocks (Blocking Crew)	each 4	3		$ 281.84	$ -	$ -	4	$ -			
	Assemble Bottom (Lattice Assembly)	each 4	4	2.16	$ 1,183.92	$ 2,552.54	$ 10,210.15	4	$ 2,552.54			
	Panel Bottom (Lattice Erection)	each 4	5		$ 1,519.02	$ -	$ -	4	$ -			
	Assemble Tops (Lattice Assembly)	each 4	4		$ 1,183.92	$ -	$ -	4	$ -			
	Top / Assembly Tower (Tower Topping)	each 4	6	0.42	$ 1,656.68	$ 704.01	$ 2,816.04	4	$ 704.01			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
	Total Cost = $ 2.507	per pound				$ 3,675.31	$ 14,701.23		$ 3,675.31			
V::D98	**S1-D98 Assembly and Erection of +3 m leg extension for Medium Angle Tower** **Total structure count:**		**28**	**EA**			**$ 143,375.71**		**$ 5,120.56**	**$ -**	**$ 5,120.56**	**$ -**
	S1-D98 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 8170 Total Tower Height(ft) = 114 Section Weight (lb) = 2043											
	Site Preparation (Site Preparation)	each 28	2		$ 675.12	$ -	$ -	28	$ -			
	Haul (Hauling)	each 28	1	1.32	$ 441.04	$ 583.43	$ 16,336.11	28	$ 583.43			
	Setup Blocks (Blocking Crew)	each 28	3		$ 281.84	$ -	$ -	28	$ -			
	Assemble Bottom (Lattice Assembly)	each 28	4	3.00	$ 1,183.92	$ 3,556.28	$ 99,575.81	28	$ 3,556.28			
	Panel Bottom (Lattice Erection)	each 28	5		$ 1,519.02	$ -	$ -	28	$ -			
	Assemble Tops (Lattice Assembly)	each 28	4		$ 1,183.92	$ -	$ -	28	$ -			
	Top / Assembly Tower (Tower Topping)	each 28	6	0.59	$ 1,656.68	$ 980.85	$ 27,463.79	28	$ 980.85			
		each 28			$ -	$ -	$ -	28	$ -			
		each 28			$ -	$ -	$ -	28	$ -			
		each 28			$ -	$ -	$ -	28	$ -			
		each 28			$ -	$ -	$ -	28	$ -			
	Total Cost = $ 2.507	per pound				$ 5,120.56	$ 143,375.71		$ 5,120.56			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D99	**S1-D99 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower** **Total structure count:**	**20**		**EA**			**$ 128,166.02**		**$ 6,408.30**	**$ -**	**$ 6,408.30**	**$ -**
	S1-D99 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 10225 Total Tower Height(ft) = 119 Section Weight (lb) = 2556											
	Site Preparation (Site Preparation)	each 20	2		$ 675.12	$ -	$ -	20	$ -			
	Haul (Hauling)	each 20	1	1.66	$ 441.04	$ 730.16	$ 14,603.13	20	$ 730.16			
	Setup Blocks (Blocking Crew)	each 20	3		$ 281.84	$ -	$ -	20	$ -			
	Assemble Bottom (Lattice Assembly)	each 20	4	3.76	$ 1,183.92	$ 4,450.63	$ 89,012.53	20	$ 4,450.63			
	Panel Bottom (Lattice Erection)	each 20	5		$ 1,519.02	$ -	$ -	20	$ -			
	Assemble Tops (Lattice Assembly)	each 20	4		$ 1,183.92	$ -	$ -	20	$ -			
	Top / Assembly Tower (Tower Topping)	each 20	6	0.74	$ 1,656.68	$ 1,227.52	$ 24,550.35	20	$ 1,227.52			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
	Total Cost = $ 2.507	per pound				$ 6,408.30	$ 128,166.02		$ 6,408.30			
V::D100	**S1-D100 Assembly and Erection of +6 m leg extension for Medium Angle Tower** **Total structure count:**	**24**		**EA**			**$ 196,278.05**		**$ 8,178.25**	**$ -**	**$ 8,178.25**	**$ -**
	S1-D100 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 13049 Total Tower Height(ft) = 124 Section Weight (lb) = 3262											
	Site Preparation (Site Preparation)	each 24	2		$ 675.12	$ -	$ -	24	$ -			
	Haul (Hauling)	each 24	1	2.11	$ 441.04	$ 931.82	$ 22,363.76	24	$ 931.82			
	Setup Blocks (Blocking Crew)	each 24	3		$ 281.84	$ -	$ -	24	$ -			
	Assemble Bottom (Lattice Assembly)	each 24	4	4.80	$ 1,183.92	$ 5,679.87	$ 136,316.99	24	$ 5,679.87			
	Panel Bottom (Lattice Erection)	each 24	5		$ 1,519.02	$ -	$ -	24	$ -			
	Assemble Tops (Lattice Assembly)	each 24	4		$ 1,183.92	$ -	$ -	24	$ -			
	Top / Assembly Tower (Tower Topping)	each 24	6	0.95	$ 1,656.68	$ 1,566.55	$ 37,597.29	24	$ 1,566.55			
		each 24			$ -	$ -	$ -	24	$ -			
		each 24			$ -	$ -	$ -	24	$ -			
		each 24			$ -	$ -	$ -	24	$ -			
		each 24			$ -	$ -	$ -	24	$ -			
	Total Cost = $ 2.507	per pound				$ 8,178.25	$ 196,278.05		$ 8,178.25			
V::D101	**S1-D101 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower** **Total structure count:**	**24**		**EA**			**$ 229,571.37**		**$ 9,565.47**	**$ -**	**$ 9,565.47**	**$ -**
	S1-D101 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 15263 Total Tower Height(ft) = 129 Section Weight (lb) = 3816											
	Site Preparation (Site Preparation)	each 24	2		$ 675.12	$ -	$ -	24	$ -			
	Haul (Hauling)	each 24	1	2.47	$ 441.04	$ 1,089.88	$ 26,157.17	24	$ 1,089.88			
	Setup Blocks (Blocking Crew)	each 24	3		$ 281.84	$ -	$ -	24	$ -			
	Assemble Bottom (Lattice Assembly)	each 24	4	5.61	$ 1,183.92	$ 6,643.31	$ 159,439.52	24	$ 6,643.31			
	Panel Bottom (Lattice Erection)	each 24	5		$ 1,519.02	$ -	$ -	24	$ -			
	Assemble Tops (Lattice Assembly)	each 24	4		$ 1,183.92	$ -	$ -	24	$ -			
	Top / Assembly Tower (Tower Topping)	each 24	6	1.11	$ 1,656.68	$ 1,832.28	$ 43,974.67	24	$ 1,832.28			
		each 24			$ -	$ -	$ -	24	$ -			
		each 24			$ -	$ -	$ -	24	$ -			
		each 24			$ -	$ -	$ -	24	$ -			
	Total Cost = $ 2.507	per pound				$ 9,565.47	$ 229,571.37		$ 9,565.47			
V::D102	**S1-D102 Assembly and Erection of +9 m leg extension for Medium Angle Tower** **Total structure count:**	**20**		**EA**			**$ 218,363.06**		**$ 10,918.15**	**$ -**	**$ 10,918.15**	**$ -**
	S1-D102 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 17421 Total Tower Height(ft) = 134 Section Weight (lb) = 4355											
	Site Preparation (Site Preparation)	each 20	2		$ 675.12	$ -	$ -	20	$ -			
	Haul (Hauling)	each 20	1	2.82	$ 441.04	$ 1,244.01	$ 24,880.11	20	$ 1,244.01			
	Setup Blocks (Blocking Crew)	each 20	3		$ 281.84	$ -	$ -	20	$ -			
	Assemble Bottom (Lattice Assembly)	each 20	4	6.40	$ 1,183.92	$ 7,582.76	$ 151,655.25	20	$ 7,582.76			
	Panel Bottom (Lattice Erection)	each 20	5		$ 1,519.02	$ -	$ -	20	$ -			
	Assemble Tops (Lattice Assembly)	each 20	4		$ 1,183.92	$ -	$ -	20	$ -			
	Top / Assembly Tower (Tower Topping)	each 20	6	1.26	$ 1,656.68	$ 2,091.39	$ 41,827.71	20	$ 2,091.39			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
	Total Cost = $ 2.507	per pound				$ 10,918.15	$ 218,363.06		$ 10,918.15			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H23	**Assembly and Erection of Dead-End Tower Type "D1"**											
V::D103	**S1-D103 Assembly and Erection of Dead-End Tower Type "D1" Basic Body as** **Total structure count:**	**24**		**EA**			**$ 3,305,320.31**		**$ 137,721.68**	**$ -**	**$ 137,721.68**	**$ -**
	S1-D103 Assembly and Erection of Dead-End Tower Type "D1" Basic Body as per dwg. 505573-4622-43DD-0043											
	Total Tower Weight With Guys and Ext. (lb) = 44777 Total Tower Height(ft) = 121 Section Weight (lb) = 44777											
	Site Preparation (Site Preparation)	each 24	2	2.00	$ 675.12	$ 1,350.24	$ 32,405.88	24	$ 1,350.24			
	Haul (Hauling)	each 24	1	27.58	$ 441.04	$ 12,165.97	$ 291,983.16	24	$ 12,165.97			
	Setup Blocks (Blocking Crew)	each 24	3	2.00	$ 281.84	$ 563.68	$ 13,528.43	24	$ 563.68			
	Assemble (Lattice Assembly)	each 24	4	65.85	$ 1,183.92	$ 77,959.85	$ 1,871,036.52	24	$ 77,959.85			
		each 24			$ -	$ -	$ -	24	$ -			
		each 24			$ -	$ -	$ -	24	$ -			
	Erect Tower (Tower Topping)	each 24	6	12.98	$ 1,656.68	$ 21,501.94	$ 516,046.53	24	$ 21,501.94			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 24	7	3.00	$ 636.64	$ 1,909.91	$ 45,837.89	24	$ 1,909.91			
	Hang Travellers (Hang Travellers)	each 24	8	2.00	$ 1,444.07	$ 2,888.13	$ 69,315.21	24	$ 2,888.13			
	Dead-end (Deadends)	each 24	13	14.00	$ 1,384.42	$ 19,381.95	$ 465,166.68	24	$ 19,381.95			
		each 24			$ -	$ -	$ -	24	$ -			
	Total Cost = $ 2.536	per pound				$ 137,721.68	$ 3,305,320.31		$ 137,721.68			
V::D104	**S1-D104 Assembly and Erection of +4.5 m body extension for Dead-End Tower** **Total structure count:**	**3**		**EA**			**$ 85,738.56**		**$ 28,579.52**	**$ -**	**$ 28,579.52**	**$ -**
	S1-D104 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043											
	Total Tower Weight With Guys and Ext. (lb) = 11464 Total Tower Height(ft) = 136 Section Weight (lb) = 11464											
	Site Preparation (Site Preparation)	each 3	2		$ 675.12	$ -	$ -	3	$ -			
	Haul (Hauling)	each 3	1	7.06	$ 441.04	$ 3,114.79	$ 9,344.38	3	$ 3,114.79			
	Setup Blocks (Blocking Crew)	each 3	3		$ 281.84	$ -	$ -	3	$ -			
	Assemble Bottom (Lattice Assembly)	each 3	4	16.86	$ 1,183.92	$ 19,959.69	$ 59,879.06	3	$ 19,959.69			
	Panel Bottom (Lattice Erection)	each 3	5		$ 1,519.02	$ -	$ -	3	$ -			
	Assemble Tops (Lattice Assembly)	each 3	4		$ 1,183.92	$ -	$ -	3	$ -			
	Top / Assembly Tower (Tower Topping)	each 3	6	3.32	$ 1,656.68	$ 5,505.04	$ 16,515.12	3	$ 5,505.04			
		each 3			$ -	$ -	$ -	3	$ -			
		each 3			$ -	$ -	$ -	3	$ -			
		each 3			$ -	$ -	$ -	3	$ -			
		each 3			$ -	$ -	$ -	3	$ -			
	Total Cost = $ 2.493	per pound				$ 28,579.52	$ 85,738.56		$ 28,579.52			
V::D105	**S1-D105 Assembly and Erection of +10.5 m body extension for Dead-End Tower** **Total structure count:**	**3**		**EA**			**$ 165,491.91**		**$ 55,163.97**	**$ -**	**$ 55,163.97**	**$ -**
	S1-D105 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043											
	Total Tower Weight With Guys and Ext. (lb) = 22128 Total Tower Height(ft) = 156 Section Weight (lb) = 22128											
	Site Preparation (Site Preparation)	each 3	2		$ 675.12	$ -	$ -	3	$ -			
	Haul (Hauling)	each 3	1	13.63	$ 441.04	$ 6,012.15	$ 18,036.45	3	$ 6,012.15			
	Setup Blocks (Blocking Crew)	each 3	3		$ 281.84	$ -	$ -	3	$ -			
	Assemble Bottom (Lattice Assembly)	each 3	4	32.54	$ 1,183.92	$ 38,526.04	$ 115,578.11	3	$ 38,526.04			
	Panel Bottom (Lattice Erection)	each 3	5		$ 1,519.02	$ -	$ -	3	$ -			
	Assemble Tops (Lattice Assembly)	each 3	4		$ 1,183.92	$ -	$ -	3	$ -			
	Top / Assembly Tower (Tower Topping)	each 3	6	6.41	$ 1,656.68	$ 10,625.78	$ 31,877.35	3	$ 10,625.78			
		each 3			$ -	$ -	$ -	3	$ -			
		each 3			$ -	$ -	$ -	3	$ -			
		each 3			$ -	$ -	$ -	3	$ -			
		each 3			$ -	$ -	$ -	3	$ -			
	Total Cost = $ 2.493	per pound				$ 55,163.97	$ 165,491.91		$ 55,163.97			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D106	**S1-D106 Assembly and Erection of +0 m leg extension for Dead-End Tower Type** **Total structure count:**		**0**	**EA**			**$ -**		**$ 2,050.72**	**$ -**	**$ 2,050.72**	**$ -**
	S1-D106 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 3290 Total Tower Height(ft) = 121 Section Weight (lb) = 823											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	0.51	$ 441.04	$ 223.50	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	1.21	$ 1,183.92	$ 1,432.20	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	0.24	$ 1,656.68	$ 395.01	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.493	per pound				$ 2,050.72	$ -		$ -			
V::D107	**S1-D107 Assembly and Erection of +1.5 m leg extension for Dead-End Tower** **Total structure count:**		**0**	**EA**			**$ -**		**$ 2,871.01**	**$ -**	**$ 2,871.01**	**$ -**
	S1-D107 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 4607 Total Tower Height(ft) = 126 Section Weight (lb) = 1152											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	0.71	$ 441.04	$ 312.90	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	1.69	$ 1,183.92	$ 2,005.09	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	0.33	$ 1,656.68	$ 553.02	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.493	per pound				$ 2,871.01	$ -		$ -			
V::D108	**S1-D108 Assembly and Erection of +3 m leg extension for Dead-End Tower Type** **Total structure count:**		**40**	**EA**			**$ 161,226.97**		**$ 4,030.67**	**$ -**	**$ 4,030.67**	**$ -**
	S1-D108 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 6467 Total Tower Height(ft) = 131 Section Weight (lb) = 1617											
	Site Preparation (Site Preparation)	each 40	2		$ 675.12	$ -	$ -	40	$ -			
	Haul (Hauling)	each 40	1	1.00	$ 441.04	$ 439.29	$ 17,571.63	40	$ 439.29			
	Setup Blocks (Blocking Crew)	each 40	3		$ 281.84	$ -	$ -	40	$ -			
	Assemble Bottom (Lattice Assembly)	each 40	4	2.38	$ 1,183.92	$ 2,814.99	$ 112,599.51	40	$ 2,814.99			
	Panel Bottom (Lattice Erection)	each 40	5		$ 1,519.02	$ -	$ -	40	$ -			
	Assemble Tops (Lattice Assembly)	each 40	4		$ 1,183.92	$ -	$ -	40	$ -			
	Top / Assembly Tower (Tower Topping)	each 40	6	0.47	$ 1,656.68	$ 776.40	$ 31,055.83	40	$ 776.40			
		each 40			$ -	$ -	$ -	40	$ -			
		each 40			$ -	$ -	$ -	40	$ -			
		each 40			$ -	$ -	$ -	40	$ -			
		each 40			$ -	$ -	$ -	40	$ -			
	Total Cost = $ 2.493	per pound				$ 4,030.67	$ 161,226.97		$ 4,030.67			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D109	**S1-D109 Assembly and Erection of +4.5 m leg extension for Dead-End Tower** **Total structure count:**	**16**		**EA**			**$ 87,838.06**		**$ 5,489.88**	**$ -**	**$ 5,489.88**	**$ -**
	S1-D109 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 8809 Total Tower Height(ft) = 136 Section Weight (lb) = 2202											
	Site Preparation (Site Preparation)	each 16	2		$ 675.12	$ -	$ -	16	$ -			
	Haul (Hauling)	each 16	1	1.36	$ 441.04	$ 598.32	$ 9,573.20	16	$ 598.32			
	Setup Blocks (Blocking Crew)	each 16	3		$ 281.84	$ -	$ -	16	$ -			
	Assemble Bottom (Lattice Assembly)	each 16	4	3.24	$ 1,183.92	$ 3,834.08	$ 61,345.33	16	$ 3,834.08			
	Panel Bottom (Lattice Erection)	each 16	5		$ 1,519.02	$ -	$ -	16	$ -			
	Assemble Tops (Lattice Assembly)	each 16	4		$ 1,183.92	$ -	$ -	16	$ -			
	Top / Assembly Tower (Tower Topping)	each 16	6	0.64	$ 1,656.68	$ 1,057.47	$ 16,919.52	16	$ 1,057.47			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
	Total Cost = $ 2.493	per pound				$ 5,489.88	$ 87,838.06		$ 5,489.88			
V::D110	**S1-D110 Assembly and Erection of +6 m leg extension for Dead-End Tower Type** **Total structure count:**	**28**		**EA**			**$ 181,839.95**		**$ 6,494.28**	**$ -**	**$ 6,494.28**	**$ -**
	S1-D110 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 10420 Total Tower Height(ft) = 141 Section Weight (lb) = 2605											
	Site Preparation (Site Preparation)	each 28	2		$ 675.12	$ -	$ -	28	$ -			
	Haul (Hauling)	each 28	1	1.60	$ 441.04	$ 707.79	$ 19,818.17	28	$ 707.79			
	Setup Blocks (Blocking Crew)	each 28	3		$ 281.84	$ -	$ -	28	$ -			
	Assemble Bottom (Lattice Assembly)	each 28	4	3.83	$ 1,183.92	$ 4,535.55	$ 126,995.43	28	$ 4,535.55			
	Panel Bottom (Lattice Erection)	each 28	5		$ 1,519.02	$ -	$ -	28	$ -			
	Assemble Tops (Lattice Assembly)	each 28	4		$ 1,183.92	$ -	$ -	28	$ -			
	Top / Assembly Tower (Tower Topping)	each 28	6	0.76	$ 1,656.68	$ 1,250.94	$ 35,026.34	28	$ 1,250.94			
		each 28			$ -	$ -	$ -	28	$ -			
		each 28			$ -	$ -	$ -	28	$ -			
		each 28			$ -	$ -	$ -	28	$ -			
		each 28			$ -	$ -	$ -	28	$ -			
	Total Cost = $ 2.493	per pound				$ 6,494.28	$ 181,839.95		$ 6,494.28			
V::D111	**S1-D111 Assembly and Erection of +7.5 m leg extension for Dead-End Tower** **Total structure count:**	**12**		**EA**			**$ 92,820.24**		**$ 7,735.02**	**$ -**	**$ 7,735.02**	**$ -**
	S1-D111 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 12411 Total Tower Height(ft) = 146 Section Weight (lb) = 3103											
	Site Preparation (Site Preparation)	each 12	2		$ 675.12	$ -	$ -	12	$ -			
	Haul (Hauling)	each 12	1	1.91	$ 441.04	$ 843.02	$ 10,116.19	12	$ 843.02			
	Setup Blocks (Blocking Crew)	each 12	3		$ 281.84	$ -	$ -	12	$ -			
	Assemble Bottom (Lattice Assembly)	each 12	4	4.56	$ 1,183.92	$ 5,402.07	$ 64,824.84	12	$ 5,402.07			
	Panel Bottom (Lattice Erection)	each 12	5		$ 1,519.02	$ -	$ -	12	$ -			
	Assemble Tops (Lattice Assembly)	each 12	4		$ 1,183.92	$ -	$ -	12	$ -			
	Top / Assembly Tower (Tower Topping)	each 12	6	0.90	$ 1,656.68	$ 1,489.93	$ 17,879.20	12	$ 1,489.93			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
	Total Cost = $ 2.493	per pound				$ 7,735.02	$ 92,820.24		$ 7,735.02			
V::D112	**S1-D112 Assembly and Erection of +9 m leg extension for Dead-End Tower Type** **Total structure count:**	**0**		**EA**			**$ -**		**$ 10,263.21**	**$ -**	**$ 10,263.21**	**$ -**
	S1-D112 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 16468 Total Tower Height(ft) = 151 Section Weight (lb) = 4117											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	2.54	$ 441.04	$ 1,118.56	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	6.05	$ 1,183.92	$ 7,167.74	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	1.19	$ 1,656.68	$ 1,976.92	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.493	per pound				$ 10,263.21	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H24	**Assembly and Erection of Dead-End Tower Type "D2"**											
V::D113	**S1-D113 Assembly and Erection of Dead-End Tower Type "D2" Basic Body as** **Total structure count:**		**15**	**EA**			**$ 2,049,089.93**		**$ 136,606.00**	**$ -**	**$ 136,606.00**	**$ -**
	S1-D113 Assembly and Erection of Dead-End Tower Type "D2" Basic Body as per dwg. 505573-4622-43DD-0045											
	Total Tower Weight With Guys and Ext. (lb) = 41363 Total Tower Height(ft) = 106 Section Weight (lb) = 41363											
	Site Preparation (Site Preparation)	each 15	2	2.00	$ 675.12	$ 1,350.24	$ 20,253.67	15	$ 1,350.24			
	Haul (Hauling)	each 15	1	25.78	$ 441.04	$ 11,370.01	$ 170,550.16	15	$ 11,370.01			
	Setup Blocks (Blocking Crew)	each 15	3	2.00	$ 281.84	$ 563.68	$ 8,455.27	15	$ 563.68			
	Assemble (Lattice Assembly)	each 15	4	60.83	$ 1,183.92	$ 72,016.09	$ 1,080,241.35	15	$ 72,016.09			
	(Lattice Erection)	each 15	5		$ 1,519.02	$ -	$ -	15	$ -			
	(Lattice Assembly)	each 15	4		$ 1,183.92	$ -	$ -	15	$ -			
	Erect Tower (Tower Topping)	each 15	6	15.99	$ 1,656.68	$ 26,489.34	$ 397,340.05	15	$ 26,489.34			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 15	7	4.00	$ 636.64	$ 2,546.55	$ 38,198.24	15	$ 2,546.55			
	Hang Travellers (Hang Travellers)	each 15	8	2.00	$ 1,444.07	$ 2,888.13	$ 43,322.01	15	$ 2,888.13			
	Dead-end (Deadends)	each 15	13	14.00	$ 1,384.42	$ 19,381.95	$ 290,729.18	15	$ 19,381.95			
		each 15			$ -	$ -	$ -	15	$ -			
	Total Cost = $ 2.703	per pound				$ 136,606.00	$ 2,049,089.93		$ 136,606.00			
V::D114	**S1-D114 Assembly and Erection of +4.5 m body extension for Dead-End Tower** **Total structure count:**		**1**	**EA**			**$ 39,176.39**		**$ 39,176.39**	**$ -**	**$ 39,176.39**	**$ -**
	S1-D114 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045											
	Total Tower Weight With Guys and Ext. (lb) = 15695 Total Tower Height(ft) = 121 Section Weight (lb) = 15695											
	Site Preparation (Site Preparation)	each 1	2		$ 675.12	$ -	$ -	1	$ -			
	Haul (Hauling)	each 1	1	9.78	$ 441.04	$ 4,314.20	$ 4,314.20	1	$ 4,314.20			
	Setup Blocks (Blocking Crew)	each 1	3		$ 281.84	$ -	$ -	1	$ -			
	Assemble Bottom (Lattice Assembly)	each 1	4	23.08	$ 1,183.92	$ 27,325.58	$ 27,325.58	1	$ 27,325.58			
	Panel Bottom (Lattice Erection)	each 1	5		$ 1,519.02	$ -	$ -	1	$ -			
	Assemble Tops (Lattice Assembly)	each 1	4		$ 1,183.92	$ -	$ -	1	$ -			
	Top / Assembly Tower (Tower Topping)	each 1	6	4.55	$ 1,656.68	$ 7,536.61	$ 7,536.61	1	$ 7,536.61			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
	Total Cost = $ 2.496	per pound				$ 39,176.39	$ 39,176.39		$ 39,176.39			
V::D115	**S1-D115 Assembly and Erection of +10.5 m body extension for Dead-End Tower** **Total structure count:**		**0**	**EA**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-D115 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045											
	Total Tower Weight With Guys and Ext. (lb) = 16061 Total Tower Height(ft) = 140 Section Weight (lb) = 16061											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1		$ 441.04	$ -	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6		$ 1,656.68	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ -	per pound				$ -	$ -		$ -			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D116	**S1-D116 Assembly and Erection of +0 m leg extension for Dead-End Tower Type** **Total structure count:**	**16**		**EA**			**$ 73,763.22**		**$ 4,610.20**	**$ -**	**$ 4,610.20**	**$ -**
	S1-D116 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 7388 Total Tower Height(ft) = 106 Section Weight (lb) = 1847											
	Site Preparation (Site Preparation)	each 16	2		$ 675.12	$ -	$ -	16	$ -			
	Haul (Hauling)	each 16	1	1.15	$ 441.04	$ 507.69	$ 8,122.99	16	$ 507.69			
	Setup Blocks (Blocking Crew)	each 16	3		$ 281.84	$ -	$ -	16	$ -			
	Assemble Bottom (Lattice Assembly)	each 16	4	2.72	$ 1,183.92	$ 3,215.62	$ 51,449.93	16	$ 3,215.62			
	Panel Bottom (Lattice Erection)	each 16	5		$ 1,519.02	$ -	$ -	16	$ -			
	Assemble Tops (Lattice Assembly)	each 16	4		$ 1,183.92	$ -	$ -	16	$ -			
	Top / Assembly Tower (Tower Topping)	each 16	6	0.54	$ 1,656.68	$ 886.89	$ 14,190.30	16	$ 886.89			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
	Total Cost = $ 2.496	per pound				$ 4,610.20	$ 73,763.22		$ 4,610.20			
V::D117	**S1-D117 Assembly and Erection of +1.5 m leg extension for Dead-End Tower** **Total structure count:**	**20**		**EA**			**$ 122,938.71**		**$ 6,146.94**	**$ -**	**$ 6,146.94**	**$ -**
	S1-D117 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 9850 Total Tower Height(ft) = 111 Section Weight (lb) = 2463											
	Site Preparation (Site Preparation)	each 20	2		$ 675.12	$ -	$ -	20	$ -			
	Haul (Hauling)	each 20	1	1.53	$ 441.04	$ 676.92	$ 13,538.32	20	$ 676.92			
	Setup Blocks (Blocking Crew)	each 20	3		$ 281.84	$ -	$ -	20	$ -			
	Assemble Bottom (Lattice Assembly)	each 20	4	3.62	$ 1,183.92	$ 4,287.49	$ 85,749.89	20	$ 4,287.49			
	Panel Bottom (Lattice Erection)	each 20	5		$ 1,519.02	$ -	$ -	20	$ -			
	Assemble Tops (Lattice Assembly)	each 20	4		$ 1,183.92	$ -	$ -	20	$ -			
	Top / Assembly Tower (Tower Topping)	each 20	6	0.71	$ 1,656.68	$ 1,182.52	$ 23,650.49	20	$ 1,182.52			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
	Total Cost = $ 2.496	per pound				$ 6,146.94	$ 122,938.71		$ 6,146.94			
V::D118	**S1-D118 Assembly and Erection of +3 m leg extension for Dead-End Tower Type** **Total structure count:**	**8**		**EA**			**$ 63,142.29**		**$ 7,892.79**	**$ -**	**$ 7,892.79**	**$ -**
	S1-D118 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 12648 Total Tower Height(ft) = 116 Section Weight (lb) = 3162											
	Site Preparation (Site Preparation)	each 8	2		$ 675.12	$ -	$ -	8	$ -			
	Haul (Hauling)	each 8	1	1.97	$ 441.04	$ 869.17	$ 6,953.39	8	$ 869.17			
	Setup Blocks (Blocking Crew)	each 8	3		$ 281.84	$ -	$ -	8	$ -			
	Assemble Bottom (Lattice Assembly)	each 8	4	4.65	$ 1,183.92	$ 5,505.23	$ 44,041.82	8	$ 5,505.23			
	Panel Bottom (Lattice Erection)	each 8	5		$ 1,519.02	$ -	$ -	8	$ -			
	Assemble Tops (Lattice Assembly)	each 8	4		$ 1,183.92	$ -	$ -	8	$ -			
	Top / Assembly Tower (Tower Topping)	each 8	6	0.92	$ 1,656.68	$ 1,518.38	$ 12,147.08	8	$ 1,518.38			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
	Total Cost = $ 2.496	per pound				$ 7,892.79	$ 63,142.29		$ 7,892.79			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D119	**S1-D119 Assembly and Erection of +4.5 m leg extension for Dead-End Tower** **Total structure count:**	**4**		**EA**			**$ 36,909.13**		**$ 9,227.28**	**$ -**	**$ 9,227.28**	**$ -**
	S1-D119 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 14786 Total Tower Height(ft) = 121 Section Weight (lb) = 3697											
	Site Preparation (Site Preparation)	each 4	2		$ 675.12	$ -	$ -	4	$ -			
	Haul (Hauling)	each 4	1	2.30	$ 441.04	$ 1,016.13	$ 4,064.53	4	$ 1,016.13			
	Setup Blocks (Blocking Crew)	each 4	3		$ 281.84	$ -	$ -	4	$ -			
	Assemble Bottom (Lattice Assembly)	each 4	4	5.44	$ 1,183.92	$ 6,436.04	$ 25,744.16	4	$ 6,436.04			
	Panel Bottom (Lattice Erection)	each 4	5		$ 1,519.02	$ -	$ -	4	$ -			
	Assemble Tops (Lattice Assembly)	each 4	4		$ 1,183.92	$ -	$ -	4	$ -			
	Top / Assembly Tower (Tower Topping)	each 4	6	1.07	$ 1,656.68	$ 1,775.11	$ 7,100.44	4	$ 1,775.11			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
	Total Cost = $ 2.496	per pound				$ 9,227.28	$ 36,909.13		$ 9,227.28			
V::D120	**S1-D120 Assembly and Erection of +6 m leg extension for Dead-End Tower Type** **Total structure count:**	**8**		**EA**			**$ 97,437.45**		**$ 12,179.68**	**$ -**	**$ 12,179.68**	**$ -**
	S1-D120 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 19518 Total Tower Height(ft) = 126 Section Weight (lb) = 4879											
	Site Preparation (Site Preparation)	each 8	2		$ 675.12	$ -	$ -	8	$ -			
	Haul (Hauling)	each 8	1	3.04	$ 441.04	$ 1,341.26	$ 10,730.06	8	$ 1,341.26			
	Setup Blocks (Blocking Crew)	each 8	3		$ 281.84	$ -	$ -	8	$ -			
	Assemble Bottom (Lattice Assembly)	each 8	4	7.18	$ 1,183.92	$ 8,495.34	$ 67,962.74	8	$ 8,495.34			
	Panel Bottom (Lattice Erection)	each 8	5		$ 1,519.02	$ -	$ -	8	$ -			
	Assemble Tops (Lattice Assembly)	each 8	4		$ 1,183.92	$ -	$ -	8	$ -			
	Top / Assembly Tower (Tower Topping)	each 8	6	1.41	$ 1,656.68	$ 2,343.08	$ 18,744.66	8	$ 2,343.08			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
	Total Cost = $ 2.496	per pound				$ 12,179.68	$ 97,437.45		$ 12,179.68			
V::D121	**S1-D121 Assembly and Erection of +7.5 m leg extension for Dead-End Tower** **Total structure count:**	**0**		**EA**			**$ -**		**$ 14,126.39**	**$ -**	**$ 14,126.39**	**$ -**
	S1-D121 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 22637 Total Tower Height(ft) = 131 Section Weight (lb) = 5659											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	3.53	$ 441.04	$ 1,555.63	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	8.32	$ 1,183.92	$ 9,853.18	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	1.64	$ 1,656.68	$ 2,717.58	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.496	per pound				$ 14,126.39	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D122	**S1-D122 Assembly and Erection of +9 m leg extension for Dead-End Tower Type** **Total structure count:**		**4**	**EA**			**$ 57,083.40**		**$ 14,270.85**	**$ -**	**$ 14,270.85**	**$ -**
	S1-D122 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 22869 Total Tower Height(ft) = 135 Section Weight (lb) = 5717											
	Site Preparation (Site Preparation)	each	4	2		$ 675.12	$ -	$ -	4	$ -		
	Haul (Hauling)	each	4	1	3.56	$ 441.04	$ 1,571.54	$ 6,286.17	4	$ 1,571.54		
	Setup Blocks (Blocking Crew)	each	4	3		$ 281.84	$ -	$ -	4	$ -		
	Assemble Bottom (Lattice Assembly)	each	4	4	8.41	$ 1,183.92	$ 9,953.93	$ 39,815.74	4	$ 9,953.93		
	Panel Bottom (Lattice Erection)	each	4	5		$ 1,519.02	$ -	$ -	4	$ -		
	Assemble Tops (Lattice Assembly)	each	4	4		$ 1,183.92	$ -	$ -	4	$ -		
	Top / Assembly Tower (Tower Topping)	each	4	6	1.66	$ 1,656.68	$ 2,745.37	$ 10,981.49	4	$ 2,745.37		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
	Total Cost = $ 2.496	per pound					$ 14,270.85	$ 57,083.40		$ 14,270.85		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units	Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H25	**Assembly and Erection of Dead-End Tower Type "E1"**												
V::D123	**S1-D123 Assembly and Erection of Dead-End Tower Type "E1" Basic Body as** **Total structure count:**		**15**		**EA**			**$ 2,431,028.06**		**$ 162,068.54**	**$ -**	**$ 162,068.54**	**$ -**
	S1-D123 Assembly and Erection of Dead-End Tower Type "E1" Basic Body as per dwg. 505573-4622-43DD-0007												
	Total Tower Weight With Guys and Ext. (lb) = 55056 Total Tower Height(ft) = 121 Section Weight (lb) = 55056												
	Site Preparation (Site Preparation)	each	15	2	2.00	$ 675.12	$ 1,350.24	$ 20,253.67	15	$ 1,350.24			
	Haul (Hauling)	each	15	1	31.02	$ 441.04	$ 13,680.27	$ 205,204.01	15	$ 13,680.27			
	Setup Blocks (Blocking Crew)	each	15	3	2.00	$ 281.84	$ 563.68	$ 8,455.27	15	$ 563.68			
	Assemble (Lattice Assembly)	each	15	4	80.97	$ 1,183.92	$ 95,856.40	$ 1,437,846.03	15	$ 95,856.40			
	(Lattice Erection)	each	15	5		$ 1,519.02	$ -	$ -	15	$ -			
	(Lattice Assembly)	each	15	4		$ 1,183.92	$ -	$ -	15	$ -			
	Erect Tower (Tower Topping)	each	15	6	15.96	$ 1,656.68	$ 26,437.95	$ 396,569.20	15	$ 26,437.95			
	haul Insulators and Travellers (Haul Travellers&Glass)	each	15	7	3.00	$ 636.64	$ 1,909.91	$ 28,648.68	15	$ 1,909.91			
	Hang Travellers (Hang Travellers)	each	15	8	2.00	$ 1,444.07	$ 2,888.13	$ 43,322.01	15	$ 2,888.13			
	Dead-end (Deadends)	each	15	13	14.00	$ 1,384.42	$ 19,381.95	$ 290,729.18	15	$ 19,381.95			
		each	15			$ -	$ -	$ -	15	$ -			
	Total Cost = $ 2.504	per pound					$ 162,068.54	$ 2,431,028.06		$ 162,068.54			
V::D124	**S1-D124 Assembly and Erection of +4.5 m body extension for Dead-End Tower** **Total structure count:**		**4**		**EA**			**$ 156,594.32**		**$ 39,148.58**	**$ -**	**$ 39,148.58**	**$ -**
	S1-D124 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007												
	Total Tower Weight With Guys and Ext. (lb) = 15851 Total Tower Height(ft) = 136 Section Weight (lb) = 15851												
	Site Preparation (Site Preparation)	each	4	2		$ 675.12	$ -	$ -	4	$ -			
	Haul (Hauling)	each	4	1	8.93	$ 441.04	$ 3,938.70	$ 15,754.79	4	$ 3,938.70			
	Setup Blocks (Blocking Crew)	each	4	3		$ 281.84	$ -	$ -	4	$ -			
	Assemble Bottom (Lattice Assembly)	each	4	4	23.31	$ 1,183.92	$ 27,598.11	$ 110,392.43	4	$ 27,598.11			
	Panel Bottom (Lattice Erection)	each	4	5		$ 1,519.02	$ -	$ -	4	$ -			
	Assemble Tops (Lattice Assembly)	each	4	4		$ 1,183.92	$ -	$ -	4	$ -			
	Top / Assembly Tower (Tower Topping)	each	4	6	4.59	$ 1,656.68	$ 7,611.77	$ 30,447.10	4	$ 7,611.77			
		each	4			$ -	$ -	$ -	4	$ -			
		each	4			$ -	$ -	$ -	4	$ -			
		each	4			$ -	$ -	$ -	4	$ -			
		each	4			$ -	$ -	$ -	4	$ -			
	Total Cost = $ 2.470	per pound					$ 39,148.58	$ 156,594.32		$ 39,148.58			
V::D125	**S1-D125 Assembly and Erection of +10.5 m body extension for Dead-End Tower** **Total structure count:**		**0**		**EA**			**$ -**		**$ 74,921.34**	**$ -**	**$ 74,921.34**	**$ -**
	S1-D125 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007												
	Total Tower Weight With Guys and Ext. (lb) = 30336 Total Tower Height(ft) = 156 Section Weight (lb) = 30336												
	Site Preparation (Site Preparation)	each	0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each	0	1	17.09	$ 441.04	$ 7,537.76	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each	0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each	0	4	44.61	$ 1,183.92	$ 52,816.41	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each	0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each	0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each	0	6	8.79	$ 1,656.68	$ 14,567.18	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.470	per pound					$ 74,921.34	$ -		$ -			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D126	**S1-D126 Assembly and Erection of +0 m leg extension for Dead-End Tower Type** **Total structure count:**		**8**	**EA**			**$ 38,190.28**		**$ 4,773.79**	**$ -**	**$ 4,773.79**	**$ -**
	S1-D126 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 7732 Total Tower Height(ft) = 121 Section Weight (lb) = 1933											
	Site Preparation (Site Preparation)	each 8	2		$ 675.12	$ -	$ -	8	$ -			
	Haul (Hauling)	each 8	1	1.09	$ 441.04	$ 480.29	$ 3,842.29	8	$ 480.29			
	Setup Blocks (Blocking Crew)	each 8	3		$ 281.84	$ -	$ -	8	$ -			
	Assemble Bottom (Lattice Assembly)	each 8	4	2.84	$ 1,183.92	$ 3,365.32	$ 26,922.55	8	$ 3,365.32			
	Panel Bottom (Lattice Erection)	each 8	5		$ 1,519.02	$ -	$ -	8	$ -			
	Assemble Tops (Lattice Assembly)	each 8	4		$ 1,183.92	$ -	$ -	8	$ -			
	Top / Assembly Tower (Tower Topping)	each 8	6	0.56	$ 1,656.68	$ 928.18	$ 7,425.45	8	$ 928.18			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
		each 8			$ -	$ -	$ -	8	$ -			
	Total Cost = $ 2.470	per pound				$ 4,773.79	$ 38,190.28		$ 4,773.79			
V::D127	**S1-D127 Assembly and Erection of +1.5 m leg extension for Dead-End Tower** **Total structure count:**		**4**	**EA**			**$ 25,460.19**		**$ 6,365.05**	**$ -**	**$ 6,365.05**	**$ -**
	S1-D127 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 10309 Total Tower Height(ft) = 126 Section Weight (lb) = 2577											
	Site Preparation (Site Preparation)	each 4	2		$ 675.12	$ -	$ -	4	$ -			
	Haul (Hauling)	each 4	1	1.45	$ 441.04	$ 640.38	$ 2,561.52	4	$ 640.38			
	Setup Blocks (Blocking Crew)	each 4	3		$ 281.84	$ -	$ -	4	$ -			
	Assemble Bottom (Lattice Assembly)	each 4	4	3.79	$ 1,183.92	$ 4,487.09	$ 17,948.37	4	$ 4,487.09			
	Panel Bottom (Lattice Erection)	each 4	5		$ 1,519.02	$ -	$ -	4	$ -			
	Assemble Tops (Lattice Assembly)	each 4	4		$ 1,183.92	$ -	$ -	4	$ -			
	Top / Assembly Tower (Tower Topping)	each 4	6	0.75	$ 1,656.68	$ 1,237.57	$ 4,950.30	4	$ 1,237.57			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
		each 4			$ -	$ -	$ -	4	$ -			
	Total Cost = $ 2.470	per pound				$ 6,365.05	$ 25,460.19		$ 6,365.05			
V::D128	**S1-D128 Assembly and Erection of +3 m leg extension for Dead-End Tower Type** **Total structure count:**		**0**	**EA**			**$ -**		**$ 8,374.20**	**$ -**	**$ 8,374.20**	**$ -**
	S1-D128 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 13563 Total Tower Height(ft) = 131 Section Weight (lb) = 3391											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	1.91	$ 441.04	$ 842.52	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	4.99	$ 1,183.92	$ 5,903.46	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	0.98	$ 1,656.68	$ 1,628.22	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.470	per pound				$ 8,374.20	$ -		$ -			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D129	**S1-D129 Assembly and Erection of +4.5 m leg extension for Dead-End Tower** **Total structure count:**	**20**		**EA**			**$ 203,610.73**		**$ 10,180.54**	**$ -**	**$ 10,180.54**	**$ -**
	S1-D129 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 16488 Total Tower Height(ft) = 136 Section Weight (lb) = 4122											
	Site Preparation (Site Preparation)	each 20	2		$ 675.12	$ -	$ -	20	$ -			
	Haul (Hauling)	each 20	1	2.32	$ 441.04	$ 1,024.25	$ 20,485.07	20	$ 1,024.25			
	Setup Blocks (Blocking Crew)	each 20	3		$ 281.84	$ -	$ -	20	$ -			
	Assemble Bottom (Lattice Assembly)	each 20	4	6.06	$ 1,183.92	$ 7,176.85	$ 143,537.03	20	$ 7,176.85			
	Panel Bottom (Lattice Erection)	each 20	5		$ 1,519.02	$ -	$ -	20	$ -			
	Assemble Tops (Lattice Assembly)	each 20	4		$ 1,183.92	$ -	$ -	20	$ -			
	Top / Assembly Tower (Tower Topping)	each 20	6	1.19	$ 1,656.68	$ 1,979.43	$ 39,588.64	20	$ 1,979.43			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
		each 20			$ -	$ -	$ -	20	$ -			
	Total Cost = $ 2.470	per pound				$ 10,180.54	$ 203,610.73		$ 10,180.54			
V::D130	**S1-D130 Assembly and Erection of +6 m leg extension for Dead-End Tower Type** **Total structure count:**	**16**		**EA**			**$ 200,175.02**		**$ 12,510.94**	**$ -**	**$ 12,510.94**	**$ -**
	S1-D130 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 20263 Total Tower Height(ft) = 141 Section Weight (lb) = 5066											
	Site Preparation (Site Preparation)	each 16	2		$ 675.12	$ -	$ -	16	$ -			
	Haul (Hauling)	each 16	1	2.85	$ 441.04	$ 1,258.71	$ 20,139.40	16	$ 1,258.71			
	Setup Blocks (Blocking Crew)	each 16	3		$ 281.84	$ -	$ -	16	$ -			
	Assemble Bottom (Lattice Assembly)	each 16	4	7.45	$ 1,183.92	$ 8,819.69	$ 141,115.00	16	$ 8,819.69			
	Panel Bottom (Lattice Erection)	each 16	5		$ 1,519.02	$ -	$ -	16	$ -			
	Assemble Tops (Lattice Assembly)	each 16	4		$ 1,183.92	$ -	$ -	16	$ -			
	Top / Assembly Tower (Tower Topping)	each 16	6	1.47	$ 1,656.68	$ 2,432.54	$ 38,920.62	16	$ 2,432.54			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
		each 16			$ -	$ -	$ -	16	$ -			
	Total Cost = $ 2.470	per pound				$ 12,510.94	$ 200,175.02		$ 12,510.94			
V::D131	**S1-D131 Assembly and Erection of +7.5 m leg extension for Dead-End Tower** **Total structure count:**	**12**		**EA**			**$ 174,257.46**		**$ 14,521.46**	**$ -**	**$ 14,521.46**	**$ -**
	S1-D131 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 23519 Total Tower Height(ft) = 146 Section Weight (lb) = 5880											
	Site Preparation (Site Preparation)	each 12	2		$ 675.12	$ -	$ -	12	$ -			
	Haul (Hauling)	each 12	1	3.31	$ 441.04	$ 1,460.99	$ 17,531.87	12	$ 1,460.99			
	Setup Blocks (Blocking Crew)	each 12	3		$ 281.84	$ -	$ -	12	$ -			
	Assemble Bottom (Lattice Assembly)	each 12	4	8.65	$ 1,183.92	$ 10,237.02	$ 122,844.20	12	$ 10,237.02			
	Panel Bottom (Lattice Erection)	each 12	5		$ 1,519.02	$ -	$ -	12	$ -			
	Assemble Tops (Lattice Assembly)	each 12	4		$ 1,183.92	$ -	$ -	12	$ -			
	Top / Assembly Tower (Tower Topping)	each 12	6	1.70	$ 1,656.68	$ 2,823.45	$ 33,881.39	12	$ 2,823.45			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
		each 12			$ -	$ -	$ -	12	$ -			
	Total Cost = $ 2.470	per pound				$ 14,521.46	$ 174,257.46		$ 14,521.46			
V::D132	**S1-D132 Assembly and Erection of +9 m leg extension for Dead-End Tower Type** **Total structure count:**	**0**		**EA**			**$ -**		**$ 16,530.61**	**$ -**	**$ 16,530.61**	**$ -**
	S1-D132 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 26773 Total Tower Height(ft) = 151 Section Weight (lb) = 6693											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	3.77	$ 441.04	$ 1,663.13	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	9.84	$ 1,183.92	$ 11,653.39	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	1.94	$ 1,656.68	$ 3,214.10	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.470	per pound				$ 16,530.61	$ -		$ -			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units	Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H26	**S1-E Installation of Wires and OPGW (S1-Ex)**												
V::E01	**S1-E1 Installation of Counterpoise wire, connection with tower grounding** S1-E1 Installation of Counterpoise wire, connection with tower grounding	**Total structure count:**	**227**		**KM**			**$ 1,976,378.86**		**$ 8,706.51**	**$ -**	**$ 8,706.51**	**$ -**
			Assume		1 km/day								
	Haul (Wire Hauling)	each	227	9	0.15	$ 405.51	$ 62.22	$ 14,124.09	227	$ 62.22			
	Plow Counterpoise (Counterpoise Instal)	each	227	43	11.00	$ 750.15	$ 8,251.67	$ 1,873,129.87	227	$ 8,251.67			
	Connect at tower (Ground Testing)	each	227	25	1.50	$ 261.75	$ 392.62	$ 89,124.91	227	$ 392.62			
		each	227			$ -	$ -	$ -	227	$ -			
		each	227			$ -	$ -	$ -	227	$ -			
		each	227			$ -	$ -	$ -	227	$ -			
		each	227			$ -	$ -	$ -	227	$ -			
		each	227			$ -	$ -	$ -	227	$ -			
		each	227			$ -	$ -	$ -	227	$ -			
		each	227			$ -	$ -	$ -	227	$ -			
		each	227			$ -	$ -	$ -	227	$ -			
							$ 8,706.51	$ 1,976,378.86		$ 8,706.51			
V::E02	**S1-E2 Installation of ground rods at crossing obstacles in soil and rock** S1-E2 Installation of ground rods at crossing obstacles in soil and rock	**Total structure count:**	**120**		**EA**			**$ 22,504.56**		**$ 187.54**	**$ -**	**$ 187.54**	**$ -**
	Haul and install (Counterpoise Instal)	each	120	43	0.25	$ 750.15	$ 187.54	$ 22,504.56	120	$ 187.54			
		each	120			$ -	$ -	$ -	120	$ -			
		each	120			$ -	$ -	$ -	120	$ -			
		each	120			$ -	$ -	$ -	120	$ -			
		each	120			$ -	$ -	$ -	120	$ -			
		each	120			$ -	$ -	$ -	120	$ -			
		each	120			$ -	$ -	$ -	120	$ -			
		each	120			$ -	$ -	$ -	120	$ -			
		each	120			$ -	$ -	$ -	120	$ -			
		each	120			$ -	$ -	$ -	120	$ -			
		each	120			$ -	$ -	$ -	120	$ -			
		each	120			$ -	$ -	$ -	120	$ -			
							$ 187.54	$ 22,504.56		$ 187.54			
V::E03	**S1-E3 Tower Footing resistance measurement** S1-E3 Tower Footing resistance measurement	**Total structure count:**	227		**EA**			**$ 29,708.30**		**$ 130.87**	**$ -**	**$ 130.87**	**$ -**
	Test Tower ground (Ground Testing)	each	227	25	0.50	$ 261.75	$ 130.87	$ 29,708.30	227	$ 130.87			
		each	227			$ -	$ -	$ -	227	$ -			
		each	227			$ -	$ -	$ -	227	$ -			
		each	227			$ -	$ -	$ -	227	$ -			
		each	227			$ -	$ -	$ -	227	$ -			
		each	227			$ -	$ -	$ -	227	$ -			
		each	227			$ -	$ -	$ -	227	$ -			
		each	227			$ -	$ -	$ -	227	$ -			
		each	227			$ -	$ -	$ -	227	$ -			
		each	227			$ -	$ -	$ -	227	$ -			
		each	227			$ -	$ -	$ -	227	$ -			
							$ 130.87	$ 29,708.30		$ 130.87			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description		Units	Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::E04	**S1-E4 S1 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Total structure count:**				**0**	**KM**			**$ -**		**$ 70,302.67**	**$ -**	**$ 70,302.67**	**$ -**
	S1-E4 S1 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles													
	1350m per reel / Average Haul distance = 200 km Assume 1.1 km/day													
	Haul	Wire Hauling	each	0	9	7.30	$ 405.51	$ 2,960.84	$ -	0	$ -			
	Prepare Pull site	Pull Site Prep	each	0	10	3.70	$ 1,282.13	$ 4,748.63	$ -	0	$ -			
	Install Rock anchor for pull site 50%	Rock Foundations	each	0	36	0.99	$ 920.20	$ 908.84	$ -	0	$ -			
	Pull In Conductor & Sag	Stringing	each	0	11	10.00	$ 5,977.88	$ 59,778.85	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Sock installation by Helicopter	HeliSockInstall	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
								$ 70,302.67	$ -		$ -			
V::E04-1	**S2-E4 S2 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Total structure count:**				**0**	**KM**			**$ -**		**$ 89,645.00**	**$ -**	**$ 89,645.00**	**$ -**
	S2-E4 S2 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles													
	1350m per reel / Average Haul distance = 700 km Assume 0.9 km/day													
	Haul	Wire Hauling	each	0	9	20.00	$ 405.51	$ 8,110.14	$ -	0	$ -			
	Prepare Pull site	Pull Site Prep	each	0	10	3.70	$ 1,282.13	$ 4,748.63	$ -	0	$ -			
	Install Rock anchor for pull site 100%	Rock Foundations	each	0	36	1.98	$ 920.20	$ 1,817.69	$ -	0	$ -			
	Pull In Conductor & Sag	Stringing	each	0	11	12.22	$ 5,977.88	$ 73,063.04	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Sock installation by Helicopter	HeliSockInstall	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
								$ 89,645.00	$ -		$ -			
V::E04-2	**S3-E4 S3 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Total structure count:**				**227**	**KM**			**$ 19,648,080.00**		**$ 86,555.42**	**$ -**	**$ 86,555.42**	**$ -**
	S3-E4 S3 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles													
	1350m per reel / Average Haul distance = 400 km Assume 0.9 km/day													
	Haul	Wire Hauling	each	227	9	12.38	$ 405.51	$ 5,020.56	$ 1,139,667.72	227	$ 5,020.56			
	Prepare Pull site	Pull Site Prep	each	227	10	3.70	$ 1,282.13	$ 4,748.63	$ 1,077,939.74	227	$ 4,748.63			
	Install Rock anchor for pull site 66%	Rock Foundations	each	227	36	1.98	$ 920.20	$ 1,817.69	$ 412,614.82	227	$ 1,817.69			
	Pull In Conductor & Sag	Stringing	each	227	11	12.22	$ 5,977.88	$ 73,063.04	$ 16,585,309.22	227	$ 73,063.04			
			each	227			$ -	$ -	$ -	227	$ -			
	Sock installation by Helicopter	HeliSockInstall	each	227	34	1.00	$ 1,905.50	$ 1,905.50	$ 432,548.50	227	$ 1,905.50			
			each	227			$ -	$ -	$ -	227	$ -			
								$ 86,555.42	$ 19,648,080.00		$ 86,555.42			
V::E04-3	**S4-E4 S4 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Total structure count:**				**0**	**KM**			**$ -**		**$ 73,271.23**	**$ -**	**$ 73,271.23**	**$ -**
	S4-E4 S4 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles													
	1350m per reel / Average Haul distance = 400 km Assume 1.1 km/day													
	Haul	Wire Hauling	each	0	9	12.38	$ 405.51	$ 5,020.56	$ -	0	$ -			
	Prepare Pull site	Pull Site Prep	each	0	10	3.70	$ 1,282.13	$ 4,748.63	$ -	0	$ -			
	Install Rock anchor for pull site 100%	Rock Foundations	each	0	36	1.98	$ 920.20	$ 1,817.69	$ -	0	$ -			
	Pull In Conductor & Sag	Stringing	each	0	11	10.00	$ 5,977.88	$ 59,778.85	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Sock installation by Helicopter	HeliSockInstall	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
								$ 73,271.23	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::E04-4	**S5-E4 S5 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR** **Total structure count:**			**0**	**KM**			**$ -**		**$ 66,229.94**	**$ -**	**$ 66,229.94**	**$ -**
	S5-E4 S5 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles												
	1350m per reel / Average Haul distance = 200 km Assume 1.2 km/day												
	Haul	Wire Hauling	each	0	9	7.30	$ 405.51	$ 2,960.84	$ -	0	$ -		
	Prepare Pull site	Pull Site Prep	each	0	10	3.70	$ 1,282.13	$ 4,748.63	$ -	0	$ -		
	Install Rock anchor for pull site 100%	Rock Foundations	each	0	36	1.98	$ 920.20	$ 1,817.69	$ -	0	$ -		
	Pull In Conductor & Sag	Stringing	each	0	11	9.17	$ 5,977.88	$ 54,797.28	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Sock installation by Helicopter	HeliSockInstall	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -		
								$ 66,229.94	$ -		$ -		
V::E05	**S1-E5 Installation of Conductor on Steel Towers - 1192.5 kcmil 54/19 ACSR** **Total structure count:**			**0**	**KM**			**$ -**		**$ 44,488.49**	**$ -**	**$ 44,488.49**	**$ -**
	S1-E5 Installation of Conductor on Steel Towers - 1192.5 kcmil 54/19 ACSR Grackle Conductor, complete for both electrodes												
	1800m per reel / Average Haul distance = 300 km Assume 1.8 km/day												
	Haul	Wire Hauling	each	0	9	3.69	$ 405.51	$ 1,496.51	$ -	0	$ -		
	Prepare Pull site	Pull Site Prep	each	0	10	2.50	$ 1,282.13	$ 3,205.33	$ -	0	$ -		
	Pull In Conductor & Sag		each	0			$ -	$ -	$ -	0	$ -		
	Install Rock anchor for pull site 66%	Rock Foundations	each	0	36	1.47	$ 920.20	$ 1,349.63	$ -	0	$ -		
	Pull In Conductor & Sag	Stringing	each	0	11	6.11	$ 5,977.88	$ 36,531.52	$ -	0	$ -		
	Splicing Time for DE Crew		each	0			$ -	$ -	$ -	0	$ -		
	Sock installation by Helicopter	HeliSockInstall	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
								$ 44,488.49	$ -		$ -		
V::E06	**S1-E6 Installation of Conductor on Steel Towers - 1590.0 kcmil 54/19 ACSR** **Total structure count:**			**0**	**KM**			**$ -**		**$ 63,593.22**	**$ -**	**$ 63,593.22**	**$ -**
	S1-E6 Installation of Conductor on Steel Towers - 1590.0 kcmil 54/19 ACSR Falcon Conductor, complete for both electrodes												
	1800m per reel / Average Haul distance = 700 km Assume 1.3 km/day												
	Haul	Wire Hauling	each	0	9	15.00	$ 405.51	$ 6,082.60	$ -	0	$ -		
	Prepare Pull site	Pull Site Prep	each	0	10	2.50	$ 1,282.13	$ 3,205.33	$ -	0	$ -		
	Pull In Conductor & Sag		each	0			$ -	$ -	$ -	0	$ -		
	Install Rock anchor for pull site 100%	Rock Foundations	each	0	36	1.98	$ 920.20	$ 1,817.69	$ -	0	$ -		
	Pull In Conductor & Sag	Stringing	each	0	11	8.46	$ 5,977.88	$ 50,582.10	$ -	0	$ -		
	Splicing Time for DE Crew		each	0			$ -	$ -	$ -	0	$ -		
	Sock installation by Helicopter	HeliSockInstall	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
								$ 63,593.22	$ -		$ -		
V::E07	**S1-E7 Installation of Conductor on Wood Poles - 1192.5 kcmil 54/19 ACSR** **Total structure count:**			**0**	**KM**			**$ -**		**$ 28,198.24**	**$ -**	**$ 28,198.24**	**$ -**
	S1-E7 Installation of Conductor on Wood Poles - 1192.5 kcmil 54/19 ACSR Grackle Conductor, complete for both electrodes												
	1800m per reel / Average Haul distance = 600 km Assume 1.5 km/day												
	Haul	Wire Hauling	each	0	9	17.46	$ 405.51	$ 7,080.28	$ -	0	$ -		
	Prepare Pull site	Pull Site Prep	each	0	10	2.50	$ 1,282.13	$ 3,205.33	$ -	0	$ -		
	Slack Stringing	Slack Stringing	each	0	50	7.33	$ 2,442.63	$ 17,912.63	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
								$ 28,198.24	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::E08	**S1-E8 Installation of Conductor on Wood Poles - 1590.0 kcmil 54/19 ACSR**	**Total structure count:**	**0**	**KM**				**$ -**		**$ 30,954.03**	**$ -**	**$ 30,954.03**	**$ -**
	S1-E8 Installation of Conductor on Wood Poles - 1590.0 kcmil 54/19 ACSR Falcon Conductor, complete for both electrodes												
	1800m per reel / Average Haul distance = 600 km Assume 1.3 km/day												
	Haul (Wire Hauling)	each	0	9	17.46	$ 405.51	$ 7,080.28	$ -	0	$ -			
	Prepare Pull site (Pull Site Prep)	each	0	10	2.50	$ 1,282.13	$ 3,205.33	$ -	0	$ -			
	Slack Stringing (Slack Stringing)	each	0	50	8.46	$ 2,442.63	$ 20,668.42	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 30,954.03	$ -		$ -			
V::E09	**S1-E9 Installation of ADSS on Wood Poles**	**Total structure count:**	**0**	**KM**				**$ -**		**$ 12,167.46**	**$ -**	**$ 12,167.46**	**$ -**
	S1-E9 Installation of ADSS on Wood Poles												
	1.2 kg/m and 6680 kg / reel Assume 4 km/day												
	Haul (Wire Hauling)	each	0	9	1.13	$ 405.51	$ 456.20	$ -	0	$ -			
	Prepare Pull site (Pull Site Prep)	each	0	10	3.15	$ 1,282.13	$ 4,036.34	$ -	0	$ -			
	Pull In OPGW & Sag (OPGW Install)	each	0	15	2.75	$ 2,790.88	$ 7,674.92	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 12,167.46	$ -		$ -			
V::E10	**S1-E10 ADSS splicing and tests including loss analysis**	**Total structure count:**	**0**	**EA**				**$ -**		**$ 5,562.88**	**$ -**	**$ 5,562.88**	**$ -**
	S1-E10 ADSS splicing and tests including loss analysis												
	Assume number of splice points = 1 @ 24 Minutes/Fibre = 9.60 Hours per 24 fibre splice												
	Haul and install Fibre Splice Box (Tie -in)	each	0	12	4.00	$ 676.30	$ 2,705.21	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
	Splice and test Fibre (OPGW Splice)	each	0	42	9.60	$ 297.67	$ 2,857.67	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 5,562.88	$ -		$ -			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::E11	**S1-E11 ADSS end to end test** S1-E11 ADSS end to end test		**Total structure count:**	**0**	**LS**			**$ -**		**$ 7,144.18**	**$ -**	**$ 7,144.18**	**$ -**
	Test	OPGW Splice	each 0	42	24.00	$ 297.67	$ 7,144.18	$ -	0	$ -			
			each 0			$ -	$ -	$ -	0	$ -			
			each 0			$ -	$ -	$ -	0	$ -			
			each 0			$ -	$ -	$ -	0	$ -			
			each 0			$ -	$ -	$ -	0	$ -			
			each 0			$ -	$ -	$ -	0	$ -			
			each 0			$ -	$ -	$ -	0	$ -			
			each 0			$ -	$ -	$ -	0	$ -			
			each 0			$ -	$ -	$ -	0	$ -			
			each 0			$ -	$ -	$ -	0	$ -			
			each 0			$ -	$ -	$ -	0	$ -			
			each 0			$ -	$ 7,144.18	$ -		$ -			
V::E12	**S1-E12 S1 - Installation of OPGW** S1-E12 S1 - Installation of OPGW		**Total structure count:**	**0**	**KM**			**$ -**		**$ 15,181.18**	**$ -**	**$ 15,181.18**	**$ -**
	1.2 kg/m and		6680 kg / reel	Assume		3.5 km/day							
	Haul	Wire Hauling	each 0	9	1.83	$ 405.51	$ 740.21	$ -	0	$ -			
	Prepare Pull site	Pull Site Prep	each 0	10	3.15	$ 1,282.13	$ 4,036.34	$ -	0	$ -			
	Pull In OPGW & Sag	OPGW Install	each 0	15	3.14	$ 2,790.88	$ 8,771.34	$ -	0	$ -			
			each 0			$ -	$ -	$ -	0	$ -			
			each 0			$ -	$ -	$ -	0	$ -			
	Sock installation by Helicopter	HeliSockInstall	each 0	34	0.86	$ 1,905.50	$ 1,633.29	$ -	0	$ -			
			each 0			$ -	$ -	$ -	0	$ -			
			each 0			$ -	$ -	$ -	0	$ -			
			each 0			$ -	$ -	$ -	0	$ -			
			each 0			$ -	$ -	$ -	0	$ -			
			each 0			$ -	$ -	$ -	0	$ -			
			each 0			$ -	$ 15,181.18	$ -		$ -			
V::E12-1	**S2-E12 S2 - Installation of OPGW** S2-E12 S2 - Installation of OPGW		**Total structure count:**	**0**	**KM**			**$ -**		**$ 18,202.60**	**$ -**	**$ 18,202.60**	**$ -**
	1.2 kg/m and		6680 kg / reel	Assume		3 km/day							
	Haul	Wire Hauling	each 0	9	5.00	$ 405.51	$ 2,027.53	$ -	0	$ -			
	Prepare Pull site	Pull Site Prep	each 0	10	3.15	$ 1,282.13	$ 4,036.34	$ -	0	$ -			
	Pull In OPGW & Sag	OPGW Install	each 0	15	3.67	$ 2,790.88	$ 10,233.23	$ -	0	$ -			
			each 0			$ -	$ -	$ -	0	$ -			
			each 0			$ -	$ -	$ -	0	$ -			
	Sock installation by Helicopter	HeliSockInstall	each 0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -			
			each 0			$ -	$ -	$ -	0	$ -			
							$ 18,202.60	$ -		$ -			
V::E12-2	**S3-E12 S3 - Installation of OPGW** S3-E12 S3 - Installation of OPGW		**Total structure count:**	**227**	**KM**			**$ 3,956,657.80**		**$ 17,430.21**	**$ -**	**$ 17,430.21**	**$ -**
	1.2 kg/m and		6680 kg / reel	Assume		3 km/day							
	Haul	Wire Hauling	each 227	9	3.10	$ 405.51	$ 1,255.14	$ 284,916.93	227	$ 1,255.14			
	Prepare Pull site	Pull Site Prep	each 227	10	3.15	$ 1,282.13	$ 4,036.34	$ 916,248.78	227	$ 4,036.34			
	Pull In OPGW & Sag	OPGW Install	each 227	15	3.67	$ 2,790.88	$ 10,233.23	$ 2,322,943.59	227	$ 10,233.23			
			each 227			$ -	$ -	$ -	227	$ -			
			each 227			$ -	$ -	$ -	227	$ -			
	Sock installation by Helicopter	HeliSockInstall	each 227	34	1.00	$ 1,905.50	$ 1,905.50	$ 432,548.50	227	$ 1,905.50			
			each 227			$ -	$ -	$ -	227	$ -			
							$ 17,430.21	$ 3,956,657.80		$ 17,430.21			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description		Units Total		Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::E12-3	**S4-E12 S4 - Installation of OPGW**		**Total structure count:**		**0**	**KM**			**$ -**		**$ 17,430.21**	**$ -**	**$ 17,430.21**	**$ -**
	S4-E12 S4 - Installation of OPGW													
	1.2 kg/m and		6680 kg / reel	Assume		3 km/day								
	Haul	Wire Hauling	each	0	9	3.10	$ 405.51	$ 1,255.14	$ -	0	$ -			
	Prepare Pull site	Pull Site Prep	each	0	10	3.15	$ 1,282.13	$ 4,036.34	$ -	0	$ -			
	Pull In OPGW & Sag	OPGW Install	each	0	15	3.67	$ 2,790.88	$ 10,233.23	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Sock installation by Helicopter	HeliSockInstall	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
								$ 17,430.21	$ -		$ -			
V::E12-4	**S5-E12 S5 - Installation of OPGW**		**Total structure count:**		**0**	**KM**			$ -		**$ 16,915.28**	**$ -**	**$ 16,915.28**	**$ -**
	S5-E12 S5 - Installation of OPGW													
	1.2 kg/m and		6680 kg / reel	Assume		3 km/day								
	Haul	Wire Hauling	each	0	9	1.83	$ 405.51	$ 740.21	$ -	0	$ -			
	Prepare Pull site	Pull Site Prep	each	0	10	3.15	$ 1,282.13	$ 4,036.34	$ -	0	$ -			
	Pull In OPGW & Sag	OPGW Install	each	0	15	3.67	$ 2,790.88	$ 10,233.23	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
	Sock installation by Helicopter	HeliSockInstall	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
								$ 16,915.28	$ -		$ -			
V::E13	**S1-E13 OPGW Continuity tests before and after stringing**		**Total structure count:**		**1**	**LS**			**$ 125,737.53**		**$ 125,737.53**	**$ -**	**$ 125,737.53**	**$ -**
	S1-E13 OPGW Continuity tests before and after stringing													
	Assume number of reels =		44											
	Test	OPGW Splice	each	1	42	422.40	$ 297.67	$ 125,737.53	$ 125,737.53	1	$ 125,737.53			
			each	1			$ -	$ -	$ -	1	$ -			
			each	1			$ -	$ -	$ -	1	$ -			
			each	1			$ -	$ -	$ -	1	$ -			
			each	1			$ -	$ -	$ -	1	$ -			
			each	1			$ -	$ -	$ -	1	$ -			
			each	1			$ -	$ -	$ -	1	$ -			
			each	1			$ -	$ -	$ -	1	$ -			
			each	1			$ -	$ -	$ -	1	$ -			
			each	1			$ -	$ -	$ -	1	$ -			
		10512						$ 125,737.53	$ 125,737.53		$ 125,737.53			
		$ 11.96												
V::E14	**S1-E14 OPGW splicing and tests including loss analysis**		**Total structure count:**		**50**	**EA**			**$ 313,864.80**		**$ 6,277.30**	**$ -**	**$ 6,277.30**	**$ -**
	S1-E14 OPGW splicing and tests including loss analysis													
	Assume number of splice points =		1 @		15	Minutes/Fibre =		12.00 Hours per 48 fibre splice						
	Haul and install Fibre Splice Box	Tie -in	each	50	12	4.00	$ 676.30	$ 2,705.21	$ 135,260.35	50	$ 2,705.21			
			each	50			$ -	$ -	$ -	50	$ -			
	Splice and test Fibre	OPGW Splice	each	50	42	12.00	$ 297.67	$ 3,572.09	$ 178,604.45	50	$ 3,572.09			
			each	50			$ -	$ -	$ -	50	$ -			
			each	50			$ -	$ -	$ -	50	$ -			
			each	50			$ -	$ -	$ -	50	$ -			
			each	50			$ -	$ -	$ -	50	$ -			
			each	50			$ -	$ -	$ -	50	$ -			
			each	50			$ -	$ -	$ -	50	$ -			
								$ 6,277.30	$ 313,864.80		$ 6,277.30			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::E15	**S1-E15 OPGW end to end test**	**Total structure count:**		**1**	**LS**			**$ 28,576.71**		**$ 28,576.71**	**$ -**	**$ 28,576.71**	**$ -**
	S1-E15 OPGW end to end test												
	Test OPGW Splice	each	1	42	96.00	$ 297.67	$ 28,576.71	$ 28,576.71	1	$ 28,576.71			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 28,576.71	$ 28,576.71		$ 28,576.71			
V-H27	**S1-F Miscellaneous Tower Attachments and Accessories (S1-Fx)**												
V::F01	**S1-F1 Install 18" Aerial marker cones**	**Total structure count:**		**5**	**EA**			**$ 3,381.51**		**$ 676.30**	**$ -**	**$ 676.30**	**$ -**
	S1-F1 Install 18" Aerial marker cones												
	Haul and Install Tie -in	each	5	12	1.00	$ 676.30	$ 676.30	$ 3,381.51	5	$ 676.30			
		each	5			$ -	$ -	$ -	5	$ -			
		each	5			$ -	$ -	$ -	5	$ -			
		each	5			$ -	$ -	$ -	5	$ -			
		each	5			$ -	$ -	$ -	5	$ -			
		each	5			$ -	$ -	$ -	5	$ -			
		each	5			$ -	$ -	$ -	5	$ -			
		each	5			$ -	$ -	$ -	5	$ -			
		each	5			$ -	$ -	$ -	5	$ -			
							$ 676.30	$ 3,381.51		$ 676.30			
V-H28	**S1-G Framing and Setting of Wood Poles (S1-Gx)**												
V::G01	**S1-G1 Framing and Setting of Single Pole Tangent (0 - 1 deg) as per Drawing**	**Total structure count:**		**0**	**EA**			**$ -**		**$ 5,023.96**	**$ 2,300.00**	**$ 7,323.96**	**$ -**
	S1-G1 Framing and Setting of Single Pole Tangent (0 - 1 deg) as per Drawing 505573-4633-4ZDD-0011												
	Wood pole with crossarm and V brace. Wire assembly on extension bracket												
	Haul Hauling	each	0	1	2.50	$ 441.04	$ 1,102.60	$ -	0	$ -			
	Frame the Structure Wood Assembly	each	0	48	2.00	$ 710.52	$ 1,421.04	$ -	0	$ -			
	Set Wood Erection	each	0	49	1.50	$ 1,216.00	$ 1,824.01	$ -	0	$ -			
	Tie in Tie -in	each	0	12	1.00	$ 676.30	$ 676.30	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 5,023.96	$ -		$ -			
V::G02	**S1-G2 Framing and Setting of Single Pole Light angle (1 - 10 deg) with Guys as**	**Total structure count:**		**0**	**EA**			**$ -**		**$ 7,820.91**	**$ 2,300.00**	**$ 10,120.91**	**$ -**
	S1-G2 Framing and Setting of Single Pole Light angle (1 - 10 deg) with Guys as per Drawing 505573-4633-4ZDD-0012												
	Wood pole with crossarm and V brace. Wire assembly on extension bracket. One side anchor												
	Haul Hauling	each	0	1	2.50	$ 441.04	$ 1,102.60	$ -	0	$ -			
	Frame the Structure Wood Assembly	each	0	48	2.00	$ 710.52	$ 1,421.04	$ -	0	$ -			
	Set Wood Erection	each	0	49	1.50	$ 1,216.00	$ 1,824.01	$ -	0	$ -			
	Anchoring Anchor Crew	each	0	35	4.00	$ 699.24	$ 2,796.95	$ -	0	$ -			
	Tie in Tie -in	each	0	12	1.00	$ 676.30	$ 676.30	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 7,820.91	$ -		$ -			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description		Units	Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::G03	**S1-G3 Framing and Setting of Single Pole Heavy angle (10 - 30 deg) with Guys as**		**Total structure count:**		**0**	**EA**			**$ -**		**$ 16,922.27**	**$ 2,300.00**	**$ 19,222.27**	**$ -**
	S1-G3 Framing and Setting of Single Pole Heavy angle (10 - 30 deg) with Guys as per Drawing 505573-4633-4ZDD-0020													
	Wood pole Heavy angle 4 anchors , assembly on extension bracket													
	Haul	Hauling	each	0	1	2.50	$ 441.04	$ 1,102.60	$ -	0	$ -			
	Frame the Structure	Wood Assembly	each	0	48	3.00	$ 710.52	$ 2,131.57	$ -	0	$ -			
	Set	Wood Erection	each	0	49	1.50	$ 1,216.00	$ 1,824.01	$ -	0	$ -			
	Anchoring	Anchor Crew	each	0	35	16.00	$ 699.24	$ 11,187.79	$ -	0	$ -			
	Tie in	Tie -in	each	0	12	1.00	$ 676.30	$ 676.30	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
								$ 16,922.27	$ -		$ -			
V::G04	**S1-G4 Framing and Setting of Single Pole Dead-end (30 - 90 deg) with Guys as**		**Total structure count:**		**0**	**EA**			**$ -**		**$ 32,277.98**	**$ 2,300.00**	**$ 34,577.98**	**$ -**
	S1-G4 Framing and Setting of Single Pole Dead-end (30 - 90 deg) with Guys as per Drawing 505573-4633-4ZDD-0021													
	Single pole DE 90 degree, 6 anchors, jumpers on extension bracket													
	Haul	Hauling	each	0	1	2.50	$ 441.04	$ 1,102.60	$ -	0	$ -			
	Frame the Structure	Wood Assembly	each	0	48	6.00	$ 710.52	$ 4,263.13	$ -	0	$ -			
	Set	Wood Erection	each	0	49	1.50	$ 1,216.00	$ 1,824.01	$ -	0	$ -			
	Anchoring	Anchor Crew	each	0	35	24.00	$ 699.24	$ 16,781.69	$ -	0	$ -			
	Dead end	Deadends	each	0	13	6.00	$ 1,384.42	$ 8,306.55	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
								$ 32,277.98	$ -		$ -			
V::G05	**S1-G5 Framing and Setting of Single Pole Floating Dead-end (0 - 1 deg) with**		**Total structure count:**		**0**	**EA**			**$ -**		**$ 21,090.19**	**$ 2,300.00**	**$ 23,390.19**	**$ -**
	S1-G5 Framing and Setting of Single Pole Floating Dead-end (0 - 1 deg) with Guys as per Drawing 505573-4633-4ZDD-0013													
	Single pole floating DE w 2 anchors													
	Haul	Hauling	each	0	1	2.50	$ 441.04	$ 1,102.60	$ -	0	$ -			
	Frame the Structure	Wood Assembly	each	0	48	6.00	$ 710.52	$ 4,263.13	$ -	0	$ -			
	Set	Wood Erection	each	0	49	1.50	$ 1,216.00	$ 1,824.01	$ -	0	$ -			
	Anchoring	Anchor Crew	each	0	35	8.00	$ 699.24	$ 5,593.90	$ -	0	$ -			
	Dead end	Deadends	each	0	13	6.00	$ 1,384.42	$ 8,306.55	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
								$ 21,090.19	$ -		$ -			
V::G06	**S1-G6 Framing and Setting of Two Pole Dead-end to tap to HVdc Tower in**		**Total structure count:**		**0**	**EA**			**$ -**		**$ 39,695.88**	**$ 2,300.00**	**$ 41,995.88**	**$ -**
	S1-G6 Framing and Setting of Two Pole Dead-end to tap to HVdc Tower in Labrador as per Drawing 505573-4633-4ZDD-0061													
	Two pole DE 90 degree, 8 anchors, jumpers on extension													
	Haul	Hauling	each	0	1	2.50	$ 441.04	$ 1,102.60	$ -	0	$ -			
	Frame the Structure	Wood Assembly	each	0	48	6.00	$ 710.52	$ 4,263.13	$ -	0	$ -			
	Set	Wood Erection	each	0	49	3.00	$ 1,216.00	$ 3,648.01	$ -	0	$ -			
	Anchoring	Anchor Crew	each	0	35	32.00	$ 699.24	$ 22,375.58	$ -	0	$ -			
	Dead end	Deadends	each	0	13	6.00	$ 1,384.42	$ 8,306.55	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
			each	0			$ -	$ -	$ -	0	$ -			
								$ 39,695.88	$ -		$ -			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H29	**S1-I Optional Pricing (S1-Ix)**											
V::I01	**S1-I1 Perform Geotechnical Investigation and Identify Foundation Type as per** **Total structure count:**		**1**	**LS**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-I1 Perform Geotechnical Investigation and Identify Foundation Type as per Design Drawings and Technical Specifications											
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::I02	**S1-I2 Design and supply of micropile option as replacement for H-pile design** **Total structure count:**		**17**	**EA**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-I2 Design and supply of micropile option as replacement for H-pile design											
		each 17			$ -	$ -	$ -	17	$ -			
		each 17			$ -	$ -	$ -	17	$ -			
		each 17			$ -	$ -	$ -	17	$ -			
		each 17			$ -	$ -	$ -	17	$ -			
		each 17			$ -	$ -	$ -	17	$ -			
		each 17			$ -	$ -	$ -	17	$ -			
		each 17			$ -	$ -	$ -	17	$ -			
		each 17			$ -	$ -	$ -	17	$ -			
		each 17			$ -	$ -	$ -	17	$ -			
						$ -	$ -		$ -			
V::I03	**S1-I3 Optional cost for mulching given area instead of salvaging** **Total structure count:**		**1292**	**Ha**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-I3 Optional cost for mulching given area instead of salvaging											
		each 1292			$ -	$ -	$ -	1292	$ -			
		each 1292			$ -	$ -	$ -	1292	$ -			
		each 1292			$ -	$ -	$ -	1292	$ -			
		each 1292			$ -	$ -	$ -	1292	$ -			
		each 1292			$ -	$ -	$ -	1292	$ -			
		each 1292			$ -	$ -	$ -	1292	$ -			
		each 1292			$ -	$ -	$ -	1292	$ -			
		each 1292			$ -	$ -	$ -	1292	$ -			
		each 1292			$ -	$ -	$ -	1292	$ -			
						$ -	$ -		$ -			
V::I04	**S1-I4 Installation of Access Road - Alternative** **Total structure count:**		**0**	**KM**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-I4 Installation of Access Road - Alternative											
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I05	**S1-I5 Slack Span Connections - Installation of all Conductor and OPGW from** **Total structure count:**			**1**	**LS**			**$ 47,109.68**		**$ 47,109.68**	**$ -**	**$ 47,109.68**	**$ -**
	S1-I5 Slack Span Connections - Installation of all Conductor and OPGW from Terminal Tower to the Substation Gantry												
	haul Insulators and Travellers	Haul Travellers&Glass	each	1	7	3.00	$ 636.64	$ 1,909.91	$ 1,909.91	1	$ 1,909.91		
	Hang Travellers	Hang Travellers	each	1	8	1.00	$ 1,444.07	$ 1,444.07	$ 1,444.07	1	$ 1,444.07		
	Install Conductor	Stringing	each	1	11	5.00	$ 5,977.88	$ 29,889.42	$ 29,889.42	1	$ 29,889.42		
	Install OPGW	OPGW Install	each	1	15	1.00	$ 2,790.88	$ 2,790.88	$ 2,790.88	1	$ 2,790.88		
	Dead-end	Deadends	each	1	13	8.00	$ 1,384.42	$ 11,075.40	$ 11,075.40	1	$ 11,075.40		
			each	1			$ -	$ -	$ -	1	$ -		
			each	1			$ -	$ -	$ -	1	$ -		
			each	1			$ -	$ -	$ -	1	$ -		
			each	1			$ -	$ -	$ -	1	$ -		
								$ 47,109.68	$ 47,109.68		$ 47,109.68		
V::I06	**S1-I6 Slack Span Connections - Installation of all Conductor and OPGW/ADSS** **Total structure count:**			**0**	**LS**			**$ -**		**$ 26,664.57**	**$ -**	**$ 26,664.57**	**$ -**
	S1-I6 Slack Span Connections - Installation of all Conductor and OPGW/ADSS from Terminal Wood Pole to the Electrode Compound Gantry												
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	3.00	$ 636.64	$ 1,909.91	$ -	0	$ -		
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Install Conductor	Slack Stringing	each	0	50	5.00	$ 2,442.63	$ 12,213.16	$ -	0	$ -		
	Install OPGW / ADSS	OPGW Install	each	0	15	1.00	$ 2,790.88	$ 2,790.88	$ -	0	$ -		
	Dead-end	Deadends	each	0	13	6.00	$ 1,384.42	$ 8,306.55	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
								$ 26,664.57	$ -		$ -		
V::I07	**S1-I7 Supply and Installation of Culvert - 1000 mm** **Total structure count:**			**19**	**LM**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-I7 Supply and Installation of Culvert - 1000 mm												
			each	19			$ -	$ -	$ -	19	$ -		
			each	19			$ -	$ -	$ -	19	$ -		
			each	19			$ -	$ -	$ -	19	$ -		
			each	19			$ -	$ -	$ -	19	$ -		
			each	19			$ -	$ -	$ -	19	$ -		
			each	19			$ -	$ -	$ -	19	$ -		
			each	19			$ -	$ -	$ -	19	$ -		
			each	19			$ -	$ -	$ -	19	$ -		
			each	19			$ -	$ -	$ -	19	$ -		
								$ -	$ -		$ -		
V::I08	**S1-I8 Supply and Installation of Culvert - 1200 mm** **Total structure count:**			**19**	**LM**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-I8 Supply and Installation of Culvert - 1200 mm												
			each	19			$ -	$ -	$ -	19	$ -		
			each	19			$ -	$ -	$ -	19	$ -		
			each	19			$ -	$ -	$ -	19	$ -		
			each	19			$ -	$ -	$ -	19	$ -		
			each	19			$ -	$ -	$ -	19	$ -		
			each	19			$ -	$ -	$ -	19	$ -		
			each	19			$ -	$ -	$ -	19	$ -		
			each	19			$ -	$ -	$ -	19	$ -		
			each	19			$ -	$ -	$ -	19	$ -		
								$ -	$ -		$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I09	**S1-I9 Supply and Installation of Culvert - 1600 mm** S1-I9 Supply and Installation of Culvert - 1600 mm	**Total structure count:**	**19**	**LM**			$ -		$ -	$ -	$ -	$ -
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
						$ -	$ -		$ -			
V::I10	**S1-I10 Supply and Installation of Culvert - 2000 mm** S1-I10 Supply and Installation of Culvert - 2000 mm	**Total structure count:**	**19**	**LM**			$ -		$ -	$ -	$ -	$ -
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
						$ -	$ -		$ -			
V::I11	**S1-I11 Supply and Installation of Culvert - 2400 mm** S1-I11 Supply and Installation of Culvert - 2400 mm	**Total structure count:**	**19**	**LM**			$ -		$ -	$ -	$ -	$ -
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
						$ -	$ -		$ -			
V::I12	**S1-I12 Supply and Installation of Culvert - 3000 mm** S1-I12 Supply and Installation of Culvert - 3000 mm	**Total structure count:**	**19**	**LM**			$ -		$ -	$ -	$ -	$ -
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
		each 19			$ -	$ -	$ -	19	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I13	**S1-I13 Assembly and Installation of Foundation Type A1-1/1A, per kg, to be used Total structure count:**		**1**	**KG**			**$ 1.67**		**$ 1.67**	**$ -**	**$ 1.67**	**$ -**
	S1-I13 Assembly and Installation of Foundation Type A1-1/1A, per kg, to be used for weight increases or decreases											
	Haul Foundation Haul	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble Grillage Installation	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ 1.67	$ 1.67		$ 1.67			
V::I14	**S1-I14 Assembly and Installation of Foundation Type A2-1/1A, per kg, to be used Total structure count:**		**1**	**KG**			**$ 1.67**		**$ 1.67**	**$ -**	**$ 1.67**	**$ -**
	S1-I14 Assembly and Installation of Foundation Type A2-1/1A, per kg, to be used for weight increases or decreases											
	Haul Foundation Haul	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble Grillage Installation	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ 1.67	$ 1.67		$ 1.67			
V::I15	**S1-I15 Assembly and Installation of Foundation Type A3-1/1A, per kg, to be used Total structure count:**		**1**	**KG**			**$ 1.67**		**$ 1.67**	**$ -**	**$ 1.67**	**$ -**
	S1-I15 Assembly and Installation of Foundation Type A3-1/1A, per kg, to be used for weight increases or decreases											
	Haul Foundation Haul	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble Grillage Installation	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ 1.67	$ 1.67		$ 1.67			
V::I16	**S1-I16 Assembly and Installation of Foundation Type A4-1/1A, per kg, to be used Total structure count:**		**1**	**KG**			**$ 1.67**		**$ 1.67**	**$ -**	**$ 1.67**	**$ -**
	S1-I16 Assembly and Installation of Foundation Type A4-1/1A, per kg, to be used for weight increases or decreases											
	Haul Foundation Haul	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble Grillage Installation	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ 1.67	$ 1.67		$ 1.67			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I17	**S1-I17 Assembly and Installation of Foundation Type B1-1/1A, per kg, to be used Total structure count:**		1	KG			$ 1.67		$ 1.67	$ -	$ 1.67	$ -
	S1-I17 Assembly and Installation of Foundation Type B1-1/1A, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble (Grillage Installation)	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ 1.67	$ 1.67		$ 1.67			
V::I18	**S1-I18 Assembly and Installation of Foundation Type B2-1/1A, per kg, to be used Total structure count:**		1	KG			$ 1.39		$ 1.39	$ -	$ 1.39	$ -
	S1-I18 Assembly and Installation of Foundation Type B2-1/1A, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble (Grillage Installation)	each 1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ 1.39	$ 1.39		$ 1.39			
V::I19	**S1-I19 Assembly and Installation of Foundation Type C1-1, per kg, to be used for Total structure count:**		1	KG			$ 1.67		$ 1.67	$ -	$ 1.67	$ -
	S1-I19 Assembly and Installation of Foundation Type C1-1, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble (Grillage Installation)	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ 1.67	$ 1.67		$ 1.67			
V::I20	**S1-I20 Assembly and Installation of Foundation Type C2-1, per kg, to be used for Total structure count:**		1	KG			$ 1.67		$ 1.67	$ -	$ 1.67	$ -
	S1-I20 Assembly and Installation of Foundation Type C2-1, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble (Grillage Installation)	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ 1.67	$ 1.67		$ 1.67			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I21	**S1-I21 Assembly and Installation of Foundation Type D1-1, per kg, to be used for Total structure count:** S1-I21 Assembly and Installation of Foundation Type D1-1, per kg, to be used for weight increases or decreases		1	KG			$ 1.39		$ 1.39	$ -	$ 1.39	$ -
	Haul Foundation Haul	each 1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble Grillage Installation	each 1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.39	$ 1.39		$ 1.39			
V::I22	**S1-I22 Assembly and Installation of Foundation Type D2-1, per kg, to be used for Total structure count:** S1-I22 Assembly and Installation of Foundation Type D2-1, per kg, to be used for weight increases or decreases		1	KG			$ 1.67		$ 1.67	$ -	$ 1.67	$ -
	Haul Foundation Haul	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble Grillage Installation	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			
V::I23	**S1-I23 Assembly and Installation of Foundation Type E1-1, per kg, to be used for Total structure count:** S1-I23 Assembly and Installation of Foundation Type E1-1, per kg, to be used for weight increases or decreases		1	KG			$ 1.67		$ 1.67	$ -	$ 1.67	$ -
	Haul Foundation Haul	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble Grillage Installation	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			
V::I24	**S1-I24 Assembly and Installation of Foundation Type A1-2, per kg, to be used for Total structure count:** S1-I24 Assembly and Installation of Foundation Type A1-2, per kg, to be used for weight increases or decreases		1	KG			$ 1.67		$ 1.67	$ -	$ 1.67	$ -
	Haul Foundation Haul	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble Grillage Installation	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I25	**S1-I25 Assembly and Installation of Foundation Type A2-2, per kg, to be used for Total structure count:** S1-I25 Assembly and Installation of Foundation Type A2-2, per kg, to be used for weight increases or decreases		1	KG			$ 1.67		$ 1.67	$ -	$ 1.67	$ -
	Haul Foundation Haul	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble Grillage Installation	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			
V::I26	**S1-I26 Assembly and Installation of Foundation Type A3-2, per kg, to be used for Total structure count:** S1-I26 Assembly and Installation of Foundation Type A3-2, per kg, to be used for weight increases or decreases		1	KG			$ 1.67		$ 1.67	$ -	$ 1.67	$ -
	Haul Foundation Haul	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble Grillage Installation	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			
V::I27	**S1-I27 Assembly and Installation of Foundation Type A4-2, per kg, to be used for Total structure count:** S1-I27 Assembly and Installation of Foundation Type A4-2, per kg, to be used for weight increases or decreases		1	KG			$ 1.67		$ 1.67	$ -	$ 1.67	$ -
	Haul Foundation Haul	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble Grillage Installation	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			
V::I28	**S1-I28 Assembly and Installation of Foundation Type B1-2, per kg, to be used for Total structure count:** S1-I28 Assembly and Installation of Foundation Type B1-2, per kg, to be used for weight increases or decreases		1	KG			$ 1.67		$ 1.67	$ -	$ 1.67	$ -
	Haul Foundation Haul	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble Grillage Installation	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I29	**S1-I29 Assembly and Installation of Foundation Type B2-2, per kg, to be used for Total structure count:**		1	KG			$ 1.67		$ 1.67	$ -	$ 1.67	$ -
	S1-I29 Assembly and Installation of Foundation Type B2-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble (Grillage Installation)	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			
V::I30	**S1-I30 Assembly and Installation of Foundation Type C1-2, per kg, to be used for Total structure count:**		1	KG			$ 1.67		$ 1.67	$ -	$ 1.67	$ -
	S1-I30 Assembly and Installation of Foundation Type C1-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble (Grillage Installation)	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			
V::I31	**S1-I31 Assembly and Installation of Foundation Type C2-2, per kg, to be used for Total structure count:**		1	KG			$ 1.67		$ 1.67	$ -	$ 1.67	$ -
	S1-I31 Assembly and Installation of Foundation Type C2-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble (Grillage Installation)	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			
V::I32	**S1-I32 Assembly and Installation of Foundation Type D1-2, per kg, to be used for Total structure count:**		1	KG			$ 1.67		$ 1.67	$ -	$ 1.67	$ -
	S1-I32 Assembly and Installation of Foundation Type D1-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble (Grillage Installation)	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.67	$ 1.67		$ 1.67			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description		Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I33	**S1-I33 Assembly and Installation of Foundation Type D2-2, per kg, to be used for** **Total structure count:**			1	KG			$ 1.67		$ 1.67	$ -	$ 1.67	$ -
	S1-I33 Assembly and Installation of Foundation Type D2-2, per kg, to be used for weight increases or decreases												
	Haul	Foundation Haul	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble	Grillage Installation	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
							$ 1.67	$ 1.67		$ 1.67			
V::I34	**S1-I34 Assembly and Installation of Foundation Type E1-2, per kg, to be used for** **Total structure count:**			1	KG			$ 1.67		$ 1.67	$ -	$ 1.67	$ -
	S1-I34 Assembly and Installation of Foundation Type E1-2, per kg, to be used for weight increases or decreases												
	Haul	Foundation Haul	each 1	17	0.00110	$ 441.04	$ 0.49	$ 0.49	1	$ 0.49			
	Assemble	Grillage Installation	each 1	20	0.00118	$ 1,002.72	$ 1.18	$ 1.18	1	$ 1.18			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
							$ 1.67	$ 1.67		$ 1.67			
V::I35	**S1-I35 Assembly and Erection of Tower Type A1, per kg, to be used for weight** **Total structure count:**			1	KG			$ 5.04		$ 5.04	$ -	$ 5.04	$ -
	S1-I35 Assembly and Erection of Tower Type A1, per kg, to be used for weight increases or decreases												
	Haul	Hauling	each 1	1	0.00116	$ 441.04	$ 0.51	$ 0.51	1	$ 0.51			
	Assemble	Grillage Installation	each 1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect	Y- Tower Erection	each 1	40	0.0005	$ 1,482.09	$ 0.74	$ 0.74	1	$ 0.74			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
							$ 5.04	$ 5.04		$ 5.04			
V::I36	**S1-I36 Assembly and Erection of Tower Type A2, per kg, to be used for weight** **Total structure count:**			1	KG			$ 5.30		$ 5.30	$ -	$ 5.30	$ -
	S1-I36 Assembly and Erection of Tower Type A2, per kg, to be used for weight increases or decreases												
	Haul	Hauling	each 1	1	0.00174	$ 441.04	$ 0.77	$ 0.77	1	$ 0.77			
	Assemble	Grillage Installation	each 1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect	Y- Tower Erection	each 1	40	0.0005	$ 1,482.09	$ 0.74	$ 0.74	1	$ 0.74			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
			each 1			$ -	$ -	$ -	1	$ -			
							$ 5.30	$ 5.30		$ 5.30			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I37	**S1-I37 Assembly and Erection of Tower Type A3, per kg, to be used for weight** **Total structure count:**			1	KG			$ 5.30		$ 5.30	$ -	$ 5.30	$ -
	S1-I37 Assembly and Erection of Tower Type A3, per kg, to be used for weight increases or decreases												
	Haul (Hauling)	each	1	1	0.00174	$ 441.04	$ 0.77	$ 0.77	1	$ 0.77			
	Assemble (Grillage Installation)	each	1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect (Y- Tower Erection)	each	1	40	0.0005	$ 1,482.09	$ 0.74	$ 0.74	1	$ 0.74			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 5.30	$ 5.30		$ 5.30			
V::I38	**S1-I38 Assembly and Erection of Tower Type A4, per kg, to be used for weight** **Total structure count:**			1	KG			$ 5.04		$ 5.04	$ -	$ 5.04	$ -
	S1-I38 Assembly and Erection of Tower Type A4, per kg, to be used for weight increases or decreases												
	Haul (Hauling)	each	1	1	0.00116	$ 441.04	$ 0.51	$ 0.51	1	$ 0.51			
	Assemble (Grillage Installation)	each	1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect (Y- Tower Erection)	each	1	40	0.0005	$ 1,482.09	$ 0.74	$ 0.74	1	$ 0.74			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 5.04	$ 5.04		$ 5.04			
V::I39	**S1-I39 Assembly and Erection of Tower Type B1, per kg, to be used for weight** **Total structure count:**			1	KG			$ 5.04		$ 5.04	$ -	$ 5.04	$ -
	S1-I39 Assembly and Erection of Tower Type B1, per kg, to be used for weight increases or decreases												
	Haul (Hauling)	each	1	1	0.00116	$ 441.04	$ 0.51	$ 0.51	1	$ 0.51			
	Assemble (Grillage Installation)	each	1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect (Y- Tower Erection)	each	1	40	0.0005	$ 1,482.09	$ 0.74	$ 0.74	1	$ 0.74			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 5.04	$ 5.04		$ 5.04			
V::I40	**S1-I40 Assembly and Erection of Tower Type B2, per kg, to be used for weight** **Total structure count:**			1	KG			$ 5.30		$ 5.30	$ -	$ 5.30	$ -
	S1-I40 Assembly and Erection of Tower Type B2, per kg, to be used for weight increases or decreases												
	Haul (Hauling)	each	1	1	0.00174	$ 441.04	$ 0.77	$ 0.77	1	$ 0.77			
	Assemble (Grillage Installation)	each	1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect (Y- Tower Erection)	each	1	40	0.0005	$ 1,482.09	$ 0.74	$ 0.74	1	$ 0.74			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 5.30	$ 5.30		$ 5.30			

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I41	**S1-I41 Assembly and Erection of Tower Type C1, per kg, to be used for weight** **Total structure count:**		1	KG			$ 5.36		$ 5.36	$ -	$ 5.36	$ -
	S1-I41 Assembly and Erection of Tower Type C1, per kg, to be used for weight increases or decreases											
	Haul (Hauling)	each 1	1	0.00116	$ 441.04	$ 0.51	$ 0.51	1	$ 0.51			
	Assemble (Grillage Installation)	each 1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect (Tower Topping)	each 1	6	0.0006	$ 1,656.68	$ 1.06	$ 1.06	1	$ 1.06			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 5.36	$ 5.36		$ 5.36			
V::I42	**S1-I42 Assembly and Erection of Tower Type C2, per kg, to be used for weight** **Total structure count:**		1	KG			$ 5.36		$ 5.36	$ -	$ 5.36	$ -
	S1-I42 Assembly and Erection of Tower Type C2, per kg, to be used for weight increases or decreases											
	Haul (Hauling)	each 1	1	0.00116	$ 441.04	$ 0.51	$ 0.51	1	$ 0.51			
	Assemble (Grillage Installation)	each 1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect (Tower Topping)	each 1	6	0.0006	$ 1,656.68	$ 1.06	$ 1.06	1	$ 1.06			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 5.36	$ 5.36		$ 5.36			
V::I43	**S1-I43 Assembly and Erection of Tower Type D1, per kg, to be used for weight** **Total structure count:**		1	KG			$ 5.36		$ 5.36	$ -	$ 5.36	$ -
	S1-I43 Assembly and Erection of Tower Type D1, per kg, to be used for weight increases or decreases											
	Haul (Hauling)	each 1	1	0.00116	$ 441.04	$ 0.51	$ 0.51	1	$ 0.51			
	Assemble (Grillage Installation)	each 1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect (Tower Topping)	each 1	6	0.0006	$ 1,656.68	$ 1.06	$ 1.06	1	$ 1.06			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 5.36	$ 5.36		$ 5.36			
V::I44	**S1-I44 Assembly and Erection of Tower Type D2, per kg, to be used for weight** **Total structure count:**		1	KG			$ 5.36		$ 5.36	$ -	$ 5.36	$ -
	S1-I44 Assembly and Erection of Tower Type D2, per kg, to be used for weight increases or decreases											
	Haul (Hauling)	each 1	1	0.00116	$ 441.04	$ 0.51	$ 0.51	1	$ 0.51			
	Assemble (Grillage Installation)	each 1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect (Tower Topping)	each 1	6	0.0006	$ 1,656.68	$ 1.06	$ 1.06	1	$ 1.06			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 5.36	$ 5.36		$ 5.36			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I45	**S1-I45 Assembly and Erection of Tower Type E1, per kg, to be used for weight** S1-I45 Assembly and Erection of Tower Type E1, per kg, to be used for weight increases or decreases	**Total structure count:**	1	**KG**			$ 5.36		$ 5.36	$ -	$ 5.36	$ -
	Haul Hauling	each 1	1	0.00116	$ 441.04	$ 0.51	$ 0.51	1	$ 0.51			
	Assemble Grillage Installation	each 1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect Tower Topping	each 1	6	0.0006	$ 1,656.68	$ 1.06	$ 1.06	1	$ 1.06			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 5.36	$ 5.36		$ 5.36			
V::I46	**S1-I46 Survey Cost** S1-I46 Survey Cost	**Total structure count:**	1	**LS**			$ 5.36		$ 5.36	$ 1,338,817.71	$ 1,338,823.07	$ 1,338,817.71
	Hauling	each 1	1	0.00116	$ 441.04	$ 0.51	$ 0.51	1	$ 0.51			
	Grillage Installation	each 1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Tower Topping	each 1	6	0.0006	$ 1,656.68	$ 1.06	$ 1.06	1	$ 1.06			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 5.36	$ 5.36		$ 5.36			
B-E(Rider)	**RiderPole**	**Total structure count:**	20				$ 197,334.71		$ 9,866.74	$ 236.90	$ 10,103.64	$ 4,738.00
	Haul Wire Hauling	each 20	9	3.00	$ 405.51	$ 1,216.52	$ 24,330.42	20	$ 1,216.52			
	Install Rider Pole Crew	each 20	16	3.00	$ 1,238.95	$ 3,716.85	$ 74,336.94	20	$ 3,716.85			
	Remove Rider Pole Crew	each 20	16	3.00	$ 1,238.95	$ 3,716.85	$ 74,336.94	20	$ 3,716.85			
	Haul Back Wire Hauling	each 20	9	3.00	$ 405.51	$ 1,216.52	$ 24,330.42	20	$ 1,216.52			
						$ 9,866.74	$ 197,334.71		$ 9,866.74			

Construction Total

Man Hours Total: $ 122,985,706.41

Mat. Total: $ 104,972,464.19

		1		2		3		4		5	
		Hauling		Site Preparation		Blocking Crew		Lattice Assembly		Lattice Erection	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate										
Supervisor	$ 142.83		$ -		$ -		$ -		$ -		$ -
Foreman	$ 120.15		$ -	0.50	$ 60.07		$ -	1.00	$ 120.15	1.00	$ 120.15
Surveyor	$ 111.85		$ -	0.50	$ 55.92		$ -		$ -		$ -
Lineman	$ 111.85		$ -		$ -		$ -	1.00	$ 111.85	2.00	$ 223.70
Apprentice - 4th Year	$ 103.90		$ -		$ -		$ -	2.00	$ 207.79	1.00	$ 103.90
Apprentice - 3rd Year	$ 95.95		$ -		$ -	1.00	$ 95.95	2.00	$ 191.89	2.00	$ 191.89
Apprentice - 2nd Year	$ 87.99	1.00	$ 87.99		$ -		$ -		$ -		$ -
Apprentice - 1st Year	$ 80.04		$ -		$ -		$ -		$ -		$ -
Equipment Operator	$ 96.49		$ -	2.00	$ 192.99	1.00	$ 96.49	1.00	$ 96.49	1.00	$ 96.49
Truck Driver / Picker Op.	$ 107.16	1.00	$ 107.16		$ -		$ -	1.00	$ 107.16	2.00	$ 214.32
Labourer	$ 87.44		$ -		$ -		$ -		$ -		$ -
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -		$ -		$ -		$ -		$ -
Telecom Foreman	$ 87.44		$ -		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -		$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -		$ -		$ -		$ -		$ -
none	$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**2.00**	**195.16**	**3.00**	**308.98**	**2.00**	**192.44**	**8.00**	**835.34**	**9.00**	**950.45**
Pickup	$ 24.36		$ -	0.50	$ 12.18		$ -		$ -		$ -
Crew Cab Truck	$ 29.20	1.00	$ 29.20	1.00	$ 29.20		$ -	2.00	$ 58.40	2.00	$ 58.40
Conductor Splicing Truck	$ 46.02		$ -		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27		$ -		$ -		$ -	1.00	$ 136.27		$ -
Picker - 38 Ton	$ 180.25		$ -		$ -		$ -		$ -	1.00	$ 180.25
40T RT Crane	$ 195.70		$ -		$ -		$ -		$ -		$ -
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -	1.00	$ 247.20
80T RT Crane	$ 345.05		$ -		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40		$ -		$ -	1.00	$ 89.40		$ -	-	$ -
200T All-Tr. crane	$ 418.72		$ -		$ -		$ -		$ -	-	$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -		$ -		$ -	0.25	$ 21.89	-	$ -
53' Tridem trailer	$ 11.85	4.00	$ 47.38		$ -		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67		$ -		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67	1.00	$ 134.67	-	$ -		$ -		$ -		$ -
Tractor Trailer (Heavy)	$ 134.67		$ -		$ -		$ -		$ -		$ -
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83		$ -	1.00	$ 165.83		$ -		$ -		$ -
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27	0.50	$ 34.63		$ -		$ -	0.50	$ 34.63	1.00	$ 69.27
JD 290 Track-hoe	$ 130.60		$ -	1.00	$ 130.60		$ -		$ -		$ -
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -	-	$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -		$ -		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -		$ -		$ -		$ -
Trencher	$ 84.36		$ -		$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -		$ -	1.00	$ 53.00		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -	1.00	$ 24.21		$ -
Reel Trailer	$ 72.10		$ -		$ -		$ -		$ -		$ -
Tensioner	$ 139.05		$ -		$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -		$ -		$ -		$ -		$ -
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -		$ -
JD 350 LDC Excavator	$ 160.89		$ -		$ -		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -		$ -		$ -		$ -
Grout truck	$ 82.40		$ -		$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46		$ -		$ -		$ -	1.50	$ 20.19	1.00	$ 13.46
Water pump	$ 40.99		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -		$ -		$ -
Travellers (ea)	$ 1.24		$ -		$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -		$ -		$ -
Hoe-Pack	$ 25.75		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65		$ -	0.50	$ 28.33		$ -		$ -		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -	-	$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**6.50**	**245.89**	**4.00**	**366.14**	**1.00**	**89.40**	**7.25**	**348.59**	**6.00**	**568.58**
TOTAL CREW RATE			**$ 441.04**		**$ 675.12**		**$ 281.84**		**$ 1,183.92**		**$ 1,519.02**

		6		7		8		9		10	
		Tower Topping		Haul Travellers&Glass		Hang Travellers		Wire Hauling		Pull Site Prep	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate										
Supervisor	$ 142.83		$ -		$ -		$ -		$ -		$ -
Foreman	$ 120.15	1.00	$ 120.15		$ -	1.00	$ 120.15		$ -	1.00	$ 120.15
Surveyor	$ 111.85		$ -		$ -		$ -		$ -		$ -
Lineman	$ 111.85	2.00	$ 223.70	1.00	$ 111.85	3.00	$ 335.55		$ -	1.00	$ 111.85
Apprentice - 4th Year	$ 103.90	1.00	$ 103.90		$ -		$ -		$ -		$ -
Apprentice - 3rd Year	$ 95.95	2.00	$ 191.89		$ -	3.00	$ 287.84		$ -		$ -
Apprentice - 2nd Year	$ 87.99		$ -	1.00	$ 87.99		$ -	1.00	$ 87.99	2.00	$ 175.99
Apprentice - 1st Year	$ 80.04		$ -		$ -		$ -		$ -		$ -
Equipment Operator	$ 96.49	1.00	$ 96.49	1.00	$ 96.49	1.00	$ 96.49		$ -	3.00	$ 289.48
Truck Driver / Picker Op.	$ 107.16	2.00	$ 214.32	1.00	$ 107.16	-	$ -	1.00	$ 107.16	1.00	$ 107.16
Labourer	$ 87.44		$ -		$ -		$ -		$ -	-	$ -
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -		$ -		$ -		$ -		$ -
Telecom Foreman	$ 87.44		$ -		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -		$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -		$ -		$ -		$ -		$ -
none	$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**9.00**	**950.45**	**4.00**	**403.50**	**8.00**	**840.02**	**2.00**	**195.16**	**8.00**	**804.62**
Pickup	$ 24.36	1.00	$ 24.36		$ -		$ -		$ -	1.00	$ 24.36
Crew Cab Truck	$ 29.20	2.00	$ 58.40	1.00	$ 29.20	2.00	$ 58.40	1.00	$ 29.20	1.00	$ 29.20
Conductor Splicing Truck	$ 46.02		$ -		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27		$ -		$ -		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25		$ -		$ -		$ -		$ -		$ -
40T RT Crane	$ 195.70	1.00	$ 195.70		$ -		$ -		$ -		$ -
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05	1.00	$ 345.05		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40		$ -		$ -		$ -		$ -	1.00	$ 89.40
200T All-Tr. crane	$ 418.72	-	$ -		$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55	-	$ -		$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85	-	$ -		$ -		$ -	1.00	$ 11.85		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67		$ -		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67		$ -	1.00	$ 134.67		$ -		$ -		$ -
Tractor Trailer (Heavy)	$ 134.67		$ -		$ -		$ -	1.00	$ 134.67	1.00	$ 134.67
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83		$ -		$ -		$ -		$ -		$ -
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27	1.00	$ 69.27	1.00	$ 69.27	1.00	$ 69.27	0.50	$ 34.63	1.00	$ 69.27
JD 290 Track-hoe	$ 130.60		$ -		$ -		$ -		$ -	1.00	$ 130.60
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -		$ -	-	$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -		$ -		$ -		$ -
Trencher	$ 84.36		$ -		$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -
Reel Trailer	$ 72.10		$ -		$ -		$ -		$ -		$ -
Tensioner	$ 139.05		$ -		$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -		$ -		$ -		$ -		$ -
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -		$ -
JD 350 LDC Excavator	$ 160.89		$ -		$ -		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -		$ -		$ -		$ -
Grout truck	$ 82.40		$ -		$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46	1.00	$ 13.46		$ -		$ -		$ -		$ -
Water pump	$ 40.99		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -		$ -		$ -
Travellers (ea)	$ 1.24		$ -		$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -		$ -		$ -
Hoe-Pack	$ 25.75		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65		$ -		$ -		$ -		$ -		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -		$ -	0.25	$ 476.38		$ -		$ -
TOTAL EQUIPMENT		**7.00**	**706.23**	**3.00**	**233.14**	**3.25**	**604.04**	**3.50**	**210.35**	**6.00**	**477.51**
TOTAL CREW RATE			**$ 1,656.68**		**$ 636.64**		**$ 1,444.07**		**$ 405.51**		**$ 1,282.13**

		11		12		13		14		15	
		Stringing		Tie -in		Deadends		Spacer Crews		OPGW Install	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate										
Supervisor	$ 142.83	1.00	$ 142.83		$ -		$ -		$ -		$ -
Foreman	$ 120.15	2.00	$ 240.29		$ -	1.00	$ 120.15	1.00	$ 120.15	1.00	$ 120.15
Surveyor	$ 111.85	1.00	$ 111.85		$ -		$ -		$ -		$ -
Lineman	$ 111.85	7.00	$ 782.94	2.00	$ 223.70	2.00	$ 223.70		$ -	3.00	$ 335.55
Apprentice - 4th Year	$ 103.90		$ -		$ -		$ -	3.00	$ 311.69	1.00	$ 103.90
Apprentice - 3rd Year	$ 95.95	4.00	$ 383.78		$ -	2.00	$ 191.89		$ -	2.00	$ 191.89
Apprentice - 2nd Year	$ 87.99		$ -	1.00	$ 87.99		$ -	1.00	$ 87.99		$ -
Apprentice - 1st Year	$ 80.04		$ -		$ -		$ -		$ -		$ -
Equipment Operator	$ 96.49	6.00	$ 578.96		$ -	2.00	$ 192.99		$ -	4.00	$ 385.97
Truck Driver / Picker Op.	$ 107.16	7.00	$ 750.13	1.00	$ 107.16	1.00	$ 107.16	1.00	$ 107.16	3.00	$ 321.48
Labourer	$ 87.44		$ -		$ -		$ -		$ -		$ -
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -		$ -		$ -		$ -		$ -
Telecom Foreman	$ 87.44		$ -		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -		$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -		$ -		$ -		$ -		$ -
none	$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**28.00**	**2,990.79**	**4.00**	**418.85**	**8.00**	**835.88**	**6.00**	**626.99**	**14.00**	**1,458.94**
Pickup	$ 24.36	2.00	$ 48.72		$ -		$ -	1.00	$ 24.36	2.00	$ 48.72
Crew Cab Truck	$ 29.20	7.00	$ 204.40	1.00	$ 29.20	2.00	$ 58.40	1.00	$ 29.20	3.00	$ 87.60
Conductor Splicing Truck	$ 46.02	1.00	$ 46.02		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27	-	$ -		$ -		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25	-	$ -		$ -	1.00	$ 180.25	1.00	$ 180.25		$ -
40T RT Crane	$ 195.70	2.00	$ 391.40		$ -		$ -		$ -	2.00	$ 391.40
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05		$ -		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40	1.00	$ 89.40		$ -		$ -		$ -	1.00	$ 89.40
200T All-Tr. crane	$ 418.72		$ -		$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -		$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85		$ -		$ -		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67		$ -		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67	-	$ -		$ -		$ -		$ -	-	$ -
Tractor Trailer (Heavy)	$ 134.67	2.00	$ 269.35		$ -		$ -		$ -	1.00	$ 134.67
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83	2.00	$ 331.66		$ -	1.00	$ 165.83		$ -	1.00	$ 165.83
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27	2.00	$ 138.54		$ -		$ -		$ -	1.00	$ 69.27
JD 290 Track-hoe	$ 130.60	2.00	$ 261.21		$ -	1.00	$ 130.60		$ -		$ -
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25	2.00	$ 456.50	1.00	$ 228.25		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -		$ -		$ -		$ -
Trencher	$ 84.36		$ -		$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -
Reel Trailer	$ 72.10	3.00	$ 216.30		$ -		$ -		$ -	1.00	$ 72.10
Tensioner	$ 139.05	1.00	$ 139.05		$ -		$ -		$ -		$ -
Puller	$ 139.05	1.00	$ 139.05		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -		$ -		$ -		$ -	1.00	$ 77.25
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -	1.00	$ 77.25
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -	50.00	$ 25.75
JD 350 LDC Excavator	$ 160.89		$ -		$ -		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -		$ -		$ -		$ -
Grout truck	$ 82.40		$ -		$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46	1.00	$ 13.46		$ -	1.00	$ 13.46		$ -		$ -
Water pump	$ 40.99		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -	1.00	$ 92.70
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -	3.00	$ 139.05		$ -
Travellers (ea)	$ 1.24	150.00	$ 185.40		$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -		$ -		$ -
Hoe-Pack	$ 25.75		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65	1.00	$ 56.65		$ -		$ -		$ -		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -		$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**180.00**	**2,987.10**	**2.00**	**257.45**	**6.00**	**548.54**	**6.00**	**372.86**	**65.00**	**1,331.94**
TOTAL CREW RATE			**$ 5,977.88**		**$ 676.30**		**$ 1,384.42**		**$ 999.85**		**$ 2,790.88**

		16		17		18		19		20	
		Rider Pole Crew		Foundation Haul		Foundation Survey ($250/h)		Found Excavation		Grillage Installation	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate										
Supervisor	$ 142.83		$ -	-	$ -		$ -		$ -		$ -
Foreman	$ 120.15	1.00	$ 120.15	-	$ -		$ -	1.00	$ 120.15	1.00	$ 120.15
Surveyor	$ 111.85		$ -	-	$ -	2.00	$ 223.70	1.00	$ 111.85	1.00	$ 111.85
Lineman	$ 111.85	1.00	$ 111.85	-	$ -		$ -		$ -		$ -
Apprentice - 4th Year	$ 103.90		$ -	-	$ -		$ -		$ -		$ -
Apprentice - 3rd Year	$ 95.95		$ -	-	$ -		$ -		$ -	2.00	$ 191.89
Apprentice - 2nd Year	$ 87.99	2.00	$ 175.99	1.00	$ 87.99		$ -		$ -		$ -
Apprentice - 1st Year	$ 80.04		$ -	-	$ -		$ -	1.00	$ 80.04		$ -
Equipment Operator	$ 96.49	1.00	$ 96.49	-	$ -		$ -	3.00	$ 289.48	1.00	$ 96.49
Truck Driver / Picker Op.	$ 107.16	2.00	$ 214.32	1.00	$ 107.16		$ -		$ -	1.00	$ 107.16
Labourer	$ 87.44		$ -	-	$ -		$ -		$ -		$ -
3rd Party Density Tester	$ 243.80		$ -	-	$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -	-	$ -		$ -		$ -		$ -
Telecom Foreman	$ 87.44		$ -	-	$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -	-	$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -	-	$ -		$ -		$ -		$ -
none	$ -		$ -	-	$ -		$ -		$ -		$ -
TOTAL LABOUR		**7.00**	**718.80**	**2.00**	**195.16**	**2.00**	**223.70**	**6.00**	**601.52**	**6.00**	**627.54**
Pickup	$ 24.36		$ -	-	$ -	1.00	$ 24.36	1.00	$ 24.36	1.00	$ 24.36
Crew Cab Truck	$ 29.20	1.00	$ 29.20	1.00	$ 29.20	-	$ -	1.00	$ 29.20	1.00	$ 29.20
Conductor Splicing Truck	$ 46.02		$ -	-	$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -	-	$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27	1.00	$ 136.27	-	$ -		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25		$ -	-	$ -		$ -		$ -		$ -
40T RT Crane	$ 195.70		$ -	-	$ -		$ -		$ -	1.00	$ 195.70
60T RT Crane	$ 247.20		$ -	-	$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05		$ -	-	$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40	1.00	$ 89.40	-	$ -		$ -		$ -		$ -
200T All-Tr. crane	$ 418.72		$ -	-	$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -	-	$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -	-	$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -	-	$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85		$ -	4.00	$ 47.38		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -	-	$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67		$ -	-	$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -	-	$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -	-	$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -	-	$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -	-	$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67		$ -	1.00	$ 134.67		$ -		$ -		$ -
Tractor Trailer (Heavy)	$ 134.67	1.00	$ 134.67	-	$ -		$ -		$ -		$ -
Self-Loader	$ 134.67		$ -	-	$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -	-	$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -	-	$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83		$ -	-	$ -		$ -		$ -		$ -
JD 310 Back Hoe	$ 68.13		$ -	-	$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27		$ -	0.50	$ 34.63		$ -	1.00	$ 69.27	1.00	$ 69.27
JD 290 Track-hoe	$ 130.60	1.00	$ 130.60	-	$ -		$ -		$ -		$ -
Skid-Steer Loader	$ 38.11		$ -	-	$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -	-	$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -	-	$ -		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -	-	$ -		$ -		$ -		$ -
Trencher	$ 84.36		$ -	-	$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -	-	$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -	-	$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -	-	$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -	-	$ -	1.00	$ 24.21		$ -		$ -
Reel Trailer	$ 72.10		$ -	-	$ -		$ -		$ -		$ -
Tensioner	$ 139.05		$ -	-	$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -	-	$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -	-	$ -		$ -		$ -		$ -
Single Tensioner	$ 77.25		$ -	-	$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -	-	$ -		$ -		$ -		$ -
JD 350 LDC Excavator	$ 160.89		$ -	-	$ -		$ -	2.00	$ 321.77		$ -
Compressor	$ 22.04		$ -	-	$ -		$ -		$ -		$ -
Grout truck	$ 82.40		$ -	-	$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -	-	$ -		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46		$ -	-	$ -		$ -		$ -		$ -
Water pump	$ 40.99		$ -	-	$ -		$ -	1.00	$ 40.99		$ -
Pilot Line Winder	$ 92.70		$ -	-	$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -	-	$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -	-	$ -		$ -		$ -		$ -
Travellers (ea)	$ 1.24		$ -	-	$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -	-	$ -		$ -		$ -		$ -
Hoe-Pack	$ 25.75		$ -	-	$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -	-	$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -	-	$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65		$ -	-	$ -	1.00	$ 56.65	1.00	$ 56.65	1.00	$ 56.65
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -	-	$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -	-	$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -	-	$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**5.00**	**520.15**	**6.50**	**245.89**	**3.00**	**105.21**	**7.00**	**542.24**	**5.00**	**375.18**
TOTAL CREW RATE			**$ 1,238.95**		**$ 441.04**		**$ 328.91**		**$ 1,143.76**		**$ 1,002.72**

		21		22		23		24		25		26	
		Backfill and Compact		Site Cleanup		Grout Crew		Concrete Foundations		Ground Testing		Sign Crew	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate												
Supervisor	$ 142.83		$ -		$ -		$ -		$ -		$ -		$ -
Foreman	$ 120.15		$ -		$ -		$ -	1.00	$ 120.15		$ -		$ -
Surveyor	$ 111.85	0.50	$ 55.92		$ -		$ -	1.00	$ 111.85		$ -		$ -
Lineman	$ 111.85		$ -		$ -		$ -		$ -	1.00	$ 111.85		$ -
Apprentice - 4th Year	$ 103.90		$ -		$ -		$ -		$ -		$ -		$ -
Apprentice - 3rd Year	$ 95.95		$ -		$ -		$ -		$ -		$ -		$ -
Apprentice - 2nd Year	$ 87.99		$ -		$ -		$ -		$ -		$ -		$ -
Apprentice - 1st Year	$ 80.04		$ -		$ -	2.00	$ 160.08		$ -		$ -	2.00	$ 160.08
Equipment Operator	$ 96.49	3.00	$ 289.48	1.00	$ 96.49		$ -		$ -	1.00	$ 96.49		$ -
Truck Driver / Picker Op.	$ 107.16		$ -		$ -		$ -	1.00	$ 107.16		$ -		$ -
Labourer	$ 87.44	1.00	$ 87.44		$ -		$ -	2.00	$ 174.87		$ -		$ -
3rd Party Density Tester	$ 243.80	-	$ -		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -		$ -	1.00	$ 100.05	1.00	$ 100.05		$ -		$ -
Telecom Foreman	$ 87.44		$ -		$ -		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -		$ -		$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -		$ -		$ -		$ -		$ -		$ -
none	$ -		$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**4.50**	**432.84**	**1.00**	**96.49**	**3.00**	**260.13**	**6.00**	**614.08**	**2.00**	**208.34**	**2.00**	**160.08**
Pickup	$ 24.36	0.50	$ 12.18		$ -	-	$ -	2.00	$ 48.72		$ -	2.00	$ 48.72
Crew Cab Truck	$ 29.20	2.00	$ 58.40	1.00	$ 29.20	1.00	$ 29.20	1.00	$ 29.20	1.00	$ 29.20		$ -
Conductor Splicing Truck	$ 46.02		$ -		$ -		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27		$ -		$ -		$ -		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25		$ -		$ -		$ -	1.00	$ 180.25		$ -		$ -
40T RT Crane	$ 195.70		$ -		$ -		$ -		$ -		$ -		$ -
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05		$ -		$ -		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40		$ -		$ -		$ -		$ -		$ -		$ -
200T All-Tr. crane	$ 418.72		$ -		$ -		$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -		$ -		$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85		$ -		$ -		$ -		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67		$ -		$ -		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -
Tractor Trailer (Heavy)	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83		$ -		$ -		$ -		$ -		$ -		$ -
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27	1.00	$ 69.27	1.00	$ 69.27		$ -		$ -		$ -		$ -
JD 290 Track-hoe	$ 130.60	1.00	$ 130.60		$ -		$ -		$ -		$ -		$ -
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -		$ -		$ -		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -		$ -		$ -	-	$ -		$ -
Trencher	$ 84.36		$ -		$ -		$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -		$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -	1.00	$ 24.21		$ -
Reel Trailer	$ 72.10		$ -		$ -		$ -		$ -		$ -		$ -
Tensioner	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -		$ -		$ -		$ -		$ -		$ -
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -		$ -		$ -
JD 350 LDC Excavator	$ 160.89	1.00	$ 160.89		$ -		$ -		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -	1.00	$ 22.04		$ -		$ -		$ -
Grout truck	$ 82.40		$ -		$ -	1.00	$ 82.40		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -		$ -		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46		$ -		$ -		$ -	0.50	$ 6.73		$ -		$ -
Water pump	$ 40.99	1.00	$ 40.99		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -		$ -		$ -		$ -
Travellers (ea)	$ 1.24		$ -		$ -		$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -		$ -		$ -	2.00	$ 43.67
Hoe-Pack	$ 25.75	1.00	$ 25.75		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65	0.50	$ 28.33		$ -		$ -	1.00	$ 56.65		$ -		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -		$ -		$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**8.00**	**526.41**	**2.00**	**98.47**	**3.00**	**133.64**	**5.50**	**321.55**	**2.00**	**53.41**	**4.00**	**92.39**
TOTAL CREW RATE			**$ 959.25**		**$ 194.96**		**$ 393.78**		**$ 935.63**		**$ 261.75**		**$ 252.48**

		27		28		29		30		31		32	
		HL Helicopter		Camp Site Preparation		Supervisory		Sign Crew		Flagging Crew		Welding Support	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate												
Supervisor	$ 142.83	2.00	$ 285.67		$ -	1.00	$ 142.83		$ -		$ -		$ -
Foreman	$ 120.15	5.00	$ 600.73	1.00	$ 120.15		$ -		$ -		$ -		$ -
Surveyor	$ 111.85		$ -	0.50	$ 55.92		$ -		$ -		$ -		$ -
Lineman	$ 111.85	8.00	$ 894.79		$ -		$ -		$ -		$ -		$ -
Apprentice - 4th Year	$ 103.90	8.00	$ 831.18		$ -		$ -		$ -		$ -		$ -
Apprentice - 3rd Year	$ 95.95	8.00	$ 767.57		$ -		$ -		$ -		$ -		$ -
Apprentice - 2nd Year	$ 87.99		$ -		$ -		$ -		$ -		$ -		$ -
Apprentice - 1st Year	$ 80.04		$ -		$ -		$ -	2.00	$ 160.08	2.00	$ 160.08	1.00	$ 80.04
Equipment Operator	$ 96.49	1.00	$ 96.49	3.00	$ 289.48		$ -		$ -		$ -	1.00	$ 96.49
Truck Driver / Picker Op.	$ 107.16	1.00	$ 107.16		$ -		$ -		$ -		$ -		$ -
Labourer	$ 87.44		$ -		$ -		$ -		$ -		$ -		$ -
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -		$ -		$ -		$ -		$ -		$ -
Telecom Foreman	$ 87.44		$ -		$ -		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -		$ -		$ -		$ -		$ -		$ -
Included Super or Operator	$ -	4.00	$ -		$ -		$ -		$ -		$ -		$ -
none	$ -		$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**37.00**	**3,583.59**	**4.50**	**465.55**	**1.00**	**142.83**	**2.00**	**160.08**	**2.00**	**160.08**	**2.00**	**176.53**
Pickup	$ 24.36	2.00	$ 48.72	1.00	$ 24.36	1.00	$ 24.36	2.00	$ 48.72	2.00	$ 48.72		$ -
Crew Cab Truck	$ 29.20	10.00	$ 292.01	1.00	$ 29.20		$ -		$ -		$ -	1.00	$ 29.20
Conductor Splicing Truck	$ 46.02		$ -		$ -		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27		$ -		$ -		$ -		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25	1.00	$ 180.25		$ -		$ -		$ -		$ -		$ -
40T RT Crane	$ 195.70		$ -		$ -		$ -		$ -		$ -		$ -
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05		$ -		$ -		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40		$ -		$ -		$ -		$ -		$ -	1.00	$ 89.40
200T All-Tr. crane	$ 418.72		$ -		$ -		$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -		$ -		$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85		$ -		$ -		$ -		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67		$ -	1.00	$ 121.67		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67		$ -	-	$ -		$ -		$ -		$ -		$ -
Tractor Trailer (Heavy)	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83		$ -	1.00	$ 165.83		$ -		$ -		$ -		$ -
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27	1.00	$ 69.27		$ -		$ -		$ -		$ -		$ -
JD 290 Track-hoe	$ 130.60		$ -	1.00	$ 130.60		$ -		$ -		$ -		$ -
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -		$ -		$ -		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -		$ -		$ -		$ -		$ -
Trencher	$ 84.36		$ -		$ -		$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -		$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -		$ -
Reel Trailer	$ 72.10		$ -		$ -		$ -		$ -		$ -		$ -
Tensioner	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -		$ -		$ -		$ -		$ -		$ -
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -		$ -		$ -
JD 350 LDC Excavator	$ 160.89		$ -		$ -		$ -		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -		$ -		$ -		$ -		$ -
Grout truck	$ 82.40		$ -		$ -		$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -		$ -		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46		$ -		$ -		$ -		$ -		$ -		$ -
Water pump	$ 40.99		$ -		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -		$ -		$ -		$ -
Travellers (ea)	$ 1.24		$ -		$ -		$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -	2.00	$ 43.67		$ -		$ -
Hoe-Pack	$ 25.75		$ -		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -	-	$ -		$ -
Survey Equipment	$ 56.65		$ -	0.50	$ 28.33		$ -		$ -	-	$ -		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89	1.00	$ 17,725.89		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -	-	$ -		$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**15.00**	**18,316.13**	**5.50**	**499.99**	**1.00**	**24.36**	**4.00**	**92.39**	**2.00**	**48.72**	**2.00**	**118.60**
TOTAL CREW RATE			**$ 21,899.72**		**$ 965.54**		**$ 167.19**		**$ 252.48**		**$ 208.80**		**$ 295.14**

		33		34		35		36		37		38	
		Roads and Reclaim		HeliSockInstall		Anchor Crew		Rock Foundations		Bird Diverter		Pole Tag Crew	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate												
Supervisor	$ 142.83		$ -		$ -		$ -		$ -		$ -	1.00	$ 142.83
Foreman	$ 120.15	1.00	$ 120.15		$ -	1.00	$ 120.15	1.00	$ 120.15	1.00	$ 120.15	1.00	$ 120.15
Surveyor	$ 111.85		$ -		$ -		$ -	1.00	$ 111.85		$ -		$ -
Lineman	$ 111.85		$ -		$ -		$ -		$ -		$ -	1.00	$ 111.85
Apprentice - 4th Year	$ 103.90		$ -		$ -		$ -		$ -		$ -		$ -
Apprentice - 3rd Year	$ 95.95		$ -		$ -	1.00	$ 95.95		$ -		$ -		$ -
Apprentice - 2nd Year	$ 87.99		$ -		$ -		$ -	1.00	$ 87.99	2.00	$ 175.99	1.00	$ 87.99
Apprentice - 1st Year	$ 80.04		$ -		$ -		$ -		$ -		$ -		$ -
Equipment Operator	$ 96.49	4.00	$ 385.97		$ -	1.00	$ 96.49	1.00	$ 96.49		$ -		$ -
Truck Driver / Picker Op.	$ 107.16		$ -		$ -	1.00	$ 107.16		$ -	2.00	$ 214.32		$ -
Labourer	$ 87.44		$ -		$ -		$ -		$ -	2.00	$ 174.87		$ -
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -		$ -		$ -	1.00	$ 100.05		$ -		$ -
Telecom Foreman	$ 87.44		$ -		$ -		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -	-	$ -		$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -	1.00	$ -		$ -		$ -		$ -		$ -
none	$ -		$ -	-	$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**5.00**	**506.12**	**1.00**	**-**	**4.00**	**419.75**	**5.00**	**516.53**	**7.00**	**685.33**	**4.00**	**462.82**
Pickup	$ 24.36	1.00	$ 24.36		$ -		$ -	2.00	$ 48.72	1.00	$ 24.36		$ -
Crew Cab Truck	$ 29.20	1.00	$ 29.20		$ -	1.00	$ 29.20	1.00	$ 29.20	1.00	$ 29.20	1.00	$ 29.20
Conductor Splicing Truck	$ 46.02		$ -		$ -		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27		$ -		$ -		$ -		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25		$ -		$ -		$ -		$ -	1.00	$ 180.25		$ -
40T RT Crane	$ 195.70		$ -		$ -		$ -		$ -		$ -		$ -
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05		$ -		$ -		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40		$ -		$ -	1.00	$ 89.40	-	$ -		$ -		$ -
200T All-Tr. crane	$ 418.72		$ -		$ -		$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -		$ -		$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85		$ -		$ -		$ -		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67	1.00	$ 121.67		$ -		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -
Tractor Trailer (Heavy)	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83	1.00	$ 165.83		$ -		$ -		$ -		$ -		$ -
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27	1.00	$ 69.27		$ -		$ -		$ -		$ -		$ -
JD 290 Track-hoe	$ 130.60	1.00	$ 130.60		$ -		$ -	1.00	$ 130.60		$ -		$ -
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -		$ -		$ -		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -	-	$ -		$ -		$ -		$ -
Trencher	$ 84.36		$ -		$ -		$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -	-	$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -	2.00	$ 48.41	2.00	$ 48.41
Reel Trailer	$ 72.10		$ -		$ -		$ -		$ -		$ -		$ -
Tensioner	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -		$ -		$ -		$ -		$ -		$ -
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -		$ -		$ -
JD 350 LDC Excavator	$ 160.89		$ -		$ -	1.00	$ 160.89		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -		$ -	1.00	$ 22.04		$ -		$ -
Grout truck	$ 82.40		$ -		$ -		$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -		$ -	1.00	$ 103.00		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46		$ -		$ -		$ -	1.00	$ 13.46		$ -		$ -
Water pump	$ 40.99		$ -		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -		$ -	2.00	$ 92.70		$ -
Travellers (ea)	$ 1.24		$ -		$ -		$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -		$ -		$ -		$ -
Hoe-Pack	$ 25.75		$ -		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65		$ -		$ -		$ -	1.00	$ 56.65		$ -		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -	1.00	$ 1,905.50		$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**6.00**	**540.93**	**1.00**	**1,905.50**	**3.00**	**279.49**	**8.00**	**403.67**	**7.00**	**374.92**	**3.00**	**77.61**
TOTAL CREW RATE			**$1,047.05**		**$ 1,905.50**		**$ 699.24**		**$ 920.20**		**$1,060.25**		**$ 540.43**

		39		40		41		42		43		44	
		Guy Install		Y- Tower Erection		Tower Plumb		OPGW Splice		Counterpoise Instal		L/A Account	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate												
Supervisor	$ 142.83		$ -		$ -		$ -		$ -		$ -		$ -
Foreman	$ 120.15	1.00	$ 120.15	1.00	$ 120.15	1.00	$ 120.15		$ -	1.00	$ 120.15		$ -
Surveyor	$ 111.85	0.50	$ 55.92		$ -	1.00	$ 111.85		$ -	1.00	$ 111.85		$ -
Lineman	$ 111.85	2.00	$ 223.70	1.00	$ 111.85	1.00	$ 111.85		$ -		$ -		$ -
Apprentice - 4th Year	$ 103.90		$ -	1.00	$ 103.90		$ -		$ -		$ -		$ -
Apprentice - 3rd Year	$ 95.95	2.00	$ 191.89	2.00	$ 191.89	2.00	$ 191.89		$ -		$ -		$ -
Apprentice - 2nd Year	$ 87.99		$ -	1.00	$ 87.99	2.00	$ 175.99		$ -		$ -		$ -
Apprentice - 1st Year	$ 80.04		$ -	1.00	$ 80.04		$ -		$ -		$ -		$ -
Equipment Operator	$ 96.49	1.00	$ 96.49	1.00	$ 96.49		$ -		$ -	2.00	$ 192.99		$ -
Truck Driver / Picker Op.	$ 107.16	1.00	$ 107.16	1.00	$ 107.16		$ -		$ -		$ -		$ -
Labourer	$ 87.44		$ -		$ -		$ -		$ -		$ -		$ -
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -		$ -		$ -		$ -		$ -		$ -
Telecom Foreman	$ 87.44		$ -		$ -		$ -	1.00	$ 87.44		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -		$ -		$ -	1.00	$ 87.44		$ -		$ -
Included Super or Operator	$ -		$ -		$ -		$ -		$ -		$ -	1.00	$ -
none	$ -		$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**7.50**	**795.31**	**9.00**	**899.47**	**7.00**	**711.72**	**2.00**	**174.87**	**4.00**	**424.98**	**1.00**	**-**
Pickup	$ 24.36	0.50	$ 12.18	1.00	$ 24.36	1.00	$ 24.36	-	$ -	1.00	$ 24.36		$ -
Crew Cab Truck	$ 29.20	2.00	$ 58.40	2.00	$ 58.40	2.00	$ 58.40	1.00	$ 29.20	1.00	$ 29.20		$ -
Conductor Splicing Truck	$ 46.02		$ -		$ -		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -	1.00	$ 93.60		$ -		$ -
Picker - 17 Ton	$ 136.27		$ -		$ -		$ -		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25	1.00	$ 180.25		$ -		$ -		$ -		$ -		$ -
40T RT Crane	$ 195.70		$ -		$ -		$ -		$ -		$ -		$ -
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05		$ -	1.00	$ 345.05		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40		$ -		$ -		$ -		$ -		$ -		$ -
200T All-Tr. crane	$ 418.72		$ -		$ -		$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -		$ -		$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85		$ -		$ -		$ -		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67		$ -		$ -		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -
Tractor Trailer (Heavy)	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83		$ -		$ -		$ -		$ -		$ -		$ -
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27	1.00	$ 69.27	-	$ -		$ -		$ -		$ -		$ -
JD 290 Track-hoe	$ 130.60		$ -	1.00	$ 130.60		$ -		$ -		$ -		$ -
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -		$ -		$ -		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -		$ -		$ -	1.00	$ 130.60		$ -
Trencher	$ 84.36		$ -		$ -		$ -		$ -	1.00	$ 84.36		$ -
10T Tele-Handler	$ 53.00		$ -		$ -		$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21	1.00	$ 24.21	1.00	$ 24.21	2.00	$ 48.41		$ -		$ -		$ -
Reel Trailer	$ 72.10		$ -		$ -		$ -		$ -		$ -		$ -
Tensioner	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25	1.00	$ 77.25		$ -		$ -		$ -		$ -		$ -
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -		$ -		$ -
JD 350 LDC Excavator	$ 160.89		$ -		$ -		$ -		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -		$ -		$ -		$ -		$ -
Grout truck	$ 82.40		$ -		$ -		$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -		$ -		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46	1.00	$ 13.46		$ -	1.00	$ 13.46		$ -		$ -		$ -
Water pump	$ 40.99		$ -		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -		$ -		$ -		$ -
Travellers (ea)	$ 1.24		$ -		$ -		$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -		$ -		$ -		$ -
Hoe-Pack	$ 25.75		$ -		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65	0.50	$ 28.33		$ -	1.00	$ 56.65		$ -	1.00	$ 56.65		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -		$ -		$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**8.00**	**463.34**	**6.00**	**582.62**	**7.00**	**201.28**	**2.00**	**122.80**	**5.00**	**325.17**	**-**	**-**
TOTAL CREW RATE			**$1,258.65**		**$ 1,482.09**		**$ 913.00**		**$ 297.67**		**$ 750.15**		**$ -**

		45		46		47		48		49		50		99	
		Camp Setup		Camp Haul		Geotech		Wood Assembly		Wood Erection		Slack Stringing			
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate														
Supervisor	$ 142.83	1.00	$ 142.83		$ -	1.00	$142.83		$ -		$ -		$ -		$ -
Foreman	$ 120.15	1.00	$ 120.15		$ -		$ -	1.00	$120.15	1.00	$ 120.15	1.00	$ 120.15		$ -
Surveyor	$ 111.85	0.50	$ 55.92		$ -		$ -		$ -		$ -		$ -		$ -
Lineman	$ 111.85	1.00	$ 111.85		$ -		$ -	1.00	$111.85	1.00	$ 111.85	3.00	$ 335.55		$ -
Apprentice - 4th Year	$ 103.90		$ -		$ -		$ -		$ -	1.00	$ 103.90	2.00	$ 207.79		$ -
Apprentice - 3rd Year	$ 95.95		$ -		$ -		$ -	1.00	$ 95.95		$ -	2.00	$ 191.89		$ -
Apprentice - 2nd Year	$ 87.99		$ -		$ -		$ -		$ -		$ -	2.00	$ 175.99		$ -
Apprentice - 1st Year	$ 80.04		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Equipment Operator	$ 96.49	2.00	$ 192.99		$ -	1.00	$ 96.49	1.00	$ 96.49	1.00	$ 96.49	2.00	$ 192.99		$ -
Truck Driver / Picker Op.	$ 107.16	1.00	$ 107.16	1.00	$107.16	0.25	$ 26.79	1.00	$107.16	2.00	$ 214.32	2.00	$ 214.32		$ -
Labourer	$ 87.44	3.00	$ 262.31		$ -	1.00	$ 87.44		$ -		$ -		$ -		$ -
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05	3.00	$ 300.15		$ -		$ -		$ -		$ -		$ -		$ -
Telecom Foreman	$ 87.44		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -
none	$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**12.50**	**1,293.35**	**1.00**	**107.16**	**3.25**	**353.55**	**5.00**	**531.60**	**6.00**	**646.71**	**14.00**	**1,438.68**	**-**	**-**
Pickup	$ 24.36	1.00	$ 24.36		$ -	1.00	$ 24.36		$ -		$ -	1.00	$ 24.36		$ -
Crew Cab Truck	$ 29.20	2.00	$ 58.40		$ -	1.00	$ 29.20	1.00	$ 29.20	2.00	$ 58.40	3.00	$ 87.60		$ -
Conductor Splicing Truck	$ 46.02		$ -		$ -		$ -		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27		$ -		$ -		$ -	1.00	$136.27		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25		$ -		$ -		$ -		$ -		$ -	2.00	$ 360.50		$ -
40T RT Crane	$ 195.70	1.00	$ 195.70		$ -		$ -		$ -	1.00	$ 195.70		$ -		$ -
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40		$ -		$ -		$ -		$ -	-	$ -	-	$ -		$ -
200T All-Tr. crane	$ 418.72		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -		$ -		$ -		$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85		$ -		$ -		$ -		$ -		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -	1.00	$ 68.13		$ -		$ -
T/A Rock Truck	$ 121.67		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -	-	$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67	1.00	$ 134.67		$ -	0.25	$ 33.67		$ -		$ -		$ -		$ -
Tractor Trailer (Heavy)	$ 134.67		$ -	1.00	$134.67		$ -		$ -		$ -		$ -		$ -
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83	1.00	$ 165.83		$ -		$ -		$ -		$ -		$ -		$ -
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -	1.00	$ 68.13		$ -
JD 554 Loader	$ 69.27	1.00	$ 69.27		$ -		$ -		$ -		$ -		$ -		$ -
JD 290 Track-hoe	$ 130.60	1.00	$ 130.60		$ -	1.00	$130.60		$ -	1.00	$ 130.60	1.00	$ 130.60		$ -
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Trencher	$ 84.36		$ -		$ -		$ -		$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -		$ -		$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Reel Trailer	$ 72.10		$ -		$ -		$ -		$ -		$ -	1.00	$ 72.10		$ -
Tensioner	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -		$ -		$ -		$ -		$ -	-	$ -		$ -
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -		$ -	-	$ -		$ -
JD 350 LDC Excavator	$ 160.89		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Grout truck	$ 82.40		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -		$ -		$ -	1.00	$ 103.00		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46		$ -		$ -		$ -	1.00	$ 13.46	1.00	$ 13.46	1.00	$ 13.46		$ -
Water pump	$ 40.99		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Travellers (ea)	$ 1.24		$ -		$ -		$ -		$ -		$ -	200.00	$ 247.20		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Hoe-Pack	$ 25.75		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65	0.50	$ 28.33		$ -		$ -		$ -		$ -		$ -		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -		$ -		$ -		$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**8.50**	**807.16**	**1.00**	**134.67**	**3.25**	**217.83**	**3.00**	**178.93**	**7.00**	**569.30**	**210.00**	**1,003.96**	**-**	**-**
TOTAL CREW RATE			**$ 2,100.51**		**$241.83**		**$571.38**		**$710.52**		**$1,216.00**		**$2,442.63**		**$ -**

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.

Rate Blending

Based On 11.0 **Hours per Day**
7.0 **Days per Week**
77.0 **Hour Week**

Daily Living Allowance $ - Assumes 0% no LA
LA For 7 **days / week**

	Blended Hourly Rate	Unloaded Hourly Rate				Loaded Hourly Rate			Hours Per Week			Wage Cost				Weekly Living Cost	Weekly Cost Total	Blended Cost Per Hour		ST & OT Rates c/w Sustenance			
		ST	OT	DT	Multiplier	ST	OT	DT	ST	OT	DT	ST	OT	DT	Total			Hours	Cost		ST	OT	DT
Personnel Rates																							
Supervisor	$ 142.83	109.19	163.13	217.18	1.00	$ 109.19	$ 163.13	$ 217.18	40.0	26.0	11.0	$ 4,367.66	$ 4,241.44	$ 2,389.00	$ 10,998.11	$ -	$ 10,998.11	77.0	$ 142.83	Supervisor	$ 109.19	$ 163.13	$ 217.18
Senior Foreman	$ 131.69	100.67	150.40	200.23	1.00	$ 100.67	$ 150.40	$ 200.23	40.0	26.0	11.0	$ 4,026.80	$ 3,910.42	$ 2,202.56	$ 10,139.77	$ -	$ 10,139.77	77.0	$ 131.69	Senior Foreman	$ 100.67	$ 150.40	$ 200.23
Foreman	$ 120.15	99.28	132.75	166.23	1.00	$ 99.28	$ 132.75	$ 166.23	40.0	26.0	11.0	$ 3,971.20	$ 3,451.60	$ 1,828.51	$ 9,251.31	$ -	$ 9,251.31	77.0	$ 120.15	Foreman	$ 99.28	$ 132.75	$ 166.23
Sub-Foreman	$ 117.18	97.02	129.36	161.71	1.00	$ 97.02	$ 129.36	$ 161.71	40.0	26.0	11.0	$ 3,880.83	$ 3,363.49	$ 1,778.80	$ 9,023.12	$ -	$ 9,023.12	77.0	$ 117.18	Sub-Foreman	$ 97.02	$ 129.36	$ 161.71
Surveyor	$ 111.85	92.95	123.26	153.58	1.00	$ 92.95	$ 123.26	$ 153.58	40.0	26.0	11.0	$ 3,718.16	$ 3,204.88	$ 1,689.33	$ 8,612.37	$ -	$ 8,612.37	77.0	$ 111.85	Surveyor	$ 92.95	$ 123.26	$ 153.58
Lineman	$ 111.85	92.95	123.26	153.58	1.00	$ 92.95	$ 123.26	$ 153.58	40.0	26.0	11.0	$ 3,718.16	$ 3,204.88	$ 1,689.33	$ 8,612.37	$ -	$ 8,612.37	77.0	$ 111.85	Lineman	$ 92.95	$ 123.26	$ 153.58
Apprentice - 4th Year	$ 103.90	86.89	114.17	141.45	1.00	$ 86.89	$ 114.17	$ 141.45	40.0	26.0	11.0	$ 3,475.67	$ 2,968.46	$ 1,555.96	$ 8,000.09	$ -	$ 8,000.09	77.0	$ 103.90	Apprentice - 4th Year	$ 86.89	$ 114.17	$ 141.45
Apprentice - 3rd Year	$ 95.95	80.83	105.08	129.33	1.00	$ 80.83	$ 105.08	$ 129.33	40.0	26.0	11.0	$ 3,233.18	$ 2,732.04	$ 1,422.60	$ 7,387.81	$ -	$ 7,387.81	77.0	$ 95.95	Apprentice - 3rd Year	$ 80.83	$ 105.08	$ 129.33
Apprentice - 2nd Year	$ 87.99	74.77	95.99	117.20	1.00	$ 74.77	$ 95.99	$ 117.20	40.0	26.0	11.0	$ 2,990.70	$ 2,495.61	$ 1,289.23	$ 6,775.54	$ -	$ 6,775.54	77.0	$ 87.99	Apprentice - 2nd Year	$ 74.77	$ 95.99	$ 117.20
Apprentice - 1st Year	$ 80.04	68.71	86.89	105.08	1.00	$ 68.71	$ 86.89	$ 105.08	40.0	26.0	11.0	$ 2,748.21	$ 2,259.19	$ 1,155.86	$ 6,163.26	$ -	$ 6,163.26	77.0	$ 80.04	Apprentice - 1st Year	$ 68.71	$ 86.89	$ 105.08
Equipment Operator	$ 96.49	78.91	107.12	135.32	1.00	$ 78.91	$ 107.12	$ 135.32	40.0	26.0	11.0	$ 3,156.41	$ 2,785.00	$ 1,488.53	$ 7,429.93	$ -	$ 7,429.93	77.0	$ 96.49	Equipment Operator	$ 78.91	$ 107.12	$ 135.32
Truck Driver / Picker Op.	$ 107.16	87.04	119.32	151.59	1.00	$ 87.04	$ 119.32	$ 151.59	40.0	26.0	11.0	$ 3,481.75	$ 3,102.21	$ 1,667.46	$ 8,251.42	$ -	$ 8,251.42	77.0	$ 107.16	Truck Driver / Picker Op.	$ 87.04	$ 119.32	$ 151.59
Labourer	$ 87.44	72.01	96.76	121.51	1.00	$ 72.01	$ 96.76	$ 121.51	40.0	26.0	11.0	$ 2,880.23	$ 2,515.73	$ 1,336.63	$ 6,732.58	$ -	$ 6,732.58	77.0	$ 87.44	Labourer	$ 72.01	$ 96.76	$ 121.51
Carpenter	$ 100.05	81.62	111.18	140.74	1.00	$ 81.62	$ 111.18	$ 140.74	40.0	26.0	11.0	$ 3,264.85	$ 2,890.74	$ 1,548.17	$ 7,703.76	$ -	$ 7,703.76	77.0	$ 100.05	Carpenter	$ 81.62	$ 111.18	$ 140.74
Telecom Foreman	$ 87.44	72.01	96.76	121.51	1.00	$ 72.01	$ 96.76	$ 121.51	40.0	26.0	11.0	$ 2,880.23	$ 2,515.73	$ 1,336.63	$ 6,732.58	$ -	$ 6,732.58	77.0	$ 87.44	Telecom Foreman	$ 72.01	$ 96.76	$ 121.51
Telecom Cable Splicer	$ 87.44	72.01	96.76	121.51	1.00	$ 72.01	$ 96.76	$ 121.51	40.0	26.0	11.0	$ 2,880.23	$ 2,515.73	$ 1,336.63	$ 6,732.58	$ -	$ 6,732.58	77.0	$ 87.44	Telecom Cable Splicer	$ 72.01	$ 96.76	$ 121.51

Equipment Rates	
General Highway Equipment	
Pickup	$ 24.36
Crew Cab Truck	$ 29.20
Conductor Splicing Truck	$ 46.02
OPGW Splicing Truck	$ 93.60
Picker - 17 Ton	$ 136.27
Picker - 38 Ton	$ 180.25
40T RT Crane	$ 195.70
60T RT Crane	$ 247.20
80T RT Crane	$ 345.05
Digger - TelElect 5052	$ 89.40
T/A Gravel Truck	$ 68.13
T/A Rock Truck	$ 121.67
Texoma	$ 162.23
Watson 1010	$ 190.55
Watson 1100	$ 247.20
Watson 2500	$ 309.00
Soilmec SR65	$ 437.75
Tractor Trailer/Picker	$ 134.67
Tractor Trailer (Heavy)	$ 134.67
Self-Loader	$ 134.67
55' Bucket Truck	$ 81.11
Pole Trailer	$ 22.04
Rock Drill	$ 103.00
Contract Construction Equipment	
200T All-Tr. crane	$ 418.72
Contract Welder	$ 144.20
Quad or Side by Side	$ 24.21
120' Gene Lift	$ 87.55
53' Tridem trailer	$ 11.85
Heavy Construction Equipment	
Crawler Tractors 750 JD	$ 165.83
JD 310 Back Hoe	$ 68.13
JD 554 Loader	$ 69.27
JD 290 Track-hoe	$ 130.60
Skid-Steer Loader	$ 38.11
LGP Construction Equipment	
Nodwells - Picker up to 17 Ton	$ 170.36
Nodwells - Picker over 17 Ton	$ 228.25
Nodwell - Digger	$ 130.60
Trencher	$ 84.36
10T Tele-Handler	$ 53.00
LGP Texoma Nodwell	$ 162.23
LGP Highboy ROW Trailer	$ 32.45
Stringing Equipment	
Reel Trailer	$ 72.10
Tensioner	$ 139.05
Puller	$ 139.05
1 Drum Puller	$ 77.25
Single Tensioner	$ 77.25
Single Traveller	$ 0.52
JD 350 LDC Excavator	$ 160.89
Compressor	$ 22.04
Grout Truck	$ 82.40
Press & Pump, Genset, Light plar	$ 13.46
Press & Pump	$ 40.99
Water Pump	$ 40.99
Pilot Line Winder	$ 92.70
Wire Winder	$ 17.69
Spacer Buggy	$ 46.35
Travellers (ea)	$ 1.24
Traffic Control Sign	$ 21.84

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::A01	**S1-A1 Initial Mobilization**		**Unit Cost:**	$ -	1	$ -
	S1-A1 Initial Mobilization		17			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::A02	**S1-A2 Final Demobilization**		**Unit Cost:**	$ -	1	$ -
	S1-A2 Final Demobilization		28			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::A03	**S1-A3 Accommodation Camp Installation**		**Unit Cost:**	$ 26,449,822.55	1	$ 26,449,822.55
	S1-A3 Accommodation Camp Installation		39			
	Screened Crushed Rock (Tonne)	6000	$ 47.38	$ 284,280.00		
	Camp incidental Material	2	$ 143,750.00	$ 287,500.00		
	Contractor Fuel(l)	105000	$ 1.33	$ 140,070.00		
	Camp Hauling with pilot car	1086	$ 218.50	$ 237,228.57		
	Room and Board (day)	101998	$ 250.01	$ 25,500,743.98		
			$ -	$ -		
	Total material Cost per Structure			$ 26,449,822.55		
V::A04	**S1-A4 Boarding and Lodging for Company/Engineer with 3 meals per day**		**Unit Cost:**	$ 250.01	12000	$ 3,000,154.50
	S1-A4 Boarding and Lodging for Company/Engineer with 3 meals per day		71			
	Room and Board (day)	1	$ 250.01	$ 250.01		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 250.01		
V::A05	**S1-A5 Meals for Company/Engineer visitors**		**Unit Cost:**	$ 41.68	1000	$ 41,677.15
	S1-A5 Meals for Company/Engineer visitors		82			
	Room and Board (day)	0.1667	$ 250.01	$ 41.68		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 41.68		
V::A06	**S1-A6 Parent Guarantee Article 7.4**		**Unit Cost:**	$ -	1	$ -
	S1-A6 Parent Guarantee Article 7.4		124			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::A07	**S1-A7 Letter Of Credit Article 7.6**		**Unit Cost:**	$ -	1	$ -
	S1-A7 Letter Of Credit Article 7.6		134			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::A08	**S1-A8 Performance Bonding Article 7.1**		**Unit Cost:**	$ -	1	$ -
	S1-A8 Performance Bonding Article 7.1		144			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::A09	**S1-A9 Labour and Materials Bonding Article 7.2**		**Unit Cost:**	**$ -**	**1**	**$ -**
	S1-A9 Labour and Materials Bonding Article 7.2		158			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::B01	**S1-B1 ROW Clearing**		**Unit Cost:**	**$ 19,550.00**	**1292**	**$ 25,258,600.00**
	S1-B1 ROW Clearing		174			
	ROW Clearing	1.00	$ 19,550.00	$ 19,550.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 19,550.00**		
V::B02	**S1-B2 Removal of selected danger trees**		**Unit Cost:**	**$ 210.00**	**500**	**$ 105,000.00**
	S1-B2 Removal of selected danger trees		188			
	Removal of selected danger trees	1.00	$ 210.00	$ 210.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 210.00**		
V::B03	**S1-B3 Supply and Installation of Culvert - 600 mm x 1.6 mm thick**		**Unit Cost:**	**$ 426.01**	**606**	**$ 258,159.64**
	S1-B3 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2		202			
	Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2	1.00	$ 426.01	$ 426.01		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 426.01**		
V::B04	**S1-B4 Supply and Installation of Bridge - 3 m**		**Unit Cost:**	**$ 32,700.00**	**71**	**$ 2,321,700.00**
	S1-B4 Supply and Installation of Bridge - 3 m		216			
	Supply and Installation of Bridge - 3 m	1.00	$ 32,700.00	$ 32,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 32,700.00**		
V::B05	**S1-B5 Supply and Installation of Bridge - 4 m**		**Unit Cost:**	**$ 43,600.00**	**0**	**$ -**
	S1-B5 Supply and Installation of Bridge - 4 m		231			
	Supply and Installation of Bridge - 4 m	1.00	$ 43,600.00	$ 43,600.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 43,600.00**		
V::B06	**S1-B6 Supply and Installation of Bridge - 5 m**		**Unit Cost:**	**$ 54,500.00**	**9**	**$ 490,500.00**
	S1-B6 Supply and Installation of Bridge - 5 m		275			
	Supply and Installation of Bridge - 5 m	1.00	$ 54,500.00	$ 54,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 54,500.00**		
V::B07	**S1-B7 Supply and Installation of Bridge - 6 m**		**Unit Cost:**	**$ 65,400.00**	**1**	**$ 65,400.00**
	S1-B7 Supply and Installation of Bridge - 6 m		292			
	Supply and Installation of Bridge - 6 m	1.00	$ 65,400.00	$ 65,400.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 65,400.00**		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::B08	**S1-B8 Supply and Installation of Bridge - 7 m**		**Unit Cost:**	**$ 76,300.00**	**2**	**$ 152,600.00**
	S1-B8 Supply and Installation of Bridge - 7 m		309			
	Supply and Installation of Bridge - 7 m	1.00	$ 76,300.00	$ 76,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 76,300.00**		
V::B09	**S1-B9 Supply and Installation of Bridge - 8 m**		**Unit Cost:**	**$ 87,200.00**	**1**	**$ 87,200.00**
	S1-B9 Supply and Installation of Bridge - 8 m		326			
	Supply and Installation of Bridge - 8 m	1.00	$ 87,200.00	$ 87,200.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 87,200.00		
V::B10	**S1-B10 Supply and Installation of Bridge - 10 m**		**Unit Cost:**	**$ 109,000.00**	**3**	**$ 327,000.00**
	S1-B10 Supply and Installation of Bridge - 10 m		343			
	Supply and Installation of Bridge - 10 m	1.00	$ 109,000.00	$ 109,000.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 109,000.00**		
V::B11	**S1-B11 Supply and Installation of Bridge - 13 m**		**Unit Cost:**	**$ 141,700.00**	**1**	**$ 141,700.00**
	S1-B11 Supply and Installation of Bridge - 13 m		360			
	Supply and Installation of Bridge - 13 m	1.00	$ 141,700.00	$ 141,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 141,700.00		
V::B12	**S1-B12 Supply and Installation of Bridge - 14 m**		**Unit Cost:**	**$ 152,600.00**	**0**	**$ -**
	S1-B12 Supply and Installation of Bridge - 14 m		377			
	Supply and Installation of Bridge - 14 m	1.00	$ 152,600.00	$ 152,600.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 152,600.00**		
V::B13	**S1-B13 Supply and Installation of Bridge - 15 m**		**Unit Cost:**	**$ 163,500.00**	**2**	**$ 327,000.00**
	S1-B13 Supply and Installation of Bridge - 15 m		394			
	Supply and Installation of Bridge - 15 m	1.00	$ 163,500.00	$ 163,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 163,500.00**		
V::B14	**S1-B14 Supply and Installation of Bridge - 16 m**		**Unit Cost:**	**$ 174,400.00**	**1**	**$ 174,400.00**
	S1-B14 Supply and Installation of Bridge - 16 m		411			
	Supply and Installation of Bridge - 16 m	1.00	$ 174,400.00	$ 174,400.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 174,400.00**		
V::B15	**S1-B15 Supply and Installation of Bridge - 25 m**		**Unit Cost:**	**$ 272,500.00**	**1**	**$ 272,500.00**
	S1-B15 Supply and Installation of Bridge - 25 m		425			
	Supply and Installation of Bridge - 25 m	1.00	$ 272,500.00	$ 272,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 272,500.00**		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::B16	**S1-B16 Supply and Installation of Bridge - 35 m**		**Unit Cost:**	**$ 381,500.00**	**1**	**$ 381,500.00**
	S1-B16 Supply and Installation of Bridge - 35 m		439			
	Supply and Installation of Bridge - 35 m	1.00	$ 381,500.00	$ 381,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 381,500.00**		
V::B17	**S1-B17 Supply and Installation of Bridge - 50 m**		**Unit Cost:**	**$ 545,000.00**	**0**	**$ -**
	S1-B17 Supply and Installation of Bridge - 50 m		453			
	Supply and Installation of Bridge - 50 m	1.00	$ 545,000.00	$ 545,000.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 545,000.00**		
V::B18	**S1-B18 Supply and Installation of Bridge - 60 m**		**Unit Cost:**	**$ 654,000.00**	**0**	**$ -**
	S1-B18 Supply and Installation of Bridge - 60 m		467			
	Supply and Installation of Bridge - 60 m	1.00	$ 654,000.00	$ 654,000.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 654,000.00**		
V::B19	**S1-B19 Supply and Installation of Bridge - 65 m**		**Unit Cost:**	**$ 708,500.00**	**0**	**$ -**
	S1-B19 Supply and Installation of Bridge - 65 m		482			
	Supply and Installation of Bridge - 65 m	1.00	$ 708,500.00	$ 708,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 708,500.00**		
V::B20	**S1-B20 Installation of Corduroy Road**		**Unit Cost:**	**$ 139.45**	**3528**	**$ 491,976.07**
	S1-B20 Installation of Corduroy Road		497			
	Installation of Corduroy Road	1.00	$ 139.45	$ 139.45		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 139.45**		
V::B21	**S1-B21 Installation of Access Road - Access Class 3**		**Unit Cost:**	**$ 80,700.00**	**173**	**$ 13,961,100.00**
	S1-B21 Installation of Access Road - Access Class 3		511			
	Installation of Access Road - Access Class 3	1.00	$ 80,700.00	$ 80,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 80,700.00**		
V::B22	**S1-B22 Installation of Access Road - Access Trail**		**Unit Cost:**	**$ 80,700.00**	**11**	**$ 887,700.00**
	S1-B22 Installation of Access Road - Access Trail		525			
	Installation of Access Road - Access Trail	1.00	$ 80,700.00	$ 80,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 80,700.00**		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::B23	**S1-B23 Installation of Access Road - Bypass Trail**		**Unit Cost:**	**$ 80,700.00**	**18**	**$ 1,452,600.00**
	S1-B23 Installation of Access Road - Bypass Trail		594			
	Installation of Access Road - Bypass Trail	1.00	$ 80,700.00	$ 80,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 80,700.00**		
V::B24	**S1-B24 Installation of Access Road - Ice Bridge**		**Unit Cost:**	**$ 7,200.00**	**64**	**$ 460,800.00**
	S1-B24 Installation of Access Road - Ice Bridge		607			
	Installation of Access Road - Ice Bridge	1.00	$ 7,200.00	$ 7,200.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 7,200.00		
V::B25	**S1-B25 ROW Clearing**		**Unit Cost:**	**$ 19,550.00**	**0**	**$ -**
	S1-B25 ROW Clearing		623			
	ROW Clearing	1.00	$ 19,550.00	$ 19,550.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 19,550.00**		
V::B26	**S1-B26 Removal of selected danger trees**		**Unit Cost:**	**$ 210.00**	**0**	**$ -**
	S1-B26 Removal of selected danger trees		637			
	Removal of selected danger trees	1.00	$ 210.00	$ 210.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 210.00**		
V::B27	**S1-B27 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2**		**Unit Cost:**	**$ 426.01**	**0**	**$ -**
	S1-B27 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2		680			
	Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2	1.00	$ 426.01	$ 426.01		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 426.01**		
V::B28	**S1-B28 Supply and Installation of Bridge - 3 m**		**Unit Cost:**	**$ 32,700.00**	**0**	**$ -**
	S1-B28 Supply and Installation of Bridge - 3 m		698			
	Supply and Installation of Bridge - 3 m	1.00	$ 32,700.00	$ 32,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 32,700.00**		
V::B29	**S1-B29 Supply and Installation of Bridge - 4 m**		**Unit Cost:**	**$ 43,600.00**	**0**	**$ -**
	S1-B29 Supply and Installation of Bridge - 4 m		713			
	Supply and Installation of Bridge - 4 m	1.00	$ 43,600.00	$ 43,600.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 43,600.00**		
V::B30	**S1-B30 Supply and Installation of Bridge - 5 m**		**Unit Cost:**	**$ 54,500.00**	**0**	**$ -**
	S1-B30 Supply and Installation of Bridge - 5 m		728			
	Supply and Installation of Bridge - 5 m	1.00	$ 54,500.00	$ 54,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 54,500.00**		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.

Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::B31	**S1-B31 Supply and Installation of Bridge - 6 m**		**Unit Cost:**	**$ 65,400.00**	**0**	**$ -**
	S1-B31 Supply and Installation of Bridge - 6 m		743			
	Supply and Installation of Bridge - 6 m	1.00	$ 65,400.00	$ 65,400.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 65,400.00**		
V::B32	**S1-B32 Supply and Installation of Bridge - 7 m**		**Unit Cost:**	**$ 76,300.00**	**0**	**$ -**
	S1-B32 Supply and Installation of Bridge - 7 m		774			
	Supply and Installation of Bridge - 7 m	1.00	$ 76,300.00	$ 76,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 76,300.00**		
V::B33	**S1-B33 Supply and Installation of Bridge - 8 m**		**Unit Cost:**	**$ 87,200.00**	**0**	**$ -**
	S1-B33 Supply and Installation of Bridge - 8 m		792			
	Supply and Installation of Bridge - 8 m	1.00	$ 87,200.00	$ 87,200.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 87,200.00**		
V::B34	**S1-B34 Supply and Installation of Bridge - 10 m**		**Unit Cost:**	**$ 109,000.00**	**0**	**$ -**
	S1-B34 Supply and Installation of Bridge - 10 m		807			
	Supply and Installation of Bridge - 10 m	1.00	$ 109,000.00	$ 109,000.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 109,000.00**		
V::B35	**S1-B35 Supply and Installation of Bridge - 13 m**		**Unit Cost:**	**$ 141,700.00**	**0**	**$ -**
	S1-B35 Supply and Installation of Bridge - 13 m		822			
	Supply and Installation of Bridge - 13 m	1.00	$ 141,700.00	$ 141,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 141,700.00**		
V::B36	**S1-B36 Supply and Installation of Bridge - 14 m**		**Unit Cost:**	**$ 152,600.00**	**0**	**$ -**
	S1-B36 Supply and Installation of Bridge - 14 m		837			
	Supply and Installation of Bridge - 14 m	1.00	$ 152,600.00	$ 152,600.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 152,600.00**		
V::B37	**S1-B37 Supply and Installation of Bridge - 15 m**		**Unit Cost:**	**$ 163,500.00**	**0**	**$ -**
	S1-B37 Supply and Installation of Bridge - 15 m		872			
	Supply and Installation of Bridge - 15 m	1.00	$ 163,500.00	$ 163,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 163,500.00**		
V::B38	**S1-B38 Supply and Installation of Bridge - 16 m**		**Unit Cost:**	**$ 174,400.00**	**0**	**$ -**
	S1-B38 Supply and Installation of Bridge - 16 m		888			
	Supply and Installation of Bridge - 16 m	1.00	$ 174,400.00	$ 174,400.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 174,400.00**		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::B39	**S1-B39 Supply and Installation of Bridge - 25 m**		**Unit Cost:**	**$ 272,500.00**	**0**	**$ -**
	S1-B39 Supply and Installation of Bridge - 25 m		904			
	Supply and Installation of Bridge - 25 m	1.00	$ 272,500.00	$ 272,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 272,500.00**		
V::B40	**S1-B40 Supply and Installation of Bridge - 35 m**		**Unit Cost:**	**$ 381,500.00**	**0**	**$ -**
	S1-B40 Supply and Installation of Bridge - 35 m		920			
	Supply and Installation of Bridge - 35 m	1.00	$ 381,500.00	$ 381,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 381,500.00**		
V::B41	**S1-B41 Supply and Installation of Bridge - 50 m**		**Unit Cost:**	**$ 545,000.00**	**0**	**$ -**
	S1-B41 Supply and Installation of Bridge - 50 m		936			
	Supply and Installation of Bridge - 50 m	1.00	$ 545,000.00	$ 545,000.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 545,000.00**		
V::B42	**S1-B42 Supply and Installation of Bridge - 60 m**		**Unit Cost:**	**$ 654,000.00**	**0**	**$ -**
	S1-B42 Supply and Installation of Bridge - 60 m		952			
	Supply and Installation of Bridge - 60 m	1.00	$ 654,000.00	$ 654,000.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 654,000.00**		
V::B43	**S1-B43 Supply and Installation of Bridge - 65 m**		**Unit Cost:**	**$ 708,500.00**	**0**	**$ -**
	S1-B43 Supply and Installation of Bridge - 65 m		968			
	Supply and Installation of Bridge - 65 m	1.00	$ 708,500.00	$ 708,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 708,500.00**		
V::B44	**S1-B44 Installation of Corduroy Road**		**Unit Cost:**	**$ 139.45**	**0**	**$ -**
	S1-B44 Installation of Corduroy Road		984			
	Installation of Corduroy Road	1.00	$ 139.45	$ 139.45		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 139.45**		
V::B45	**S1-B45 Installation of Access Road - Access Class 3**		**Unit Cost:**	**$ 80,700.00**	**0**	**$ -**
	S1-B45 Installation of Access Road - Access Class 3		1020			
	Installation of Access Road - Access Class 3	1.00	$ 80,700.00	$ 80,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 80,700.00**		
V::B46	**S1-B46 Installation of Access Road - Access Trail**		**Unit Cost:**	**$ 80,700.00**	**0**	**$ -**
	S1-B46 Installation of Access Road - Access Trail		1036			
	Installation of Access Road - Access Trail	1.00	$ 80,700.00	$ 80,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 80,700.00**		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.

Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::B47	**S1-B47 Installation of Access Road - Bypass Trail**		**Unit Cost:**	**$ 80,700.00**	**0**	**$ -**
	S1-B47 Installation of Access Road - Bypass Trail		1052			
	Installation of Access Road - Bypass Trail	1.00	$ 80,700.00	$ 80,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 80,700.00**		
V::C01	**S1-C1 Installation of Guy Wire Anchor in soil as per design drawings and technical specifi**		**Unit Cost:**	**$ 468.58**	**15500**	**$ 7,263,053.52**
	S1-C1 Installation of Guy Wire Anchor in soil as per design drawings and technical specification		1071			
	Guy Anchor in soil (/m)	1	$ 431.08	$ 431.08		
	Anchor Grout (l)	0	$ 1.73	$ -		
	Room and Board (day)	0.15	$ 250.01	$ 37.50		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 468.58		
V::C02	**S1-C2 Installation of Guy Wire Anchor in rock as per design drawings and technical specif**		**Unit Cost:**	$ 432.81	**14500**	**$ 6,275,676.25**
	S1-C2 Installation of Guy Wire Anchor in rock as per design drawings and technical specification	Manhour Row:	1088			
	Guy Anchor in rock (/m)	1	$ 395.30	$ 395.30		
	Anchor Grout (l)	0	$ 1.73	$ -		
	Room and Board (day)	0.15	$ 250.01	$ 37.50		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 432.81**		
V::C02-1	**S1-C2 Testing of Guy Wire Anchor up to 550kN as per design drawings and technical spec**		**Unit Cost:**	$ 994.35	**1304**	**$ 1,296,636.79**
	S1-C2 Testing of Guy Wire Anchor up to 550kN as per design drawings and technical specification	Manhour Row:	1105			
	Pull Test	1	$ 994.35	$ 994.35		
	Room and Board (day)	0	$ 250.01	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 994.35**		
V::C02-2	**S1-C2 Testing of Guy Wire Anchorup to 900kN as per design drawings and**		**Unit Cost:**	$ 994.35	**720**	**$ 715,934.43**
	S1-C2 Testing of Guy Wire Anchorup to 900kN as per design drawings and technical specification	Manhour Row:	1120			
	Pull Test	1	$ 994.35	$ 994.35		
	Room and Board (day)	0	$ 250.01	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 994.35**		
V::C03	**S1-C3 Assembly and Installation of Foundation Types A1-1 (100 kPa) as per Dwg 505573-4**		**Unit Cost:**	**$ 278.62**	**15**	**$ 4,179.34**
	S1-C3 Assembly and Installation of Foundation Types A1-1 (100 kPa) as per Dwg 505573-4622-42[	Manhour Row:	1137			
	Screened Crushed Rock (Tonne)	5.88	$ 47.38	$ 278.62		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 278.62**		
V::C04	**S1-C4 Assembly and Installation of Foundation Types A2-1 (100 kPa) as per Dwg 505573-4**		**Unit Cost:**	**$ 468.98**	**3**	**$ 1,406.93**
	S1-C4 Assembly and Installation of Foundation Types A2-1 (100 kPa) as per Dwg 505573-4622-42[	Manhour Row:	1148			
	Screened Crushed Rock (Tonne)	9.90	$ 47.38	$ 468.98		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 468.98**		
V::C05	**S1-C5 Assembly and Installation of Foundation Types A3-1 (100 kPa) as per Dwg 505573-4**		**Unit Cost:**	**$ 377.13**	**1**	**$ 377.13**
	S1-C5 Assembly and Installation of Foundation Types A3-1 (100 kPa) as per Dwg 505573-4622-42[	Manhour Row:	1161			
	Screened Crushed Rock (Tonne)	7.96	$ 47.38	$ 377.13		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 377.13**		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C06	**S1-C6 Assembly and Installation of Foundation Types A4-1 (100 kPa) as per Dwg 505573-4**		**Unit Cost:**	**$ 468.98**	**6**	**$ 2,813.86**
	S1-C6 Assembly and Installation of Foundation Types A4-1 (100 kPa) as per Dwg 505573-4622-42[		Manhour Row: 1174			
	Screened Crushed Rock (Tonne)	9.90	$ 47.38	$ 468.98		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 468.98**		
V::C07	**S1-C7 Assembly and Installation of Foundation Types B1-1 (100 kPa) as per Dwg 505573-4**		**Unit Cost:**	**$ 538.82**	**1**	**$ 538.82**
	S1-C7 Assembly and Installation of Foundation Types B1-1 (100 kPa) as per Dwg 505573-4622-42[		Manhour Row: 1187			
	Screened Crushed Rock (Tonne)	11.37	$ 47.38	$ 538.82		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 538.82**		
V::C08	**S1-C8 Assembly and Installation of Foundation Types B2-1 (100 kPa) as per Dwg 505573-4**		**Unit Cost:**	**$ 446.78**	**92**	**$ 41,103.90**
	S1-C8 Assembly and Installation of Foundation Types B2-1 (100 kPa) as per Dwg 505573-4622-42[		Manhour Row: 1200			
	Screened Crushed Rock (Tonne)	9.43	$ 47.38	$ 446.78		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 446.78**		
V::C09	**S1-C9 Assembly and Installation of Foundation Types A1-1A (250 kPa) as per Dwg 505573**		**Unit Cost:**	**$ 126.90**	**85**	**$ 10,786.72**
	S1-C9 Assembly and Installation of Foundation Types A1-1A (250 kPa) as per Dwg 505573-4622-4[		Manhour Row: 1213			
	Screened Crushed Rock (Tonne)	2.68	$ 47.38	$ 126.90		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 126.90**		
V::C10	**S1-C10 Assembly and Installation of Foundation Types A2-1A (250 kPa) as per Dwg 50557**		**Unit Cost:**	**$ 246.96**	**16**	**$ 3,951.38**
	S1-C10 Assembly and Installation of Foundation Types A2-1A (250 kPa) as per Dwg 505573-4622-4		Manhour Row: 1226			
	Screened Crushed Rock (Tonne)	5.21	$ 47.38	$ 246.96		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 246.96**		
V::C11	**S1-C11 Assembly and Installation of Foundation Types A3-1A (250 kPa) as per Dwg 50557**		**Unit Cost:**	**$ 168.54**	**6**	**$ 1,011.26**
	S1-C11 Assembly and Installation of Foundation Types A3-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for To		1239			
	Screened Crushed Rock (Tonne)	3.56	$ 47.38	$ 168.54		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 168.54**		
V::C12	**S1-C12 Assembly and Installation of Foundation Types A4-1A (250 kPa) as per Dwg 50557**		**Unit Cost:**	**$ 246.96**	**32**	**$ 7,902.76**
	S1-C12 Assembly and Installation of Foundation Types A4-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for To		1252			
	Screened Crushed Rock (Tonne)	5.21	$ 47.38	$ 246.96		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 246.96**		
V::C13	**S1-C13 Assembly and Installation of Foundation Types B1-1A (250 kPa) as per Dwg 50557**		**Unit Cost:**	**$ 264.42**	**3**	**$ 793.27**
	S1-C13 Assembly and Installation of Foundation Types B1-1A (250 kPa) as per Dwg 505573-4622-4		Manhour Row: 1265			
	Screened Crushed Rock (Tonne)	5.58	$ 47.38	$ 264.42		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 264.42**		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C14	**S1-C14 Assembly and Installation of Foundation Types B2-1A (250 kPa) as per Dwg 50557**		**Unit Cost:**	**$ 446.78**	**0**	**$ -**
	S1-C14 Assembly and Installation of Foundation Types B2-1A (250 kPa) as per Dwg 505573-4622-4		Manhour Row: 1278			
	Screened Crushed Rock (Tonne)	9.43	$ 47.38	$ 446.78		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 446.78**		
V::C15	**S1-C15 Assembly and Installation of Foundation Types C1-1 (100 kPa) as per Dwg 505573-**		**Unit Cost:**	**$ 471.41**	**28**	**$ 13,199.40**
	S1-C15 Assembly and Installation of Foundation Types C1-1 (100 kPa) as per Dwg 505573-4622-4		Manhour Row: 1291			
	Screened Crushed Rock (Tonne)	9.95	$ 47.38	$ 471.41		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 471.41		
V::C16	**S1-C16 Assembly and Installation of Foundation Types C2-1 (100 kPa) as per Dwg 505573-**		**Unit Cost:**	$ 577.46	**44**	$ 25,408.15
	S1-C16 Assembly and Installation of Foundation Types C2-1 (100 kPa) as per Dwg 505573-4622-4		Manhour Row: 1336			
	Screened Crushed Rock (Tonne)	12.19	$ 47.38	$ 577.46		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 577.46**		
V::C17	**S1-C17 Assembly and Installation of Foundation Types D1-1 (100 kPa) as per Dwg 505573-**		**Unit Cost:**	**$ 624.60**	**32**	**$ 19,987.16**
	S1-C17 Assembly and Installation of Foundation Types D1-1 (100 kPa) as per Dwg 505573-4622-4		Manhour Row: 1349			
	Screened Crushed Rock (Tonne)	13.18	$ 47.38	$ 624.60		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 624.60**		
V::C18	**S1-C18 Assembly and Installation of Foundation Types D2-1 (100 kPa) as per Dwg 505573-**		**Unit Cost:**	$ 683.89	**20**	**$ 13,677.85**
	S1-C18 Assembly and Installation of Foundation Types D2-1 (100 kPa) as per Dwg 505573-4622-4		Manhour Row: 1362			
	Screened Crushed Rock (Tonne)	14.43	$ 47.38	$ 683.89		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 683.89**		
V::C19	**S1-C19 Assembly and Installation of Foundation Types E1-1 (100 kPa) as per Dwg 505573-**		**Unit Cost:**	**$ 756.68**	**20**	**$ 15,133.65**
	S1-C19 Assembly and Installation of Foundation Types E1-1 (100 kPa) as per Dwg 505573-4622-4		Manhour Row: 1375			
	Screened Crushed Rock (Tonne)	15.97	$ 47.38	$ 756.68		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 756.68**		
V::C20	**S1-C20 Uplift testing per leg for Types C1-1, or D2-1, or E1-1 (100 kPa) as per technical sp**		**Unit Cost:**	**$ -**	**3**	**$ -**
	S1-C20 Uplift testing per leg for Types C1-1, or D2-1, or E1-1 (100 kPa) as per technical specificatio		Manhour Row: 1388			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::C21	**S1-C21 Downward, uplift, and lateral load testing per leg for Types C1-3, or D2-3, or E1-3 a**		**Unit Cost:**	**$ -**	**3**	**$ -**
	S1-C21 Downward, uplift, and lateral load testing per leg for Types C1-3, or D2-3, or E1-3 as per tec		Manhour Row: 1404			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C22	**S1-C22 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 1,909.69**	**109**	**$ 208,156.21**
	S1-C22 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0074 f		Manhour Row:	1421		
	Small Q Concrete (m^3)	1.66	$ 1,150.00	$ 1,909.69		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 1,909.69**		
V::C23	**S1-C23 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,798.41**	**20**	**$ 55,968.20**
	S1-C23 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0074 f		Manhour Row:	1438		
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,798.41		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 2,798.41		
V::C24	**S1-C24 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 1,909.69**	**10**	**$ 19,096.90**
	S1-C24 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0074 f		Manhour Row:	1455		
	Small Q Concrete (m^3)	1.66	$ 1,150.00	$ 1,909.69		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 1,909.69**		
V::C25	**S1-C25 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,798.41**	**40**	**$ 111,936.40**
	S1-C25 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0074 f		Manhour Row:	1472		
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,798.41		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,798.41**		
V::C26	**S1-C26 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,798.41**	**3**	**$ 8,395.23**
	S1-C26 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0074 f		Manhour Row:	1489		
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,798.41		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,798.41**		
V::C27	**S1-C27 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**100**	**$ 279,312.00**
	S1-C27 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row:	1506		
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C28	**S1-C28 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 1,523.52**	**9**	**$ 13,711.68**
	S1-C28 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row:	1523		
	Small Q Concrete (m^3)	1.32	$ 1,150.00	$ 1,523.52		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 1,523.52**		
V::C29	**S1-C29 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,541.85**	**2**	**$ 5,083.69**
	S1-C29 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row:	1540		
	Small Q Concrete (m^3)	2.21	$ 1,150.00	$ 2,541.85		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,541.85**		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C30	**S1-C30 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,073.68**	**1**	**$ 2,073.68**
	S1-C30 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1557			
	Small Q Concrete (m^3)	1.80	$ 1,150.00	$ 2,073.68		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,073.68**		
V::C31	**S1-C31 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,541.85**	**4**	**$ 10,167.38**
	S1-C31 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1574			
	Small Q Concrete (m^3)	2.21	$ 1,150.00	$ 2,541.85		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 2,541.85		
V::C32	**S1-C32 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	$ 2,708.48	**1**	$ 2,708.48
	S1-C32 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1591			
	Small Q Concrete (m^3)	2.36	$ 1,150.00	$ 2,708.48		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,708.48**		
V::C33	**S1-C33 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 1,523.52**	**81**	**$ 123,405.12**
	S1-C33 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1608			
	Small Q Concrete (m^3)	1.32	$ 1,150.00	$ 1,523.52		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 1,523.52**		
V::C34	**S1-C34 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	$ 2,541.85	**16**	**$ 40,669.52**
	S1-C34 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1625			
	Small Q Concrete (m^3)	2.21	$ 1,150.00	$ 2,541.85		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,541.85**		
V::C35	**S1-C35 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,073.68**	**7**	**$ 14,515.76**
	S1-C35 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1642			
	Small Q Concrete (m^3)	1.80	$ 1,150.00	$ 2,073.68		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,073.68**		
V::C36	**S1-C36 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,541.85**	**31**	**$ 78,797.20**
	S1-C36 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1659			
	Small Q Concrete (m^3)	2.21	$ 1,150.00	$ 2,541.85		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,541.85**		
V::C37	**S1-C37 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,708.48**	**3**	**$ 8,125.44**
	S1-C37 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1675			
	Small Q Concrete (m^3)	2.36	$ 1,150.00	$ 2,708.48		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,708.48**		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C38	**S1-C38 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**88**	**$ 245,794.56**
	S1-C38 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1692			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C39	**S1-C39 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**32**	**$ 89,379.84**
	S1-C39 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1709			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 2,793.12		
V::C40	**S1-C40 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	$ 2,793.12	**48**	**$ 134,069.76**
	S1-C40 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1726			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C41	**S1-C41 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	$ 2,793.12	**36**	**$ 100,552.32**
	S1-C41 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1743			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C42	**S1-C42 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	$ 2,793.12	**20**	**$ 55,862.40**
	S1-C42 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1760			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C43	**S1-C43 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**16**	**$ 44,689.92**
	S1-C43 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1777			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C44	**S1-C44 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**24**	**$ 67,034.88**
	S1-C44 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1794			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C45	**S1-C45 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**40**	**$ 111,724.80**
	S1-C45 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1811			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C46	**S1-C46 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**28**	**$ 78,207.36**
	S1-C46 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1828			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C47	**S1-C47 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**20**	**$ 55,862.40**
	S1-C47 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1846			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C48	**S1-C48 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**20**	**$ 55,862.40**
	S1-C48 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1863			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
	Non-Shrink grout (l)		$ 9.20	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C49	**S1-C49 Installation and Testing of 25M Mechanical Rock Anchor as per design drawings a**		**Unit Cost:**	**$ 23.48**	**9173**	**$ 215,413.78**
	S1-C49 Installation and Testing of 25M Mechanical Rock Anchor as per design drawings and technic		Manhour Row: 1880			
	Non-Shrink grout (l)	2.6	$ 9.20	$ 23.48		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 23.48**		
V::C50	**S1-C50 Installation and Testing of 29M Mechanical Rock Anchor as per design drawings a**		**Unit Cost:**	**$ 30.52**	**276**	**$ 8,423.27**
	S1-C50 Installation and Testing of 29M Mechanical Rock Anchor as per design drawings and technic		Manhour Row: 1896			
	Non-Shrink grout (l)	3.3	$ 9.20	$ 30.52		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 30.52**		
V::C51	**S1-C51 Installation and Testing of 32M Mechanical Rock Anchor as per design drawings a**		**Unit Cost:**	**$ 37.28**	**0**	**$ -**
	S1-C51 Installation and Testing of 32M Mechanical Rock Anchor as per design drawings and technic		Manhour Row: 1912			
	Non-Shrink grout (l)	4.1	$ 9.20	$ 37.28		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 37.28**		
V::C52	**S1-C52 Installation and Testing of 43M Mechanical Rock Anchor as per design drawings a**		**Unit Cost:**	**$ 46.03**	**24108**	**$ 1,109,632.94**
	S1-C52 Installation and Testing of 43M Mechanical Rock Anchor as per design drawings and technic		Manhour Row: 1928			
	Non-Shrink grout (l)	5.0	$ 9.20	$ 46.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 46.03**		
V::C53	**S1-C53 Installation and Testing of 57M Mechanical Rock Anchor as per design drawings a**		**Unit Cost:**	**$ 64.71**	**145**	**$ 9,383.10**
	S1-C53 Installation and Testing of 57M Mechanical Rock Anchor as per design drawings and technic		Manhour Row: 1944			
	Non-Shrink grout (l)	7.0	$ 9.20	$ 64.71		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 64.71**		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C54	**S1-C54 Installation and Testing of 64M Mechanical Rock Anchor as per design drawings a**		**Unit Cost:**	**$ 76.09**	**9**	**$ 684.78**
	S1-C54 Installation and Testing of 64M Mechanical Rock Anchor as per design drawings and techni		Manhour Row:	1961		
	Non-Shrink grout (l)	8.3	$ 9.20	$ 76.09		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 76.09**		
V::C55	**S1-C55 Design, Assembly and Installation of Foundation Type A1-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 44,266.30**	**3**	**$ 132,798.91**
	S1-C55 Design, Assembly and Installation of Foundation Type A1-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C55	1	$ 40,516.11	$ 40,516.11		
	Room and Board (day)	15	$ 250.01	$ 3,750.19		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 44,266.30		
V::C56	**S1-C56 Design, Assembly and Installation of Foundation Type A2-3 as per Dwg 505573-46**		**Unit Cost:**	$ 44,266.30	**1**	$ 44,266.30
	S1-C56 Design, Assembly and Installation of Foundation Type A2-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C56	1	$ 40,516.11	$ 40,516.11		
	Room and Board (day)	15	$ 250.01	$ 3,750.19		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 44,266.30**		
V::C57	**S1-C57 Design, Assembly and Installation of Foundation Type A3-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 44,266.30**	**0**	**$ -**
	S1-C57 Design, Assembly and Installation of Foundation Type A3-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C57	1	$ 40,516.11	$ 40,516.11		
	Room and Board (day)	15	$ 250.01	$ 3,750.19		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 44,266.30		
V::C58	**S1-C58 Design, Assembly and Installation of Foundation Type A4-3 as per Dwg 505573-46**		**Unit Cost:**	$ 44,266.30	**1**	**$ 44,266.30**
	S1-C58 Design, Assembly and Installation of Foundation Type A4-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C58	1	$ 40,516.11	$ 40,516.11		
	Room and Board (day)	15	$ 250.01	$ 3,750.19		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 44,266.30**		
V::C59	**S1-C59 Design, Assembly and Installation of Foundation Type B1-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 44,266.30**	**0**	**$ -**
	S1-C59 Design, Assembly and Installation of Foundation Type B1-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C59	1	$ 40,516.11	$ 40,516.11		
	Room and Board (day)	15	$ 250.01	$ 3,750.19		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 44,266.30**		
V::C60	**S1-C60 Design, Assembly and Installation of Foundation Type B2-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 208,457.28**	**4**	**$ 833,829.12**
	S1-C60 Design, Assembly and Installation of Foundation Type B2-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C60	1	$ 188,456.25	$ 188,456.25		
	Room and Board (day)	80	$ 250.01	$ 20,001.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 208,457.28**		
V::C61	**S1-C61 Design, Assembly and Installation of Foundation Type C1-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 208,457.28**	**0**	**$ -**
	S1-C61 Design, Assembly and Installation of Foundation Type C1-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C61	1	$ 188,456.25	$ 188,456.25		
	Room and Board (day)	80	$ 250.01	$ 20,001.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 208,457.28**		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C62	**S1-C62 Design, Assembly and Installation of Foundation Type C2-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 208,457.28**	**4**	**$ 833,829.12**
	S1-C62 Design, Assembly and Installation of Foundation Type C2-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C62	1	$ 188,456.25	$ 188,456.25		
	Room and Board (day)	80	$ 250.01	$ 20,001.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 208,457.28**		
V::C63	**S1-C63 Design, Assembly and Installation of Foundation Type D1-3 per Dwg 505573-4622-**		**Unit Cost:**	**$ 208,457.28**	**0**	**$ -**
	S1-C63 Design, Assembly and Installation of Foundation Type D1-3 per Dwg 505573-4622-42DD-0(		Manhour Row:			
	NorthStar Price for Steel Piling Caps C63	1	$ 188,456.25	$ 188,456.25		
	Room and Board (day)	80	$ 250.01	$ 20,001.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 208,457.28**		
V::C64	**S1-C64 Design, Assembly and Installation of Foundation Type D2-3 as per Dwg 505573-46**		**Unit Cost:**	$ 208,457.28	**0**	$ -
	S1-C64 Design, Assembly and Installation of Foundation Type D2-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C64	1	$ 188,456.25	$ 188,456.25		
	Room and Board (day)	80	$ 250.01	$ 20,001.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 208,457.28**		
V::C65	**S1-C65 Design, Assembly and Installation of Foundation Type E1-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 208,457.28**	**4**	**$ 833,829.12**
	S1-C65 Design, Assembly and Installation of Foundation Type E1-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C65	1	$ 188,456.25	$ 188,456.25		
	Room and Board (day)	80	$ 250.01	$ 20,001.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 208,457.28**		
V::C66	**S1-C66 Rock anchor to be installed with S1-C60 to S1-C65 item above as per the design d**		**Unit Cost:**	$ 468.58	**720**	**$ 337,380.55**
	S1-C66 Rock anchor to be installed with S1-C60 to S1-C65 item above as per the design drawings a		Manhour Row:			
	Guy Anchor in soil (/m)	1	$ 431.08	$ 431.08		
	Room and Board (day)	0.15	$ 250.01	$ 37.50		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 468.58**		
V::C67	**S1-C67 Supply, and installation of H-Piles, HP 360 x 108, Grade 350AT**		**Unit Cost:**	**$ 580.69**	**2040**	**$ 1,184,606.25**
	S1-C67 Supply, and installation of H-Piles, HP 360 x 108, Grade 350AT		Manhour Row:			
	NorthStar Price for piles by LM	1	$ 555.69	$ 555.69		
	Room and Board (day)	0.1	$ 250.01	$ 25.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 580.69**		
V::C68	**S1-C68 Supply and Installation of Cribs for excavation protection of tower types A1, A2, A**		**Unit Cost:**	**$ 254.37**	**6700**	**$ 1,704,268.95**
	S1-C68 Supply and Installation of Cribs for excavation protection of tower types A1, A2, A3, A4, B1, I		Manhour Row:			
	Bolt a Plate Culvert (m^2)	1	$ 254.37	$ 254.37		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 254.37**		
V::C69	**S1-C69 Transportation of native backfill**		**Unit Cost:**	**$ -**	**1000**	**$ -**
	S1-C69 Transportation of native backfill		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.

Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C70	**S1-C70 Supply and transportation of approved fill from an alternate source/processed ma**		**Unit Cost:**	**$ 106.61**	**14000**	**$ 1,492,470.00**
	S1-C70 Supply and transportation of approved fill from an alternate source/processed material/road		Manhour Row:			
	Screened Crushed Rock (Tonne)	2.25	$ 47.38	$ 106.61		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 106.61**		
V::C71	**S1-C71 Rock blasting/preparation**		**Unit Cost:**	**$ -**	**1000**	**$ -**
	S1-C71 Rock blasting/preparation					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D01	**S1-D1 Assembly and Erection of Suspension Tower Type "A1 + 0" as per dwg. 505573-462**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D1 Assembly and Erection of Suspension Tower Type "A1 + 0" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D02	**S1-D2 Assembly and Erection of Suspension Tower Type "A1 + 1.5" as per dwg. 505573-4**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D2 Assembly and Erection of Suspension Tower Type "A1 + 1.5" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D03	**S1-D3 Assembly and Erection of Suspension Tower Type "A1 + 3" as per dwg. 505573-46**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D3 Assembly and Erection of Suspension Tower Type "A1 + 3" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D04	**S1-D4 Assembly and Erection of Suspension Tower Type "A1 + 4.5" as per dwg. 505573-4**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D4 Assembly and Erection of Suspension Tower Type "A1 + 4.5" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D05	**S1-D5 Assembly and Erection of Suspension Tower Type "A1 + 6" as per dwg. 505573-46**		**Unit Cost:**	**$ -**	**67**	**$ -**
	S1-D5 Assembly and Erection of Suspension Tower Type "A1 + 6" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D06	**S1-D6 Assembly and Erection of Suspension Tower Type "A1 + 7.5" as per dwg. 505573-4**		**Unit Cost:**	**$ -**	**26**	**$ -**
	S1-D6 Assembly and Erection of Suspension Tower Type "A1 + 7.5" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D07	**S1-D7 Assembly and Erection of Suspension Tower Type "A1 + 9" as per dwg. 505573-46**		**Unit Cost:**	**$ -**	**27**	**$ -**
	S1-D7 Assembly and Erection of Suspension Tower Type "A1 + 9" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D08	**S1-D8 Assembly and Erection of Suspension Tower Type "A1 + 10.5" as per dwg. 505573-**		**Unit Cost:**	**$ -**	**28**	**$ -**
	S1-D8 Assembly and Erection of Suspension Tower Type "A1 + 10.5" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D09	**S1-D9 Assembly and Erection of Suspension Tower Type "A1 + 12" as per dwg. 505573-4**		**Unit Cost:**	$ -	**33**	$ -
	S1-D9 Assembly and Erection of Suspension Tower Type "A1 + 12" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D10	**S1-D10 Assembly and Erection of Suspension Tower Type "A1 + 13.5" as per dwg. 50557**		**Unit Cost:**	**$ -**	**25**	**$ -**
	S1-D10 Assembly and Erection of Suspension Tower Type "A1 + 13.5" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D11	**S1-D11 Assembly and Erection of Suspension Tower Type "A1 + 15" as per dwg. 505573-**		**Unit Cost:**	$ -	**26**	**$ -**
	S1-D11 Assembly and Erection of Suspension Tower Type "A1 + 15" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D12	**S1-D12 Assembly and Erection of Suspension Tower Type "A1 + 16.5" as per dwg. 50557**		**Unit Cost:**	**$ -**	**28**	**$ -**
	S1-D12 Assembly and Erection of Suspension Tower Type "A1 + 16.5" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D13	**S1-D13 Assembly and Erection of Suspension Tower Type "A1 + 18" as per dwg. 505573-**		**Unit Cost:**	**$ -**	**42**	**$ -**
	S1-D13 Assembly and Erection of Suspension Tower Type "A1 + 18" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D14	**S1-D14 Assembly and Erection of Suspension Tower Type "A2 + 0" as per dwg. 505573-46**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D14 Assembly and Erection of Suspension Tower Type "A2 + 0" as per dwg. 505573-4622-43DD-0044					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D15	**S1-D15 Assembly and Erection of Suspension Tower Type "A2 + 1.5" as per dwg. 505573-**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D15 Assembly and Erection of Suspension Tower Type "A2 + 1.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D16	**S1-D16 Assembly and Erection of Suspension Tower Type "A2 + 3" as per dwg. 505573-4**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D16 Assembly and Erection of Suspension Tower Type "A2 + 3" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D17	**S1-D17 Assembly and Erection of Suspension Tower Type "A2 + 4.5" as per dwg. 505573-**		**Unit Cost:**	$ -	**0**	$ -
	S1-D17 Assembly and Erection of Suspension Tower Type "A2 + 4.5" as per dwg. 505573-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D18	**S1-D18 Assembly and Erection of Suspension Tower Type "A2 + 6" as per dwg. 505573-4**		**Unit Cost:**	**$ -**	**6**	**$ -**
	S1-D18 Assembly and Erection of Suspension Tower Type "A2 + 6" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D19	**S1-D19 Assembly and Erection of Suspension Tower Type "A2 + 7.5" as per dwg. 505573-**		**Unit Cost:**	**$ -**	**6**	**$ -**
	S1-D19 Assembly and Erection of Suspension Tower Type "A2 + 7.5" as per dwg. 505573-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D20	**S1-D20 Assembly and Erection of Suspension Tower Type "A2 + 9" as per dwg. 505573-4**		**Unit Cost:**	**$ -**	**11**	**$ -**
	S1-D20 Assembly and Erection of Suspension Tower Type "A2 + 9" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D21	**S1-D21 Assembly and Erection of Suspension Tower Type "A2 + 10.5" as per dwg. 50557**		**Unit Cost:**	**$ -**	**5**	**$ -**
	S1-D21 Assembly and Erection of Suspension Tower Type "A2 + 10.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D22	**S1-D22 Assembly and Erection of Suspension Tower Type "A2 + 12" as per dwg. 505573-**		**Unit Cost:**	**$ -**	**12**	**$ -**
	S1-D22 Assembly and Erection of Suspension Tower Type "A2 + 12" as per dwg. 505573-4622-43I		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D23	**S1-D23 Assembly and Erection of Suspension Tower Type "A2 + 13.5" as per dwg. 50557**		**Unit Cost:**	$ -	4	$ -
	S1-D23 Assembly and Erection of Suspension Tower Type "A2 + 13.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D24	**S1-D24 Assembly and Erection of Suspension Tower Type "A2 + 15" as per dwg. 505573-**		**Unit Cost:**	$ -	4	$ -
	S1-D24 Assembly and Erection of Suspension Tower Type "A2 + 15" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D25	**S1-D25 Assembly and Erection of Suspension Tower Type "A2 + 16.5" as per dwg. 50557**		**Unit Cost:**	$ -	6	$ -
	S1-D25 Assembly and Erection of Suspension Tower Type "A2 + 16.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D26	**S1-D26 Assembly and Erection of Suspension Tower Type "A2 + 18" as per dwg. 505573-**		**Unit Cost:**	$ -	1	$ -
	S1-D26 Assembly and Erection of Suspension Tower Type "A2 + 18" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D27	**S1-D27 Assembly and Erection of Suspension Tower Type "A2 + 19.5" as per dwg. 505573**		**Unit Cost:**	$ -	2	$ -
	S1-D27 Assembly and Erection of Suspension Tower Type "A2 + 19.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D28	**S1-D28 Assembly and Erection of Suspension Tower Type "A3 + 0" as per dwg. 505573-46**		**Unit Cost:**	$ -	0	$ -
	S1-D28 Assembly and Erection of Suspension Tower Type "A3 + 0" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.

Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D29	S1-D29 Assembly and Erection of Suspension Tower Type "A3 + 1.5" as per dwg. 505573-		Unit Cost:	$ -	1	$ -
	S1-D29 Assembly and Erection of Suspension Tower Type "A3 + 1.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D30	S1-D30 Assembly and Erection of Suspension Tower Type "A3 + 3" as per dwg. 505573-4		Unit Cost:	$ -	2	$ -
	S1-D30 Assembly and Erection of Suspension Tower Type "A3 + 3" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D31	S1-D31 Assembly and Erection of Suspension Tower Type "A3 + 4.5" as per dwg. 505573-		Unit Cost:	$ -	2	$ -
	S1-D31 Assembly and Erection of Suspension Tower Type "A3 + 4.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D32	S1-D32 Assembly and Erection of Suspension Tower Type "A3 + 6" as per dwg. 505573-4		Unit Cost:	$ -	3	$ -
	S1-D32 Assembly and Erection of Suspension Tower Type "A3 + 6" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D33	S1-D33 Assembly and Erection of Suspension Tower Type "A3 + 7.5" as per dwg. 505573-		Unit Cost:	$ -	3	$ -
	S1-D33 Assembly and Erection of Suspension Tower Type "A3 + 7.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D34	S1-D34 Assembly and Erection of Suspension Tower Type "A3 + 9" as per dwg. 505573-4		Unit Cost:	$ -	2	$ -
	S1-D34 Assembly and Erection of Suspension Tower Type "A3 + 9" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.

Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D35	S1-D35 Assembly and Erection of Suspension Tower Type "A3 + 10.5" as per dwg. 50557		Unit Cost:	$ -	3	$ -
	S1-D35 Assembly and Erection of Suspension Tower Type "A3 + 10.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D36	S1-D36 Assembly and Erection of Suspension Tower Type "A3 + 12" as per dwg. 505573-		Unit Cost:	$ -	2	$ -
	S1-D36 Assembly and Erection of Suspension Tower Type "A3 + 12" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D37	S1-D37 Assembly and Erection of Suspension Tower Type "A3 + 13.5" as per dwg. 50557		Unit Cost:	$ -	2	$ -
	S1-D37 Assembly and Erection of Suspension Tower Type "A3 + 13.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D38	S1-D38 Assembly and Erection of Suspension Tower Type "A3 + 15" as per dwg. 505573-		Unit Cost:	$ -	1	$ -
	S1-D38 Assembly and Erection of Suspension Tower Type "A3 + 15" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D39	S1-D39 Assembly and Erection of Suspension Tower Type "A3 + 16.5" as per dwg. 50557		Unit Cost:	$ -	3	$ -
	S1-D39 Assembly and Erection of Suspension Tower Type "A3 + 16.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D40	S1-D40 Assembly and Erection of Suspension Tower Type "A4 + 0" as per dwg. 505573-46		Unit Cost:	$ -	0	$ -
	S1-D40 Assembly and Erection of Suspension Tower Type "A4 + 0" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.

Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D41	S1-D41 Assembly and Erection of Suspension Tower Type "A4 + 1.5" as per dwg. 505573-		Unit Cost:	$ -	0	$ -
	S1-D41 Assembly and Erection of Suspension Tower Type "A4 + 1.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D42	S1-D42 Assembly and Erection of Suspension Tower Type "A4 + 3" as per dwg. 505573-4		Unit Cost:	$ -	0	$ -
	S1-D42 Assembly and Erection of Suspension Tower Type "A4 + 3" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D43	S1-D43 Assembly and Erection of Suspension Tower Type "A4 + 4.5" as per dwg. 505573-		Unit Cost:	$ -	0	$ -
	S1-D43 Assembly and Erection of Suspension Tower Type "A4 + 4.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D44	S1-D44 Assembly and Erection of Suspension Tower Type "A4 + 6" as per dwg. 505573-4		Unit Cost:	$ -	25	$ -
	S1-D44 Assembly and Erection of Suspension Tower Type "A4 + 6" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D45	S1-D45 Assembly and Erection of Suspension Tower Type "A4 + 7.5" as per dwg. 505573-		Unit Cost:	$ -	12	$ -
	S1-D45 Assembly and Erection of Suspension Tower Type "A4 + 7.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D46	S1-D46 Assembly and Erection of Suspension Tower Type "A4 + 9" as per dwg. 505573-4		Unit Cost:	$ -	21	$ -
	S1-D46 Assembly and Erection of Suspension Tower Type "A4 + 9" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D47	**S1-D47 Assembly and Erection of Suspension Tower Type "A4 + 10.5" as per dwg. 50557**		**Unit Cost:**	$ -	18	$ -
	S1-D47 Assembly and Erection of Suspension Tower Type "A4 + 10.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D48	**S1-D48 Assembly and Erection of Suspension Tower Type "A4 + 12" as per dwg. 505573-**		**Unit Cost:**	$ -	10	$ -
	S1-D48 Assembly and Erection of Suspension Tower Type "A4 + 12" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D49	**S1-D49 Assembly and Erection of Suspension Tower Type "A4 + 13.5" as per dwg. 50557**		**Unit Cost:**	$ -	12	$ -
	S1-D49 Assembly and Erection of Suspension Tower Type "A4 + 13.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D50	**S1-D50 Assembly and Erection of Suspension Tower Type "A4 + 15" as per dwg. 505573-**		**Unit Cost:**	$ -	4	$ -
	S1-D50 Assembly and Erection of Suspension Tower Type "A4 + 15" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D51	**S1-D51 Assembly and Erection of Suspension Tower Type "A4 + 16.5" as per dwg. 50557**		**Unit Cost:**	$ -	4	$ -
	S1-D51 Assembly and Erection of Suspension Tower Type "A4 + 16.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D52	**S1-D52 Assembly and Erection of Suspension Tower Type "A4 + 18" as per dwg. 505573-**		**Unit Cost:**	$ -	1	$ -
	S1-D52 Assembly and Erection of Suspension Tower Type "A4 + 18" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D53	**S1-D53 Assembly and Erection of Suspension Tower Type "A4 + 19.5" as per dwg. 50557**		**Unit Cost:**	$ -	6	$ -
	S1-D53 Assembly and Erection of Suspension Tower Type "A4 + 19.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D54	**S1-D54 Assembly and Erection of Suspension Tower Type "B1 + 0" as per dwg. 505573-46**		**Unit Cost:**	$ -	0	$ -
	S1-D54 Assembly and Erection of Suspension Tower Type "B1 + 0" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D55	**S1-D55 Assembly and Erection of Suspension Tower Type "B1 + 1.5" as per dwg. 505573**		**Unit Cost:**	$ -	0	$ -
	S1-D55 Assembly and Erection of Suspension Tower Type "B1 + 1.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D56	**S1-D56 Assembly and Erection of Suspension Tower Type "B1 + 3" as per dwg. 505573-4**		**Unit Cost:**	$ -	0	$ -
	S1-D56 Assembly and Erection of Suspension Tower Type "B1 + 3" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D57	**S1-D57 Assembly and Erection of Suspension Tower Type "B1 + 4.5" as per dwg. 505573**		**Unit Cost:**	$ -	0	$ -
	S1-D57 Assembly and Erection of Suspension Tower Type "B1 + 4.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D58	**S1-D58 Assembly and Erection of Suspension Tower Type "B1 + 6" as per dwg. 505573-4**		**Unit Cost:**	$ -	0	$ -
	S1-D58 Assembly and Erection of Suspension Tower Type "B1 + 6" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.

Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D59	S1-D59 Assembly and Erection of Suspension Tower Type "B1 + 7.5" as per dwg. 505573-	Unit Cost:		$ -	0	$ -
	S1-D59 Assembly and Erection of Suspension Tower Type "B1 + 7.5" as per dwg. 505573-4622-43	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D60	S1-D60 Assembly and Erection of Suspension Tower Type "B1 + 9" as per dwg. 505573-4	Unit Cost:		$ -	0	$ -
	S1-D60 Assembly and Erection of Suspension Tower Type "B1 + 9" as per dwg. 505573-4622-43D	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D61	S1-D61 Assembly and Erection of Suspension Tower Type "B1 + 10.5" as per dwg. 50557	Unit Cost:		$ -	0	$ -
	S1-D61 Assembly and Erection of Suspension Tower Type "B1 + 10.5" as per dwg. 505573-4622-4	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D62	S1-D62 Assembly and Erection of Suspension Tower Type "B1 + 12" as per dwg. 505573-	Unit Cost:		$ -	1	$ -
	S1-D62 Assembly and Erection of Suspension Tower Type "B1 + 12" as per dwg. 505573-4622-43	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D63	S1-D63 Assembly and Erection of Suspension Tower Type "B1 + 13.5" as per dwg. 50557	Unit Cost:		$ -	1	$ -
	S1-D63 Assembly and Erection of Suspension Tower Type "B1 + 13.5" as per dwg. 505573-4622-4	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D64	S1-D64 Assembly and Erection of Suspension Tower Type "B1 + 15" as per dwg. 505573-	Unit Cost:		$ -	2	$ -
	S1-D64 Assembly and Erection of Suspension Tower Type "B1 + 15" as per dwg. 505573-4622-43	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D65	S1-D65 Assembly and Erection of Suspension Tower Type "B1 + 16.5" as per dwg. 50557		Unit Cost:	$ -	1	$ -
	S1-D65 Assembly and Erection of Suspension Tower Type "B1 + 16.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D66	S1-D66 Assembly and Erection of Suspension Tower Type "B1 + 18" as per dwg. 505573-		Unit Cost:	$ -	1	$ -
	S1-D66 Assembly and Erection of Suspension Tower Type "B1 + 18" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D67	S1-D67 Assembly and Erection of Suspension Tower Type "B1 + 19.5" as per dwg. 505573		Unit Cost:	$ -	0	$ -
	S1-D67 Assembly and Erection of Suspension Tower Type "B1 + 19.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D68	S1-D68 Assembly and Erection of Suspension Tower Type "B1 + 21" as per dwg. 505573-4		Unit Cost:	$ -	1	$ -
	S1-D68 Assembly and Erection of Suspension Tower Type "B1 + 21" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D69	S1-D69 Assembly and Erection of Suspension Tower Type "B1 + 22.5" as per dwg. 505573		Unit Cost:	$ -	0	$ -
	S1-D69 Assembly and Erection of Suspension Tower Type "B1 + 22.5" as per dwg. 505573-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D70	S1-D70 Assembly and Erection of Suspension Tower Type "B1 + 24" as per dwg. 505573-4		Unit Cost:	$ -	2	$ -
	S1-D70 Assembly and Erection of Suspension Tower Type "B1 + 24" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D71	S1-D71 Assembly and Erection of Suspension Tower Type "B1 + 25.5" as per dwg. 505573		Unit Cost:	$ -	0	$ -
	S1-D71 Assembly and Erection of Suspension Tower Type "B1 + 25.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D72	S1-D72 Assembly and Erection of Suspension Tower Type "B1 + 27" as per dwg. 505573-4		Unit Cost:	$ -	1	$ -
	S1-D72 Assembly and Erection of Suspension Tower Type "B1 + 27" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D73	S1-D73 Assembly and Erection of Medium Angle Tower Type "B2" Basic Body as per dwg		Unit Cost:	$ -	71	$ -
	S1-D73 Assembly and Erection of Medium Angle Tower Type "B2" Basic Body as per dwg. 505573-		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D74	S1-D74 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "I		Unit Cost:	$ -	17	$ -
	S1-D74 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "B2" as per		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D75	S1-D75 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type '		Unit Cost:	$ -	19	$ -
	S1-D75 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "B2" as pe		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D76	S1-D76 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "B2"		Unit Cost:	$ -	40	$ -
	S1-D76 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "B2" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.

Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D77	**S1-D77 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "B2**		**Unit Cost:**	$ -	12	$ -
	S1-D77 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "B2" as per d		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D78	**S1-D78 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "B2"**		**Unit Cost:**	$ -	28	$ -
	S1-D78 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "B2" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D79	**S1-D79 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "B2**		**Unit Cost:**	$ -	32	$ -
	S1-D79 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "B2" as per d		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D80	**S1-D80 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "B2"**		**Unit Cost:**	$ -	52	$ -
	S1-D80 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "B2" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D81	**S1-D81 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "B2**		**Unit Cost:**	$ -	44	$ -
	S1-D81 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "B2" as per d		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D82	**S1-D82 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "B2"**		**Unit Cost:**	$ -	76	$ -
	S1-D82 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "B2" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D83	S1-D83 Assembly and Erection of Medium Angle Tower Type "C1" Basic Body as per dwg		Unit Cost:	$ -	21	$ -
	S1-D83 Assembly and Erection of Medium Angle Tower Type "C1" Basic Body as per dwg. 505573-		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D84	S1-D84 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "(		Unit Cost:	$ -	1	$ -
	S1-D84 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "C1" as per		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D85	S1-D85 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type '		Unit Cost:	$ -	6	$ -
	S1-D85 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "C1" as pe		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D86	S1-D86 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C1"		Unit Cost:	$ -	0	$ -
	S1-D86 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C1" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D87	S1-D87 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C1		Unit Cost:	$ -	0	$ -
	S1-D87 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C1" as per c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D88	S1-D88 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C1"		Unit Cost:	$ -	44	$ -
	S1-D88 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C1" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.

Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D89	**S1-D89 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C1**		**Unit Cost:**	$ -	8	$ -
	S1-D89 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C1" as per c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D90	**S1-D90 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C1"**		**Unit Cost:**	$ -	4	$ -
	S1-D90 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C1" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D91	**S1-D91 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C1**		**Unit Cost:**	$ -	8	$ -
	S1-D91 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C1" as per c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D92	**S1-D92 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C1"**		**Unit Cost:**	$ -	20	$ -
	S1-D92 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C1" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D93	**S1-D93 Assembly and Erection of Medium Angle Tower Type "C2" Basic Body as per dwg**		**Unit Cost:**	$ -	34	$ -
	S1-D93 Assembly and Erection of Medium Angle Tower Type "C2" Basic Body as per dwg. 505573-		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D94	**S1-D94 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "(**		**Unit Cost:**	$ -	7	$ -
	S1-D94 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "C2" as per		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D95	**S1-D95 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type '**		**Unit Cost:**	$ -	0	$ -
	S1-D95 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "C2" as p		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D96	**S1-D96 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C2"**		**Unit Cost:**	$ -	16	$ -
	S1-D96 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C2" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D97	**S1-D97 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C2**		**Unit Cost:**	$ -	4	$ -
	S1-D97 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C2" as per c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D98	**S1-D98 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C2"**		**Unit Cost:**	$ -	28	$ -
	S1-D98 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C2" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D99	**S1-D99 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C2**		**Unit Cost:**	$ -	20	$ -
	S1-D99 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C2" as per c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D100	**S1-D100 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C2'**		**Unit Cost:**	$ -	24	$ -
	S1-D100 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C2" as per d		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.

Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D101	**S1-D101 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C**	**Unit Cost:**		$ -	24	$ -
	S1-D101 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C2" as per	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D102	**S1-D102 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C2'**	**Unit Cost:**		$ -	20	$ -
	S1-D102 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C2" as per d	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D103	**S1-D103 Assembly and Erection of Dead-End Tower Type "D1" Basic Body as per dwg. 5(**	**Unit Cost:**		$ -	24	$ -
	S1-D103 Assembly and Erection of Dead-End Tower Type "D1" Basic Body as per dwg. 505573-46	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D104	**S1-D104 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D1"**	**Unit Cost:**		$ -	3	$ -
	S1-D104 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D1" as per dv	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D105	**S1-D105 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D1**	**Unit Cost:**		$ -	3	$ -
	S1-D105 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D1" as per c	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D106	**S1-D106 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D1" as**	**Unit Cost:**		$ -	0	$ -
	S1-D106 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D1" as per dwg.	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.

Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D107	S1-D107 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D1" a		Unit Cost:	$ -	0	$ -
	S1-D107 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D1" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D108	S1-D108 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D1" as		Unit Cost:	$ -	40	$ -
	S1-D108 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D1" as per dwg.		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D109	S1-D109 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D1" a		Unit Cost:	$ -	16	$ -
	S1-D109 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D1" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D110	S1-D110 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D1" as		Unit Cost:	$ -	28	$ -
	S1-D110 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D1" as per dwg.		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D111	S1-D111 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D1" a		Unit Cost:	$ -	12	$ -
	S1-D111 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D1" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D112	S1-D112 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D1" as		Unit Cost:	$ -	0	$ -
	S1-D112 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D1" as per dwg.		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D113	S1-D113 Assembly and Erection of Dead-End Tower Type "D2" Basic Body as per dwg. 5(		Unit Cost:	$ -	15	$ -
	S1-D113 Assembly and Erection of Dead-End Tower Type "D2" Basic Body as per dwg. 505573-46		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D114	S1-D114 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D2"		Unit Cost:	$ -	1	$ -
	S1-D114 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D2" as per dv		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D115	S1-D115 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D2		Unit Cost:	$ -	0	$ -
	S1-D115 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D2" as per c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D116	S1-D116 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D2" as		Unit Cost:	$ -	16	$ -
	S1-D116 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D2" as per dwg. !		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D117	S1-D117 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D2" a		Unit Cost:	$ -	20	$ -
	S1-D117 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D2" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D118	S1-D118 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D2" as		Unit Cost:	$ -	8	$ -
	S1-D118 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D2" as per dwg. !		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.

Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D119	S1-D119 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D2" a	Unit Cost:		$ -	4	$ -
	S1-D119 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D2" as per dwg	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D120	S1-D120 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D2" as	Unit Cost:		$ -	8	$ -
	S1-D120 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D2" as per dwg.	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D121	S1-D121 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D2" a	Unit Cost:		$ -	0	$ -
	S1-D121 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D2" as per dwg	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D122	S1-D122 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D2" as	Unit Cost:		$ -	4	$ -
	S1-D122 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D2" as per dwg.	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D123	S1-D123 Assembly and Erection of Dead-End Tower Type "E1" Basic Body as per dwg. 50	Unit Cost:		$ -	15	$ -
	S1-D123 Assembly and Erection of Dead-End Tower Type "E1" Basic Body as per dwg. 505573-462	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D124	S1-D124 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "E1"	Unit Cost:		$ -	4	$ -
	S1-D124 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "E1" as per dv	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D125	**S1-D125 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "E1**		**Unit Cost:**	$ -	0	$ -
	S1-D125 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "E1" as per d		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D126	**S1-D126 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "E1" as p**		**Unit Cost:**	$ -	8	$ -
	S1-D126 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "E1" as per dwg. ‡		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D127	**S1-D127 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "E1" as**		**Unit Cost:**	$ -	4	$ -
	S1-D127 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "E1" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D128	**S1-D128 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "E1" as p**		**Unit Cost:**	$ -	0	$ -
	S1-D128 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "E1" as per dwg. ‡		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D129	**S1-D129 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "E1" as**		**Unit Cost:**	$ -	20	$ -
	S1-D129 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "E1" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D130	**S1-D130 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "E1" as p**		**Unit Cost:**	$ -	16	$ -
	S1-D130 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "E1" as per dwg. ‡		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D131	**S1-D131 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "E1" as**		**Unit Cost:**	$ -	12	$ -
	S1-D131 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "E1" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D132	**S1-D132 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "E1" as**		**Unit Cost:**	$ -	0	$ -
	S1-D132 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "E1" as per dwg.		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E01	**S1-E1 Installation of Counterpoise wire, connection with tower grounding**		**Unit Cost:**	$ -	227	$ -
	S1-E1 Installation of Counterpoise wire, connection with tower grounding		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E02	**S1-E2 Installation of ground rods at crossing obstacles in soil and rock**		**Unit Cost:**	$ -	120	$ -
	S1-E2 Installation of ground rods at crossing obstacles in soil and rock		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E03	**S1-E3 Tower Footing resistance measurement**		**Unit Cost:**	$ -	227	$ -
	S1-E3 Tower Footing resistance measurement		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E04	**S1-E4 S1 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conducto**		**Unit Cost:**	$ -	0	$ -
	S1-E4 S1 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, compl		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.

Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::E05	**S1-E5 Installation of Conductor on Steel Towers - 1192.5 kcmil 54/19 ACSR Grackle Condu**		**Unit Cost:**	$ -	0	$ -
	S1-E5 Installation of Conductor on Steel Towers - 1192.5 kcmil 54/19 ACSR Grackle Conductor, co		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E06	**S1-E6 Installation of Conductor on Steel Towers - 1590.0 kcmil 54/19 ACSR Falcon Condu**		**Unit Cost:**	$ -	0	$ -
	S1-E6 Installation of Conductor on Steel Towers - 1590.0 kcmil 54/19 ACSR Falcon Conductor, con		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E07	**S1-E7 Installation of Conductor on Wood Poles - 1192.5 kcmil 54/19 ACSR Grackle Condu**		**Unit Cost:**	$ -	0	$ -
	S1-E7 Installation of Conductor on Wood Poles - 1192.5 kcmil 54/19 ACSR Grackle Conductor, con		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E08	**S1-E8 Installation of Conductor on Wood Poles - 1590.0 kcmil 54/19 ACSR Falcon Conduc**		**Unit Cost:**	$ -	0	$ -
	S1-E8 Installation of Conductor on Wood Poles - 1590.0 kcmil 54/19 ACSR Falcon Conductor, com		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E09	**S1-E9 Installation of ADSS on Wood Poles**		**Unit Cost:**	$ -	0	$ -
	S1-E9 Installation of ADSS on Wood Poles		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E10	**S1-E10 ADSS splicing and tests including loss analysis**		**Unit Cost:**	$ -	0	$ -
	S1-E10 ADSS splicing and tests including loss analysis		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.

Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::E11	**S1-E11 ADSS end to end test**		**Unit Cost:**	$ -	0	$ -
	S1-E11 ADSS end to end test	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$** -		
V::E12	**S1-E12 S1 - Installation of OPGW**		**Unit Cost:**	$ -	0	$ -
	S1-E12 S1 - Installation of OPGW	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$** -		
V::E13	**S1-E13 OPGW Continuity tests before and after stringing**		**Unit Cost:**	$ -	1	$ -
	S1-E13 OPGW Continuity tests before and after stringing	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$** -		
V::E14	**S1-E14 OPGW splicing and tests including loss analysis**		**Unit Cost:**	$ -	50	$ -
	S1-E14 OPGW splicing and tests including loss analysis	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$** -		
V::E15	**S1-E15 OPGW end to end test**		**Unit Cost:**	$ -	1	$ -
	S1-E15 OPGW end to end test	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$** -		
V::F01	**S1-F1 Install 18" Aerial marker cones**		**Unit Cost:**	$ -	5	$ -
	S1-F1 Install 18" Aerial marker cones	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$** -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::G01	**S1-G1 Framing and Setting of Single Pole Tangent (0 - 1 deg) as per Drawing 505573-463**		**Unit Cost:**	**$ 2,300.00**	**0**	**$ -**
	S1-G1 Framing and Setting of Single Pole Tangent (0 - 1 deg) as per Drawing 505573-4633-4ZDD-		Manhour Row:			
	Wood pole 2 m blast	0.4	$ 5,750.00	$ 2,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,300.00**		
V::G02	**S1-G2 Framing and Setting of Single Pole Light angle (1 - 10 deg) with Guys as per Drawir**		**Unit Cost:**	**$ 2,300.00**	**0**	**$ -**
	S1-G2 Framing and Setting of Single Pole Light angle (1 - 10 deg) with Guys as per Drawing 50557		Manhour Row:			
	Wood pole 2 m blast	0.4	$ 5,750.00	$ 2,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,300.00**		
V::G03	**S1-G3 Framing and Setting of Single Pole Heavy angle (10 - 30 deg) with Guys as per Drav**		**Unit Cost:**	**$ 2,300.00**	**0**	**$ -**
	S1-G3 Framing and Setting of Single Pole Heavy angle (10 - 30 deg) with Guys as per Drawing 505		Manhour Row:			
	Wood pole 2 m blast	0.4	$ 5,750.00	$ 2,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,300.00**		
V::G04	**S1-G4 Framing and Setting of Single Pole Dead-end (30 - 90 deg) with Guys as per Drawin**		**Unit Cost:**	**$ 2,300.00**	**0**	**$ -**
	S1-G4 Framing and Setting of Single Pole Dead-end (30 - 90 deg) with Guys as per Drawing 50557		Manhour Row:			
	Wood pole 2 m blast	0.4	$ 5,750.00	$ 2,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,300.00**		
V::G05	**S1-G5 Framing and Setting of Single Pole Floating Dead-end (0 - 1 deg) with Guys as per I**		**Unit Cost:**	**$ 2,300.00**	**0**	**$ -**
	S1-G5 Framing and Setting of Single Pole Floating Dead-end (0 - 1 deg) with Guys as per Drawing 5		Manhour Row:			
	Wood pole 2 m blast	0.4	$ 5,750.00	$ 2,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,300.00**		
V::G06	**S1-G6 Framing and Setting of Two Pole Dead-end to tap to HVdc Tower in Labrador as pe**		**Unit Cost:**	**$ 2,300.00**	**0**	**$ -**
	S1-G6 Framing and Setting of Two Pole Dead-end to tap to HVdc Tower in Labrador as per Drawing		Manhour Row:			
	Wood pole 2 m blast	0.4	$ 5,750.00	$ 2,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,300.00**		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I01	**S1-I1 Perform Geotechnical Investigation and Identify Foundation Type as per Design Dra**		**Unit Cost:**	$ -	1	$ -
	S1-I1 Perform Geotechnical Investigation and Identify Foundation Type as per Design Drawings and		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I02	**S1-I2 Design and supply of micropile option as replacement for H-pile design**		**Unit Cost:**	$ -	17	$ -
	S1-I2 Design and supply of micropile option as replacement for H-pile design		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I03	**S1-I3 Optional cost for mulching given area instead of salvaging**		**Unit Cost:**	$ -	1292	$ -
	S1-I3 Optional cost for mulching given area instead of salvaging		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I04	**S1-I4 Installation of Access Road - Alternative**		**Unit Cost:**	$ -	0	$ -
	S1-I4 Installation of Access Road - Alternative		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I05	**S1-I5 Slack Span Connections - Installation of all Conductor and OPGW from Terminal To**		**Unit Cost:**	$ -	1	$ -
	S1-I5 Slack Span Connections - Installation of all Conductor and OPGW from Terminal Tower to th		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I06	**S1-I6 Slack Span Connections - Installation of all Conductor and OPGW/ADSS from Termi**		**Unit Cost:**	$ -	0	$ -
	S1-I6 Slack Span Connections - Installation of all Conductor and OPGW/ADSS from Terminal Woo		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I07	**S1-I7 Supply and Installation of Culvert - 1000 mm**		**Unit Cost:**	$ -	19	$ -
	S1-I7 Supply and Installation of Culvert - 1000 mm	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$** -		
V::I08	**S1-I8 Supply and Installation of Culvert - 1200 mm**		**Unit Cost:**	$ -	19	$ -
	S1-I8 Supply and Installation of Culvert - 1200 mm	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$** -		
V::I09	**S1-I9 Supply and Installation of Culvert - 1600 mm**		**Unit Cost:**	$ -	19	$ -
	S1-I9 Supply and Installation of Culvert - 1600 mm	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$** -		
V::I10	**S1-I10 Supply and Installation of Culvert - 2000 mm**		**Unit Cost:**	$ -	19	$ -
	S1-I10 Supply and Installation of Culvert - 2000 mm	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$** -		
V::I11	**S1-I11 Supply and Installation of Culvert - 2400 mm**		**Unit Cost:**	$ -	19	$ -
	S1-I11 Supply and Installation of Culvert - 2400 mm	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$** -		
V::I12	**S1-I12 Supply and Installation of Culvert - 3000 mm**		**Unit Cost:**	$ -	19	$ -
	S1-I12 Supply and Installation of Culvert - 3000 mm	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$** -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I13	S1-I13 Assembly and Installation of Foundation Type A1-1/1A, per kg, to be used for weigh		Unit Cost:	$ -	1	$ -
	S1-I13 Assembly and Installation of Foundation Type A1-1/1A, per kg, to be used for weight increase		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I14	S1-I14 Assembly and Installation of Foundation Type A2-1/1A, per kg, to be used for weigh		Unit Cost:	$ -	1	$ -
	S1-I14 Assembly and Installation of Foundation Type A2-1/1A, per kg, to be used for weight increase		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I15	S1-I15 Assembly and Installation of Foundation Type A3-1/1A, per kg, to be used for weigh		Unit Cost:	$ -	1	$ -
	S1-I15 Assembly and Installation of Foundation Type A3-1/1A, per kg, to be used for weight increase		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I16	S1-I16 Assembly and Installation of Foundation Type A4-1/1A, per kg, to be used for weigh		Unit Cost:	$ -	1	$ -
	S1-I16 Assembly and Installation of Foundation Type A4-1/1A, per kg, to be used for weight increase		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I17	S1-I17 Assembly and Installation of Foundation Type B1-1/1A, per kg, to be used for weigh		Unit Cost:	$ -	1	$ -
	S1-I17 Assembly and Installation of Foundation Type B1-1/1A, per kg, to be used for weight increase		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I18	S1-I18 Assembly and Installation of Foundation Type B2-1/1A, per kg, to be used for weigh		Unit Cost:	$ -	1	$ -
	S1-I18 Assembly and Installation of Foundation Type B2-1/1A, per kg, to be used for weight increase		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I19	S1-I19 Assembly and Installation of Foundation Type C1-1, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I19 Assembly and Installation of Foundation Type C1-1, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I20	S1-I20 Assembly and Installation of Foundation Type C2-1, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I20 Assembly and Installation of Foundation Type C2-1, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I21	S1-I21 Assembly and Installation of Foundation Type D1-1, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I21 Assembly and Installation of Foundation Type D1-1, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I22	S1-I22 Assembly and Installation of Foundation Type D1-1, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I22 Assembly and Installation of Foundation Type D1-1, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I23	S1-I23 Assembly and Installation of Foundation Type E1-1, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I23 Assembly and Installation of Foundation Type E1-1, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I24	S1-I24 Assembly and Installation of Foundation Type A1-2, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I24 Assembly and Installation of Foundation Type A1-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.

Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I25	S1-I25 Assembly and Installation of Foundation Type A2-2, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I25 Assembly and Installation of Foundation Type A2-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I26	S1-I26 Assembly and Installation of Foundation Type A3-2, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I26 Assembly and Installation of Foundation Type A3-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I27	S1-I27 Assembly and Installation of Foundation Type A4-2, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I27 Assembly and Installation of Foundation Type A4-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I28	S1-I28 Assembly and Installation of Foundation Type B1-2, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I28 Assembly and Installation of Foundation Type B1-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I29	S1-I29 Assembly and Installation of Foundation Type B2-2, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I29 Assembly and Installation of Foundation Type B2-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I30	S1-I30 Assembly and Installation of Foundation Type C1-2, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I30 Assembly and Installation of Foundation Type C1-2, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I31	**S1-I31 Assembly and Installation of Foundation Type C2-2, per kg, to be used for weight ir**		**Unit Cost:**	$ -	1	$ -
	S1-I31 Assembly and Installation of Foundation Type C2-2, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I32	**S1-I32 Assembly and Installation of Foundation Type D1-2, per kg, to be used for weight ir**		**Unit Cost:**	$ -	1	$ -
	S1-I32 Assembly and Installation of Foundation Type D1-2, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I33	**S1-I33 Assembly and Installation of Foundation Type D1-2, per kg, to be used for weight ir**		**Unit Cost:**	$ -	1	$ -
	S1-I33 Assembly and Installation of Foundation Type D1-2, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I34	**S1-I34 Assembly and Installation of Foundation Type E1-2, per kg, to be used for weight ir**		**Unit Cost:**	$ -	1	$ -
	S1-I34 Assembly and Installation of Foundation Type E1-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I35	**S1-I35 Assembly and Erection of Tower Type A1, per kg, to be used for weight increases c**		**Unit Cost:**	$ -	1	$ -
	S1-I35 Assembly and Erection of Tower Type A1, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I36	**S1-I36 Assembly and Erection of Tower Type A2, per kg, to be used for weight increases c**		**Unit Cost:**	$ -	1	$ -
	S1-I36 Assembly and Erection of Tower Type A2, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I37	S1-I37 Assembly and Erection of Tower Type A3, per kg, to be used for weight increases c		Unit Cost:	$ -	1	$ -
	S1-I37 Assembly and Erection of Tower Type A3, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I38	S1-I38 Assembly and Erection of Tower Type A4, per kg, to be used for weight increases c		Unit Cost:	$ -	1	$ -
	S1-I38 Assembly and Erection of Tower Type A4, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I39	S1-I39 Assembly and Erection of Tower Type B1, per kg, to be used for weight increases c		Unit Cost:	$ -	1	$ -
	S1-I39 Assembly and Erection of Tower Type B1, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I40	S1-I40 Assembly and Erection of Tower Type B2, per kg, to be used for weight increases c		Unit Cost:	$ -	1	$ -
	S1-I40 Assembly and Erection of Tower Type B2, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I41	S1-I41 Assembly and Erection of Tower Type C1, per kg, to be used for weight increases c		Unit Cost:	$ -	1	$ -
	S1-I41 Assembly and Erection of Tower Type C1, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I42	S1-I42 Assembly and Erection of Tower Type C2, per kg, to be used for weight increases c		Unit Cost:	$ -	1	$ -
	S1-I42 Assembly and Erection of Tower Type C2, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)
Project Estimate - Valard Construction Ltd.

Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I43	S1-I43 Assembly and Erection of Tower Type D1, per kg, to be used for weight increases c		Unit Cost:	$ -	1	$ -
	S1-I43 Assembly and Erection of Tower Type D1, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I44	S1-I44 Assembly and Erection of Tower Type D2, per kg, to be used for weight increases c		Unit Cost:	$ -	1	$ -
	S1-I44 Assembly and Erection of Tower Type D2, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I45	S1-I45 Assembly and Erection of Tower Type E1, per kg, to be used for weight increases c		Unit Cost:	$ -	1	$ -
	S1-I45 Assembly and Erection of Tower Type E1, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I46	S1-I46 Survey Cost		Unit Cost:	$ 1,338,817.71	1	$ 1,338,817.71
	S1-I46 Survey Cost		Manhour Row:			
	Survey Cost Segment 3	1	$ 1,338,817.71	$ 1,338,817.71		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 1,338,817.71		
B-E(Rider)	RiderPole		Unit Cost:	$ 236.90	20	$ 4,738.00
	RiderPole		Manhour Row:			
	Screened Crushed Rock (Tonne)	5	$ 47.38	$ 236.90		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 236.90		

Total Materials: $ 104,972,464.19

Mobilization for main portion of project

External Data Input		Return?	no	(yes/no)
Link from Other Page		Distance (1-way):	900	km
Link for Other Page		Average distance/hr.:	45	km/hr.

Personnel

Designation	Quantity	Rate	Hrs.
Supervisor	2	$ 142.83	20.00
Foreman	16	$ 120.15	20.00
Surveyor	8	$ 111.85	20.00
Lineman	16	$ 111.85	20.00
Apprentice - 4th Year	14	$ 103.90	20.00
Apprentice - 3rd Year	21	$ 95.95	20.00
Apprentice - 2nd Year	8	$ 87.99	20.00
Apprentice - 1st Year	5	$ 80.04	20.00
Equipment Operator	27	$ 96.49	20.00
Truck Driver / Picker Op.	22	$ 107.16	20.00
Labourer	5	$ 87.44	20.00

Equipment

Description	Quantity	Rate	Hrs.
Pickup	13	$ 24.36	20.00
Crew Cab Truck	37	$ 29.20	20.00
Conductor Splicing Truck	1	$ 46.02	20.00
OPGW Splicing Truck	1	$ 93.60	20.00
Picker - 17 Ton	7	$ 136.27	20.00
Picker - 38 Ton	2	$ 180.25	20.00
40T RT Crane	3	$ 195.70	20.00
60T RT Crane	1	$ 247.20	20.00
80T RT Crane	1	$ 345.05	20.00
Digger - TelElect 5052	2	$ 89.40	20.00
120' Gene Lift	2	$ 87.55	20.00
53' Tridem trailer	15	$ 11.85	20.00
T/A Gravel Truck	1	$ 68.13	20.00
T/A Rock Truck	1	$ 121.67	20.00
Tractor Trailer/Picker	4	$ 134.67	20.00
Tractor Trailer (Heavy)	4	$ 134.67	20.00
Crawler Tractors 750 JD	3	$ 165.83	20.00
JD 310 Back Hoe	1	$ 68.13	20.00
JD 554 Loader	13	$ 69.27	20.00
JD 290 Track-hoe	5	$ 130.60	20.00
Nodwells - Picker over 17 Ton	2	$ 228.25	20.00
Nodwell - Digger	1	$ 130.60	20.00
Trencher	1	$ 84.36	20.00
10T Tele-Handler	7	$ 53.00	20.00
Quad or Side by Side	8	$ 24.21	20.00
Reel Trailer	3	$ 72.10	20.00
Tensioner	1	$ 139.05	20.00
Puller	1	$ 139.05	20.00
1 Drum Puller	1	$ 77.25	20.00
Single Tensioner	1	$ 77.25	20.00
Single Traveller	50	$ 0.52	20.00
JD 350 LDC Excavator	5	$ 160.89	20.00
Compressor	3	$ 22.04	20.00
Grout truck	2	$ 82.40	20.00
Rock Drill	2	$ 103.00	20.00
Press & Pump, Genset, Light plant	14	$ 13.46	20.00
Water pump	3	$ 40.99	20.00
Pilot Line Winder	1	$ 92.70	20.00
Spacer Buggy	3	$ 46.35	20.00
Travellers (ea)	200	$ 1.24	20.00
Traffic Control Sign	2	$ 21.84	20.00
Hoe-Pack	1	$ 25.75	20.00
Survey Equipment	8	$ 56.65	20.00
Heavy Lift Helicopter - Operated	1	$ 17,725.89	16.00
Light Duty Helicopter - Operated	1	$ 1,905.50	20.00

Lowbedding

Description	Quantity	Rate	Hrs.
Dead-heads	50	$ 218.50	40.00
Direct-hauls	8	$ 218.50	20.00

Other

Description	Quantity	Rate
Pile Contractor Mobilization	1	$ 287,500.00
Anchor Sub Mobilization	1	$ 300,150.00

NALCOR 350 kV HVdc Line Construction Front 2 (Long Range Mountains)

Project Estimate - Valard Construction Ltd.

Indirect Costs

External Data Input	
Link from Other Page	
Link for Other Page	

Project Duration: 18 Months

450 Days

	Positions	Hrs Day	Days	Hourly Rate
Quanta Executive Representative	1	11	112.5	N/C
Project manager	1	11	450	$ 200.00
Supervisors	5	11	450	$ 142.83
QA	4	11	450	$ 103.90
Human Resources Coordinator	0.5	11	450	$ 111.85
Environmental Lead	0.33	11	450	$ 200.00
Environmental Coordinator	1	11	450	$ 142.83
Environmental Monitor	2	11	450	$ 95.95
Project Administration	4	11	450	$ 95.95
Safety Supervisor	1	11	450	$ 142.83
Camp Field Medical Staff	2	12	450	$ 142.83
First Aid Attendant	2	11	450	$ 142.83
HS&E Manager	0	11	450	$ 142.83
Geotechnical consultant	0	11	450	$ 175.00
Material Manager c/w truck	2	11	450	$ 128.26
ROW coordinator	4	11	450	$ 142.83
Mechanic	2	11	450	$ 111.85
Pick up Trucks For Above	29.83333333	11	450	$ 24.36

Facilities:

	Units	Quantity	Months	Monthly Rate
Office Trailer	each	4	20	$ 1,800.00
Storage Vans	each	10	20	$ 350.00
Washrooms	each	6	20	$ 150.00
Yard and Waste Handling	month	2	20	$ 2,500.00
Fuel Storage	Lump Sum	2	20	$ 2,500.00

Training & Orientation — Extra Training Allowance — 8 Hours

Crew #	Crew	Hrs / Week		Total Hours	Hourly Rate	Crews
1	Hauling	1	186	194	$ 195.16	1
2	Site Preparation	1	19	27	$ 308.98	1
3	Blocking Crew	1	18	26	$ 192.44	1
4	Lattice Assembly	1	414	422	$ 835.34	1
6	Tower Topping	1	39	47	$ 950.45	1
7	Haul Travellers&Glass	1	22	30	$ 403.50	1
8	Hang Travellers	1	15	23	$ 840.02	1
9	Wire Hauling	1	48	56	$ 195.16	1
10	Pull Site Prep	1	21	29	$ 804.62	1
11	Stringing	1	37	45	$ 2,990.79	1
12	Tie -in	1	20	28	$ 418.85	1
13	Deadends	1	20	28	$ 835.88	1
15	OPGW Install	1	11	19	$ 1,458.94	1
16	Rider Pole Crew	1	2	10	$ 718.80	1
17	Foundation Haul	1	43	51	$ 195.16	1
18	Foundation Survey ($250/h)	1	2	10	$ 223.70	1
19	Found Excavation	1	103	111	$ 601.52	1
20	Grillage Installation	1	40	48	$ 627.54	1
21	Backfill and Compact	1	61	69	$ 432.84	1
22	Site Cleanup	1	32	40	$ 96.49	1
23	Grout Crew	1	82	90	$ 260.13	1
24	Concrete Foundations	1	91	99	$ 614.08	1
25	Ground Testing	1	6	14	$ 208.34	1
28	Camp Site Preparation	1	8	16	$ 465.55	1
29	Supervisory	1	14	22	$ 142.83	1
36	Rock Foundations	1	87	95	$ 516.53	1
39	Guy Install	1	16	24	$ 795.31	1
40	Y- Tower Erection	1	20	28	$ 899.47	1
41	Tower Plumb	1	14	22	$ 711.72	1
42	OPGW Splice	1	19	27	$ 174.87	1
43	Counterpoise Instal	1	33	41	$ 424.98	1
45	Camp Setup	1	6	14	$ 1,293.35	1
46	Camp Haul	1	58	66	$ 107.16	1
						1

Road Flagging along Active Haul Roads - 2x flaggers	Days	$ 814.00	60
Aircraft - Cessna Conquest	Hours	$ 1,300.00	579
Executive Air Fare - Commercial 112.5 Tickets at $800.00 / trip	Each	$ 800.00	113
Air Fare - Commercial 1150 Tickets at $800.00 / trip	Each	$ 800.00	1150
Temporary Shop Facilities	Each	$ 60,000.00	2
Employee Drug Testing	test	$ 115.00	386
Buttdowns materials	Ea	$ 1,600.00	45
Grounding Material for slug sites	Ea	$ 20,000.00	2
Special grips for 3633 kcmil	Ea	$ 1,600.00	20
Special hoist (12t)	Ea	$ 2,400.00	20
Engineered lifts	Ea	$ 175.00	200
Mappin cost (work planning, drawings)	Ea	$ 175.00	30
Implo storage and maintenance	Month	$ 5,000.00	18
Helicopter support Small	Hr	$ 1,905.50	1350
Helicopter support Medium	Hr	$ 3,071.98	2400
Property rental	Month	$ 3,500.00	18
Doctor support	Month	$ 5,000.00	18
S3 Additional culverts based on 2 culverts per/km over 1104km of all season road including reclamatio	ls	$ 661,320.00	1
S3 Additional culverts based on 2 culverts per/km over 1104km of all season road including reclamatio	ls	$ 843,480.00	1
Winter road maintenance/snowplowing	ea	$ 259,200.00	1
Environmental Response Material (per section)	LS	$ 50,000.00	1
Misc. Material (galvacon, pins, stakes, flagging, hoarding material)	LS	$ 40,000.00	2

Tools:

	Unit	Unit cost	Quantity
Traffic Accommdation Signage	Lump Sum	$ 37,000.00	2
IT System	Lump Sum	$ 30,000.00	1
Computer & Office Equipment	ea	$ 1,000.00	15
Operate Cell Phone	unit-month	$ 400.00	50

Other:

Engineering Support	Lump Sum	$ 150,000.00	1

LOWER CHURCHILL PROJECT CT0327 CONSTRUCTION OF 350kV HVdc TRANSMISSION LINE:

SEGMENTS 4 and 5

Valard Construction LP

Rev 00, 01-Nov-2013

SCHEDULE OF PRICE BREAKDOWN

Item No.	Description	Unit of Measure	Estimated Quantity	Unit Manhours(hrs)	Equipment($)	Material ($)	Labour($)	Total Unit Price($)	Subtotal Price ($)
S1-A	**General Works (S1-Ax)**								
	Mobilization and Demobilization								
S1-A1	Initial Mobilization	LS	1	$ -	$ -	$ -	$ -	$ 2,000,000.00	$ 2,000,000.00
S1-A2	Final Demobilization	LS	1	$ -	$ -	$ -	$ -		$ -
	Accommodation Camp								
S1-A3	Accommodation Camp Installation	LS	1	**$ 410,378.60**	$ 19,361,253.43	$ 7,635,492.57	$ 24,946,304.99	$ 51,943,050.99	$ 51,943,050.99
S1-A4	Boarding and Lodging for Company/Engineer with 3 meals per day	person-day	24,000	**$ 52,800.00**	$ 2,173,440.00	$ 927,360.00	$ 2,899,440.00	$ 250.01	$ 6,000,240.00
S1-A5	Meals for Company/Engineer visitors	meal	2,000	**$ 733.48**	$ 30,200.00	$ 12,880.00	$ 40,280.00	$ 41.68	$ 83,360.00
	Performance Security								
S1-A6	Parent Guarantee Article 7.4	LS	1	$ -	$ -	$ -	$ -	$ -	$ -
S1-A7	Letter Of Credit Article 7.6	LS	1	$ -	$ -	$ -	$ -	$ -	$ -
S1-A8	Performance Bonding Article 7.1	LS	1	$ -	$ -	$ -	$ -	$ -	$ -
S1-A9	Labour and Materials Bonding Article 7.2	LS	1	$ -	$ -	$ -	$ -	$ -	$ -
	Sub-total (S1-Ax): General Works			**463,912.08**	**$ 21,564,893.43**	**$ 8,575,732.57**	**$ 27,886,024.99**	**$ 53,943,342.68**	**$ 60,026,650.99**
S1-B	**Right-of-Way Clearing - Direct Costs (S1-Bx)**								
	Right-Of-Way Clearing								
S1-B1	ROW Clearing	Ha	2,737	**$ 332,350.00**	$ 26,754,175.00	$ -	$ 26,754,175.00	$ 19,550.00	$ 53,508,350.00
S1-B2	Removal of selected danger trees	EA	1,000	**$ 1,304.35**	$ 105,000.00	$ -	$ 105,000.00	$ 210.00	$ 210,000.00
S1-B3	Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2	LM	1,455	**$ 2,309.96**	$ 61,983.00	$ 371,898.00	$ 185,949.00	$ 426.00	$ 619,830.00
S1-B4	Supply and Installation of Bridge - 3 m	EA	219	**$ 26,688.07**	$ 716,130.00	$ 4,296,780.00	$ 2,148,390.00	$ 32,700.00	$ 7,161,300.00
S1-B5	Supply and Installation of Bridge - 4 m	EA	2	**$ 324.97**	$ 8,720.00	$ 52,320.00	$ 26,160.00	$ 43,600.00	$ 87,200.00
S1-B6	Supply and Installation of Bridge - 5 m	EA	20	**$ 4,062.11**	$ 109,000.00	$ 654,000.00	$ 327,000.00	$ 54,500.00	$ 1,090,000.00
S1-B7	Supply and Installation of Bridge - 6 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B8	Supply and Installation of Bridge - 7 m	EA	15	**$ 4,265.22**	$ 114,450.00	$ 686,700.00	$ 343,350.00	$ 76,300.00	$ 1,144,500.00
S1-B9	Supply and Installation of Bridge - 8 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B10	Supply and Installation of Bridge - 10 m	EA	10	**$ 4,062.11**	$ 109,000.00	$ 654,000.00	$ 327,000.00	$ 109,000.00	$ 1,090,000.00
S1-B11	Supply and Installation of Bridge - 13 m	EA	1	**$ 528.07**	$ 14,170.00	$ 85,020.00	$ 42,510.00	$ 141,700.00	$ 141,700.00
S1-B12	Supply and Installation of Bridge - 14 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B13	Supply and Installation of Bridge - 15 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B14	Supply and Installation of Bridge - 16 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B15	Supply and Installation of Bridge - 25 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B16	Supply and Installation of Bridge - 35 m	EA	1	**$ 1,421.74**	$ 38,150.00	$ 228,900.00	$ 114,450.00	$ 381,500.00	$ 381,500.00
S1-B17	Supply and Installation of Bridge - 50 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B18	Supply and Installation of Bridge - 60 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B19	Supply and Installation of Bridge - 65 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B20	Installation of Corduroy Road	LM	8,233	**$ 4,278.57**	$ 114,768.02	$ 688,855.11	$ 344,386.39	$ 139.44	$ 1,148,009.52
S1-B21	Installation of Access Road - Access Class 3	KM	402	**$ 120,899.63**	$ 3,244,140.00	$ 19,464,840.00	$ 9,732,420.00	$ 80,700.00	$ 32,441,400.00
S1-B22	Installation of Access Road - Access Trail	KM	41	**$ 12,330.56**	$ 330,870.00	$ 1,985,220.00	$ 992,610.00	$ 80,700.00	$ 3,308,700.00
S1-B23	Installation of Access Road - Bypass Trail	KM	35	**$ 10,526.09**	$ 282,450.00	$ 1,694,700.00	$ 847,350.00	$ 80,700.00	$ 2,824,500.00
S1-B24	Installation of Access Road - Ice Bridge	LM	57	**$ 1,529.44**	$ 41,040.00	$ 246,240.00	$ 123,120.00	$ 7,200.00	$ 410,400.00
	Sub-total (S1-Bx) : Right-of-Way Clearing - Direct Costs			**526,880.89**	**$ 32,044,046.02**	**$ 31,109,473.11**	**$ 42,413,870.39**	**$ 1,108,925.44**	**$ 105,567,389.52**
S1-B	**Right-of-Way Clearing for Wood Pole Electrode Line- Direct Costs (S1-Bx)**								
	Right-Of-Way Clearing								
S1-B25	ROW Clearing	Ha	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B26	Removal of selected danger trees	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B27	Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2	LM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B28	Supply and Installation of Bridge - 3 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B29	Supply and Installation of Bridge - 4 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B30	Supply and Installation of Bridge - 5 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B31	Supply and Installation of Bridge - 6 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B32	Supply and Installation of Bridge - 7 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B33	Supply and Installation of Bridge - 8 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B34	Supply and Installation of Bridge - 10 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B35	Supply and Installation of Bridge - 13 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B36	Supply and Installation of Bridge - 14 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B37	Supply and Installation of Bridge - 15 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B38	Supply and Installation of Bridge - 16 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B39	Supply and Installation of Bridge - 25 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B40	Supply and Installation of Bridge - 35 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B41	Supply and Installation of Bridge - 50 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B42	Supply and Installation of Bridge - 60 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B43	Supply and Installation of Bridge - 65 m	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B44	Installation of Corduroy Road	LM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B45	Installation of Access Road - Access Class 3	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B46	Installation of Access Road - Access Trail	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-B47	Installation of Access Road - Bypass Trail	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
	tal (S1-Bx) : Right-of-Way Clearing for Wood Pole Electrode Line - Direct Costs			$ -	$ -	$ -	$ -	$ -	$ -
S1-C	**Tower Foundation Construction (S1-Cx)**								
	Guy Wire Anchors								
S1-C1	Installation of Guy Wire Anchor in soil as per design drawings and technical specification	LM	31,000	**$ 92,635.93**	**$ 4,477,640.00**	**$ 1,625,020.00**	**$ 8,423,320.00**	$ 468.58	$ 14,525,980.00
S1-C2	Installation of Guy Wire Anchor in rock as per design drawings and technical specification	LM	29,000	**$ 80,644.19**	**$ 3,879,040.00**	**$ 1,366,190.00**	**$ 7,305,970.00**	$ 432.80	$ 12,551,200.00
S1-C2	Testing of Guy Wire Anchor up to 550kN as per design drawings and technical specification	Ea	4,068	**$ 11,538.23**	**$ 1,751,274.00**	$ -	**$ 2,614,747.68**	$ 1,073.26	$ 4,366,021.68
S1-C2	Testing of Guy Wire Anchorup to 900kN as per design drawings and technical specification	Ea	208	**$ 589.96**	**$ 89,544.00**	$ -	**$ 133,694.08**	$ 1,073.26	$ 223,238.08
	Grillage Foundations								
S1-C3	Assembly and Installation of Foundation Types A1-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A1.	EA	29	**$ 1,204.39**	**$ 139,230.45**	**$ 3,922.25**	**$ 163,781.85**	$ 10,583.95	$ 306,934.55
S1-C4	Assembly and Installation of Foundation Types A2-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A2.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C5	Assembly and Installation of Foundation Types A3-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A3.	EA	22	**$ 1,145.16**	**$ 132,018.26**	**$ 4,027.54**	**$ 155,773.42**	$ 13,264.51	$ 291,819.22
S1-C6	Assembly and Installation of Foundation Types A4-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A4.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C7	Assembly and Installation of Foundation Types B1-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types B1.	EA	2	**$ 145.95**	**$ 16,678.66**	**$ 523.14**	**$ 19,887.36**	$ 18,544.58	$ 37,089.16
S1-C8	Assembly and Installation of Foundation Types B2-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types B2.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C9	Assembly and Installation of Foundation Types A1-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A1.	EA	164	**$ 5,277.20**	**$ 624,021.64**	**$ 10,102.40**	**$ 717,641.04**	$ 8,242.47	$ 1,351,765.08
S1-C10	Assembly and Installation of Foundation Types A2-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A2.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C11	Assembly and Installation of Foundation Types A3-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A3.	EA	121	**$ 3,997.51**	**$ 458,796.91**	**$ 9,900.22**	**$ 544,876.31**	$ 8,376.64	$ 1,013,573.44
S1-C12	Assembly and Installation of Foundation Types A4-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A4.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C13	Assembly and Installation of Foundation Types B1-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types B1.	EA	14	**$ 624.91**	**$ 71,529.22**	**$ 1,797.04**	**$ 85,200.22**	$ 11,323.32	$ 158,526.48
S1-C14	Assembly and Installation of Foundation Types B2-1A (250 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types B2.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C15	Assembly and Installation of Foundation Types C1-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types C1.	EA	96	**$ 7,354.02**	**$ 907,390.08**	**$ 21,968.64**	**$ 992,393.28**	$ 20,018.25	$ 1,921,752.00
S1-C16	Assembly and Installation of Foundation Types C2-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types C2.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -

Item No.	Description	Unit of Measure	Estimated Quantity	Unit Manhours(hrs)	Equipment($)	Material ($)	Labour($)	Total Unit Price($)	Subtotal Price ($)
S1-C17	Assembly and Installation of Foundation Types D1-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types D1.	EA	112	$ 11,015.93	$ 1,326,293.92	$ 33,958.40	$ 1,491,470.40	$ 25,461.81	$ 2,851,722.72
S1-C18	Assembly and Installation of Foundation Types D2-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types D2.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C19	Assembly and Installation of Foundation Types E1-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types E1.	EA	20	$ 2,310.91	$ 281,321.60	$ 7,346.40	$ 312,378.20	$ 30,052.31	$ 601,046.20
S1-C20	Uplift testing per leg for Types C1-1, or D2-1, or E1-1 (100 kPa) as per technical specification for Tower Types C1, or D2, or E1.	EA	6	$ -	$ -	$ -	$ -	$ -	$ -
S1-C21	Downward, uplift, and lateral load testing per leg for Types C1-3, or D2-3, or E1-3 as per technical specification for Tower Types C1, or D2, or E1.	EA	6	$ -	$ -	$ -	$ -	$ -	$ -
	Rock Foundations								
S1-C22	Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A1	EA	211	$ 17,188.88	$ 1,881,280.22	$ 241,765.91	$ 2,312,621.19	$ 21,022.12	$ 4,435,667.32
S1-C23	Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A2	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C24	Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A3	EA	154	$ 12,545.44	$ 1,373,067.08	$ 176,454.74	$ 1,687,884.66	$ 21,022.12	$ 3,237,406.48
S1-C25	Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A4	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C26	Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0074 for Tower Type B1	EA	19	$ 1,807.23	$ 193,781.95	$ 31,901.95	$ 242,809.17	$ 24,657.53	$ 468,493.07
S1-C27	Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type B2	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C28	Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A1 (Weak Surface Rock)	EA	18	$ 1,083.25	$ 119,734.20	$ 16,453.98	$ 145,625.40	$ 15,656.31	$ 281,813.58
S1-C29	Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A2 (Weak Surface Rock)	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C30	Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A3 (Weak Surface Rock)	EA	14	$ 878.55	$ 96,266.38	$ 17,418.94	$ 117,730.76	$ 16,529.72	$ 231,416.08
S1-C31	Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A4 (Weak Surface Rock)	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C32	Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type B1 (Weak Surface Rock)	EA	3	$ 197.39	$ 21,443.46	$ 4,875.27	$ 26,362.53	$ 17,560.42	$ 52,681.26
S1-C33	Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A1 (Sound Surface Rock)	EA	159	$ 8,618.39	$ 941,466.03	$ 145,343.49	$ 1,157,276.73	$ 14,113.75	$ 2,244,086.25
S1-C34	Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A2 (Sound Surface Rock)	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C35	Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A3 (Sound Surface Rock)	EA	117	$ 6,642.83	$ 719,015.31	$ 145,572.57	$ 888,908.67	$ 14,987.15	$ 1,753,496.55
S1-C36	Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A4 (Sound Surface Rock)	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C37	Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type B1 (Sound Surface Rock)	EA	15	$ 897.31	$ 96,256.20	$ 24,376.35	$ 119,635.35	$ 16,017.86	$ 240,267.90
S1-C38	Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type B2 (surface rock)	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C39	Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C1	EA	104	$ 14,826.28	$ 1,562,782.00	$ 174,290.48	$ 2,002,166.40	$ 35,954.22	$ 3,739,238.88
S1-C40	Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C2	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C41	Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D1	EA	124	$ 18,063.41	$ 1,893,689.56	$ 207,807.88	$ 2,440,543.20	$ 36,629.36	$ 4,542,040.64
S1-C42	Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D2	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C43	Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type E1	EA	24	$ 3,530.09	$ 369,192.48	$ 40,220.88	$ 477,056.16	$ 36,936.23	$ 886,469.52
S1-C44	Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C1 (surface rock)	EA	84	$ 11,975.08	$ 1,262,247.00	$ 140,773.08	$ 1,617,134.40	$ 35,954.22	$ 3,020,154.48
S1-C45	Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C2 (surface rock)	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C46	Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D1 (surface rock)	EA	104	$ 15,149.95	$ 1,588,255.76	$ 174,290.48	$ 2,046,907.20	$ 36,629.36	$ 3,809,453.44
S1-C47	Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D2 (surface rock)	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C48	Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type E1 (surface rock)	EA	20	$ 2,941.75	$ 307,660.40	$ 33,517.40	$ 397,546.80	$ 36,936.23	$ 738,724.60
S1-C49	Installation and Testing of 25M Mechanical Rock Anchor as per design drawings and technical specification	LM	12,924	$ 15,101.07	$ 1,365,679.08	$ 273,213.36	$ 1,977,242.76	$ 279.80	$ 3,616,135.20
S1-C50	Installation and Testing of 29M Mechanical Rock Anchor as per design drawings and technical specification	LM	870	$ 1,061.16	$ 96,804.90	$ 23,898.90	$ 139,243.50	$ 298.79	$ 259,947.30
S1-C51	Installation and Testing of 32M Mechanical Rock Anchor as per design drawings and technical specification	LM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C52	Installation and Testing of 43M Mechanical Rock Anchor as per design drawings and technical specification	LM	22,104	$ 32,247.43	$ 2,873,962.08	$ 915,547.68	$ 4,197,107.52	$ 361.32	$ 7,986,617.28
S1-C53	Installation and Testing of 57M Mechanical Rock Anchor as per design drawings and technical specification	LM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C54	Installation and Testing of 64M Mechanical Rock Anchor as per design drawings and technical specification	LM	45	$ 78.09	$ 6,877.35	$ 3,081.60	$ 10,110.15	$ 445.98	$ 20,069.10
	H-Pile Foundations								
S1-C55	Design, Assembly and Installation of Foundation Type A1-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A1 including supply and installation of steep cap.	EA	6	$ 1,170.00	$ 96,322.74	$ 84,509.82	$ 103,893.96	$ 47,454.42	$ 284,726.52
S1-C56	Design, Assembly and Installation of Foundation Type A2-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A2 including supply and installation of steep cap.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C57	Design, Assembly and Installation of Foundation Type A3-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A3 including supply and installation of steep cap.	EA	5	$ 975.00	$ 80,268.95	$ 70,424.85	$ 86,578.30	$ 47,454.42	$ 237,272.10
S1-C58	Design, Assembly and Installation of Foundation Type A4-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A4 including supply and installation of steep cap.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C59	Design, Assembly and Installation of Foundation Type B1-3 as per Dwg 505573-4622-42DD-0037 for Tower Type B1 including supply and installation of steep cap.	EA	1	$ 195.00	$ 16,053.79	$ 14,084.97	$ 17,315.66	$ 47,454.42	$ 47,454.42
S1-C60	Design, Assembly and Installation of Foundation Type B2-3 as per Dwg 505573-4622-42DD-0046 for Tower Type B2 including supply and installation of steep cap.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C61	Design, Assembly and Installation of Foundation Type C1-3 as per Dwg 505573-4622-42DD-0046 for Tower Type C1 including supply and installation of steel cap.	EA	4	$ 4,024.00	$ 287,390.28	$ 263,639.80	$ 311,858.44	$ 215,722.13	$ 862,888.52
S1-C62	Design, Assembly and Installation of Foundation Type C2-3 as per Dwg 505573-4622-42DD-0046 for Tower Type C2 including supply and installation of steel cap.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C63	Design, Assembly and Installation of Foundation Type D1-3 per Dwg 505573-4622-42DD-0046 for Tower Type D1 including supply and installation of steel cap.	EA	4	$ 4,024.00	$ 287,390.28	$ 263,639.80	$ 311,858.44	$ 215,722.13	$ 862,888.52
S1-C64	Design, Assembly and Installation of Foundation Type D2-3 as per Dwg 505573-4622-42DD-0046 for Tower Type D2 including supply and installation of steel cap.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C65	Design, Assembly and Installation of Foundation Type E1-3 as per Dwg 505573-4622-42DD-0046 for Tower Type E1 including supply and installation of steel cap.	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-C66	Rock anchor to be installed with S1-C60 to S1-C65 item above as per the design drawings and technical specifications (length in bog not considered)	LM	480	$ 1,434.36	$ 69,331.20	$ 25,161.60	$ 130,425.60	$ 468.58	$ 224,918.40
S1-C67	Supply, and installation of H-Piles, HP 360 x 108, Grade 350AT	LM	2,400	$ 2,928.00	$ 299,472.00	$ 787,464.00	$ 306,720.00	$ 580.69	$ 1,393,656.00
	Bog and Poor Soil								
S1-C68	Supply and Installation of Cribs for excavation protection of tower types A1, A2, A3, A4, B1, B2, C1, C2, D1, D2, E1 for any type of Foundation as per Dwg 505573-4622-42DD-0069 and 505573-4622-42DD-0071	M2	10,700	$ 25,359.00	$ 2,915,750.00	$ 2,721,759.00	$ 3,494,406.00	$ 853.45	$ 9,131,915.00
	Earthwork								
S1-C69	Transportation of native backfill	KM	2,000	$ 444.44	$ 74,040.00	$ -	$ 58,760.00	$ 66.40	$ 132,800.00
S1-C70	Supply and transportation of approved fill from an alternate source/processed material/road gravel	M3 * KM	21,000	$ 8,895.83	$ 1,001,910.00	$ 1,086,750.00	$ 914,970.00	$ 143.03	$ 3,003,630.00
S1-C71	Rock blasting/preparation	M3	1,100	$ 6,600.00	$ 808,038.00	$ -	$ 896,368.00	$ 1,549.46	$ 1,704,406.00

Item No.	Description	Unit of Measure	Estimated Quantity	Unit Manhours(hrs)	Equipment($)	Material ($)	Labour($)	Total Unit Price($)	Subtotal Price ($)
	Sub-total (S1-Cx): Tower Foundation Construction			**427,239.32**	**$ 35,019,389.42**	**$ 11,192,994.81**	**$ 48,849,759.03**	**$ 1,106,230.84**	**$ 99,651,403.02**
S1-D	**Tower Assembly and Erection (S1-Dx)**								
	Assembly and Erection of Suspension Tower Type "A1"								
S1-D1	Assembly and Erection of Suspension Tower Type "A1 + 0" as per dwg. 505573-4622-43DD-0042	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D2	Assembly and Erection of Suspension Tower Type "A1 + 1.5" as per dwg. 505573-4622-43DD-0042	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D3	Assembly and Erection of Suspension Tower Type "A1 + 3" as per dwg. 505573-4622-43DD-0042	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D4	Assembly and Erection of Suspension Tower Type "A1 + 4.5" as per dwg. 505573-4622-43DD-0042	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D5	Assembly and Erection of Suspension Tower Type "A1 + 6" as per dwg. 505573-4622-43DD-0042	EA	88	**$ 27,437.10**	**$ 1,942,103.68**	$ -	**$ 3,849,739.52**	$ 65,816.40	$ 5,791,843.20
S1-D6	Assembly and Erection of Suspension Tower Type "A1 + 7.5" as per dwg. 505573-4622-43DD-0042	EA	39	**$ 12,339.84**	**$ 872,464.71**	$ -	**$ 1,731,530.19**	$ 66,769.10	$ 2,603,994.90
S1-D7	Assembly and Erection of Suspension Tower Type "A1 + 9" as per dwg. 505573-4622-43DD-0042	EA	45	**$ 14,401.45**	**$ 1,017,337.50**	$ -	**$ 2,020,913.55**	$ 67,516.69	$ 3,038,251.05
S1-D8	Assembly and Erection of Suspension Tower Type "A1 + 10.5" as per dwg. 505573-4622-43DD-0042	EA	56	**$ 18,311.76**	**$ 1,544,532.64**	$ -	**$ 2,316,798.96**	$ 68,952.35	$ 3,861,331.60
S1-D9	Assembly and Erection of Suspension Tower Type "A1 + 12" as per dwg. 505573-4622-43DD-0042	EA	57	**$ 18,827.16**	**$ 1,587,650.64**	$ -	**$ 2,381,475.39**	$ 69,633.79	$ 3,969,126.03
S1-D10	Assembly and Erection of Suspension Tower Type "A1 + 13.5" as per dwg. 505573-4622-43DD-0042	EA	63	**$ 21,100.08**	**$ 1,485,482.04**	$ -	**$ 2,961,466.83**	$ 70,586.49	$ 4,446,948.87
S1-D11	Assembly and Erection of Suspension Tower Type "A1 + 15" as per dwg. 505573-4622-43DD-0042	EA	81	**$ 27,502.97**	**$ 1,934,328.60**	$ -	**$ 3,860,344.17**	$ 71,539.17	$ 5,794,672.77
S1-D12	Assembly and Erection of Suspension Tower Type "A1 + 16.5" as per dwg. 505573-4622-43DD-0042	EA	77	**$ 26,424.01**	**$ 1,857,025.17**	$ -	**$ 3,709,056.12**	$ 72,286.77	$ 5,566,081.29
S1-D13	Assembly and Erection of Suspension Tower Type "A1 + 18" as per dwg. 505573-4622-43DD-0042	EA	80	**$ 27,746.17**	**$ 1,948,473.60**	$ -	**$ 3,894,805.60**	$ 73,040.99	$ 5,843,279.20
	Assembly and Erection of Suspension Tower Type "A2"								
S1-D14	Assembly and Erection of Suspension Tower Type "A2 + 0" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D15	Assembly and Erection of Suspension Tower Type "A2 + 1.5" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D16	Assembly and Erection of Suspension Tower Type "A2 + 3" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D17	Assembly and Erection of Suspension Tower Type "A2 + 4.5" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D18	Assembly and Erection of Suspension Tower Type "A2 + 6" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D19	Assembly and Erection of Suspension Tower Type "A2 + 7.5" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D20	Assembly and Erection of Suspension Tower Type "A2 + 9" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D21	Assembly and Erection of Suspension Tower Type "A2 + 10.5" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D22	Assembly and Erection of Suspension Tower Type "A2 + 12" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D23	Assembly and Erection of Suspension Tower Type "A2 + 13.5" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D24	Assembly and Erection of Suspension Tower Type "A2 + 15" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D25	Assembly and Erection of Suspension Tower Type "A2 + 16.5" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D26	Assembly and Erection of Suspension Tower Type "A2 + 18" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D27	Assembly and Erection of Suspension Tower Type "A2 + 19.5" as per dwg. 505573-4622-43DD-0044	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
	Assembly and Erection of Suspension Tower Type "A3"								
S1-D28	Assembly and Erection of Suspension Tower Type "A3 + 0" as per dwg. 505573-4622-43DD-0050	EA	110	**$ 35,385.30**	**$ 2,501,593.60**	$ -	**$ 4,960,503.90**	$ 67,837.25	$ 7,462,097.50
S1-D29	Assembly and Erection of Suspension Tower Type "A3 + 1.5" as per dwg. 505573-4622-43DD-0050	EA	20	**$ 6,581.30**	**$ 464,467.20**	$ -	**$ 922,711.00**	$ 69,358.91	$ 1,387,178.20
S1-D30	Assembly and Erection of Suspension Tower Type "A3 + 3" as per dwg. 505573-4622-43DD-0050	EA	29	**$ 9,671.31**	**$ 681,857.28**	$ -	**$ 1,356,028.11**	$ 70,271.91	$ 2,037,885.39
S1-D31	Assembly and Erection of Suspension Tower Type "A3 + 4.5" as per dwg. 505573-4622-43DD-0050	EA	35	**$ 11,930.60**	**$ 839,787.20**	$ -	**$ 1,672,987.75**	$ 71,793.57	$ 2,512,774.95
S1-D32	Assembly and Erection of Suspension Tower Type "A3 + 6" as per dwg. 505573-4622-43DD-0050	EA	44	**$ 15,059.18**	**$ 1,059,694.24**	$ -	**$ 2,111,740.40**	$ 72,078.06	$ 3,171,434.64
S1-D33	Assembly and Erection of Suspension Tower Type "A3 + 7.5" as per dwg. 505573-4622-43DD-0050	EA	45	**$ 15,674.35**	**$ 1,101,586.95**	$ -	**$ 2,198,194.20**	$ 73,328.47	$ 3,299,781.15
S1-D34	Assembly and Erection of Suspension Tower Type "A3 + 9" as per dwg. 505573-4622-43DD-0050	EA	30	**$ 10,560.28**	**$ 741,615.30**	$ -	**$ 1,481,063.70**	$ 74,089.30	$ 2,222,679.00
S1-D35	Assembly and Erection of Suspension Tower Type "A3 + 10.5" as per dwg. 505573-4622-43DD-0050	EA	32	**$ 11,523.07**	**$ 807,941.76**	$ -	**$ 1,616,266.56**	$ 75,756.51	$ 2,424,208.32
S1-D36	Assembly and Erection of Suspension Tower Type "A3 + 12" as per dwg. 505573-4622-43DD-0050	EA	24	**$ 8,706.99**	**$ 610,177.68**	$ -	**$ 1,221,316.32**	$ 76,312.25	$ 1,831,494.00
S1-D37	Assembly and Erection of Suspension Tower Type "A3 + 13.5" as per dwg. 505573-4622-43DD-0050	EA	22	**$ 8,114.84**	**$ 568,036.04**	$ -	**$ 1,138,342.48**	$ 77,562.66	$ 1,706,378.52
S1-D38	Assembly and Erection of Suspension Tower Type "A3 + 15" as per dwg. 505573-4622-43DD-0050	EA	27	**$ 10,122.88**	**$ 707,820.39**	$ -	**$ 1,420,132.50**	$ 78,813.07	$ 2,127,952.89
S1-D39	Assembly and Erection of Suspension Tower Type "A3 + 16.5" as per dwg. 505573-4622-43DD-0050	EA	13	**$ 4,922.37**	**$ 343,959.98**	$ -	**$ 690,586.65**	$ 79,580.51	$ 1,034,546.63
	Assembly and Erection of Suspension Tower Type "A4"								
S1-D40	Assembly and Erection of Suspension Tower Type "A4 + 0" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D41	Assembly and Erection of Suspension Tower Type "A4 + 1.5" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D42	Assembly and Erection of Suspension Tower Type "A4 + 3" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D43	Assembly and Erection of Suspension Tower Type "A4 + 4.5" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D44	Assembly and Erection of Suspension Tower Type "A4 + 6" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D45	Assembly and Erection of Suspension Tower Type "A4 + 7.5" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D46	Assembly and Erection of Suspension Tower Type "A4 + 9" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D47	Assembly and Erection of Suspension Tower Type "A4 + 10.5" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D48	Assembly and Erection of Suspension Tower Type "A4 + 12" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D49	Assembly and Erection of Suspension Tower Type "A4 + 13.5" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D50	Assembly and Erection of Suspension Tower Type "A4 + 15" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D51	Assembly and Erection of Suspension Tower Type "A4 + 16.5" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D52	Assembly and Erection of Suspension Tower Type "A4 + 18" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D53	Assembly and Erection of Suspension Tower Type "A4 + 19.5" as per dwg. 505573-4622-43DD-0056	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
	Assembly and Erection of Suspension Tower Type "B1"								
S1-D54	Assembly and Erection of Suspension Tower Type "B1 + 0" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D55	Assembly and Erection of Suspension Tower Type "B1 + 1.5" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D56	Assembly and Erection of Suspension Tower Type "B1 + 3" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D57	Assembly and Erection of Suspension Tower Type "B1 + 4.5" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D58	Assembly and Erection of Suspension Tower Type "B1 + 6" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D59	Assembly and Erection of Suspension Tower Type "B1 + 7.5" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D60	Assembly and Erection of Suspension Tower Type "B1 + 9" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D61	Assembly and Erection of Suspension Tower Type "B1 + 10.5" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D62	Assembly and Erection of Suspension Tower Type "B1 + 12" as per dwg. 505573-4622-43DD-0002	EA	11	**$ 7,246.27**	**$ 495,996.27**	$ -	**$ 1,018,437.31**	$ 137,675.78	$ 1,514,433.58
S1-D63	Assembly and Erection of Suspension Tower Type "B1 + 13.5" as per dwg. 505573-4622-43DD-0002	EA	2	**$ 1,359.70**	**$ 93,338.50**	$ -	**$ 191,017.06**	$ 142,177.78	$ 284,355.56

Item No.	Description	Unit of Measure	Estimated Quantity	Unit Manhours(hrs)	Equipment($)	Material ($)	Labour($)	Total Unit Price($)	Subtotal Price ($)
S1-D64	Assembly and Erection of Suspension Tower Type "B1 + 15" as per dwg. 505573-4622-43DD-0002	EA	3	$ 2,075.94	$ 142,382.25	$ -	$ 291,653.52	$ 144,678.59	$ 434,035.77
S1-D65	Assembly and Erection of Suspension Tower Type "B1 + 16.5" as per dwg. 505573-4622-43DD-0002	EA	5	$ 3,513.81	$ 240,821.55	$ -	$ 493,686.20	$ 146,901.55	$ 734,507.75
S1-D66	Assembly and Erection of Suspension Tower Type "B1 + 18" as per dwg. 505573-4622-43DD-0002	EA	3	$ 2,140.73	$ 146,609.88	$ -	$ 300,783.48	$ 149,131.12	$ 447,393.36
S1-D67	Assembly and Erection of Suspension Tower Type "B1 + 19.5" as per dwg. 505573-4622-43DD-0002	EA	2	$ 1,469.70	$ 100,516.44	$ -	$ 206,518.50	$ 153,517.47	$ 307,034.94
S1-D68	Assembly and Erection of Suspension Tower Type "B1 + 21" as per dwg. 505573-4622-43DD-0002	EA	3	$ 2,264.00	$ 155,259.45	$ -	$ 318,005.04	$ 157,754.83	$ 473,264.49
S1-D69	Assembly and Erection of Suspension Tower Type "B1 + 22.5" as per dwg. 505573-4622-43DD-0002	EA	4	$ 3,072.32	$ 210,513.60	$ -	$ 431,567.52	$ 160,520.28	$ 642,081.12
S1-D70	Assembly and Erection of Suspension Tower Type "B1 + 24" as per dwg. 505573-4622-43DD-0002	EA	3	$ 2,386.73	$ 164,480.28	$ -	$ 335,002.32	$ 166,494.20	$ 499,482.60
S1-D71	Assembly and Erection of Suspension Tower Type "B1 + 25.5" as per dwg. 505573-4622-43DD-0002	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D72	Assembly and Erection of Suspension Tower Type "B1 + 27" as per dwg. 505573-4622-43DD-0002	EA	16	$ 13,095.84	$ 901,148.96	$ -	$ 1,838,338.40	$ 171,217.96	$ 2,739,487.36
	Assembly and Erection of Medium Angle Tower Type "B2"								
S1-D73	Assembly and Erection of Medium Angle Tower Type "B2" Basic Body as per dwg. 505573-4622-43DD-0058	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D74	Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D75	Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D76	Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D77	Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D78	Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D79	Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D80	Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D81	Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D82	Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
	Assembly and Erection of Medium Angle Tower Type "C1"								
S1-D83	Assembly and Erection of Medium Angle Tower Type "C1" Basic Body as per dwg. 505573-4622-43DD-0004	EA	72	$ 53,070.89	$ 4,090,625.28	$ -	$ 7,490,178.72	$ 160,844.50	$ 11,580,804.00
S1-D84	Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004	EA	14	$ 2,066.87	$ 151,061.26	$ -	$ 291,876.76	$ 31,638.43	$ 442,938.02
S1-D85	Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004	EA	15	$ 4,123.14	$ 303,590.55	$ -	$ 582,382.05	$ 59,064.84	$ 885,972.60
S1-D86	Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D87	Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D88	Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	68	$ 1,717.94	$ 125,559.96	$ -	$ 242,602.92	$ 5,414.16	$ 368,162.88
S1-D89	Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	24	$ 752.46	$ 54,995.04	$ -	$ 106,259.76	$ 6,718.95	$ 161,254.80
S1-D90	Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	60	$ 2,329.48	$ 170,254.80	$ -	$ 328,962.00	$ 8,320.28	$ 499,216.80
S1-D91	Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	68	$ 3,085.45	$ 225,507.04	$ -	$ 435,718.84	$ 9,723.91	$ 661,225.88
S1-D92	Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg	EA	68	$ 3,758.37	$ 274,689.40	$ -	$ 530,746.80	$ 11,844.65	$ 805,436.20
	Assembly and Erection of Medium Angle Tower Type "C2"								
S1-D93	Assembly and Erection of Medium Angle Tower Type "C2" Basic Body as per dwg. 505573-4622-43DD-0012	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D94	Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D95	Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D96	Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D97	Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D98	Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D99	Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D100	Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D101	Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D102	Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
	Assembly and Erection of Dead-End Tower Type "D1"								
S1-D103	Assembly and Erection of Dead-End Tower Type "D1" Basic Body as per dwg. 505573-4622-43DD-0043	EA	86	$ 71,493.82	$ 5,505,540.26	$ -	$ 10,091,421.46	$ 181,360.02	$ 15,596,961.72
S1-D104	Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043	EA	25	$ 4,360.90	$ 318,725.75	$ -	$ 615,833.50	$ 37,382.37	$ 934,559.25
S1-D105	Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043	EA	25	$ 8,417.38	$ 615,202.00	$ -	$ 1,188,677.25	$ 72,155.17	$ 1,803,879.25
S1-D106	Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D107	Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D108	Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	84	$ 2,066.51	$ 151,036.20	$ -	$ 291,826.92	$ 5,272.18	$ 442,863.12
S1-D109	Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	24	$ 804.18	$ 58,775.52	$ -	$ 113,564.64	$ 7,180.84	$ 172,340.16
S1-D110	Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	92	$ 3,646.70	$ 266,527.68	$ -	$ 514,977.36	$ 8,494.62	$ 781,505.04
S1-D111	Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	60	$ 2,832.66	$ 207,031.20	$ -	$ 400,019.40	$ 10,117.51	$ 607,050.60
S1-D112	Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg	EA	84	$ 5,261.91	$ 384,578.88	$ -	$ 743,072.40	$ 13,424.42	$ 1,127,651.28
	Assembly and Erection of Dead-End Tower Type "D2"								
S1-D113	Assembly and Erection of Dead-End Tower Type "D2" Basic Body as per dwg. 505573-4622-43DD-0045	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D114	Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D115	Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D116	Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D117	Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D118	Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D119	Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D120	Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D121	Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D122	Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
	Assembly and Erection of Dead-End Tower Type "E1"								
S1-D123	Assembly and Erection of Dead-End Tower Type "E1" Basic Body as per dwg. 505573-4622-43DD-0007	EA	16	$ 15,867.66	$ 1,217,845.44	$ -	$ 2,239,327.52	$ 216,073.31	$ 3,457,172.96
S1-D124	Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007	EA	1	$ 243.19	$ 17,961.09	$ -	$ 34,324.71	$ 52,285.80	$ 52,285.80

Item No.	Description	Unit of Measure	Estimated Quantity	Unit Manhours(hrs)	Equipment($)	Material ($)	Labour($)	Total Unit Price($)	Subtotal Price ($)
S1-D125	Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007	EA	6	$ 2,787.51	$ 205,413.30	$ -	$ 393,481.08	$ 99,815.73	$ 598,894.38
S1-D126	Assembly and Erection of +0 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D127	Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D128	Assembly and Erection of +3 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-D129	Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	32	$ 2,007.09	$ 146,692.48	$ -	$ 283,435.20	$ 13,441.49	$ 430,127.68
S1-D130	Assembly and Erection of +6 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	8	$ 616.63	$ 45,067.84	$ -	$ 87,078.88	$ 16,518.34	$ 132,146.72
S1-D131	Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	4	$ 357.86	$ 26,155.12	$ -	$ 50,536.28	$ 19,172.85	$ 76,691.40
S1-D132	Assembly and Erection of +9 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg	EA	20	$ 2,036.88	$ 148,869.60	$ -	$ 287,641.80	$ 21,825.57	$ 436,511.40
	Sub-total (S1-Dx) : Tower Assembly & Erection			574,673.52	$ 41,980,709.07	$ -	$ 80,284,959.50	$ 4,111,083.72	$ 122,265,668.57
S1-E	**Installation of Wires and OPGW (S1-Ex)**								
S1-E1	Installation of Counterpoise wire, connection with tower grounding	KM	470	$ 18,787.57	$ 1,969,422.20	$ -	$ 2,698,458.00	$ 9,931.66	$ 4,667,880.20
S1-E2	Installation of ground rods at crossing obstacles in soil and rock	EA	460	$ 460.00	$ 50,659.80	$ -	$ 66,212.40	$ 254.07	$ 116,872.20
S1-E3	Tower Footing resistance measurement	EA	470	$ 470.00	$ 17,004.60	$ -	$ 66,331.10	$ 177.31	$ 83,335.70
S1-E4	S1 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S2-E4	S2 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S3-E4	S3 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S4-E4	S4 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles	KM	290	$ 100,127.74	$ 14,515,059.70	$ -	$ 14,270,572.30	$ 99,260.80	$ 28,785,632.00
S5-E4	S5 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles	KM	180	$ 56,119.68	$ 8,141,812.20	$ -	$ 8,008,137.00	$ 89,721.94	$ 16,149,949.20
S1-E5	Installation of Conductor on Steel Towers - 1192.5 kcmil 54/19 ACSR Grackle Conductor, complete for both electrodes	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-E6	Installation of Conductor on Steel Towers - 1590.0 kcmil 54/19 ACSR Falcon Conductor, complete for both electrodes	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-E7	Installation of Conductor on Wood Poles - 1192.5 kcmil 54/19 ACSR Grackle Conductor, complete for both electrodes	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-E8	Installation of Conductor on Wood Poles - 1590.0 kcmil 54/19 ACSR Falcon Conductor, complete for both electrodes	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-E9	Installation of ADSS on Wood Poles	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-E10	ADSS splicing and tests including loss analysis	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-E11	ADSS end to end test	LS	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-E12	S1 - Installation of OPGW	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S2-E12	S2 - Installation of OPGW	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S3-E12	S3 - Installation of OPGW	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S4-E12	S4 - Installation of OPGW	KM	290	$ 24,275.61	$ 3,513,640.00	$ -	$ 3,334,066.20	$ 23,612.78	$ 6,847,706.20
S5-E12	S5 - Installation of OPGW	KM	180	$ 14,610.48	$ 2,115,745.20	$ -	$ 2,008,990.80	$ 22,915.20	$ 4,124,736.00
S1-E13	OPGW Continuity tests before and after stringing	LS	1	$ 1,804.80	$ 150,123.23	$ -	$ 213,778.70	$ 363,901.93	$ 363,901.93
S1-E14	OPGW splicing and tests including loss analysis	EA	100	$ 4,000.00	$ 339,139.00	$ -	$ 511,249.00	$ 8,503.88	$ 850,388.00
S1-E15	OPGW end to end test	LS	1	$ 192.00	$ 15,970.56	$ -	$ 22,742.42	$ 38,712.98	$ 38,712.98
	Sub-total (S1-Ex) : Installation of Wires and OPGW			220,847.88	$ 30,828,576.49	$ -	$ 31,200,537.92	$ 656,992.55	$ 62,029,114.41
S1-F	**Miscellaneous Tower Attachments and Accessories (S1-Fx)**								
S1-F1	Install 18" Aerial marker cones	EA	15	$ 60.00	$ 5,231.55	$ -	$ 8,511.45	$ 916.20	$ 13,743.00
	Sub-total (S1-Fx) : Miscellaneous Tower Attachment and Accessories			60.00	$ 5,231.55	$ -	$ 8,511.45	$ 916.20	$ 13,743.00
S1-G	**Framing and Setting of Wood Poles (S1-Gx)**								
S1-G1	Framing and Setting of Single Pole Tangent (0 - 1 deg) as per Drawing 505573-4633-4ZDD-0011	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-G2	Framing and Setting of Single Pole Light angle (1 - 10 deg) with Guys as per Drawing 505573-4633-4ZDD-0012	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-G3	Framing and Setting of Single Pole Heavy angle (10 - 30 deg) with Guys as per Drawing 505573-4633-4ZDD-0020	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-G4	Framing and Setting of Single Pole Dead-end (30 - 90 deg) with Guys as per Drawing 505573-4633-4ZDD-0021	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-G5	Framing and Setting of Single Pole Floating Dead-end (0 - 1 deg) with Guys as per Drawing 505573-4633-4ZDD-0013	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-G6	Framing and Setting of Two Pole Dead-end to tap to HVdc Tower in Labrador as per Drawing 505573-4633-4ZDD-0061	EA	0	$ -	$ -	$ -	$ -	$ -	$ -
	Sub-total (S1-Gx) : Framing and Setting of Wood Poles			-	$ -	$ -	$ -	$ -	$ -
S1-I	**Optional Pricing (S1-Ix)**								
S1-I1	Perform Geotechnical Investigation and Identify Foundation Type as per Design Drawings and Technical Specifications	LS	2	$ -	$ -	$ -	$ -	$ -	$ -
S1-I2	Design and supply of micropile option as replacement for H-pile design	EA	2	$ -	$ -	$ -	$ -	$ -	$ -
S1-I3	Optional cost for mulching given area instead of salvaging	Ha	2,737	$ -	$ -	$ -	$ -	$ -	$ -
S1-I4	Installation of Access Road - Alternative	KM	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-I5	Slack Span Connections - Installation of all Conductor and OPGW from Terminal Tower to the Substation Gantry	LS	1	$ 234.00	$ 29,432.43	$ -	$ 33,524.78	$ 62,957.21	$ 62,957.21
S1-I6	Slack Span Connections - Installation of all Conductor and OPGW/ADSS from Terminal Wood Pole to the Electrode Compound Gantry	LS	0	$ -	$ -	$ -	$ -	$ -	$ -
S1-I7	Supply and Installation of Culvert - 1000 mm	LM	13	$ -	$ -	$ -	$ -	$ -	$ -
S1-I8	Supply and Installation of Culvert - 1200 mm	LM	13	$ -	$ -	$ -	$ -	$ -	$ -
S1-I9	Supply and Installation of Culvert - 1600 mm	LM	13	$ -	$ -	$ -	$ -	$ -	$ -
S1-I10	Supply and Installation of Culvert - 2000 mm	LM	13	$ -	$ -	$ -	$ -	$ -	$ -
S1-I11	Supply and Installation of Culvert - 2400 mm	LM	13	$ -	$ -	$ -	$ -	$ -	$ -
S1-I12	Supply and Installation of Culvert - 3000 mm	LM	13	$ -	$ -	$ -	$ -	$ -	$ -
S1-I13	Assembly and Installation of Foundation Type A1-1/1A, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I14	Assembly and Installation of Foundation Type A2-1/1A, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I15	Assembly and Installation of Foundation Type A3-1/1A, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I16	Assembly and Installation of Foundation Type A4-1/1A, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I17	Assembly and Installation of Foundation Type B1-1/1A, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I18	Assembly and Installation of Foundation Type B2-1/1A, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I19	Assembly and Installation of Foundation Type C1-1, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I20	Assembly and Installation of Foundation Type C2-1, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I21	Assembly and Installation of Foundation Type D1-1, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I22	Assembly and Installation of Foundation Type D2-1, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I23	Assembly and Installation of Foundation Type E1-1, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I24	Assembly and Installation of Foundation Type A1-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I25	Assembly and Installation of Foundation Type A2-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I26	Assembly and Installation of Foundation Type A3-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I27	Assembly and Installation of Foundation Type A4-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I28	Assembly and Installation of Foundation Type B1-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I29	Assembly and Installation of Foundation Type B2-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I30	Assembly and Installation of Foundation Type C1-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I31	Assembly and Installation of Foundation Type C2-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I32	Assembly and Installation of Foundation Type D1-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40

Item No.	Description	Unit of Measure	Estimated Quantity	Unit Manhours(hrs)	Equipment($)	Material ($)	Labour($)	Total Unit Price($)	Subtotal Price ($)
S1-I33	Assembly and Installation of Foundation Type D2-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I34	Assembly and Installation of Foundation Type E1-2, per kg, to be used for weight increases or decreases	KG	1	$ 0.01	$ 0.60	$ -	$ 0.80	$ 1.40	$ 1.40
S1-I35	Assembly and Erection of Tower Type A1, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 1.94	$ -	$ 3.01	$ 4.95	$ 4.95
S1-I36	Assembly and Erection of Tower Type A2, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.06	$ -	$ 3.10	$ 5.16	$ 5.16
S1-I37	Assembly and Erection of Tower Type A3, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 1.94	$ -	$ 3.01	$ 4.95	$ 4.95
S1-I38	Assembly and Erection of Tower Type A4, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 1.94	$ -	$ 3.01	$ 4.95	$ 4.95
S1-I39	Assembly and Erection of Tower Type B1, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 1.94	$ -	$ 3.01	$ 4.95	$ 4.95
S1-I40	Assembly and Erection of Tower Type B2, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.00	$ -	$ 3.05	$ 5.05	$ 5.05
S1-I41	Assembly and Erection of Tower Type C1, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.10	$ -	$ 3.17	$ 5.27	$ 5.27
S1-I42	Assembly and Erection of Tower Type C2, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.10	$ -	$ 3.17	$ 5.27	$ 5.27
S1-I43	Assembly and Erection of Tower Type D1, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.10	$ -	$ 3.17	$ 5.27	$ 5.27
S1-I44	Assembly and Erection of Tower Type D2, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.10	$ -	$ 3.17	$ 5.27	$ 5.27
S1-I45	Assembly and Erection of Tower Type E1, per kg, to be used for weight increases or decreases	KG	1	$ 0.03	$ 2.10	$ -	$ 3.17	$ 5.27	$ 5.27
S1-I46	Survey Cost	LS	1	$ 247,385.79	$ 1,573,373.63	$ 78,668.69	$ 970,247.07	$ 2,622,289.39	$ 2,622,289.39
	Sub-total (S1-Ix) : Optional Pricing			247,620.29	$ 1,602,841.58	$ 78,668.69	$ 1,003,823.49	$ 2,685,333.76	$ 2,685,333.76
	TOTAL VALUE THIS PROPOSAL (Tax Excluded):								452,239,303.27

FOR THE LOWER CHURCHILL PROJECT - MUSKRAT FALLS	
This Appendix forms part of the Proposal submitted by:	
Name of Bidder:	
Request For Proposal no: 505573-CT0327	
Signature:	
Date of Proposal:	

Notes:

VH00

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)

Project Estimate - Valard Construction Ltd.

Man-Hour Estimate; Primary Structures and equipment

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H00	**S1-A General Works (S1-Ax)**												
V-H01	**Mobilization and Demobilization**												
V::A01	**S1-A1 Initial Mobilization**	**Total structure count:**	**1**		**LS**			$ -		$ -	$ -	$ -	$ -
	S1-A1 Initial Mobilization												
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
			0				$ -	$ -		$ -			
V::A02	**S1-A2 Final Demobilization**	**Total structure count:**	**1**		**LS**			$ -		$ -	$ -	$ -	$ -
	S1-A2 Final Demobilization												
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ -	$ -		$ -			
V::A03	**S1-A3 Accommodation Camp Installation**	**Total structure count:**	**1**		**LS**			$ 4,617,255.15		$ 4,617,255.15	$ 45,687,843.87	$ 50,305,099.02	$ 45,687,843.87
	S1-A3 Accommodation Camp Installation												
	1 New Camps		3 moves										
	Permitting and Supervise Installation	Supervisory	each	1	29	400.00	$ 167.19	$ 66,876.82	$ 66,876.82	1	$ 66,876.82		
	Site Preparation	Camp Site Preparation	each	1	28	1200.00	$ 965.54	$ 1,158,644.42	$ 1,158,644.42	1	$ 1,158,644.42		
	Install Radio System	OPGW Splice	each	1	42	310.00	$ 297.67	$ 92,278.96	$ 92,278.96	1	$ 92,278.96		
	Set up Camp	Camp Setup	each	1	45	880.00	$ 2,100.51	$ 1,848,452.33	$ 1,848,452.33	1	$ 1,848,452.33		
			each	1			$ -	$ -	$ -	1	$ -		
	Mobilize Camp in third party		each	1			$ -	$ -	$ -	1	$ -		
	Camp Move	Camp Haul	each	1	46	6000.00	$ 241.83	$ 1,451,002.61	$ 1,451,002.61	1	$ 1,451,002.61		
								$ 4,617,255.15	$ 4,617,255.15		$ 4,617,255.15		
V::A04	**S1-A4 Boarding and Lodging for Company/Engineer with 3 meals per day**	**Total structure count:**	**24000**		**person-day**			$ -		$ -	$ 250.01	$ 250.01	$ 6,000,309.00
	S1-A4 Boarding and Lodging for Company/Engineer with 3 meals per day												
		each	24000			$ -	$ -	$ -	24000	$ -			
		each	24000			$ -	$ -	$ -	24000	$ -			
		each	24000			$ -	$ -	$ -	24000	$ -			
		each	24000			$ -	$ -	$ -	24000	$ -			
		each	24000			$ -	$ -	$ -	24000	$ -			
		each	24000			$ -	$ -	$ -	24000	$ -			
							$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::A05	**S1-A5 Meals for Company/Engineer visitors** S1-A5 Meals for Company/Engineer visitors	**Total structure count:**	**2000**	**meal**			**$ -**		**$ -**	**$ 41.68**	**$ 41.68**	**$ 83,354.29**
		each	2000		$ -	$ -	$ -	2000	$ -			
		each	2000		$ -	$ -	$ -	2000	$ -			
		each	2000		$ -	$ -	$ -	2000	$ -			
		each	2000		$ -	$ -	$ -	2000	$ -			
		each	2000		$ -	$ -	$ -	2000	$ -			
		each	2000		$ -	$ -	$ -	2000	$ -			
						$ -	$ -		$ -			
V::A06	**S1-A6 Parent Guarantee Article 7.4** S1-A6 Parent Guarantee Article 7.4	**Total structure count:**	**1**	**LS**			**$ -**		$ -	**$ -**	**$ -**	**$ -**
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::A07	**S1-A7 Letter Of Credit Article 7.6** S1-A7 Letter Of Credit Article 7.6	**Total structure count:**	**1**	LS			$ -		$ -	**$ -**	**$ -**	**$ -**
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::A08	**S1-A8 Performance Bonding Article 7.1** S1-A8 Performance Bonding Article 7.1	**Total structure count:**	**1**	**LS**			**$ -**		$ -	**$ -**	**$ -**	**$ -**
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::A09	**S1-A9 Labour and Materials Bonding Article 7.2** S1-A9 Labour and Materials Bonding Article 7.2	**Total structure count:**	**1**	**LS**			**$ -**		$ -	**$ -**	**$ -**	**$ -**
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H04	**S1-B Right-of-Way Clearing - Direct Costs (S1-Bx)**											
V::B01	**S1-B1 ROW Clearing** S1-B1 ROW Clearing	**Total structure count:**	**2737**	**Ha**			**$ -**		**$ -**	**$ 19,550.00**	**$ 19,550.00**	**$ 53,508,350.00**
		each	2737		$ -	$ -	$ -	2737	$ -			
		each	2737		$ -	$ -	$ -	2737	$ -			
		each	2737		$ -	$ -	$ -	2737	$ -			
		each	2737		$ -	$ -	$ -	2737	$ -			
		each	2737		$ -	$ -	$ -	2737	$ -			
		each	2737		$ -	$ -	$ -	2737	$ -			
		each	2737		$ -	$ -	$ -	2737	$ -			
		each	2737		$ -	$ -	$ -	2737	$ -			
		each	2737		$ -	$ -	$ -	2737	$ -			
						$ -	$ -		$ -			
V::B02	**S1-B2 Removal of selected danger trees** S1-B2 Removal of selected danger trees	**Total structure count:**	**1000**	**EA**			**$ -**		**$ -**	**$ 210.00**	**$ 210.00**	**$ 210,000.00**
		each	1000		$ -	$ -	$ -	1000	$ -			
		each	1000		$ -	$ -	$ -	1000	$ -			
		each	1000		$ -	$ -	$ -	1000	$ -			
		each	1000		$ -	$ -	$ -	1000	$ -			
		each	1000		$ -	$ -	$ -	1000	$ -			
		each	1000		$ -	$ -	$ -	1000	$ -			
		each	1000		$ -	$ -	$ -	1000	$ -			
		each	1000		$ -	$ -	$ -	1000	$ -			
		each	1000		$ -	$ -	$ -	1000	$ -			
						$ -	$ -		$ -			
V::B03	**S1-B3 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized** S1-B3 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2	**Total structure count:**	**1455**	**LM**			**$ -**		**$ -**	**$ 426.01**	**$ 426.01**	**$ 619,838.73**
		each	1455		$ -	$ -	$ -	1455	$ -			
		each	1455		$ -	$ -	$ -	1455	$ -			
		each	1455		$ -	$ -	$ -	1455	$ -			
		each	1455		$ -	$ -	$ -	1455	$ -			
		each	1455		$ -	$ -	$ -	1455	$ -			
		each	1455		$ -	$ -	$ -	1455	$ -			
		each	1455		$ -	$ -	$ -	1455	$ -			
		each	1455		$ -	$ -	$ -	1455	$ -			
		each	1455		$ -	$ -	$ -	1455	$ -			
						$ -	$ -		$ -			
V::B04	**S1-B4 Supply and Installation of Bridge - 3 m** S1-B4 Supply and Installation of Bridge - 3 m	**Total structure count:**	**219**	**EA**			**$ -**		**$ -**	**$ 32,700.00**	**$ 32,700.00**	**$ 7,161,300.00**
		each	219		$ -	$ -	$ -	219	$ -			
		each	219		$ -	$ -	$ -	219	$ -			
		each	219		$ -	$ -	$ -	219	$ -			
		each	219		$ -	$ -	$ -	219	$ -			
		each	219		$ -	$ -	$ -	219	$ -			
		each	219		$ -	$ -	$ -	219	$ -			
		each	219		$ -	$ -	$ -	219	$ -			
		each	219		$ -	$ -	$ -	219	$ -			
		each	219		$ -	$ -	$ -	219	$ -			
		each	219		$ -	$ -	$ -	219	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B05	**S1-B5 Supply and Installation of Bridge - 4 m** S1-B5 Supply and Installation of Bridge - 4 m	**Total structure count:**	**2**	**EA**			**$ -**		**$ -**	**$ 43,600.00**	**$ 43,600.00**	**$ 87,200.00**
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
		each	2		$ -	$ -	$ -	2	$ -			
						$ -	$ -		$ -			
V::B06	**S1-B6 Supply and Installation of Bridge - 5 m** S1-B6 Supply and Installation of Bridge - 5 m	**Total structure count:**	**20**	**EA**			**$ -**		**$ -**	**$ 54,500.00**	**$ 54,500.00**	**$ 1,090,000.00**
		each	20		$ -	$ -	$ -	20	$ -			
		each	20		$ -	$ -	$ -	20	$ -			
		each	20		$ -	$ -	$ -	20	$ -			
		each	20		$ -	$ -	$ -	20	$ -			
		each	20		$ -	$ -	$ -	20	$ -			
		each	20		$ -	$ -	$ -	20	$ -			
		each	20		$ -	$ -	$ -	20	$ -			
		each	20		$ -	$ -	$ -	20	$ -			
		each	20		$ -	$ -	$ -	20	$ -			
		each	20		$ -	$ -	$ -	20	$ -			
		each	20		$ -	$ -	$ -	20	$ -			
		each	20		$ -	$ -	$ -	20	$ -			
		each	20		$ -	$ -	$ -	20	$ -			
						$ -	$ -		$ -			
V::B07	**S1-B7 Supply and Installation of Bridge - 6 m** S1-B7 Supply and Installation of Bridge - 6 m	**Total structure count:**	0	**EA**			**$ -**		**$ -**	**$ 65,400.00**	**$ 65,400.00**	**$ -**
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B08	**S1-B8 Supply and Installation of Bridge - 7 m** S1-B8 Supply and Installation of Bridge - 7 m	**Total structure count:**	**15**	**EA**			**$ -**		**$ -**	**$ 76,300.00**	**$ 76,300.00**	**$ 1,144,500.00**
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
		each	15		$ -	$ -	$ -	15	$ -			
						$ -	$ -		$ -			
V::B09	**S1-B9 Supply and Installation of Bridge - 8 m** S1-B9 Supply and Installation of Bridge - 8 m	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 87,200.00**	**$ 87,200.00**	**$ -**
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B10	**S1-B10 Supply and Installation of Bridge - 10 m** S1-B10 Supply and Installation of Bridge - 10 m	**Total structure count:**	**10**	**EA**			**$ -**		**$ -**	**$ 109,000.00**	**$ 109,000.00**	**$ 1,090,000.00**
		each	10		$ -	$ -	$ -	10	$ -			
		each	10		$ -	$ -	$ -	10	$ -			
		each	10		$ -	$ -	$ -	10	$ -			
		each	10		$ -	$ -	$ -	10	$ -			
		each	10		$ -	$ -	$ -	10	$ -			
		each	10		$ -	$ -	$ -	10	$ -			
		each	10		$ -	$ -	$ -	10	$ -			
		each	10		$ -	$ -	$ -	10	$ -			
		each	10		$ -	$ -	$ -	10	$ -			
		each	10		$ -	$ -	$ -	10	$ -			
		each	10		$ -	$ -	$ -	10	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B11	**S1-B11 Supply and Installation of Bridge - 13 m** S1-B11 Supply and Installation of Bridge - 13 m	**Total structure count:**	1	**EA**			$ -		$ -	$ 141,700.00	$ 141,700.00	$ 141,700.00
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::B12	**S1-B12 Supply and Installation of Bridge - 14 m** S1-B12 Supply and Installation of Bridge - 14 m	**Total structure count:**	0	**EA**			$ -		$ -	$ 152,600.00	$ 152,600.00	$ -
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B13	**S1-B13 Supply and Installation of Bridge - 15 m** S1-B13 Supply and Installation of Bridge - 15 m	**Total structure count:**	0	**EA**			$ -		$ -	$ 163,500.00	$ 163,500.00	$ -
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B14	**S1-B14 Supply and Installation of Bridge - 16 m** S1-B14 Supply and Installation of Bridge - 16 m	**Total structure count:**	0	**EA**			$ -		$ -	$ 174,400.00	$ 174,400.00	$ -
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B15	**S1-B15 Supply and Installation of Bridge - 25 m** S1-B15 Supply and Installation of Bridge - 25 m	**Total structure count:**	0	**EA**			$ -		$ -	$ 272,500.00	$ 272,500.00	$ -
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B16	**S1-B16 Supply and Installation of Bridge - 35 m** S1-B16 Supply and Installation of Bridge - 35 m	**Total structure count:**	1	**EA**			$ -		$ -	$ 381,500.00	$ 381,500.00	$ 381,500.00
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
		each	1		$ -	$ -	$ -	1	$ -			
						$ -	$ -		$ -			
V::B17	**S1-B17 Supply and Installation of Bridge - 50 m** S1-B17 Supply and Installation of Bridge - 50 m	**Total structure count:**	0	**EA**			$ -		$ -	$ 545,000.00	$ 545,000.00	$ -
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B18	**S1-B18 Supply and Installation of Bridge - 60 m** S1-B18 Supply and Installation of Bridge - 60 m	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 654,000.00**	**$ 654,000.00**	**$ -**
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B19	**S1-B19 Supply and Installation of Bridge - 65 m** S1-B19 Supply and Installation of Bridge - 65 m	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 708,500.00**	**$ 708,500.00**	**$ -**
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B20	**S1-B20 Installation of Corduroy Road** S1-B20 Installation of Corduroy Road	**Total structure count:**	**8233**	**LM**			**$ -**		**$ -**	**$ 139.45**	**$ 139.45**	**$ 1,148,083.62**
		each	8233		$ -	$ -	$ -	8233	$ -			
		each	8233		$ -	$ -	$ -	8233	$ -			
		each	8233		$ -	$ -	$ -	8233	$ -			
		each	8233		$ -	$ -	$ -	8233	$ -			
		each	8233		$ -	$ -	$ -	8233	$ -			
		each	8233		$ -	$ -	$ -	8233	$ -			
		each	8233		$ -	$ -	$ -	8233	$ -			
		each	8233		$ -	$ -	$ -	8233	$ -			
		each	8233		$ -	$ -	$ -	8233	$ -			
						$ -	$ -		$ -			
V::B21	**S1-B21 Installation of Access Road - Access Class 3** S1-B21 Installation of Access Road - Access Class 3	**Total structure count:**	**402**	**KM**			**$ -**		**$ -**	**$ 80,700.00**	**$ 80,700.00**	**$ 32,441,400.00**
		each	402		$ -	$ -	$ -	402	$ -			
		each	402		$ -	$ -	$ -	402	$ -			
		each	402		$ -	$ -	$ -	402	$ -			
		each	402		$ -	$ -	$ -	402	$ -			
		each	402		$ -	$ -	$ -	402	$ -			
		each	402		$ -	$ -	$ -	402	$ -			
		each	402		$ -	$ -	$ -	402	$ -			
		each	402		$ -	$ -	$ -	402	$ -			
		each	402		$ -	$ -	$ -	402	$ -			
		each	402		$ -	$ -	$ -	402	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B22	**S1-B22 Installation of Access Road - Access Trail** S1-B22 Installation of Access Road - Access Trail	**Total structure count:**	**41**	**KM**			**$ -**		**$ -**	**$ 80,700.00**	**$ 80,700.00**	**$ 3,308,700.00**
		each	41		$ -	$ -	$ -	41	$ -			
		each	41		$ -	$ -	$ -	41	$ -			
		each	41		$ -	$ -	$ -	41	$ -			
		each	41		$ -	$ -	$ -	41	$ -			
		each	41		$ -	$ -	$ -	41	$ -			
		each	41		$ -	$ -	$ -	41	$ -			
		each	41		$ -	$ -	$ -	41	$ -			
		each	41		$ -	$ -	$ -	41	$ -			
						$ -	$ -		$ -			
V::B23	**S1-B23 Installation of Access Road - Bypass Trail** S1-B23 Installation of Access Road - Bypass Trail	**Total structure count:**	**35**	**KM**			**$ -**		**$ -**	**$ 80,700.00**	**$ 80,700.00**	**$ 2,824,500.00**
		each	35		$ -	$ -	$ -	35	$ -			
		each	35		$ -	$ -	$ -	35	$ -			
		each	35		$ -	$ -	$ -	35	$ -			
		each	35		$ -	$ -	$ -	35	$ -			
		each	35		$ -	$ -	$ -	35	$ -			
		each	35		$ -	$ -	$ -	35	$ -			
		each	35		$ -	$ -	$ -	35	$ -			
		each	35		$ -	$ -	$ -	35	$ -			
						$ -	$ -		$ -			
V::B24	**S1-B24 Installation of Access Road - Ice Bridge** S1-B24 Installation of Access Road - Ice Bridge	**Total structure count:**	**57**	**LM**			**$ -**		**$ -**	**$ 7,200.00**	**$ 7,200.00**	**$ 410,400.00**
		each	57		$ -	$ -	$ -	57	$ -			
		each	57		$ -	$ -	$ -	57	$ -			
		each	57		$ -	$ -	$ -	57	$ -			
		each	57		$ -	$ -	$ -	57	$ -			
		each	57		$ -	$ -	$ -	57	$ -			
		each	57		$ -	$ -	$ -	57	$ -			
		each	57		$ -	$ -	$ -	57	$ -			
		each	57		$ -	$ -	$ -	57	$ -			
		each	57		$ -	$ -	$ -	57	$ -			
		each	57		$ -	$ -	$ -	57	$ -			
						$ -	$ -		$ -			
V-H06	**S1-B Right-of-Way Clearing for Wood Pole Electrode Line- Direct Costs (S1-Bx)**											
V::B25	**S1-B25 ROW Clearing** S1-B25 ROW Clearing	**Total structure count:**	**0**	**Ha**			**$ -**		**$ -**	**$ 19,550.00**	**$ 19,550.00**	**$ -**
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B26	**S1-B26 Removal of selected danger trees**	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 210.00**	**$ 210.00**	**$ -**
	S1-B26 Removal of selected danger trees											
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B27	**S1-B27 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized**	**Total structure count:**	**0**	**LM**			**$ -**		**$ -**	**$ 426.01**	**$ 426.01**	**$ -**
	S1-B27 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2											
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B28	**S1-B28 Supply and Installation of Bridge - 3 m**	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 32,700.00**	**$ 32,700.00**	**$ -**
	S1-B28 Supply and Installation of Bridge - 3 m											
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total		Crew No.	Crew Cost Hours per unit	 Hourly Rate	 Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B29	**S1-B29 Supply and Installation of Bridge - 4 m** S1-B29 Supply and Installation of Bridge - 4 m	**Total structure count:**		0	**EA**			$ -		$ -	$ 43,600.00	$ 43,600.00	$ -
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			
V::B30	**S1-B30 Supply and Installation of Bridge - 5 m** S1-B30 Supply and Installation of Bridge - 5 m	**Total structure count:**		0	**EA**			$ -		$ -	$ 54,500.00	$ 54,500.00	$ -
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			
V::B31	**S1-B31 Supply and Installation of Bridge - 6 m** S1-B31 Supply and Installation of Bridge - 6 m	**Total structure count:**		0	**EA**			$ -		$ -	$ 65,400.00	$ 65,400.00	$ -
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B32	**S1-B32 Supply and Installation of Bridge - 7 m** S1-B32 Supply and Installation of Bridge - 7 m	**Total structure count:**	0	**EA**			$ -		$ -	$ 76,300.00	$ 76,300.00	$ -
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B33	**S1-B33 Supply and Installation of Bridge - 8 m** S1-B33 Supply and Installation of Bridge - 8 m	**Total structure count:**	0	**EA**			$ -		$ -	$ 87,200.00	$ 87,200.00	$ -
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B34	**S1-B34 Supply and Installation of Bridge - 10 m** S1-B34 Supply and Installation of Bridge - 10 m	**Total structure count:**	0	**EA**			$ -		$ -	$ 109,000.00	$ 109,000.00	$ -
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B35	**S1-B35 Supply and Installation of Bridge - 13 m** S1-B35 Supply and Installation of Bridge - 13 m	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 141,700.00**	**$ 141,700.00**	**$ -**
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B36	**S1-B36 Supply and Installation of Bridge - 14 m** S1-B36 Supply and Installation of Bridge - 14 m	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 152,600.00**	**$ 152,600.00**	**$ -**
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B37	**S1-B37 Supply and Installation of Bridge - 15 m** S1-B37 Supply and Installation of Bridge - 15 m	**Total structure count:**	**0**	**EA**			**$ -**		**$ -**	**$ 163,500.00**	**$ 163,500.00**	**$ -**
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B38	**S1-B38 Supply and Installation of Bridge - 16 m** S1-B38 Supply and Installation of Bridge - 16 m	**Total structure count:**	0	**EA**			$ -		$ -	$ 174,400.00	$ 174,400.00	$ -
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B39	**S1-B39 Supply and Installation of Bridge - 25 m** S1-B39 Supply and Installation of Bridge - 25 m	**Total structure count:**	0	**EA**			$ -		$ -	$ 272,500.00	$ 272,500.00	$ -
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B40	**S1-B40 Supply and Installation of Bridge - 35 m** S1-B40 Supply and Installation of Bridge - 35 m	**Total structure count:**	0	**EA**			$ -		$ -	$ 381,500.00	$ 381,500.00	$ -
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
		each	0		$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total		Crew No.	Crew Cost Hours per unit	 Hourly Rate	 Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B41	**S1-B41 Supply and Installation of Bridge - 50 m** S1-B41 Supply and Installation of Bridge - 50 m	**Total structure count:**		0	**EA**			$ -		$ -	$ 545,000.00	$ 545,000.00	$ -
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			
V::B42	**S1-B42 Supply and Installation of Bridge - 60 m** S1-B42 Supply and Installation of Bridge - 60 m	**Total structure count:**		0	**EA**			$ -		$ -	$ 654,000.00	$ 654,000.00	$ -
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			
V::B43	**S1-B43 Supply and Installation of Bridge - 65 m** S1-B43 Supply and Installation of Bridge - 65 m	**Total structure count:**		0	**EA**			$ -		$ -	$ 708,500.00	$ 708,500.00	$ -
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) / Description	Units / Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B44	**S1-B44 Installation of Corduroy Road**	**Total structure count:**	**0**	**LM**			**$ -**		**$ -**	**$ 139.45**	**$ 139.45**	**$ -**
	S1-B44 Installation of Corduroy Road											
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B45	**S1-B45 Installation of Access Road - Access Class 3**	**Total structure count:**	**0**	**KM**			**$ -**		**$ -**	**$ 80,700.00**	**$ 80,700.00**	**$ -**
	S1-B45 Installation of Access Road - Access Class 3											
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			
V::B46	**S1-B46 Installation of Access Road - Access Trail**	**Total structure count:**	**0**	**KM**			**$ -**		**$ -**	**$ 80,700.00**	**$ 80,700.00**	**$ -**
	S1-B46 Installation of Access Road - Access Trail											
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::B47	**S1-B47 Installation of Access Road - Bypass Trail** S1-B47 Installation of Access Road - Bypass Trail	**Total structure count:**	**0**	**KM**			**$ -**		**$ -**	**$ 80,700.00**	**$ 80,700.00**	**$ -**
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)	Units		Crew No.	Crew Cost			Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
	Description		Total		Hours per unit	Hourly Rate	Unit Cost						
V-H07	**S1-C Tower Foundation Construction (S1-Cx)**												
V-H08	**Guy Wire Anchors**												
V::C01	**S1-C1 Installation of Guy Wire Anchor in soil as per design drawings and**	**Total structure count:**		**31000**	**LM**			**$ -**		**$ -**	**$ 468.58**	**$ 468.58**	**$ 14,526,107.04**
	S1-C1 Installation of Guy Wire Anchor in soil as per design drawings and technical specification												
		each	31000			$ -	$ -	$ -	31000	$ -			
		each	31000			$ -	$ -	$ -	31000	$ -			
		each	31000			$ -	$ -	$ -	31000	$ -			
		each	31000			$ -	$ -	$ -	31000	$ -			
		each	31000			$ -	$ -	$ -	31000	$ -			
		each	31000			$ -	$ -	$ -	31000	$ -			
		each	31000			$ -	$ -	$ -	31000	$ -			
		each	31000			$ -	$ -	$ -	31000	$ -			
		each	31000			$ -	$ -	$ -	31000	$ -			
		each	31000			$ -	$ -	$ -	31000	$ -			
		each	31000			$ -	$ -	$ -	31000	$ -			
		each	31000			$ -	$ -	$ -	31000	$ -			
							$ -	$ -		$ -			
V::C02	**S1-C2 Installation of Guy Wire Anchor in rock as per design drawings and**	**Total structure count:**		**29000**	**LM**			**$ -**		**$ -**	**$ 432.81**	**$ 432.81**	**$ 12,551,352.51**
	S1-C2 Installation of Guy Wire Anchor in rock as per design drawings and technical specification												
		each	29000			$ -	$ -	$ -	29000	$ -			
		each	29000			$ -	$ -	$ -	29000	$ -			
		each	29000			$ -	$ -	$ -	29000	$ -			
		each	29000			$ -	$ -	$ -	29000	$ -			
		each	29000			$ -	$ -	$ -	29000	$ -			
		each	29000			$ -	$ -	$ -	29000	$ -			
		each	29000			$ -	$ -	$ -	29000	$ -			
		each	29000			$ -	$ -	$ -	29000	$ -			
		each	29000			$ -	$ -	$ -	29000	$ -			
		each	29000			$ -	$ -	$ -	29000	$ -			
		each	29000			$ -	$ -	$ -	29000	$ -			
		each	29000			$ -	$ -	$ -	29000	$ -			
							$ -	$ -		$ -			
V::C02-1	**S1-C2 Testing of Guy Wire Anchor up to 550kN as per design drawings and**	**Total structure count:**		**4068**	**Ea**			**$ 236,935.13**		**$ 58.24**	**$ 994.35**	**$ 1,052.60**	**$ 4,045,029.51**
	S1-C2 Testing of Guy Wire Anchor up to 550kN as per design drawings and technical specification												
	Supervise installation Supervisory	each	4068	29	0.25	$ 167.19	$ 41.80	$ 170,034.32	4068	$ 41.80			
	Placement survey Foundation Survey ($250/h)	each	4068	18	0.05	$ 328.91	$ 16.45	$ 66,900.81	4068	$ 16.45			
		each	4068			$ -	$ -	$ -	4068	$ -			
		each	4068			$ -	$ -	$ -	4068	$ -			
		each	4068			$ -	$ -	$ -	4068	$ -			
		each	4068			$ -	$ -	$ -	4068	$ -			
		each	4068			$ -	$ -	$ -	4068	$ -			
		each	4068			$ -	$ -	$ -	4068	$ -			
		each	4068			$ -	$ -	$ -	4068	$ -			
		each	4068			$ -	$ -	$ -	4068	$ -			
							$ 58.24	$ 236,935.13		$ 58.24			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	 Hourly Rate	 Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C02-2	**S1-C2 Testing of Guy Wire Anchorup to 900kN as per design drawings and** S1-C2 Testing of Guy Wire Anchorup to 900kN as per design drawings and technical specification	**Total structure count:**	**208**	**Ea**			**$ 12,114.68**		**$ 58.24**	**$ 994.35**	**$ 1,052.60**	**$ 206,825.50**
	Supervise installation Supervisory	each	208	29	0.25	$ 167.19	$ 41.80	$ 8,693.99	208	$ 41.80		
	Placement survey Foundation Survey ($250/h)	each	208	18	0.05	$ 328.91	$ 16.45	$ 3,420.69	208	$ 16.45		
		each	208			$ -	$ -	$ -	208	$ -		
		each	208			$ -	$ -	$ -	208	$ -		
		each	208			$ -	$ -	$ -	208	$ -		
		each	208			$ -	$ -	$ -	208	$ -		
		each	208			$ -	$ -	$ -	208	$ -		
		each	208			$ -	$ -	$ -	208	$ -		
		each	208			$ -	$ -	$ -	208	$ -		
		each	208			$ -	$ -	$ -	208	$ -		
		each	208			$ -	$ -	$ -	208	$ -		
							$ 58.24	$ 12,114.68		$ 58.24		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H09	**Grillage Foundations**											
V::C03	**S1-C3 Assembly and Installation of Foundation Types A1-1 (100 kPa) as per** **Total structure count:**		**29**	**EA**			**$ 220,605.17**		**$ 7,607.07**	**$ 278.62**	**$ 7,885.70**	**$ 8,080.06**
	S1-C3 Assembly and Installation of Foundation Types A1-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A1.											
	Steel Weight (lb) = 4718 Granular (m3) = 3 Excavation (m3) = 139 Backfill (m3) = 136											
	Haul (Foundation Haul)	each	29	17	1.97	$ 441.04	$ 867.00	$ 25,142.99	29	$ 867.00		
	Excavate (Found Excavation)	each	29	19	1.54	$ 1,143.76	$ 1,764.79	$ 51,178.95	29	$ 1,764.79		
	Assemble and Install (Grillage Installation)	each	29	20	3.10	$ 1,002.72	$ 3,105.27	$ 90,052.86	29	$ 3,105.27		
	Backfill & Compact (Backfill and Compact)	each	29	21	1.54	$ 959.25	$ 1,480.09	$ 42,922.65	29	$ 1,480.09		
	Cleanup (Site Cleanup)	each	29	22	2.00	$ 194.96	$ 389.92	$ 11,307.72	29	$ 389.92		
		each	29			$ -	$ -	$ -	29	$ -		
				0.539135041			$ 7,607.07	$ 220,605.17		$ 7,607.07		
V::C04	**S1-C4 Assembly and Installation of Foundation Types A2-1 (100 kPa) as per** **Total structure count:**		**0**	**EA**			**$ -**		**$ 11,668.79**	**$ 468.98**	**$ 12,137.77**	**$ -**
	S1-C4 Assembly and Installation of Foundation Types A2-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A2.											
	Steel Weight (lb) = 9259 Granular (m3) = 4 Excavation (m3) = 190 Backfill (m3) = 186											
	Haul (Foundation Haul)	each	0	17	3.86	$ 441.04	$ 1,701.59	$ -	0	$ -		
	Excavate (Found Excavation)	each	0	19	2.12	$ 1,143.76	$ 2,419.16	$ -	0	$ -		
	Install (Grillage Installation)	each	0	20	5.12	$ 1,002.72	$ 5,129.22	$ -	0	$ -		
	Backfill & Compact (Backfill and Compact)	each	0	21	2.12	$ 959.25	$ 2,028.90	$ -	0	$ -		
	Cleanup (Site Cleanup)	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
				0.493284173			$ 11,668.79	$ -		$ -		
V::C05	**S1-C5 Assembly and Installation of Foundation Types A3-1 (100 kPa) as per** **Total structure count:**		**22**	**EA**			**$ 209,287.23**		**$ 9,513.06**	**$ 377.13**	**$ 9,890.18**	**$ 8,296.77**
	S1-C5 Assembly and Installation of Foundation Types A3-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A3.											
	Steel Weight (lb) = 6724 Granular (m3) = 4 Excavation (m3) = 166 Backfill (m3) = 163											
	Haul (Foundation Haul)	each	22	17	2.80	$ 441.04	$ 1,235.68	$ 27,184.90	22	$ 1,235.68		
	Excavate (Found Excavation)	each	22	19	1.85	$ 1,143.76	$ 2,114.62	$ 46,521.70	22	$ 2,114.62		
	Install (Grillage Installation)	each	22	20	3.99	$ 1,002.72	$ 3,999.35	$ 87,985.63	22	$ 3,999.35		
	Backfill & Compact (Backfill and Compact)	each	22	21	1.85	$ 959.25	$ 1,773.49	$ 39,016.72	22	$ 1,773.49		
	Cleanup (Site Cleanup)	each	22	22	2.00	$ 194.96	$ 389.92	$ 8,578.27	22	$ 389.92		
		each	22			$ -	$ -	$ -	22	$ -		
		each	22			$ -	$ -	$ -	22	$ -		
		each	22			$ -	$ -	$ -	22	$ -		
				0.511243585			$ 9,513.06	$ 209,287.23		$ 9,513.06		
V::C06	**S1-C6 Assembly and Installation of Foundation Types A4-1 (100 kPa) as per** **Total structure count:**		**0**	**EA**			**$ -**		**$ 11,668.79**	**$ 468.98**	**$ 12,137.77**	**$ -**
	S1-C6 Assembly and Installation of Foundation Types A4-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A4.											
	Steel Weight (lb) = 9259 Granular (m3) = 4 Excavation (m3) = 190 Backfill (m3) = 186											
	Haul (Foundation Haul)	each	0	17	3.86	$ 441.04	$ 1,701.59	$ -	0	$ -		
	Excavate (Found Excavation)	each	0	19	2.12	$ 1,143.76	$ 2,419.16	$ -	0	$ -		
	Install (Grillage Installation)	each	0	20	5.12	$ 1,002.72	$ 5,129.22	$ -	0	$ -		
	Backfill & Compact (Backfill and Compact)	each	0	21	2.12	$ 959.25	$ 2,028.90	$ -	0	$ -		
	Cleanup (Site Cleanup)	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
				0.493284173			$ 11,668.79	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) / Description	Units / Total	Crew No.	Crew Cost / Hours per unit	Crew Cost / Hourly Rate	Crew Cost / Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C07	**S1-C7 Assembly and Installation of Foundation Types B1-1 (100 kPa) as per** **Total structure count:**		**2**	**EA**			**$ 26,582.56**		**$ 13,291.28**	**$ 538.82**	**$ 13,830.11**	**$ 1,077.65**
	S1-C7 Assembly and Installation of Foundation Types B1-1 (100 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types B1.											
	Steel Weight (lb) = 11155 Granular (m3) = 5 Excavation (m3) = 209 Backfill (m3) = 204											
	Haul (Foundation Haul)	each	2	17	4.65	$ 441.04	$ 2,050.01	$ 4,100.02	2	$ 2,050.01		
	Excavate (Found Excavation)	each	2	19	2.32	$ 1,143.76	$ 2,652.55	$ 5,305.09	2	$ 2,652.55		
	Install (Grillage Installation)	each	2	20	5.96	$ 1,002.72	$ 5,974.17	$ 11,948.35	2	$ 5,974.17		
	Backfill & Compact (Backfill and Compact)	each	2	21	2.32	$ 959.25	$ 2,224.63	$ 4,449.26	2	$ 2,224.63		
	Cleanup (Site Cleanup)	each	2	22	2.00	$ 194.96	$ 389.92	$ 779.84	2	$ 389.92		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
							$ 13,291.28	$ 26,582.56		$ 13,291.28		
V::C08	**S1-C8 Assembly and Installation of Foundation Types B2-1 (100 kPa) as per** **Total structure count:**		**0**	**EA**			**$ -**		**$ 16,602.90**	**$ 446.78**	**$ 17,049.68**	**$ -**
	S1-C8 Assembly and Installation of Foundation Types B2-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types B2.											
	Steel Weight (lb) = 8424 Granular (m3) = 4 Excavation (m3) = 355 Backfill (m3) = 350											
	Haul (Foundation Haul)	each	0	17	5.01	$ 441.04	$ 2,209.60	$ -	0	$ -		
	Excavate (Found Excavation)	each	0	19	3.94	$ 1,143.76	$ 4,507.19	$ -	0	$ -		
	Install (Grillage Installation)	each	0	20	4.74	$ 1,002.72	$ 4,756.86	$ -	0	$ -		
	Backfill & Compact (Backfill and Compact)	each	0	21	4.94	$ 959.25	$ 4,739.33	$ -	0	$ -		
	Cleanup (Site Cleanup)	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
							$ 16,602.90	$ -		$ -		
V::C09	**S1-C9 Assembly and Installation of Foundation Types A1-1A (250 kPa) as per** **Total structure count:**		**164**	**EA**			**$ 982,467.40**		**$ 5,990.65**	**$ 126.90**	**$ 6,117.56**	**$ 20,812.03**
	S1-C9 Assembly and Installation of Foundation Types A1-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A1.											
	Steel Weight (lb) = 2866 Granular (m3) = 1 Excavation (m3) = 92 Backfill (m3) = 91											
	Haul (Foundation Haul)	each	164	17	2.19	$ 441.04	$ 967.72	$ 158,706.75	164	$ 967.72		
	Excavate (Found Excavation)	each	164	19	1.03	$ 1,143.76	$ 1,173.71	$ 192,488.81	164	$ 1,173.71		
	Install (Grillage Installation)	each	164	20	2.27	$ 1,002.72	$ 2,279.97	$ 373,915.08	164	$ 2,279.97		
	Backfill & Compact (Backfill and Compact)	each	164	21	1.03	$ 959.25	$ 984.37	$ 161,436.11	164	$ 984.37		
	Cleanup (Site Cleanup)	each	164	22	3.00	$ 194.96	$ 584.88	$ 95,920.64	164	$ 584.88		
		each	164			$ -	$ -	$ -	164	$ -		
		each	164			$ -	$ -	$ -	164	$ -		
		each	164			$ -	$ -	$ -	164	$ -		
							$ 5,990.65	$ 982,467.40		$ 5,990.65		
V::C10	**S1-C10 Assembly and Installation of Foundation Types A2-1A (250 kPa) as per** **Total structure count:**		**0**	**EA**			**$ -**		**$ 10,655.61**	**$ 246.96**	**$ 10,902.57**	**$ -**
	S1-C10 Assembly and Installation of Foundation Types A2-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A2.											
	Steel Weight (lb) = 5512 Granular (m3) = 2 Excavation (m3) = 130 Backfill (m3) = 127											
	Haul (Foundation Haul)	each	0	17	3.80	$ 441.04	$ 1,674.41	$ -	0	$ -		
	Excavate (Found Excavation)	each	0	19	2.44	$ 1,143.76	$ 2,791.30	$ -	0	$ -		
	Install (Grillage Installation)	each	0	20	3.45	$ 1,002.72	$ 3,458.97	$ -	0	$ -		
	Backfill & Compact (Backfill and Compact)	each	0	21	2.44	$ 959.25	$ 2,341.00	$ -	0	$ -		
	Cleanup (Site Cleanup)	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
							$ 10,655.61	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C11	**S1-C11 Assembly and Installation of Foundation Types A3-1A (250 kPa) as per** **Total structure count:**	121		**EA**			$ 733,133.92		$ 6,058.96	$ 168.54	$ 6,227.50	$ 20,393.64
	S1-C11 Assembly and Installation of Foundation Types A3-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A3.											
	Steel Weight (lb) = 3483 Granular (m3) = 2 Excavation (m3) = 106 Backfill (m3) = 104											
	Haul (Foundation Haul)	each	121	17	1.45	$ 441.04	$ 640.12	$ 77,454.68	121	$ 640.12		
	Excavate (Found Excavation)	each	121	19	1.18	$ 1,143.76	$ 1,345.45	$ 162,799.18	121	$ 1,345.45		
	Install (Grillage Installation)	each	121	20	2.55	$ 1,002.72	$ 2,555.07	$ 309,163.51	121	$ 2,555.07		
	Backfill & Compact (Backfill and Compact)	each	121	21	1.18	$ 959.25	$ 1,128.40	$ 136,536.07	121	$ 1,128.40		
	Cleanup (Site Cleanup)	each	121	22	2.00	$ 194.96	$ 389.92	$ 47,180.48	121	$ 389.92		
		each	121			$ -	$ -	$ -	121	$ -		
		each	121			$ -	$ -	$ -	121	$ -		
		each	121			$ -	$ -	$ -	121	$ -		
							$ 6,058.96	$ 733,133.92		$ 6,058.96		
V::C12	**S1-C12 Assembly and Installation of Foundation Types A4-1A (250 kPa) as per** **Total structure count:**	0		**EA**			$ -		$ 7,891.04	$ 246.96	$ 8,138.00	$ -
	S1-C12 Assembly and Installation of Foundation Types A4-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types A4.											
	Steel Weight (lb) = 5512 Granular (m3) = 2 Excavation (m3) = 130 Backfill (m3) = 127											
	Haul (Foundation Haul)	each	0	17	2.30	$ 441.04	$ 1,012.85	$ -	0	$ -		
	Excavate (Found Excavation)	each	0	19	1.44	$ 1,143.76	$ 1,647.54	$ -	0	$ -		
	Install (Grillage Installation)	each	0	20	3.45	$ 1,002.72	$ 3,458.97	$ -	0	$ -		
	Backfill & Compact (Backfill and Compact)	each	0	21	1.44	$ 959.25	$ 1,381.76	$ -	0	$ -		
	Cleanup (Site Cleanup)	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
			0.525673582				$ 7,891.04	$ -		$ -		
V::C13	**S1-C13 Assembly and Installation of Foundation Types B1-1A (250 kPa) as per** **Total structure count:**	14		**EA**			$ 114,286.60		$ 8,163.33	$ 264.42	$ 8,427.75	$ 3,701.92
	S1-C13 Assembly and Installation of Foundation Types B1-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for Tower Types B1.											
	Steel Weight (lb) = 5754 Granular (m3) = 2 Excavation (m3) = 135 Backfill (m3) = 132											
	Haul (Foundation Haul)	each	14	17	2.40	$ 441.04	$ 1,057.42	$ 14,803.82	14	$ 1,057.42		
	Excavate (Found Excavation)	each	14	19	1.50	$ 1,143.76	$ 1,712.61	$ 23,976.59	14	$ 1,712.61		
	Install (Grillage Installation)	each	14	20	3.56	$ 1,002.72	$ 3,567.05	$ 49,938.65	14	$ 3,567.05		
	Backfill & Compact (Backfill and Compact)	each	14	21	1.50	$ 959.25	$ 1,436.33	$ 20,108.64	14	$ 1,436.33		
	Cleanup (Site Cleanup)	each	14	22	2.00	$ 194.96	$ 389.92	$ 5,458.90	14	$ 389.92		
		each	14			$ -	$ -	$ -	14	$ -		
		each	14			$ -	$ -	$ -	14	$ -		
		each	14			$ -	$ -	$ -	14	$ -		
							$ 8,163.33	$ 114,286.60		$ 8,163.33		
V::C14	**S1-C14 Assembly and Installation of Foundation Types B2-1A (250 kPa) as per** **Total structure count:**	0		**EA**			$ -		$ 17,526.14	$ 446.78	$ 17,972.92	$ -
	S1-C14 Assembly and Installation of Foundation Types B2-1A (250 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types B2.											
	Steel Weight (lb) = 8424 Granular (m3) = 4 Excavation (m3) = 355 Backfill (m3) = 350											
	Haul (Foundation Haul)	each	0	17	4.51	$ 441.04	$ 1,989.08	$ -	0	$ -		
	Excavate (Found Excavation)	each	0	19	4.94	$ 1,143.76	$ 5,650.95	$ -	0	$ -		
	Install (Grillage Installation)	each	0	20	4.74	$ 1,002.72	$ 4,756.86	$ -	0	$ -		
	Backfill & Compact (Backfill and Compact)	each	0	21	4.94	$ 959.25	$ 4,739.33	$ -	0	$ -		
	Cleanup (Site Cleanup)	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
							$ 17,526.14	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C15	**S1-C15 Assembly and Installation of Foundation Types C1-1 (100 kPa) as per** **Total structure count:**		**96**	**EA**			**$ 1,385,171.15**		**$ 14,428.87**	**$ 471.41**	**$ 14,900.27**	**$ 45,255.10**
	S1-C15 Assembly and Installation of Foundation Types C1-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types C1.											
	Steel Weight (lb) = 8752 Granular (m3) = 4 Excavation (m3) = 365 Backfill (m3) = 361											
	Haul (Foundation Haul)	each	96	17	3.65	$ 441.04	$ 1,608.41	$ 154,406.99	96	$ 1,608.41		
	Excavate (Found Excavation)	each	96	19	4.06	$ 1,143.76	$ 4,639.21	$ 445,363.97	96	$ 4,639.21		
	Install (Grillage Installation)	each	96	20	3.89	$ 1,002.72	$ 3,900.53	$ 374,450.83	96	$ 3,900.53		
	Backfill & Compact (Backfill and Compact)	each	96	21	4.06	$ 959.25	$ 3,890.80	$ 373,516.92	96	$ 3,890.80		
	Cleanup (Site Cleanup)	each	96	22	2.00	$ 194.96	$ 389.92	$ 37,432.44	96	$ 389.92		
		each	96			$ -	$ -	$ -	96	$ -		
		each	96			$ -	$ -	$ -	96	$ -		
		each	96			$ -	$ -	$ -	96	$ -		
							$ 14,428.87	$ 1,385,171.15		$ 14,428.87		
V::C16	**S1-C16 Assembly and Installation of Foundation Types C2-1 (100 kPa) as per** **Total structure count:**		**0**	**EA**			**$ -**		**$ 19,948.00**	**$ 577.46**	**$ 20,525.46**	**$ -**
	S1-C16 Assembly and Installation of Foundation Types C2-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types C2.											
	Steel Weight (lb) = 10252 Granular (m3) = 5 Excavation (m3) = 409 Backfill (m3) = 404											
	Haul (Foundation Haul)	each	0	17	5.27	$ 441.04	$ 2,324.94	$ -	0	$ -		
	Excavate (Found Excavation)	each	0	19	5.55	$ 1,143.76	$ 6,342.48	$ -	0	$ -		
	Install (Grillage Installation)	each	0	20	5.56	$ 1,002.72	$ 5,571.35	$ -	0	$ -		
	Backfill & Compact (Backfill and Compact)	each	0	21	5.55	$ 959.25	$ 5,319.30	$ -	0	$ -		
	Cleanup (Site Cleanup)	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
							$ 19,948.00	$ -		$ -		
V::C17	**S1-C17 Assembly and Installation of Foundation Types D1-1 (100 kPa) as per** **Total structure count:**		**112**	**EA**			**$ 2,053,413.00**		**$ 18,334.04**	**$ 624.60**	**$ 18,958.64**	**$ 69,955.05**
	S1-C17 Assembly and Installation of Foundation Types D1-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types D1.											
	Steel Weight (lb) = 11023 Granular (m3) = 6 Excavation (m3) = 428 Backfill (m3) = 422											
	Haul (Foundation Haul)	each	112	17	4.59	$ 441.04	$ 2,025.70	$ 226,878.45	112	$ 2,025.70		
	Excavate (Found Excavation)	each	112	19	4.76	$ 1,143.76	$ 5,440.43	$ 609,328.18	112	$ 5,440.43		
	Install (Grillage Installation)	each	112	20	5.90	$ 1,002.72	$ 5,915.22	$ 662,505.11	112	$ 5,915.22		
	Backfill & Compact (Backfill and Compact)	each	112	21	4.76	$ 959.25	$ 4,562.77	$ 511,030.07	112	$ 4,562.77		
	Cleanup (Site Cleanup)	each	112	22	2.00	$ 194.96	$ 389.92	$ 43,671.18	112	$ 389.92		
		each	112			$ -	$ -	$ -	112	$ -		
		each	112			$ -	$ -	$ -	112	$ -		
		each	112			$ -	$ -	$ -	112	$ -		
							$ 18,334.04	$ 2,053,413.00		$ 18,334.04		
V::C18	**S1-C18 Assembly and Installation of Foundation Types D2-1 (100 kPa) as per** **Total structure count:**		**0**	**EA**			**$ -**		**$ 21,844.79**	**$ 683.89**	**$ 22,528.69**	**$ -**
	S1-C18 Assembly and Installation of Foundation Types D2-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types D2.											
	Steel Weight (lb) = 11685 Granular (m3) = 6 Excavation (m3) = 452 Backfill (m3) = 445											
	Haul (Foundation Haul)	each	0	17	5.87	$ 441.04	$ 2,588.28	$ -	0	$ -		
	Excavate (Found Excavation)	each	0	19	6.02	$ 1,143.76	$ 6,883.54	$ -	0	$ -		
	Install (Grillage Installation)	each	0	20	6.19	$ 1,002.72	$ 6,209.97	$ -	0	$ -		
	Backfill & Compact (Backfill and Compact)	each	0	21	6.02	$ 959.25	$ 5,773.07	$ -	0	$ -		
	Cleanup (Site Cleanup)	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
							$ 21,844.79	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C19	**S1-C19 Assembly and Installation of Foundation Types E1-1 (100 kPa) as per** **Total structure count:**	**20**	**EA**				**$ 432,502.46**		**$ 21,625.12**	**$ 756.68**	**$ 22,381.81**	**$ 15,133.65**
	S1-C19 Assembly and Installation of Foundation Types E1-1 (100 kPa) as per Dwg 505573-4622-42DD-0003 for Tower Types E1.											
	Steel Weight (lb) = 13448 Granular (m3) = 7 Excavation (m3) = 480 Backfill (m3) = 473											
	Haul (Foundation Haul)	each	20	17	5.60	$ 441.04	$ 2,471.35	$ 49,427.09	20	$ 2,471.35		
	Excavate (Found Excavation)	each	20	19	5.83	$ 1,143.76	$ 6,672.85	$ 133,457.10	20	$ 6,672.85		
	Install (Grillage Installation)	each	20	20	6.48	$ 1,002.72	$ 6,494.62	$ 129,892.32	20	$ 6,494.62		
	Backfill & Compact (Backfill and Compact)	each	20	21	5.83	$ 959.25	$ 5,596.38	$ 111,927.52	20	$ 5,596.38		
	Cleanup (Site Cleanup)	each	20	22	2.00	$ 194.96	$ 389.92	$ 7,798.43	20	$ 389.92		
		each	20			$ -	$ -	$ -	20	$ -		
		each	20			$ -	$ -	$ -	20	$ -		
		each	20			$ -	$ -	$ -	20	$ -		
							$ 21,625.12	$ 432,502.46		$ 21,625.12		
V::C20	**S1-C20 Uplift testing per leg for Types C1-1, or D2-1, or E1-1 (100 kPa) as per** **Total structure count:**	**6**	**EA**				**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-C20 Uplift testing per leg for Types C1-1, or D2-1, or E1-1 (100 kPa) as per technical specification for Tower Types C1, or D2, or E1.											
	Not included	each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
							$ -	$ -		$ -		
V::C21	**S1-C21 Downward, uplift, and lateral load testing per leg for Types C1-3, or D2-** **Total structure count:**	6	**EA**				**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-C21 Downward, uplift, and lateral load testing per leg for Types C1-3, or D2-3, or E1-3 as per technical specification for Tower Types C1, or D2, or E1.											
	Not included	each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
		each	6			$ -	$ -	$ -	6	$ -		
							$ -	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H10	**Rock Foundations**											
V::C22	**S1-C22 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-** **Total structure count:**		**211**	**EA**			**$ 2,976,829.27**		**$ 14,108.20**	**$ 1,909.69**	**$ 16,017.89**	**$ 402,944.59**
	S1-C22 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A1											
	Pad: 1.9m x 1.9m x 0.4m Concrete (m3) = 1.66	Steel Weight (lb) 1778	Grout (l) 30.6	Rebar (kg) 56.7	Excavation (m3) 82.7	BackFill Vol(m3) 81.1	#Anchor Holes 4.00	Hole Depth (m) 3.0	Hole Dia. (mm) 50.0			
	Haul	Foundation Haul	each	211	17	1.54	$ 441.04	$ 679.65	$ 143,406.31	211	$ 679.65	
	Excavate	Found Excavation	each	211	19	1.42	$ 1,143.76	$ 1,623.24	$ 342,503.30	211	$ 1,623.24	
	Prepare Rock Surface	Found Excavation	each	211	19	2.50	$ 1,143.76	$ 2,859.40	$ 603,333.16	211	$ 2,859.40	
	Rock drill Setup	Rock Foundations	each	211	36	1.00	$ 920.20	$ 920.20	$ 194,162.99	211	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	211	24	4.39	$ 935.63	$ 4,104.74	$ 866,099.67	211	$ 4,104.74	
	Backfill & Compact	Backfill and Compact	each	211	21	2.90	$ 959.25	$ 2,782.54	$ 587,116.73	211	$ 2,782.54	
	Cleanup	Site Cleanup	each	211	22	2.00	$ 194.96	$ 389.92	$ 82,273.39	211	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	211	24	0.80	$ 935.63	$ 748.50	$ 157,933.71	211	$ 748.50	
			each	211			$ -	$ -	$ -	211	$ -	
			each	211			$ -	$ -	$ -	211	$ -	
			each	211			$ -	$ -	$ -	211	$ -	
								$ 14,108.20	$ 2,976,829.27		$ 14,108.20	
V::C23	**S1-C23 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-** **Total structure count:**		**0**	**EA**			**$ -**		**$ 16,400.34**	**$ 2,798.41**	**$ 19,198.75**	**$ -**
	S1-C23 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A2											
	Pad: 2.3m x 2.3m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 2107	Grout (l) 100.1	Rebar (kg) 75.8	Excavation (m3) 91.6	BackFill Vol(m3) 89.2	#Anchor Holes 4.00	Hole Depth (m) 5.0	Hole Dia. (mm) 70.0			
	Haul	Foundation Haul	each	0	17	1.48	$ 441.04	$ 651.87	$ -	0	$ -	
	Excavate	Found Excavation	each	0	19	1.52	$ 1,143.76	$ 1,736.12	$ -	0	$ -	
	Prepare Rock Surface	Found Excavation	each	0	19	3.50	$ 1,143.76	$ 4,003.16	$ -	0	$ -	
	Rock drill Setup	Rock Foundations	each	0	36	1.00	$ 920.20	$ 920.20	$ -	0	$ -	
	Install Footing, Form and Pour base	Concrete Foundations	each	0	24	5.43	$ 935.63	$ 5,081.59	$ -	0	$ -	
	Backfill & Compact	Backfill and Compact	each	0	21	2.99	$ 959.25	$ 2,868.98	$ -	0	$ -	
	Cleanup	Site Cleanup	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -	
	Heat and Hoard	Concrete Foundations	each	0	24	0.80	$ 935.63	$ 748.50	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
								$ 16,400.34	$ -		$ -	
V::C24	**S1-C24 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-** **Total structure count:**		**154**	**EA**			**$ 2,172,662.12**		**$ 14,108.20**	**$ 1,909.69**	**$ 16,017.89**	**$ 294,092.26**
	S1-C24 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A3											
	Pad: 1.9m x 1.9m x 0.4m Concrete (m3) = 1.66	Steel Weight (lb) 1778	Grout (l) 30.6	Rebar (kg) 56.7	Excavation (m3) 82.7	BackFill Vol(m3) 81.1	#Anchor Holes 4.00	Hole Depth (m) 3.0	Hole Dia. (mm) 50.0			
	Haul	Foundation Haul	each	154	17	1.54	$ 441.04	$ 679.65	$ 104,666.22	154	$ 679.65	
	Excavate	Found Excavation	each	154	19	1.42	$ 1,143.76	$ 1,623.24	$ 249,978.71	154	$ 1,623.24	
	Prepare Rock Surface	Found Excavation	each	154	19	2.50	$ 1,143.76	$ 2,859.40	$ 440,347.43	154	$ 2,859.40	
	Rock drill Setup	Rock Foundations	each	154	36	1.00	$ 920.20	$ 920.20	$ 141,711.38	154	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	154	24	4.39	$ 935.63	$ 4,104.74	$ 632,129.61	154	$ 4,104.74	
	Backfill & Compact	Backfill and Compact	each	154	21	2.90	$ 959.25	$ 2,782.54	$ 428,511.74	154	$ 2,782.54	
	Cleanup	Site Cleanup	each	154	22	2.00	$ 194.96	$ 389.92	$ 60,047.88	154	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	154	24	0.80	$ 935.63	$ 748.50	$ 115,269.16	154	$ 748.50	
			each	154			$ -	$ -	$ -	154	$ -	
			each	154			$ -	$ -	$ -	154	$ -	
			each	154			$ -	$ -	$ -	154	$ -	
								$ 14,108.20	$ 2,172,662.12		$ 14,108.20	

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C25	**S1-C25 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-** **Total structure count:**		**0**	**EA**			**$ -**		**$ 16,488.55**	**$ 2,798.41**	**$ 19,286.96**	**$ -**
	S1-C25 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0074 for Tower Type A4											
	Pad: 2.3m x 2.3m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 2107	Grout (l) 100.1	Rebar (kg) 75.8	Excavation (m3) 91.6	BackFill Vol(m3) 89.2	#Anchor Holes 4.00	Hole Depth (m) 5.0	Hole Dia. (mm) 70.0			
	Haul	Foundation Haul	each	0	17	1.68	$ 441.04	$ 740.08	$ -	0	$ -	
	Excavate	Found Excavation	each	0	19	1.52	$ 1,143.76	$ 1,736.12	$ -	0	$ -	
	Prepare Rock Surface	Found Excavation	each	0	19	3.50	$ 1,143.76	$ 4,003.16	$ -	0	$ -	
	Rock drill Setup	Rock Foundations	each	0	36	1.00	$ 920.20	$ 920.20	$ -	0	$ -	
	Install Footing, Form and Pour base	Concrete Foundations	each	0	24	5.43	$ 935.63	$ 5,081.59	$ -	0	$ -	
	Backfill & Compact	Backfill and Compact	each	0	21	2.99	$ 959.25	$ 2,868.98	$ -	0	$ -	
	Cleanup	Site Cleanup	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -	
	Heat and Hoard	Concrete Foundations	each	0	24	0.80	$ 935.63	$ 748.50	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
								$ 16,488.55	$ -		$ -	
V::C26	**S1-C26 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-** **Total structure count:**		**19**	**EA**			**$ 306,578.64**		**$ 16,135.72**	**$ 2,798.41**	**$ 18,934.13**	**$ 53,169.79**
	S1-C26 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0074 for Tower Type B1											
	Pad: 2.3m x 2.3m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 2107	Grout (l) 100.1	Rebar (kg) 75.8	Excavation (m3) 91.6	BackFill Vol(m3) 89.2	#Anchor Holes 4.00	Hole Depth (m) 5.0	Hole Dia. (mm) 70.0			
	Haul	Foundation Haul	each	19	17	0.88	$ 441.04	$ 387.25	$ 7,357.66	19	$ 387.25	
	Excavate	Found Excavation	each	19	19	1.52	$ 1,143.76	$ 1,736.12	$ 32,986.30	19	$ 1,736.12	
	Prepare Rock Surface	Found Excavation	each	19	19	3.50	$ 1,143.76	$ 4,003.16	$ 76,060.01	19	$ 4,003.16	
	Rock drill Setup	Rock Foundations	each	19	36	1.00	$ 920.20	$ 920.20	$ 17,483.87	19	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	19	24	5.43	$ 935.63	$ 5,081.59	$ 96,550.17	19	$ 5,081.59	
	Backfill & Compact	Backfill and Compact	each	19	21	2.99	$ 959.25	$ 2,868.98	$ 54,510.61	19	$ 2,868.98	
	Cleanup	Site Cleanup	each	19	22	2.00	$ 194.96	$ 389.92	$ 7,408.50	19	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	19	24	0.80	$ 935.63	$ 748.50	$ 14,221.52	19	$ 748.50	
			each	19			$ -	$ -	$ -	19	$ -	
			each	19			$ -	$ -	$ -	19	$ -	
			each	19			$ -	$ -	$ -	19	$ -	
								$ 16,135.72	$ 306,578.64		$ 16,135.72	
V::C27	**S1-C27 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-** **Total structure count:**		**0**	**EA**			**$ -**		**$ 25,799.22**	**$ 2,793.12**	**$ 28,592.34**	**$ -**
	S1-C27 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type B2											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4527	Grout (l) 300.2	Rebar (kg) 163.4	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 6.0	Hole Dia. (mm) 70.0			
	Haul	Foundation Haul	each	0	17	2.89	$ 441.04	$ 1,272.96	$ -	0	$ -	
	Excavate	Found Excavation	each	0	19	3.00	$ 1,143.76	$ 3,426.56	$ -	0	$ -	
	Prepare Rock Surface	Found Excavation	each	0	19	4.50	$ 1,143.76	$ 5,146.92	$ -	0	$ -	
	Rock drill Setup	Rock Foundations	each	0	36	1.00	$ 920.20	$ 920.20	$ -	0	$ -	
	Install Footing, Form and Pour base	Concrete Foundations	each	0	24	10.27	$ 935.63	$ 9,607.40	$ -	0	$ -	
	Backfill & Compact	Backfill and Compact	each	0	21	4.47	$ 959.25	$ 4,286.76	$ -	0	$ -	
	Cleanup	Site Cleanup	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -	
	Heat and Hoard	Concrete Foundations	each	0	24	0.80	$ 935.63	$ 748.50	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
								$ 25,799.22	$ -		$ -	

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C28	**S1-C28 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-** **Total structure count:**		**18**	**EA**			**$ 187,782.98**		**$ 10,432.39**	**$ 1,523.52**	**$ 11,955.91**	**$ 27,423.36**
	S1-C28 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A1 (Weak Surface Rock)											

Pad: 1.2m x 1.2m x 0.8m Concrete (m3) =	Steel Weight (lb)	Grout (l)	Rebar (kg)	Excavation (m3)	BackFill Vol(m3)	#Anchor Holes	Hole Depth (m)	Hole Dia. (mm)
1.32	153	6.0	34.5	5.0	0.0	1.00	1.8	57.0

Haul	Foundation Haul	each	18	17	1.06	$ 441.04	$ 469.22	$ 8,445.88	18	$ 469.22		
Excavate	Found Excavation	each	18	19	0.56	$ 1,143.76	$ 635.64	$ 11,441.60	18	$ 635.64		
Prepare Rock Surface	Found Excavation	each	18	19	2.50	$ 1,143.76	$ 2,859.40	$ 51,469.18	18	$ 2,859.40		
Rock drill Setup	Rock Foundations	each	18	36	1.00	$ 920.20	$ 920.20	$ 16,563.67	18	$ 920.20		
Install Footing, Form and Pour base	Concrete Foundations	each	18	24	2.66	$ 935.63	$ 2,491.01	$ 44,838.20	18	$ 2,491.01		
Backfill & Compact	Backfill and Compact	each	18	21	2.00	$ 959.25	$ 1,918.49	$ 34,532.85	18	$ 1,918.49		
Cleanup	Site Cleanup	each	18	22	2.00	$ 194.96	$ 389.92	$ 7,018.58	18	$ 389.92		
Heat and Hoard	Concrete Foundations	each	18	24	0.80	$ 935.63	$ 748.50	$ 13,473.02	18	$ 748.50		
		each	18			$ -	$ -	$ -	18	$ -		
		each	18			$ -	$ -	$ -	18	$ -		
		each	18			$ -	$ -	$ -	18	$ -		
							$ 10,432.39	$ 187,782.98		$ 10,432.39		

V::C29	**S1-C29 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-** **Total structure count:**		**0**	**EA**			**$ -**		**$ 10,892.49**	**$ 2,541.85**	**$ 13,434.34**	**$ -**
	S1-C29 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A2 (Weak Surface Rock)											

Pad: 1.55m x 1.55m x 0.8m Concrete (m3) =	Steel Weight (lb)	Grout (l)	Rebar (kg)	Excavation (m3)	BackFill Vol(m3)	#Anchor Holes	Hole Depth (m)	Hole Dia. (mm)
2.21	304	6.0	49.8	6.4	0.0	1.00	1.8	57.0

Haul	Foundation Haul	each	0	17	1.13	$ 441.04	$ 496.89	$ -	0	$ -		
Excavate	Found Excavation	each	0	19	0.57	$ 1,143.76	$ 653.83	$ -	0	$ -		
Prepare Rock Surface	Found Excavation	each	0	19	2.50	$ 1,143.76	$ 2,859.40	$ -	0	$ -		
Rock drill Setup	Rock Foundations	each	0	36	1.00	$ 920.20	$ 920.20	$ -	0	$ -		
Install Footing, Form and Pour base	Concrete Foundations	each	0	24	3.11	$ 935.63	$ 2,905.26	$ -	0	$ -		
Backfill & Compact	Backfill and Compact	each	0	21	2.00	$ 959.25	$ 1,918.49	$ -	0	$ -		
Cleanup	Site Cleanup	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -		
Heat and Hoard	Concrete Foundations	each	0	24	0.80	$ 935.63	$ 748.50	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
							$ 10,892.49	$ -		$ -		

V::C30	**S1-C30 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-** **Total structure count:**		**14**	**EA**			**$ 149,393.72**		**$ 10,670.98**	**$ 2,073.68**	**$ 12,744.66**	**$ 29,031.52**
	S1-C30 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A3 (Weak Surface Rock)											

Pad: 1.4m x 1.4m x 0.8m Concrete (m3) =	Steel Weight (lb)	Grout (l)	Rebar (kg)	Excavation (m3)	BackFill Vol(m3)	#Anchor Holes	Hole Depth (m)	Hole Dia. (mm)
1.80	179	6.0	36.1	5.8	0.0	1.00	1.8	57.0

Haul	Foundation Haul	each	14	17	1.07	$ 441.04	$ 473.90	$ 6,634.64	14	$ 473.90		
Excavate	Found Excavation	each	14	19	0.56	$ 1,143.76	$ 645.75	$ 9,040.47	14	$ 645.75		
Prepare Rock Surface	Found Excavation	each	14	19	2.50	$ 1,143.76	$ 2,859.40	$ 40,031.58	14	$ 2,859.40		
Rock drill Setup	Rock Foundations	each	14	36	1.00	$ 920.20	$ 920.20	$ 12,882.85	14	$ 920.20		
Install Footing, Form and Pour base	Concrete Foundations	each	14	24	2.90	$ 935.63	$ 2,714.81	$ 38,007.38	14	$ 2,714.81		
Backfill & Compact	Backfill and Compact	each	14	21	2.00	$ 959.25	$ 1,918.49	$ 26,858.88	14	$ 1,918.49		
Cleanup	Site Cleanup	each	14	22	2.00	$ 194.96	$ 389.92	$ 5,458.90	14	$ 389.92		
Heat and Hoard	Concrete Foundations	each	14	24	0.80	$ 935.63	$ 748.50	$ 10,479.01	14	$ 748.50		
		each	14			$ -	$ -	$ -	14	$ -		
		each	14			$ -	$ -	$ -	14	$ -		
		each	14			$ -	$ -	$ -	14	$ -		
							$ 10,670.98	$ 149,393.72		$ 10,670.98		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C31	**S1-C31 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-** **Total structure count:**		**0**	**EA**			**$ -**		**$ 10,892.49**	**$ 2,541.85**	**$ 13,434.34**	**$ -**
	S1-C31 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A4 (Weak Surface Rock)											
	Pad: 1.55m x 1.55m x 0.8m Concrete (m3) = 2.21	Steel Weight (lb) 304	Grout (l) 6.0	Rebar (kg) 49.8	Excavation (m3) 6.4	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul		each	0	17	1.13	$ 441.04	$ 496.89	$ -	0	$ -
	Excavate	Found Excavation		each	0	19	0.57	$ 1,143.76	$ 653.83	$ -	0	$ -
	Prepare Rock Surface	Found Excavation		each	0	19	2.50	$ 1,143.76	$ 2,859.40	$ -	0	$ -
	Rock drill Setup	Rock Foundations		each	0	36	1.00	$ 920.20	$ 920.20	$ -	0	$ -
	Install Footing, Form and Pour base	Concrete Foundations		each	0	24	3.11	$ 935.63	$ 2,905.26	$ -	0	$ -
	Backfill & Compact	Backfill and Compact		each	0	21	2.00	$ 959.25	$ 1,918.49	$ -	0	$ -
	Cleanup	Site Cleanup		each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -
	Heat and Hoard	Concrete Foundations		each	0	24	0.80	$ 935.63	$ 748.50	$ -	0	$ -
				each	0			$ -	$ -	$ -	0	$ -
				each	0			$ -	$ -	$ -	0	$ -
				each	0			$ -	$ -	$ -	0	$ -
									$ 10,892.49	$ -		$ -
V::C32	**S1-C32 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-** **Total structure count:**		**3**	**EA**			**$ 32,889.67**		**$ 10,963.22**	**$ 2,708.48**	**$ 13,671.70**	**$ 8,125.44**
	S1-C32 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type B1 (Weak Surface Rock)											
	Pad: 1.6m x 1.6m x 0.8m Concrete (m3) = 2.36	Steel Weight (lb) 305	Grout (l) 6.0	Rebar (kg) 50.2	Excavation (m3) 6.7	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul		each	3	17	1.13	$ 441.04	$ 497.05	$ 1,491.15	3	$ 497.05
	Excavate	Found Excavation		each	3	19	0.57	$ 1,143.76	$ 656.61	$ 1,969.84	3	$ 656.61
	Prepare Rock Surface	Found Excavation		each	3	19	2.50	$ 1,143.76	$ 2,859.40	$ 8,578.20	3	$ 2,859.40
	Rock drill Setup	Rock Foundations		each	3	36	1.00	$ 920.20	$ 920.20	$ 2,760.61	3	$ 920.20
	Install Footing, Form and Pour base	Concrete Foundations		each	3	24	3.18	$ 935.63	$ 2,973.05	$ 8,919.14	3	$ 2,973.05
	Backfill & Compact	Backfill and Compact		each	3	21	2.00	$ 959.25	$ 1,918.49	$ 5,755.48	3	$ 1,918.49
	Cleanup	Site Cleanup		each	3	22	2.00	$ 194.96	$ 389.92	$ 1,169.76	3	$ 389.92
	Heat and Hoard	Concrete Foundations		each	3	24	0.80	$ 935.63	$ 748.50	$ 2,245.50	3	$ 748.50
				each	3			$ -	$ -	$ -	3	$ -
				each	3			$ -	$ -	$ -	3	$ -
				each	3			$ -	$ -	$ -	3	$ -
									$ 10,963.22	$ 32,889.67		$ 10,963.22
V::C33	**S1-C33 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-** **Total structure count:**		**159**	**EA**			**$ 1,477,700.97**		**$ 9,293.72**	**$ 1,523.52**	**$ 10,817.24**	**$ 242,239.68**
	S1-C33 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A1 (Sound Surface Rock)											
	Pad: 1.2m x 1.2m x 0.8m Concrete (m3) = 1.32	Steel Weight (lb) 181	Grout (l) 6.0	Rebar (kg) 47.1	Excavation (m3) 5.0	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul		each	159	17	1.08	$ 441.04	$ 474.30	$ 75,414.33	159	$ 474.30
	Excavate	Found Excavation		each	159	19	0.56	$ 1,143.76	$ 635.64	$ 101,067.46	159	$ 635.64
	Prepare Rock Surface	Found Excavation		each	159	19	1.50	$ 1,143.76	$ 1,715.64	$ 272,786.65	159	$ 1,715.64
	Rock drill Setup	Rock Foundations		each	159	36	1.00	$ 920.20	$ 920.20	$ 146,312.40	159	$ 920.20
	Install Footing, Form and Pour base	Concrete Foundations		each	159	24	2.66	$ 935.63	$ 2,491.01	$ 396,070.81	159	$ 2,491.01
	Backfill & Compact	Backfill and Compact		each	159	21	2.00	$ 959.25	$ 1,918.49	$ 305,040.18	159	$ 1,918.49
	Cleanup	Site Cleanup		each	159	22	2.00	$ 194.96	$ 389.92	$ 61,997.48	159	$ 389.92
	Heat and Hoard	Concrete Foundations		each	159	24	0.80	$ 935.63	$ 748.50	$ 119,011.66	159	$ 748.50
				each	159			$ -	$ -	$ -	159	$ -
				each	159			$ -	$ -	$ -	159	$ -
				each	159			$ -	$ -	$ -	159	$ -
									$ 9,293.72	$ 1,477,700.97		$ 9,293.72

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C34	**S1-C34 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-** **Total structure count:**		**0**	**EA**			**$ -**		**$ 9,753.82**	**$ 2,541.85**	**$ 12,295.67**	**$ -**
	S1-C34 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A2 (Sound Surface Rock)											
	Pad: 1.55m x 1.55m x 0.8m Concrete (m3) = 2.21	Steel Weight (lb) 332	Grout (l) 6.0	Rebar (kg) 62.4	Excavation (m3) 6.4	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul		each	0	17	1.14	$ 441.04	$ 501.98	$ -	0	$ -
	Excavate	Found Excavation		each	0	19	0.57	$ 1,143.76	$ 653.83	$ -	0	$ -
	Prepare Rock Surface	Found Excavation		each	0	19	1.50	$ 1,143.76	$ 1,715.64	$ -	0	$ -
	Rock drill Setup	Rock Foundations		each	0	36	1.00	$ 920.20	$ 920.20	$ -	0	$ -
	Install Footing, Form and Pour base	Concrete Foundations		each	0	24	3.11	$ 935.63	$ 2,905.26	$ -	0	$ -
	Backfill & Compact	Backfill and Compact		each	0	21	2.00	$ 959.25	$ 1,918.49	$ -	0	$ -
	Cleanup	Site Cleanup		each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -
	Heat and Hoard	Concrete Foundations		each	0	24	0.80	$ 935.63	$ 748.50	$ -	0	$ -
				each	0			$ -	$ -	$ -	0	$ -
				each	0			$ -	$ -	$ -	0	$ -
				each	0			$ -	$ -	$ -	0	$ -
									$ 9,753.82	$ -		$ -
V::C35	**S1-C35 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-** **Total structure count:**		**117**	**EA**			**$ 1,115,280.19**		**$ 9,532.31**	**$ 2,073.68**	**$ 11,605.99**	**$ 242,620.56**
	S1-C35 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A3 (Sound Surface Rock)											
	Pad: 1.4m x 1.4m x 0.8m Concrete (m3) = 1.80	Steel Weight (lb) 207	Grout (l) 6.0	Rebar (kg) 48.7	Excavation (m3) 5.8	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul		each	117	17	1.09	$ 441.04	$ 478.99	$ 56,042.00	117	$ 478.99
	Excavate	Found Excavation		each	117	19	0.56	$ 1,143.76	$ 645.75	$ 75,552.47	117	$ 645.75
	Prepare Rock Surface	Found Excavation		each	117	19	1.50	$ 1,143.76	$ 1,715.64	$ 200,729.80	117	$ 1,715.64
	Rock drill Setup	Rock Foundations		each	117	36	1.00	$ 920.20	$ 920.20	$ 107,663.84	117	$ 920.20
	Install Footing, Form and Pour base	Concrete Foundations		each	117	24	2.90	$ 935.63	$ 2,714.81	$ 317,633.14	117	$ 2,714.81
	Backfill & Compact	Backfill and Compact		each	117	21	2.00	$ 959.25	$ 1,918.49	$ 224,463.53	117	$ 1,918.49
	Cleanup	Site Cleanup		each	117	22	2.00	$ 194.96	$ 389.92	$ 45,620.79	117	$ 389.92
	Heat and Hoard	Concrete Foundations		each	117	24	0.80	$ 935.63	$ 748.50	$ 87,574.62	117	$ 748.50
				each	117			$ -	$ -	$ -	117	$ -
				each	117			$ -	$ -	$ -	117	$ -
				each	117			$ -	$ -	$ -	117	$ -
									$ 9,532.31	$ 1,115,280.19		$ 9,532.31
V::C36	**S1-C36 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-** **Total structure count:**		**0**	**EA**			**$ -**		**$ 9,753.82**	**$ 2,541.85**	**$ 12,295.67**	**$ -**
	S1-C36 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0058 for Tower Type A4 (Sound Surface Rock)											
	Pad: 1.55m x 1.55m x 0.8m Concrete (m3) = 2.21	Steel Weight (lb) 332	Grout (l) 6.0	Rebar (kg) 62.4	Excavation (m3) 6.4	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul		each	0	17	1.14	$ 441.04	$ 501.98	$ -	0	$ -
	Excavate	Found Excavation		each	0	19	0.57	$ 1,143.76	$ 653.83	$ -	0	$ -
	Prepare Rock Surface	Found Excavation		each	0	19	1.50	$ 1,143.76	$ 1,715.64	$ -	0	$ -
	Rock drill Setup	Rock Foundations		each	0	36	1.00	$ 920.20	$ 920.20	$ -	0	$ -
	Install Footing, Form and Pour base	Concrete Foundations		each	0	24	3.11	$ 935.63	$ 2,905.26	$ -	0	$ -
	Backfill & Compact	Backfill and Compact		each	0	21	2.00	$ 959.25	$ 1,918.49	$ -	0	$ -
	Cleanup	Site Cleanup		each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -
	Heat and Hoard	Concrete Foundations		each	0	24	0.80	$ 935.63	$ 748.50	$ -	0	$ -
				each	0			$ -	$ -	$ -	0	$ -
				each	0			$ -	$ -	$ -	0	$ -
									$ 9,753.82	$ -		$ -

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C37	**S1-C37 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573- Total structure count:**		**15**	**EA**			**$ 147,368.30**		**$ 9,824.55**	**$ 2,708.48**	**$ 12,533.03**	**$ 40,627.20**
	S1-C37 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0058 for Tower Type B1 (Sound Surface Rock)											
	Pad: 1.6m x 1.6m x 0.8m Concrete (m3) = 2.36	Steel Weight (lb) 332	Grout (l) 6.0	Rebar (kg) 62.8	Excavation (m3) 6.7	BackFill Vol(m3) 0.0	#Anchor Holes 1.00	Hole Depth (m) 1.8	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	15	17	1.14	$ 441.04	$ 502.14	$ 7,532.06	15	$ 502.14	
	Excavate	Found Excavation	each	15	19	0.57	$ 1,143.76	$ 656.61	$ 9,849.20	15	$ 656.61	
	Prepare Rock Surface	Found Excavation	each	15	19	1.50	$ 1,143.76	$ 1,715.64	$ 25,734.59	15	$ 1,715.64	
	Rock drill Setup	Rock Foundations	each	15	36	1.00	$ 920.20	$ 920.20	$ 13,803.06	15	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	15	24	3.18	$ 935.63	$ 2,973.05	$ 44,595.69	15	$ 2,973.05	
	Backfill & Compact	Backfill and Compact	each	15	21	2.00	$ 959.25	$ 1,918.49	$ 28,777.38	15	$ 1,918.49	
	Cleanup	Site Cleanup	each	15	22	2.00	$ 194.96	$ 389.92	$ 5,848.82	15	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	15	24	0.80	$ 935.63	$ 748.50	$ 11,227.52	15	$ 748.50	
			each	15			$ -	$ -	$ -	15	$ -	
			each	15			$ -	$ -	$ -	15	$ -	
			each	15			$ -	$ -	$ -	15	$ -	
								$ 9,824.55	$ 147,368.30		$ 9,824.55	
V::C38	**S1-C38 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573- Total structure count:**		**0**	**EA**			**$ -**		**$ 24,478.49**	**$ 2,793.12**	**$ 27,271.61**	**$ -**
	S1-C38 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type B2 (surface rock)											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4441	Grout (l) 199.0	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 6.0	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	0	17	2.85	$ 441.04	$ 1,257.13	$ -	0	$ -	
	Excavate	Found Excavation	each	0	19	3.00	$ 1,143.76	$ 3,426.56	$ -	0	$ -	
	Prepare Rock Surface	Found Excavation	each	0	19	3.50	$ 1,143.76	$ 4,003.16	$ -	0	$ -	
	Rock drill Setup	Rock Foundations	each	0	36	1.00	$ 920.20	$ 920.20	$ -	0	$ -	
	Install Footing, Form and Pour base	Concrete Foundations	each	0	24	10.10	$ 935.63	$ 9,446.25	$ -	0	$ -	
	Backfill & Compact	Backfill and Compact	each	0	21	4.47	$ 959.25	$ 4,286.76	$ -	0	$ -	
	Cleanup	Site Cleanup	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -	
	Heat and Hoard	Concrete Foundations	each	0	24	0.80	$ 935.63	$ 748.50	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
								$ 24,478.49	$ -		$ -	
V::C39	**S1-C39 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573- Total structure count:**		**104**	**EA**			**$ 2,545,763.39**		**$ 24,478.49**	**$ 2,793.12**	**$ 27,271.61**	**$ 290,484.48**
	S1-C39 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C1											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4441	Grout (l) 199.0	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 6.0	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	104	17	2.85	$ 441.04	$ 1,257.13	$ 130,741.88	104	$ 1,257.13	
	Excavate	Found Excavation	each	104	19	3.00	$ 1,143.76	$ 3,426.56	$ 356,362.24	104	$ 3,426.56	
	Prepare Rock Surface	Found Excavation	each	104	19	3.50	$ 1,143.76	$ 4,003.16	$ 416,328.48	104	$ 4,003.16	
	Rock drill Setup	Rock Foundations	each	104	36	1.00	$ 920.20	$ 920.20	$ 95,701.19	104	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	104	24	10.10	$ 935.63	$ 9,446.25	$ 982,410.43	104	$ 9,446.25	
	Backfill & Compact	Backfill and Compact	each	104	21	4.47	$ 959.25	$ 4,286.76	$ 445,823.25	104	$ 4,286.76	
	Cleanup	Site Cleanup	each	104	22	2.00	$ 194.96	$ 389.92	$ 40,551.81	104	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	104	24	0.80	$ 935.63	$ 748.50	$ 77,844.11	104	$ 748.50	
			each	104			$ -	$ -	$ -	104	$ -	
			each	104			$ -	$ -	$ -	104	$ -	
			each	104			$ -	$ -	$ -	104	$ -	
								$ 24,478.49	$ 2,545,763.39		$ 24,478.49	

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C40	**S1-C40 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-** **Total structure count:**		**0**	**EA**			**$ -**		**$ 24,705.02**	**$ 2,793.12**	**$ 27,498.14**	**$ -**
	S1-C40 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C2											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4551	Grout (l) 199.0	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 6.0	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	0	17	2.90	$ 441.04	$ 1,277.39	$ -	0	$ -	
	Excavate	Found Excavation	each	0	19	3.00	$ 1,143.76	$ 3,426.56	$ -	0	$ -	
	Prepare Rock Surface	Found Excavation	each	0	19	3.50	$ 1,143.76	$ 4,003.16	$ -	0	$ -	
	Rock drill Setup	Rock Foundations	each	0	36	1.00	$ 920.20	$ 920.20	$ -	0	$ -	
	Install Footing, Form and Pour base	Concrete Foundations	each	0	24	10.32	$ 935.63	$ 9,652.53	$ -	0	$ -	
	Backfill & Compact	Backfill and Compact	each	0	21	4.47	$ 959.25	$ 4,286.76	$ -	0	$ -	
	Cleanup	Site Cleanup	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -	
	Heat and Hoard	Concrete Foundations	each	0	24	0.80	$ 935.63	$ 748.50	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
								$ 24,705.02	$ -		$ -	
V::C41	**S1-C41 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-** **Total structure count:**		**124**	**EA**			**$ 3,097,130.22**		**$ 24,976.86**	**$ 2,793.12**	**$ 27,769.98**	**$ 346,346.88**
	S1-C41 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D1											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4683	Grout (l) 215.6	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 6.5	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	124	17	2.95	$ 441.04	$ 1,301.70	$ 161,410.66	124	$ 1,301.70	
	Excavate	Found Excavation	each	124	19	3.00	$ 1,143.76	$ 3,426.56	$ 424,893.44	124	$ 3,426.56	
	Prepare Rock Surface	Found Excavation	each	124	19	3.50	$ 1,143.76	$ 4,003.16	$ 496,391.65	124	$ 4,003.16	
	Rock drill Setup	Rock Foundations	each	124	36	1.00	$ 920.20	$ 920.20	$ 114,105.27	124	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	124	24	10.58	$ 935.63	$ 9,900.05	$ 1,227,606.34	124	$ 9,900.05	
	Backfill & Compact	Backfill and Compact	each	124	21	4.47	$ 959.25	$ 4,286.76	$ 531,558.49	124	$ 4,286.76	
	Cleanup	Site Cleanup	each	124	22	2.00	$ 194.96	$ 389.92	$ 48,350.24	124	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	124	24	0.80	$ 935.63	$ 748.50	$ 92,814.13	124	$ 748.50	
			each	124			$ -	$ -	$ -	124	$ -	
			each	124			$ -	$ -	$ -	124	$ -	
			each	124			$ -	$ -	$ -	124	$ -	
								$ 24,976.86	$ 3,097,130.22		$ 24,976.86	
V::C42	**S1-C42 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-** **Total structure count:**		**0**	**ea**			**$ -**		**$ 24,976.86**	**$ 2,793.12**	**$ 27,769.98**	**$ -**
	S1-C42 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D2											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4683	Grout (l) 215.6	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 6.5	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	0	17	2.95	$ 441.04	$ 1,301.70	$ -	0	$ -	
	Excavate	Found Excavation	each	0	19	3.00	$ 1,143.76	$ 3,426.56	$ -	0	$ -	
	Prepare Rock Surface	Found Excavation	each	0	19	3.50	$ 1,143.76	$ 4,003.16	$ -	0	$ -	
	Rock drill Setup	Rock Foundations	each	0	36	1.00	$ 920.20	$ 920.20	$ -	0	$ -	
	Install Footing, Form and Pour base	Concrete Foundations	each	0	24	10.58	$ 935.63	$ 9,900.05	$ -	0	$ -	
	Backfill & Compact	Backfill and Compact	each	0	21	4.47	$ 959.25	$ 4,286.76	$ -	0	$ -	
	Cleanup	Site Cleanup	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -	
	Heat and Hoard	Concrete Foundations	each	0	24	0.80	$ 935.63	$ 748.50	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
								$ 24,976.86	$ -		$ -	

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C43	**S1-C43 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573- Total structure count:**		**24**	**ea**			**$ 604,881.24**		**$ 25,203.38**	**$ 2,793.12**	**$ 27,996.50**	**$ 67,034.88**
	S1-C43 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type E1											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4794	Grout (l) 232.2	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 7.0	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	24	17	3.00	$ 441.04	$ 1,321.96	$ 31,726.94	24	$ 1,321.96	
	Excavate	Found Excavation	each	24	19	3.00	$ 1,143.76	$ 3,426.56	$ 82,237.44	24	$ 3,426.56	
	Prepare Rock Surface	Found Excavation	each	24	19	3.50	$ 1,143.76	$ 4,003.16	$ 96,075.80	24	$ 4,003.16	
	Rock drill Setup	Rock Foundations	each	24	36	1.00	$ 920.20	$ 920.20	$ 22,084.89	24	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	24	24	10.80	$ 935.63	$ 10,106.32	$ 242,551.74	24	$ 10,106.32	
	Backfill & Compact	Backfill and Compact	each	24	21	4.47	$ 959.25	$ 4,286.76	$ 102,882.29	24	$ 4,286.76	
	Cleanup	Site Cleanup	each	24	22	2.00	$ 194.96	$ 389.92	$ 9,358.11	24	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	24	24	0.80	$ 935.63	$ 748.50	$ 17,964.02	24	$ 748.50	
			each	24			$ -	$ -	$ -	24	$ -	
			each	24			$ -	$ -	$ -	24	$ -	
			each	24			$ -	$ -	$ -	24	$ -	
								$ 25,203.38	$ 604,881.24		$ 25,203.38	
V::C44	**S1-C44 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573- Total structure count:**		**84**	**ea**			**$ 2,056,193.51**		**$ 24,478.49**	**$ 2,793.12**	**$ 27,271.61**	**$ 234,622.08**
	S1-C44 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C1 (surface rock)											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4441	Grout (l) 149.3	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 4.5	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	84	17	2.85	$ 441.04	$ 1,257.13	$ 105,599.21	84	$ 1,257.13	
	Excavate	Found Excavation	each	84	19	3.00	$ 1,143.76	$ 3,426.56	$ 287,831.04	84	$ 3,426.56	
	Prepare Rock Surface	Found Excavation	each	84	19	3.50	$ 1,143.76	$ 4,003.16	$ 336,265.31	84	$ 4,003.16	
	Rock drill Setup	Rock Foundations	each	84	36	1.00	$ 920.20	$ 920.20	$ 77,297.12	84	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	84	24	10.10	$ 935.63	$ 9,446.25	$ 793,485.35	84	$ 9,446.25	
	Backfill & Compact	Backfill and Compact	each	84	21	4.47	$ 959.25	$ 4,286.76	$ 360,088.01	84	$ 4,286.76	
	Cleanup	Site Cleanup	each	84	22	2.00	$ 194.96	$ 389.92	$ 32,753.39	84	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	84	24	0.80	$ 935.63	$ 748.50	$ 62,874.09	84	$ 748.50	
			each	84			$ -	$ -	$ -	84	$ -	
			each	84			$ -	$ -	$ -	84	$ -	
			each	84			$ -	$ -	$ -	84	$ -	
								$ 24,478.49	$ 2,056,193.51		$ 24,478.49	
V::C45	**S1-C45 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573- Total structure count:**		**0**	**EA**			**$ -**		**$ 24,705.02**	**$ 2,793.12**	**$ 27,498.14**	**$ -**
	S1-C45 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type C2 (surface rock)-- 7.2mm clad steel wire; 3000m reels at 250kg/km or ~800kg											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4551	Grout (l) 165.9	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 5.0	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	0	17	2.90	$ 441.04	$ 1,277.39	$ -	0	$ -	
	Excavate	Found Excavation	each	0	19	3.00	$ 1,143.76	$ 3,426.56	$ -	0	$ -	
	Prepare Rock Surface	Found Excavation	each	0	19	3.50	$ 1,143.76	$ 4,003.16	$ -	0	$ -	
	Rock drill Setup	Rock Foundations	each	0	36	1.00	$ 920.20	$ 920.20	$ -	0	$ -	
	Install Footing, Form and Pour base	Concrete Foundations	each	0	24	10.32	$ 935.63	$ 9,652.53	$ -	0	$ -	
	Backfill & Compact	Backfill and Compact	each	0	21	4.47	$ 959.25	$ 4,286.76	$ -	0	$ -	
	Cleanup	Site Cleanup	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -	
	Heat and Hoard	Concrete Foundations	each	0	24	0.80	$ 935.63	$ 748.50	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
								$ 24,705.02	$ -		$ -	

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C46	**S1-C46 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-** **Total structure count:**	**104**	**EA**				**$ 2,597,593.08**		**$ 24,976.86**	**$ 2,793.12**	**$ 27,769.98**	**$ 290,484.48**
	S1-C46 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D1 (surface rock)											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4683	Grout (l) 165.9	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 5.0	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	104	17	2.95	$ 441.04	$ 1,301.70	$ 135,376.69	104	$ 1,301.70	
	Excavate	Found Excavation	each	104	19	3.00	$ 1,143.76	$ 3,426.56	$ 356,362.24	104	$ 3,426.56	
	Prepare Rock Surface	Found Excavation	each	104	19	3.50	$ 1,143.76	$ 4,003.16	$ 416,328.48	104	$ 4,003.16	
	Rock drill Setup	Rock Foundations	each	104	36	1.00	$ 920.20	$ 920.20	$ 95,701.19	104	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	104	24	10.58	$ 935.63	$ 9,900.05	$ 1,029,605.32	104	$ 9,900.05	
	Backfill & Compact	Backfill and Compact	each	104	21	4.47	$ 959.25	$ 4,286.76	$ 445,823.25	104	$ 4,286.76	
	Cleanup	Site Cleanup	each	104	22	2.00	$ 194.96	$ 389.92	$ 40,551.81	104	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	104	24	0.80	$ 935.63	$ 748.50	$ 77,844.11	104	$ 748.50	
			each	104			$ -	$ -	$ -	104	$ -	
			each	104			$ -	$ -	$ -	104	$ -	
			each	104			$ -	$ -	$ -	104	$ -	
			each	104			$ -	$ -	$ -	104	$ -	
								$ 24,976.86	$ 2,597,593.08		$ 24,976.86	
V::C47	**S1-C47 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-** **Total structure count:**	**0**	**EA**				**$ -**		**$ 26,120.62**	**$ 2,793.12**	**$ 28,913.74**	**$ -**
	S1-C47 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD-0026 for Tower Type D2 (surface rock)											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4683	Grout (l) 165.9	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 5.0	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	0	17	2.95	$ 441.04	$ 1,301.70	$ -	0	$ -	
	Excavate	Found Excavation	each	0	19	3.00	$ 1,143.76	$ 3,426.56	$ -	0	$ -	
	Prepare Rock Surface	Found Excavation	each	0	19	4.50	$ 1,143.76	$ 5,146.92	$ -	0	$ -	
	Rock drill Setup	Rock Foundations	each	0	36	1.00	$ 920.20	$ 920.20	$ -	0	$ -	
	Install Footing, Form and Pour base	Concrete Foundations	each	0	24	10.58	$ 935.63	$ 9,900.05	$ -	0	$ -	
	Backfill & Compact	Backfill and Compact	each	0	21	4.47	$ 959.25	$ 4,286.76	$ -	0	$ -	
	Cleanup	Site Cleanup	each	0	22	2.00	$ 194.96	$ 389.92	$ -	0	$ -	
	Heat and Hoard	Concrete Foundations	each	0	24	0.80	$ 935.63	$ 748.50	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
								$ 26,120.62	$ -		$ -	
V::C48	**S1-C48 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-** **Total structure count:**	**20**	**EA**				**$ 504,067.70**		**$ 25,203.38**	**$ 2,793.12**	**$ 27,996.50**	**$ 55,862.40**
	S1-C48 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD-0026 for Tower Type E1 (surface rock)											
	Pad: 2.2m x 2.4m x 0.4m Concrete (m3) = 2.43	Steel Weight (lb) 4794	Grout (l) 165.9	Rebar (kg) 124.3	Excavation (m3) 224.6	BackFill Vol(m3) 222.2	#Anchor Holes 10.00	Hole Depth (m) 5.0	Hole Dia. (mm) 57.0			
	Haul	Foundation Haul	each	20	17	3.00	$ 441.04	$ 1,321.96	$ 26,439.12	20	$ 1,321.96	
	Excavate	Found Excavation	each	20	19	3.00	$ 1,143.76	$ 3,426.56	$ 68,531.20	20	$ 3,426.56	
	Prepare Rock Surface	Found Excavation	each	20	19	3.50	$ 1,143.76	$ 4,003.16	$ 80,063.17	20	$ 4,003.16	
	Rock drill Setup	Rock Foundations	each	20	36	1.00	$ 920.20	$ 920.20	$ 18,404.08	20	$ 920.20	
	Install Footing, Form and Pour base	Concrete Foundations	each	20	24	10.80	$ 935.63	$ 10,106.32	$ 202,126.45	20	$ 10,106.32	
	Backfill & Compact	Backfill and Compact	each	20	21	4.47	$ 959.25	$ 4,286.76	$ 85,735.24	20	$ 4,286.76	
	Cleanup	Site Cleanup	each	20	22	2.00	$ 194.96	$ 389.92	$ 7,798.43	20	$ 389.92	
	Heat and Hoard	Concrete Foundations	each	20	24	0.80	$ 935.63	$ 748.50	$ 14,970.02	20	$ 748.50	
			each	20			$ -	$ -	$ -	20	$ -	
			each	20			$ -	$ -	$ -	20	$ -	
			each	20			$ -	$ -	$ -	20	$ -	
								$ 25,203.38	$ 504,067.70		$ 25,203.38	

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) / Description		Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C49	**S1-C49 Installation and Testing of 25M Mechanical Rock Anchor as per design** **Total structure count:**		12924		**LM**			$ 2,445,257.63		$ 189.20	$ 23.48	$ 212.69	$ 303,500.24
	S1-C49 Installation and Testing of 25M Mechanical Rock Anchor as per design drawings and technical specification												
	Grout (l) 2.6 / Grout (unit) 0.3				#Anchor Holes 1.00	Hole Depth (m) 1.0	Hole Dia. (mm) 50.0						
	Drill and Install Rock Anchors (Rock Foundations)	each	12924	36	0.14	$ 920.20	$ 130.14	$ 1,681,883.64	12924	$ 130.14			
	Grout Anchor (Grout Crew)	each	12924	23	0.15	$ 393.78	$ 59.07	$ 763,373.98	12924	$ 59.07			
		each	12924			$ -	$ -	$ -	12924	$ -			
		each	12924			$ -	$ -	$ -	12924	$ -			
		each	12924			$ -	$ -	$ -	12924	$ -			
		each	12924			$ -	$ -	$ -	12924	$ -			
		each	12924			$ -	$ -	$ -	12924	$ -			
		each	12924			$ -	$ -	$ -	12924	$ -			
		each	12924			$ -	$ -	$ -	12924	$ -			
		each	12924			$ -	$ -	$ -	12924	$ -			
							$ 189.20	$ 2,445,257.63		$ 189.20			
V::C50	**S1-C50 Installation and Testing of 29M Mechanical Rock Anchor as per design** **Total structure count:**		870		**LM**			$ 172,272.27		$ 198.01	$ 30.52	$ 228.53	$ 26,551.62
	S1-C50 Installation and Testing of 29M Mechanical Rock Anchor as per design drawings and technical specification												
	Grout (l) 3.3 / Grout (unit) 0.3				#Anchor Holes 1.00	Hole Depth (m) 1.0	Hole Dia. (mm) 57.0						
	Drill and Install Rock Anchors (Rock Foundations)	each	870	36	0.15	$ 920.20	$ 138.95	$ 120,884.52	870	$ 138.95			
	Grout Anchor (Grout Crew)	each	870	23	0.15	$ 393.78	$ 59.07	$ 51,387.76	870	$ 59.07			
		each	870			$ -	$ -	$ -	870	$ -			
		each	870			$ -	$ -	$ -	870	$ -			
		each	870			$ -	$ -	$ -	870	$ -			
		each	870			$ -	$ -	$ -	870	$ -			
		each	870			$ -	$ -	$ -	870	$ -			
		each	870			$ -	$ -	$ -	870	$ -			
		each	870			$ -	$ -	$ -	870	$ -			
		each	870			$ -	$ -	$ -	870	$ -			
		each	870			$ -	$ -	$ -	870	$ -			
							$ 198.01	$ 172,272.27		$ 198.01			
V::C51	**S1-C51 Installation and Testing of 32M Mechanical Rock Anchor as per design** **Total structure count:**		0		**LM**			$ -		$ 214.99	$ 37.28	$ 252.27	$ -
	S1-C51 Installation and Testing of 32M Mechanical Rock Anchor as per design drawings and technical specification												
	Grout (l) 4.1 / Grout (unit) 0.4				#Anchor Holes 1.00	Hole Depth (m) 1.0	Hole Dia. (mm) 63.0						
	Drill and Install Rock Anchors (Rock Foundations)	each	0	36	0.16	$ 920.20	$ 146.08	$ -	0	$ -			
	Grout Anchor (Grout Crew)	each	0	23	0.18	$ 393.78	$ 68.91	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 214.99	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) / Description	Units / Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C52	**S1-C52 Installation and Testing of 43M Mechanical Rock Anchor as per design** **Total structure count:**	22104		**LM**			$ 5,144,368.29		$ 232.73	$ 46.03	$ 278.76	$ 1,017,393.66
	S1-C52 Installation and Testing of 43M Mechanical Rock Anchor as per design drawings and technical specification											
	Grout (l): 5.0 / Grout (unit): 0.5			#Anchor Holes: 1.00	Hole Depth (m): 1.0	Hole Dia. (mm): 70.0						
Drill and Install Rock Anchors	Rock Foundations	each	22104	36	0.17	$ 920.20	$ 153.98	$ 3,403,563.74	22104	$ 153.98		
Grout Anchor	Grout Crew	each	22104	23	0.20	$ 393.78	$ 78.76	$ 1,740,804.56	22104	$ 78.76		
		each	22104			$ -	$ -	$ -	22104	$ -		
		each	22104			$ -	$ -	$ -	22104	$ -		
		each	22104			$ -	$ -	$ -	22104	$ -		
		each	22104			$ -	$ -	$ -	22104	$ -		
		each	22104			$ -	$ -	$ -	22104	$ -		
		each	22104			$ -	$ -	$ -	22104	$ -		
		each	22104			$ -	$ -	$ -	22104	$ -		
		each	22104			$ -	$ -	$ -	22104	$ -		
							$ 232.73	$ 5,144,368.29		$ 232.73		
V::C53	**S1-C53 Installation and Testing of 57M Mechanical Rock Anchor as per design** **Total structure count:**	0		**LM**			$ -		$ 256.27	$ 64.71	$ 320.98	$ -
	S1-C53 Installation and Testing of 57M Mechanical Rock Anchor as per design drawings and technical specification											
	Grout (l): 7.0 / Grout (unit): 0.6			#Anchor Holes: 1.00	Hole Depth (m): 1.0	Hole Dia. (mm): 83.0						
Drill and Install Rock Anchors	Rock Foundations	each	0	36	0.18	$ 920.20	$ 167.67	$ -	0	$ -		
Grout Anchor	Grout Crew	each	0	23	0.23	$ 393.78	$ 88.60	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
							$ 256.27	$ -		$ -		
		381	0									
V::C54	**S1-C54 Installation and Testing of 64M Mechanical Rock Anchor as per design** **Total structure count:**	45		**LM**			$ 12,286.82		$ 273.04	$ 76.09	$ 349.13	$ 3,423.89
	S1-C54 Installation and Testing of 64M Mechanical Rock Anchor as per design drawings and technical specification											
	Grout (l): 8.3 / Grout (unit): 0.7			#Anchor Holes: 1.00	Hole Depth (m): 1.0	Hole Dia. (mm): 90.0						
Drill and Install Rock Anchors	Rock Foundations	each	45	36	0.19	$ 920.20	$ 174.60	$ 7,856.84	45	$ 174.60		
Grout Anchor	Grout Crew	each	45	23	0.25	$ 393.78	$ 98.44	$ 4,429.98	45	$ 98.44		
		each	45			$ -	$ -	$ -	45	$ -		
		each	45			$ -	$ -	$ -	45	$ -		
		each	45			$ -	$ -	$ -	45	$ -		
		each	45			$ -	$ -	$ -	45	$ -		
		each	45			$ -	$ -	$ -	45	$ -		
		each	45			$ -	$ -	$ -	45	$ -		
		each	45			$ -	$ -	$ -	45	$ -		
		each	45			$ -	$ -	$ -	45	$ -		
							$ 273.04	$ 12,286.82		$ 273.04		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H11	**H-Pile Foundations**												
V::C55	**S1-C55 Design, Assembly and Installation of Foundation Type A1-3 as per Dwg** **Total structure count:**		**6**		**EA**			**$ 14,120.38**		**$ 2,353.40**	**$ 44,266.30**	**$ 46,619.70**	**$ 265,597.82**
	S1-C55 Design, Assembly and Installation of Foundation Type A1-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A1 including supply and installation of steep cap.												
	Site Preparation (Site Preparation)	each	6	2	2.00	$ 675.12	$ 1,350.24	$ 8,101.47	6	$ 1,350.24			
	supervisor (Supervisory)	each	6	29	6.00	$ 167.19	$ 1,003.15	$ 6,018.91	6	$ 1,003.15			
		each	6			$ -	$ -	$ -	6	$ -			
		each	6			$ -	$ -	$ -	6	$ -			
		each	6			$ -	$ -	$ -	6	$ -			
							$ 2,353.40	$ 14,120.38		$ 2,353.40			
V::C56	**S1-C56 Design, Assembly and Installation of Foundation Type A2-3 as per Dwg** **Total structure count:**		**0**		**EA**			**$ -**		**$ 2,353.40**	**$ 44,266.30**	**$ 46,619.70**	**$ -**
	S1-C56 Design, Assembly and Installation of Foundation Type A2-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A2 including supply and installation of steep cap.												
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	supervisor (Supervisory)	each	0	29	6.00	$ 167.19	$ 1,003.15	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 2,353.40	$ -		$ -			
V::C57	**S1-C57 Design, Assembly and Installation of Foundation Type A3-3 as per Dwg** **Total structure count:**		**5**		**EA**			**$ 11,766.99**		**$ 2,353.40**	**$ 44,266.30**	**$ 46,619.70**	**$ 221,331.52**
	S1-C57 Design, Assembly and Installation of Foundation Type A3-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A3 including supply and installation of steep cap.												
	Site Preparation (Site Preparation)	each	5	2	2.00	$ 675.12	$ 1,350.24	$ 6,751.22	5	$ 1,350.24			
	supervisor (Supervisory)	each	5	29	6.00	$ 167.19	$ 1,003.15	$ 5,015.76	5	$ 1,003.15			
		each	5			$ -	$ -	$ -	5	$ -			
		each	5			$ -	$ -	$ -	5	$ -			
		each	5			$ -	$ -	$ -	5	$ -			
		each	5			$ -	$ -	$ -	5	$ -			
		each	5			$ -	$ -	$ -	5	$ -			
							$ 2,353.40	$ 11,766.99		$ 2,353.40			
V::C58	**S1-C58 Design, Assembly and Installation of Foundation Type A4-3 as per Dwg** **Total structure count:**		**0**		**EA**			**$ -**		**$ 2,353.40**	**$ 44,266.30**	**$ 46,619.70**	**$ -**
	S1-C58 Design, Assembly and Installation of Foundation Type A4-3 as per Dwg 505573-4622-42DD-0037 for Tower Type A4 including supply and installation of steep cap.												
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	supervisor (Supervisory)	each	0	29	6.00	$ 167.19	$ 1,003.15	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 2,353.40	$ -		$ -			
V::C59	**S1-C59 Design, Assembly and Installation of Foundation Type B1-3 as per Dwg** **Total structure count:**		**1**		**EA**			**$ 2,353.40**		**$ 2,353.40**	**$ 44,266.30**	**$ 46,619.70**	**$ 44,266.30**
	S1-C59 Design, Assembly and Installation of Foundation Type B1-3 as per Dwg 505573-4622-42DD-0037 for Tower Type B1 including supply and installation of steep cap.												
	Site Preparation (Site Preparation)	each	1	2	2.00	$ 675.12	$ 1,350.24	$ 1,350.24	1	$ 1,350.24			
	supervisor (Supervisory)	each	1	29	6.00	$ 167.19	$ 1,003.15	$ 1,003.15	1	$ 1,003.15			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 2,353.40	$ 2,353.40		$ 2,353.40			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C60	**S1-C60 Design, Assembly and Installation of Foundation Type B2-3 as per Dwg** **Total structure count:**		**0**		**EA**		**$ -**		**$ 5,362.85**	**$ 208,457.28**	**$ 213,820.13**	**$ -**
	S1-C60 Design, Assembly and Installation of Foundation Type B2-3 as per Dwg 505573-4622-42DD-0046 for Tower Type B2 including supply and installation of steep cap.											
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	supervisor (Supervisory)	each	0	29	24.00	$ 167.19	$ 4,012.61	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
							$ 5,362.85	$ -		$ -		
V::C61	**S1-C61 Design, Assembly and Installation of Foundation Type C1-3 as per Dwg** **Total structure count:**		**4**		**EA**		**$ 21,451.42**		**$ 5,362.85**	**$ 208,457.28**	**$ 213,820.13**	**$ 833,829.12**
	S1-C61 Design, Assembly and Installation of Foundation Type C1-3 as per Dwg 505573-4622-42DD-0046 for Tower Type C1 including supply and installation of steel cap.											
	Site Preparation (Site Preparation)	each	4	2	2.00	$ 675.12	$ 1,350.24	$ 5,400.98	4	$ 1,350.24		
	supervisor (Supervisory)	each	4	29	24.00	$ 167.19	$ 4,012.61	$ 16,050.44	4	$ 4,012.61		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
							$ 5,362.85	$ 21,451.42		$ 5,362.85		
V::C62	**S1-C62 Design, Assembly and Installation of Foundation Type C2-3 as per Dwg** **Total structure count:**		**0**		**EA**		**$ -**		**$ 5,362.85**	**$ 208,457.28**	**$ 213,820.13**	**$ -**
	S1-C62 Design, Assembly and Installation of Foundation Type C2-3 as per Dwg 505573-4622-42DD-0046 for Tower Type C2 including supply and installation of steel cap.											
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	supervisor (Supervisory)	each	0	29	24.00	$ 167.19	$ 4,012.61	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
							$ 5,362.85	$ -		$ -		
V::C63	**S1-C63 Design, Assembly and Installation of Foundation Type D1-3 per Dwg** **Total structure count:**		**4**		**EA**		**$ 21,451.42**		**$ 5,362.85**	**$ 208,457.28**	**$ 213,820.13**	**$ 833,829.12**
	S1-C63 Design, Assembly and Installation of Foundation Type D1-3 per Dwg 505573-4622-42DD-0046 for Tower Type D1 including supply and installation of steel cap.											
	Site Preparation (Site Preparation)	each	4	2	2.00	$ 675.12	$ 1,350.24	$ 5,400.98	4	$ 1,350.24		
	supervisor (Supervisory)	each	4	29	24.00	$ 167.19	$ 4,012.61	$ 16,050.44	4	$ 4,012.61		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
		each	4			$ -	$ -	$ -	4	$ -		
							$ 5,362.85	$ 21,451.42		$ 5,362.85		
V::C64	**S1-C64 Design, Assembly and Installation of Foundation Type D2-3 as per Dwg** **Total structure count:**		**0**		**EA**		**$ -**		**$ 5,362.85**	**$ 208,457.28**	**$ 213,820.13**	**$ -**
	S1-C64 Design, Assembly and Installation of Foundation Type D2-3 as per Dwg 505573-4622-42DD-0046 for Tower Type D2 including supply and installation of steel cap.											
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	supervisor (Supervisory)	each	0	29	24.00	$ 167.19	$ 4,012.61	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
							$ 5,362.85	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) / Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::C65	**S1-C65 Design, Assembly and Installation of Foundation Type E1-3 as per Dwg** **Total structure count:**	**0**		**EA**			**$ -**		**$ 5,362.85**	**$ 208,457.28**	**$ 213,820.13**	**$ -**
	S1-C65 Design, Assembly and Installation of Foundation Type E1-3 as per Dwg 505573-4622-42DD-0046 for Tower Type E1 including supply and installation of steel cap.											
	Site Preparation (Site Preparation)	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	supervisor (Supervisory)	each	0	29	24.00	$ 167.19	$ 4,012.61	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
							$ 5,362.85	$ -		$ -		
V::C66	**S1-C66 Rock anchor to be installed with S1-C60 to S1-C65 item above as per** **Total structure count:**	**480**		**LM**			**$ -**		**$ -**	**$ 468.58**	**$ 468.58**	**$ 224,920.37**
	S1-C66 Rock anchor to be installed with S1-C60 to S1-C65 item above as per the design drawings and technical specifications (length in bog not considered)											
		each	480			$ -	$ -	$ -	480	$ -		
		each	480			$ -	$ -	$ -	480	$ -		
		each	480			$ -	$ -	$ -	480	$ -		
		each	480			$ -	$ -	$ -	480	$ -		
		each	480			$ -	$ -	$ -	480	$ -		
		each	480			$ -	$ -	$ -	480	$ -		
		each	480			$ -	$ -	$ -	480	$ -		
		each	480			$ -	$ -	$ -	480	$ -		
		each	480			$ -	$ -	$ -	480	$ -		
							$ -	$ -		$ -		
V::C67	**S1-C67 Supply, and installation of H-Piles, HP 360 x 108, Grade 350AT** **Total structure count:**	**2400**		**LM**			**$ -**		**$ -**	**$ 580.69**	**$ 580.69**	**$ 1,393,654.41**
	S1-C67 Supply, and installation of H-Piles, HP 360 x 108, Grade 350AT											
		each	2400			$ -	$ -	$ -	2400	$ -		
		each	2400			$ -	$ -	$ -	2400	$ -		
		each	2400			$ -	$ -	$ -	2400	$ -		
		each	2400			$ -	$ -	$ -	2400	$ -		
		each	2400			$ -	$ -	$ -	2400	$ -		
		each	2400			$ -	$ -	$ -	2400	$ -		
		each	2400			$ -	$ -	$ -	2400	$ -		
		each	2400			$ -	$ -	$ -	2400	$ -		
		each	2400			$ -	$ -	$ -	2400	$ -		
							$ -	$ -		$ -		

V-H12 **Bog and Poor Soil**

V::C68	**S1-C68 Supply and Installation of Cribs for excavation protection of tower types** **Total structure count:**	**10700**		**M2**			**$ 4,731,739.74**		**$ 442.22**	**$ 254.37**	**$ 696.59**	**$ 2,721,742.95**
	S1-C68 Supply and Installation of Cribs for excavation protection of tower types A1, A2, A3, A4, B1, B2, C1, C2, D1, D2, E1 for any type of Foundation as per Dwg 505573-4622-42DD-0069 and											
	Hauling (Hauling)	each	10700	1	0.30	$ 441.04	$ 132.31	$ 1,415,744.76	10700	$ 132.31		
	Assembly (Grillage Installation)	each	10700	20	0.13	$ 1,002.72	$ 125.34	$ 1,341,136.06	10700	$ 125.34		
	Installation (Grillage Installation)	each	10700	20	0.05	$ 1,002.72	$ 50.14	$ 536,454.42	10700	$ 50.14		
	extra excavation and De-watering (Found Excavation)	each	10700	19	0.10	$ 1,143.76	$ 114.38	$ 1,223,822.72	10700	$ 114.38		
	Remove Top section (Grillage Installation)	each	10700	20	0.02	$ 1,002.72	$ 20.05	$ 214,581.77	10700	$ 20.05		
							$ 442.22	$ 4,731,739.74		$ 442.22		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) / Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H13	**Earthwork**											
V::C69	**S1-C69 Transportation of native backfill** S1-C69 Transportation of native backfill	**Total structure count:**	**2000**	**KM**			**$ 98,009.33**		**$ 49.00**	**$ -**	**$ 49.00**	**$ -**
	Hauling (Foundation Haul)	each	2000	17	0.11	$ 441.04	$ 49.00	$ 98,009.33	2000	$ 49.00		
		each	2000			$ -	$ -	$ -	2000	$ -		
		each	2000			$ -	$ -	$ -	2000	$ -		
		each	2000			$ -	$ -	$ -	2000	$ -		
		each	2000			$ -	$ -	$ -	2000	$ -		
		each	2000			$ -	$ -	$ -	2000	$ -		
		each	2000			$ -	$ -	$ -	2000	$ -		
		each	2000			$ -	$ -	$ -	2000	$ -		
		each	2000			$ -	$ -	$ -	2000	$ -		
							$ 49.00	$ 98,009.33		$ 49.00		
V::C70	**S1-C70 Supply and transportation of approved fill from an alternate** S1-C70 Supply and transportation of approved fill from an alternate source/processed material/road gravel	**Total structure count:**	**21000**	**M3 * KM**			**$ 564,278.79**		**$ 26.87**	**$ 106.61**	**$ 133.48**	**$ 2,238,705.00**
	Hauling (Camp Haul)	each	21000	46	0.11	$ 241.83	$ 26.87	$ 564,278.79	21000	$ 26.87		
		each	21000			$ -	$ -	$ -	21000	$ -		
		each	21000			$ -	$ -	$ -	21000	$ -		
		each	21000			$ -	$ -	$ -	21000	$ -		
		each	21000			$ -	$ -	$ -	21000	$ -		
		each	21000			$ -	$ -	$ -	21000	$ -		
		each	21000			$ -	$ -	$ -	21000	$ -		
		each	21000			$ -	$ -	$ -	21000	$ -		
		each	21000			$ -	$ -	$ -	21000	$ -		
							$ 26.87	$ 564,278.79		$ 26.87		
V::C71	**S1-C71 Rock blasting/preparation** S1-C71 Rock blasting/preparation	**Total structure count:**	**1100**	**M3**			**$ 1,258,135.51**		**$ 1,143.76**	**$ -**	**$ 1,143.76**	**$ -**
	Site Prep (Found Excavation)	each	1100	19	1.00	$ 1,143.76	$ 1,143.76	$ 1,258,135.51	1100	$ 1,143.76		
		each	1100			$ -	$ -	$ -	1100	$ -		
		each	1100			$ -	$ -	$ -	1100	$ -		
		each	1100			$ -	$ -	$ -	1100	$ -		
		each	1100			$ -	$ -	$ -	1100	$ -		
		each	1100			$ -	$ -	$ -	1100	$ -		
		each	1100			$ -	$ -	$ -	1100	$ -		
		each	1100			$ -	$ -	$ -	1100	$ -		
		each	1100			$ -	$ -	$ -	1100	$ -		
							$ 1,143.76	$ 1,258,135.51		$ 1,143.76		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H14	**S1-D Tower Assembly and Erection (S1-Dx)**		**Tower Setting Ratio**		**0.00 Helicopter**			**100% Crane**				
V-H15	**Assembly and Erection of Suspension Tower Type "A1"**											
V::D01	**S1-D1 Assembly and Erection of Suspension Tower Type "A1 + 0" as per dwg.**	**Total structure count:**	**0**	**EA**			$ -		**$ 45,765.74**	**$ -**	**$ 45,765.74**	**$ -**
	S1-D1 Assembly and Erection of Suspension Tower Type "A1 + 0" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 14925	Total Tower Height(ft) = 123	Section Weight (lb) = 13999									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	5.90	$ 441.04	$ 2,600.78	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	24.00	$ 1,183.92	$ 28,410.51	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	2.00	$ 1,258.65	$ 2,517.30	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	2.50	$ 1,482.09	$ 3,705.24	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -	
	Total Cost = $ 2.830		per pound					$ 45,765.74	$ -		$ -	
V::D02	**S1-D2 Assembly and Erection of Suspension Tower Type "A1 + 1.5" as per**	**Total structure count:**	**0**	**EA**			$ -		**$ 46,796.19**	**$ -**	**$ 46,796.19**	**$ -**
	S1-D2 Assembly and Erection of Suspension Tower Type "A1 + 1.5" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 15440	Total Tower Height(ft) = 128	Section Weight (lb) = 14465									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	6.09	$ 441.04	$ 2,687.20	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	24.79	$ 1,183.92	$ 29,354.54	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	2.00	$ 1,258.65	$ 2,517.30	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	2.50	$ 1,482.09	$ 3,705.24	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -	
	Total Cost = $ 2.811		per pound				$ -	$ -	$ -	0	$ -	
								$ 46,796.19	$ -		$ -	
V::D03	**S1-D3 Assembly and Erection of Suspension Tower Type "A1 + 3" as per dwg.**	**Total structure count:**	**0**	**EA**			$ -		**$ 47,377.35**	**$ -**	**$ 47,377.35**	**$ -**
	S1-D3 Assembly and Erection of Suspension Tower Type "A1 + 3" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 15753	Total Tower Height(ft) = 133	Section Weight (lb) = 14727									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	6.20	$ 441.04	$ 2,735.94	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	25.24	$ 1,183.92	$ 29,886.96	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	2.00	$ 1,258.65	$ 2,517.30	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	2.50	$ 1,482.09	$ 3,705.24	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -	
	Total Cost = $ 2.800		per pound				$ -	$ -	$ -	0	$ -	
								$ 47,377.35	$ -		$ -	

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D04	**S1-D4 Assembly and Erection of Suspension Tower Type "A1 + 4.5" as per** **Total structure count:**		**0**	**EA**			**$ -**		**$ 48,407.80**	**$ -**	**$ 48,407.80**	**$ -**
	S1-D4 Assembly and Erection of Suspension Tower Type "A1 + 4.5" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 16268 Total Tower Height(ft) = 138 Section Weight (lb) = 15192											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	6.40	$ 441.04	$ 2,822.36	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	26.04	$ 1,183.92	$ 30,831.00	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	2.00	$ 1,258.65	$ 2,517.30	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	2.50	$ 1,482.09	$ 3,705.24	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -			
	Total Cost = $ 2.782	per pound			$ -	$ -	$ -	0	$ -			
						$ 48,407.80	$ -		$ -			
V::D05	**S1-D5 Assembly and Erection of Suspension Tower Type "A1 + 6" as per dwg.** **Total structure count:**		**88**	**EA**			**$ 4,275,357.98**		**$ 48,583.61**	**$ -**	**$ 48,583.61**	**$ -**
	S1-D5 Assembly and Erection of Suspension Tower Type "A1 + 6" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 16398 Total Tower Height(ft) = 143 Section Weight (lb) = 15272											
	Site Preparation (Site Preparation)	each 88	2	2.00	$ 675.12	$ 1,350.24	$ 118,821.55	88	$ 1,350.24			
	Haul (Hauling)	each 88	1	6.43	$ 441.04	$ 2,837.10	$ 249,665.15	88	$ 2,837.10			
	Setup Blocks (Blocking Crew)	each 88	3	2.00	$ 281.84	$ 563.68	$ 49,604.24	88	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 88	4	26.18	$ 1,183.92	$ 30,992.06	$ 2,727,301.57	88	$ 30,992.06			
	Install Guy Strand (Guy Install)	each 88	39	2.00	$ 1,258.65	$ 2,517.30	$ 221,522.36	88	$ 2,517.30			
	Helicopter Set (HL Helicopter)	each 88	27	0.00	$ 21,899.72	$ -	$ -	88	$ -			
	Crane Set (Y- Tower Erection)	each 88	40	2.50	$ 1,482.09	$ 3,705.24	$ 326,060.71	88	$ 3,705.24			
	Plumb Tower (Tower Plumb)	each 88	41	2.00	$ 913.00	$ 1,826.00	$ 160,688.27	88	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 88	7	2.00	$ 636.64	$ 1,273.27	$ 112,048.18	88	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 88	8	1.50	$ 1,444.07	$ 2,166.10	$ 190,616.84	88	$ 2,166.10			
	Tie -in (Tie -in)	each 88	12	2.00	$ 676.30	$ 1,352.60	$ 119,029.11	88	$ 1,352.60			
	Total Cost = $ 2.779	per pound			$ -	$ -	$ -	88	$ -			
						$ 48,583.61	$ 4,275,357.98		$ 48,583.61			
V::D06	**S1-D6 Assembly and Erection of Suspension Tower Type "A1 + 7.5" as per** **Total structure count:**		**39**	**EA**			**$ 1,922,187.60**		**$ 49,286.86**	**$ -**	**$ 49,286.86**	**$ -**
	S1-D6 Assembly and Erection of Suspension Tower Type "A1 + 7.5" as per dwg. 505573-4622-43DD-0042											
	Total Tower Weight With Guys and Ext. (lb) = 16766 Total Tower Height(ft) = 148 Section Weight (lb) = 15589											
	Site Preparation (Site Preparation)	each 39	2	2.00	$ 675.12	$ 1,350.24	$ 52,659.55	39	$ 1,350.24			
	Haul (Hauling)	each 39	1	6.57	$ 441.04	$ 2,896.08	$ 112,947.21	39	$ 2,896.08			
	Setup Blocks (Blocking Crew)	each 39	3	2.00	$ 281.84	$ 563.68	$ 21,983.70	39	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 39	4	26.72	$ 1,183.92	$ 31,636.33	$ 1,233,816.99	39	$ 31,636.33			
	Install Guy Strand (Guy Install)	each 39	39	2.00	$ 1,258.65	$ 2,517.30	$ 98,174.68	39	$ 2,517.30			
	Helicopter Set (HL Helicopter)	each 39	27	0.00	$ 21,899.72	$ -	$ -	39	$ -			
	Crane Set (Y- Tower Erection)	each 39	40	2.50	$ 1,482.09	$ 3,705.24	$ 144,504.18	39	$ 3,705.24			
	Plumb Tower (Tower Plumb)	each 39	41	2.00	$ 913.00	$ 1,826.00	$ 71,214.12	39	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 39	7	2.00	$ 636.64	$ 1,273.27	$ 49,657.72	39	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 39	8	1.50	$ 1,444.07	$ 2,166.10	$ 84,477.92	39	$ 2,166.10			
	Tie -in (Tie -in)	each 39	12	2.00	$ 676.30	$ 1,352.60	$ 52,751.54	39	$ 1,352.60			
		each 39			$ -	$ -	$ -	39	$ -			
	Total Cost = $ 2.854	per pound				$ 49,286.86	$ 1,922,187.60		$ 49,286.86			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D07	**S1-D7 Assembly and Erection of Suspension Tower Type "A1 + 9" as per dwg. Total structure count:**			**45**	**EA**			**$ 2,242,742.22**		**$ 49,838.72**	**$ -**	**$ 49,838.72**	**$ -**
	S1-D7 Assembly and Erection of Suspension Tower Type "A1 + 9" as per dwg. 505573-4622-43DD-0042												
	Total Tower Weight With Guys and Ext. (lb) = 17066	Total Tower Height(ft) = 153	Section Weight (lb) = 15838										
	Site Preparation	Site Preparation	each	45	2	2.00	$ 675.12	$ 1,350.24	$ 60,761.02	45	$ 1,350.24		
	Haul	Hauling	each	45	1	6.67	$ 441.04	$ 2,942.36	$ 132,406.38	45	$ 2,942.36		
	Setup Blocks	Blocking Crew	each	45	3	2.00	$ 281.84	$ 563.68	$ 25,365.81	45	$ 563.68		
	Assemble Tower	Lattice Assembly	each	45	4	27.15	$ 1,183.92	$ 32,141.91	$ 1,446,385.77	45	$ 32,141.91		
	Install Guy Strand	Guy Install	each	45	39	2.00	$ 1,258.65	$ 2,517.30	$ 113,278.48	45	$ 2,517.30		
	Helicopter Set	HL Helicopter	each	45	27	0.00	$ 21,899.72	$ -	$ -	45	$ -		
	Crane Set	Y- Tower Erection	each	45	40	2.50	$ 1,482.09	$ 3,705.24	$ 166,735.59	45	$ 3,705.24		
	Plumb Tower	Tower Plumb	each	45	41	2.00	$ 913.00	$ 1,826.00	$ 82,170.14	45	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	45	7	2.00	$ 636.64	$ 1,273.27	$ 57,297.36	45	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	45	8	1.50	$ 1,444.07	$ 2,166.10	$ 97,474.52	45	$ 2,166.10		
	Tie -in	Tie -in	each	45	12	2.00	$ 676.30	$ 1,352.60	$ 60,867.16	45	$ 1,352.60		
			each	45			$ -	$ -	$ -	45	$ -		
			each	45			$ -	$ -	$ -	45	$ -		
	Total Cost =	$ 2.844	per pound					$ 49,838.72	$ 2,242,742.22		$ 49,838.72		
V::D08	**S1-D8 Assembly and Erection of Suspension Tower Type "A1 + 10.5" as per Total structure count:**			**56**	**EA**			**$ 2,850,314.43**		**$ 50,898.47**	**$ -**	**$ 50,898.47**	**$ -**
	S1-D8 Assembly and Erection of Suspension Tower Type "A1 + 10.5" as per dwg. 505573-4622-43DD-0042												
	Total Tower Weight With Guys and Ext. (lb) = 17594	Total Tower Height(ft) = 158	Section Weight (lb) = 16316										
	Site Preparation	Site Preparation	each	56	2	2.00	$ 675.12	$ 1,350.24	$ 75,613.72	56	$ 1,350.24		
	Haul	Hauling	each	56	1	6.87	$ 441.04	$ 3,031.24	$ 169,749.50	56	$ 3,031.24		
	Setup Blocks	Blocking Crew	each	56	3	2.00	$ 281.84	$ 563.68	$ 31,566.34	56	$ 563.68		
	Assemble Tower	Lattice Assembly	each	56	4	27.97	$ 1,183.92	$ 33,112.78	$ 1,854,315.95	56	$ 33,112.78		
	Install Guy Strand	Guy Install	each	56	39	2.00	$ 1,258.65	$ 2,517.30	$ 140,968.77	56	$ 2,517.30		
	Helicopter Set	HL Helicopter	each	56	27	0.00	$ 21,899.72	$ -	$ -	56	$ -		
	Crane Set	Y- Tower Erection	each	56	40	2.50	$ 1,482.09	$ 3,705.24	$ 207,493.18	56	$ 3,705.24		
	Plumb Tower	Tower Plumb	each	56	41	2.00	$ 913.00	$ 1,826.00	$ 102,256.17	56	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	56	7	2.00	$ 636.64	$ 1,273.27	$ 71,303.39	56	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	56	8	1.50	$ 1,444.07	$ 2,166.10	$ 121,301.62	56	$ 2,166.10		
	Tie -in	Tie -in	each	56	12	2.00	$ 676.30	$ 1,352.60	$ 75,745.80	56	$ 1,352.60		
			each	56			$ -	$ -	$ -	56	$ -		
	Total Cost =	$ 2.826	per pound					$ 50,898.47	$ 2,850,314.43		$ 50,898.47		
V::D09	**S1-D9 Assembly and Erection of Suspension Tower Type "A1 + 12" as per dwg. Total structure count:**			**57**	**EA**			**$ 2,929,884.92**		**$ 51,401.49**	**$ -**	**$ 51,401.49**	**$ -**
	S1-D9 Assembly and Erection of Suspension Tower Type "A1 + 12" as per dwg. 505573-4622-43DD-0042												
	Total Tower Weight With Guys and Ext. (lb) = 17872	Total Tower Height(ft) = 163	Section Weight (lb) = 16544										
	Site Preparation	Site Preparation	each	57	2	2.00	$ 675.12	$ 1,350.24	$ 76,963.96	57	$ 1,350.24		
	Haul	Hauling	each	57	1	6.97	$ 441.04	$ 3,073.43	$ 175,185.34	57	$ 3,073.43		
	Setup Blocks	Blocking Crew	each	57	3	2.00	$ 281.84	$ 563.68	$ 32,130.02	57	$ 563.68		
	Assemble Tower	Lattice Assembly	each	57	4	28.36	$ 1,183.92	$ 33,573.62	$ 1,913,696.15	57	$ 33,573.62		
	Install Guy Strand	Guy Install	each	57	39	2.00	$ 1,258.65	$ 2,517.30	$ 143,486.07	57	$ 2,517.30		
	Helicopter Set	HL Helicopter	each	57	27	0.00	$ 21,899.72	$ -	$ -	57	$ -		
	Crane Set	Y- Tower Erection	each	57	40	2.50	$ 1,482.09	$ 3,705.24	$ 211,198.41	57	$ 3,705.24		
	Plumb Tower	Tower Plumb	each	57	41	2.00	$ 913.00	$ 1,826.00	$ 104,082.17	57	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	57	7	2.00	$ 636.64	$ 1,273.27	$ 72,576.66	57	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	57	8	1.50	$ 1,444.07	$ 2,166.10	$ 123,467.72	57	$ 2,166.10		
	Tie -in	Tie -in	each	57	12	2.00	$ 676.30	$ 1,352.60	$ 77,098.40	57	$ 1,352.60		
			each	57			$ -	$ -	$ -	57	$ -		
	Total Cost =	$ 2.817	per pound					$ 51,401.49	$ 2,929,884.92		$ 51,401.49		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D10	**S1-D10 Assembly and Erection of Suspension Tower Type "A1 + 13.5" as per** S1-D10 Assembly and Erection of Suspension Tower Type "A1 + 13.5" as per dwg. 505573-4622-43DD-0042		**Total structure count:**	**63**	**EA**			**$ 3,282,598.49**		**$ 52,104.74**	**$ -**	**$ 52,104.74**	**$ -**
	Total Tower Weight With Guys and Ext. (lb) = 18240	Total Tower Height(ft) = 168	Section Weight (lb) = 16861										
	Site Preparation	Site Preparation	each	63	2	2.00	$ 675.12	$ 1,350.24	$ 85,065.43	63	$ 1,350.24		
	Haul	Hauling	each	63	1	7.10	$ 441.04	$ 3,132.41	$ 197,341.54	63	$ 3,132.41		
	Setup Blocks	Blocking Crew	each	63	3	2.00	$ 281.84	$ 563.68	$ 35,512.13	63	$ 563.68		
	Assemble Tower	Lattice Assembly	each	63	4	28.90	$ 1,183.92	$ 34,217.89	$ 2,155,726.85	63	$ 34,217.89		
	Install Guy Strand	Guy Install	each	63	39	2.00	$ 1,258.65	$ 2,517.30	$ 158,589.87	63	$ 2,517.30		
	Helicopter Set	HL Helicopter	each	63	27	0.00	$ 21,899.72	$ -	$ -	63	$ -		
	Crane Set	Y- Tower Erection	each	63	40	2.50	$ 1,482.09	$ 3,705.24	$ 233,429.82	63	$ 3,705.24		
	Plumb Tower	Tower Plumb	each	63	41	2.00	$ 913.00	$ 1,826.00	$ 115,038.19	63	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	63	7	2.00	$ 636.64	$ 1,273.27	$ 80,216.31	63	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	63	8	1.50	$ 1,444.07	$ 2,166.10	$ 136,464.33	63	$ 2,166.10		
	Tie -in	Tie -in	each	63	12	2.00	$ 676.30	$ 1,352.60	$ 85,214.02	63	$ 1,352.60		
			each	63			$ -	$ -	$ -	63	$ -		
	Total Cost =	$ 2.806	per pound					$ 52,104.74	$ 3,282,598.49		$ 52,104.74		
V::D11	**S1-D11 Assembly and Erection of Suspension Tower Type "A1 + 15" as per** S1-D11 Assembly and Erection of Suspension Tower Type "A1 + 15" as per dwg. 505573-4622-43DD-0042		**Total structure count:**	**81**	**EA**			**$ 4,277,446.88**		**$ 52,807.99**	**$ -**	**$ 52,807.99**	**$ -**
	Total Tower Weight With Guys and Ext. (lb) = 18608	Total Tower Height(ft) = 172	Section Weight (lb) = 17179										
	Site Preparation	Site Preparation	each	81	2	2.00	$ 675.12	$ 1,350.24	$ 109,369.84	81	$ 1,350.24		
	Haul	Hauling	each	81	1	7.24	$ 441.04	$ 3,191.38	$ 258,502.08	81	$ 3,191.38		
	Setup Blocks	Blocking Crew	each	81	3	2.00	$ 281.84	$ 563.68	$ 45,658.45	81	$ 563.68		
	Assemble Tower	Lattice Assembly	each	81	4	29.45	$ 1,183.92	$ 34,862.16	$ 2,823,834.67	81	$ 34,862.16		
	Install Guy Strand	Guy Install	each	81	39	2.00	$ 1,258.65	$ 2,517.30	$ 203,901.26	81	$ 2,517.30		
	Helicopter Set	HL Helicopter	each	81	27	0.00	$ 21,899.72	$ -	$ -	81	$ -		
	Crane Set	Y- Tower Erection	each	81	40	2.50	$ 1,482.09	$ 3,705.24	$ 300,124.06	81	$ 3,705.24		
	Plumb Tower	Tower Plumb	each	81	41	2.00	$ 913.00	$ 1,826.00	$ 147,906.25	81	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	81	7	2.00	$ 636.64	$ 1,273.27	$ 103,135.26	81	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	81	8	1.50	$ 1,444.07	$ 2,166.10	$ 175,454.13	81	$ 2,166.10		
	Tie -in	Tie -in	each	81	12	2.00	$ 676.30	$ 1,352.60	$ 109,560.88	81	$ 1,352.60		
			each	81			$ -	$ -	$ -	81	$ -		
	Total Cost =	$ 2.795	per pound					$ 52,807.99	$ 4,277,446.88		$ 52,807.99		
V::D12	**S1-D12 Assembly and Erection of Suspension Tower Type "A1 + 16.5" as per** S1-D12 Assembly and Erection of Suspension Tower Type "A1 + 16.5" as per dwg. 505573-4622-43DD-0042		**Total structure count:**	**77**	**EA**			**$ 4,108,707.73**		**$ 53,359.84**	**$ -**	**$ 53,359.84**	**$ -**
	Total Tower Weight With Guys and Ext. (lb) = 18907	Total Tower Height(ft) = 177	Section Weight (lb) = 17428										
	Site Preparation	Site Preparation	each	77	2	2.00	$ 675.12	$ 1,350.24	$ 103,968.86	77	$ 1,350.24		
	Haul	Hauling	each	77	1	7.34	$ 441.04	$ 3,237.67	$ 249,300.23	77	$ 3,237.67		
	Setup Blocks	Blocking Crew	each	77	3	2.00	$ 281.84	$ 563.68	$ 43,403.71	77	$ 563.68		
	Assemble Tower	Lattice Assembly	each	77	4	29.87	$ 1,183.92	$ 35,367.73	$ 2,723,315.15	77	$ 35,367.73		
	Install Guy Strand	Guy Install	each	77	39	2.00	$ 1,258.65	$ 2,517.30	$ 193,832.06	77	$ 2,517.30		
	Helicopter Set	HL Helicopter	each	77	27	0.00	$ 21,899.72	$ -	$ -	77	$ -		
	Crane Set	Y- Tower Erection	each	77	40	2.50	$ 1,482.09	$ 3,705.24	$ 285,303.12	77	$ 3,705.24		
	Plumb Tower	Tower Plumb	each	77	41	2.00	$ 913.00	$ 1,826.00	$ 140,602.24	77	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	77	7	2.00	$ 636.64	$ 1,273.27	$ 98,042.16	77	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	77	8	1.50	$ 1,444.07	$ 2,166.10	$ 166,789.73	77	$ 2,166.10		
	Tie -in	Tie -in	each	77	12	2.00	$ 676.30	$ 1,352.60	$ 104,150.47	77	$ 1,352.60		
			each	77			$ -	$ -	$ -	77	$ -		
	Total Cost =	$ 2.787	per pound					$ 53,359.84	$ 4,108,707.73		$ 53,359.84		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D13	**S1-D13 Assembly and Erection of Suspension Tower Type "A1 + 18" as per** S1-D13 Assembly and Erection of Suspension Tower Type "A1 + 18" as per dwg. 505573-4622-43DD-0042	**Total structure count:**	**80**	**EA**			**$ 4,313,326.30**		**$ 53,916.58**	**$ -**	**$ 53,916.58**	**$ -**

Total Tower Weight With Guys and Ext. (lb) = 19209 Total Tower Height(ft) = 182 Section Weight (lb) = 17679

Site Preparation	Site Preparation	each	80	2	2.00	$ 675.12	$ 1,350.24	$ 108,019.59	80	$ 1,350.24		
Haul	Hauling	each	80	1	7.45	$ 441.04	$ 3,284.36	$ 262,748.52	80	$ 3,284.36		
Setup Blocks	Blocking Crew	each	80	3	2.00	$ 281.84	$ 563.68	$ 45,094.77	80	$ 563.68		
Assemble Tower	Lattice Assembly	each	80	4	30.30	$ 1,183.92	$ 35,877.78	$ 2,870,222.09	80	$ 35,877.78		
Install Guy Strand	Guy Install	each	80	39	2.00	$ 1,258.65	$ 2,517.30	$ 201,383.96	80	$ 2,517.30		
Helicopter Set	HL Helicopter	each	80	27	0.00	$ 21,899.72	$ -	$ -	80	$ -		
Crane Set	Y- Tower Erection	each	80	40	2.50	$ 1,482.09	$ 3,705.24	$ 296,418.82	80	$ 3,705.24		
Plumb Tower	Tower Plumb	each	80	41	2.00	$ 913.00	$ 1,826.00	$ 146,080.24	80	$ 1,826.00		
haul Insulators and Travellers	Haul Travellers&Glass	each	80	7	2.00	$ 636.64	$ 1,273.27	$ 101,861.98	80	$ 1,273.27		
Hang Travellers	Hang Travellers	each	80	8	1.50	$ 1,444.07	$ 2,166.10	$ 173,288.03	80	$ 2,166.10		
Tie -in	Tie -in	each	80	12	2.00	$ 676.30	$ 1,352.60	$ 108,208.28	80	$ 1,352.60		
		each	80			$ -	$ -	$ -	80	$ -		
Total Cost =	$ 2.779	per pound					$ 53,916.58	$ 4,313,326.30		$ 53,916.58		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)	Units		Crew Cost							Total Unit Cost Manhours and Materials	
	Description	Total	Crew No.	Hours per unit	Hourly Rate	Unit Cost	Subtotal	Units	Unit Cost	Materials		Total Materials
V-H16	**Assembly and Erection of Suspension Tower Type "A2"**		**Tower Setting Ratio**	**0.00 Helicopter**			**100% Crane**					
V::D14	**S1-D14 Assembly and Erection of Suspension Tower Type "A2 + 0" as per dwg. Total structure count:**		**0**	**EA**			**$ -**		**$ 66,367.13**	**$ -**	**$ 66,367.13**	**$ -**
	S1-D14 Assembly and Erection of Suspension Tower Type "A2 + 0" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 22259	Total Tower Height(ft) = 107	Section Weight (lb) = 20779									
	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	each	0	1	12.75	$ 441.04	$ 5,624.38	$ -	0	$ -		
	Setup Blocks	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	each	0	4	35.62	$ 1,183.92	$ 42,168.36	$ -	0	$ -		
	Install Guy Strand	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	each	0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -		
	Plumb Tower	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -		
	Tie -in	each	0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.947	per pound					$ 66,367.13	$ -		$ -		
V::D15	**S1-D15 Assembly and Erection of Suspension Tower Type "A2 + 1.5" as per Total structure count:**		**0**	**EA**				**$ -**		**$ 68,169.20**	**$ -**	**$ 68,169.20**	**$ -**
	S1-D15 Assembly and Erection of Suspension Tower Type "A2 + 1.5" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 23188	Total Tower Height(ft) = 112	Section Weight (lb) = 21592									
	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	each	0	1	13.10	$ 441.04	$ 5,775.51	$ -	0	$ -		
	Setup Blocks	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	each	0	4	37.01	$ 1,183.92	$ 43,819.30	$ -	0	$ -		
	Install Guy Strand	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	each	0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -		
	Plumb Tower	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -		
	Tie -in	each	0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.920	per pound					$ 68,169.20	$ -		$ -		
V::D16	**S1-D16 Assembly and Erection of Suspension Tower Type "A2 + 3" as per dwg. Total structure count:**		**0**	**EA**				**$ -**		**$ 69,473.14**	**$ -**	**$ 69,473.14**	**$ -**
	S1-D16 Assembly and Erection of Suspension Tower Type "A2 + 3" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 23893	Total Tower Height(ft) = 116	Section Weight (lb) = 22181									
	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	each	0	1	13.34	$ 441.04	$ 5,884.87	$ -	0	$ -		
	Setup Blocks	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	each	0	4	38.02	$ 1,183.92	$ 45,013.88	$ -	0	$ -		
	Install Guy Strand	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	each	0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -		
	Plumb Tower	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -		
	Tie -in	each	0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.901	per pound					$ 69,473.14	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	 Hourly Rate	 Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D17	**S1-D17 Assembly and Erection of Suspension Tower Type "A2 + 4.5" as per**	**Total structure count:**	**0**	**EA**			**$ -**		**$ 71,280.10**	**$ -**	**$ 71,280.10**	**$ -**
	S1-D17 Assembly and Erection of Suspension Tower Type "A2 + 4.5" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 24825	Total Tower Height(ft) = 121		Section Weight (lb) = 22997								
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	13.69	$ 441.04	$ 6,036.41	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	39.42	$ 1,183.92	$ 46,669.30	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
	Total Cost = $ 2.877	per pound						$ 71,280.10	$ -		$ -	
V::D18	**S1-D18 Assembly and Erection of Suspension Tower Type "A2 + 6" as per dwg.**	**Total structure count:**	**0**	**EA**			**$ -**		**$ 71,529.16**	**$ -**	**$ 71,529.16**	**$ -**
	S1-D18 Assembly and Erection of Suspension Tower Type "A2 + 6" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 25053	Total Tower Height(ft) = 126		Section Weight (lb) = 23109								
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	13.73	$ 441.04	$ 6,057.30	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	39.61	$ 1,183.92	$ 46,897.47	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
	Total Cost = $ 2.873	per pound						$ 71,529.16	$ -		$ -	
V::D19	**S1-D19 Assembly and Erection of Suspension Tower Type "A2 + 7.5" as per**	**Total structure count:**	**0**	**EA**			**$ -**		**$ 73,389.84**	**$ -**	**$ 73,389.84**	**$ -**
	S1-D19 Assembly and Erection of Suspension Tower Type "A2 + 7.5" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 26009	Total Tower Height(ft) = 131		Section Weight (lb) = 23949								
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	14.09	$ 441.04	$ 6,213.35	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	41.05	$ 1,183.92	$ 48,602.11	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
	Total Cost = $ 2.850	per pound						$ 73,389.84	$ -		$ -	

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D20	**S1-D20 Assembly and Erection of Suspension Tower Type "A2 + 9" as per dwg. Total structure count:**		**0**	**EA**			**$ -**		**$ 74,693.78**	**$ -**	**$ 74,693.78**	**$ -**
	S1-D20 Assembly and Erection of Suspension Tower Type "A2 + 9" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 26713	Total Tower Height(ft) = 136		Section Weight (lb) = 24538								
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	14.34	$ 441.04	$ 6,322.70	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	42.06	$ 1,183.92	$ 49,796.69	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
	Total Cost =	$ 2.835	per pound					$ 74,693.78	$ -		$ -	
V::D21	**S1-D21 Assembly and Erection of Suspension Tower Type "A2 + 10.5" as per Total structure count:**		**0**	**EA**			**$ -**		**$ 76,500.74**	**$ -**	**$ 76,500.74**	**$ -**
	S1-D21 Assembly and Erection of Suspension Tower Type "A2 + 10.5" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 27645	Total Tower Height(ft) = 141		Section Weight (lb) = 25353								
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	14.68	$ 441.04	$ 6,474.24	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	43.46	$ 1,183.92	$ 51,452.10	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
	Total Cost =	$ 2.815	per pound					$ 76,500.74	$ -		$ -	
V::D22	**S1-D22 Assembly and Erection of Suspension Tower Type "A2 + 12" as per Total structure count:**		**0**	**EA**			**$ -**		**$ 76,696.08**	**$ -**	**$ 76,696.08**	**$ -**
	S1-D22 Assembly and Erection of Suspension Tower Type "A2 + 12" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 27849	Total Tower Height(ft) = 146		Section Weight (lb) = 25441								
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	14.72	$ 441.04	$ 6,490.63	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	43.61	$ 1,183.92	$ 51,631.07	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
	Total Cost =	$ 2.813	per pound					$ 76,696.08	$ -		$ -	

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D23	**S1-D23 Assembly and Erection of Suspension Tower Type "A2 + 13.5" as per** **Total structure count:**	0	**EA**				$ -		$ 78,556.76	$ -	$ 78,556.76	$ -
	S1-D23 Assembly and Erection of Suspension Tower Type "A2 + 13.5" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 28805	Total Tower Height(ft) = 151	Section Weight (lb) = 26281									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	15.07	$ 441.04	$ 6,646.67	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	45.05	$ 1,183.92	$ 53,335.70	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
	Total Cost = $ 2.794	per pound						$ 78,556.76	$ -		$ -	
V::D24	**S1-D24 Assembly and Erection of Suspension Tower Type "A2 + 15" as per** **Total structure count:**	0	**EA**				$ -		$ 81,899.53	$ -	$ 81,899.53	$ -
	S1-D24 Assembly and Erection of Suspension Tower Type "A2 + 15" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 29761	Total Tower Height(ft) = 156	Section Weight (lb) = 27121									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	15.42	$ 441.04	$ 6,802.72	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	46.49	$ 1,183.92	$ 55,040.33	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	5.00	$ 1,482.09	$ 7,410.47	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
	Total Cost = $ 2.831	per pound						$ 81,899.53	$ -		$ -	
V::D25	**S1-D25 Assembly and Erection of Suspension Tower Type "A2 + 16.5" as per** **Total structure count:**	0	**EA**				$ -		$ 83,203.47	$ -	$ 83,203.47	$ -
	S1-D25 Assembly and Erection of Suspension Tower Type "A2 + 16.5" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 30466	Total Tower Height(ft) = 161	Section Weight (lb) = 27710									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	15.67	$ 441.04	$ 6,912.08	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	47.50	$ 1,183.92	$ 56,234.91	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	5.00	$ 1,482.09	$ 7,410.47	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
	Total Cost = $ 2.818	per pound						$ 83,203.47	$ -		$ -	

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D26	**S1-D26 Assembly and Erection of Suspension Tower Type "A2 + 18" as per** **Total structure count:**	**0**	**EA**				**$ -**		**$ 84,507.41**	**$ -**	**$ 84,507.41**	**$ -**
	S1-D26 Assembly and Erection of Suspension Tower Type "A2 + 18" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 31170 Total Tower Height(ft) = 166 Section Weight (lb) = 28299											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	15.92	$ 441.04	$ 7,021.43	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	48.51	$ 1,183.92	$ 57,429.50	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	5.00	$ 1,482.09	$ 7,410.47	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.805	per pound				$ 84,507.41	$ -		$ -			
V::D27	**S1-D27 Assembly and Erection of Suspension Tower Type "A2 + 19.5" as per** **Total structure count:**	**0**	**EA**				**$ -**		**$ 85,205.78**	**$ -**	**$ 85,205.78**	**$ -**
	S1-D27 Assembly and Erection of Suspension Tower Type "A2 + 19.5" as per dwg. 505573-4622-43DD-0044											
	Total Tower Weight With Guys and Ext. (lb) = 32326 Total Tower Height(ft) = 171 Section Weight (lb) = 28614											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	16.05	$ 441.04	$ 7,080.00	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	49.05	$ 1,183.92	$ 58,069.29	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	5.00	$ 1,482.09	$ 7,410.47	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.50	$ 1,444.07	$ 2,166.10	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	2.50	$ 676.30	$ 1,690.75	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.798	per pound				$ 85,205.78	$ -		$ -			
V-H17	**Assembly and Erection of Suspension Tower Type "A3"**		**Tower Setting Ratio**		**0.00 Helicopter**				**100% Crane**			
V::D28	**S1-D28 Assembly and Erection of Suspension Tower Type "A3 + 0" as per dwg.** **Total structure count:**	**110**	**EA**				**$ 5,508,287.84**		**$ 50,075.34**	**$ -**	**$ 50,075.34**	**$ -**
	S1-D28 Assembly and Erection of Suspension Tower Type "A3 + 0" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 16808 Total Tower Height(ft) = 147 Section Weight (lb) = 15745											
	Site Preparation (Site Preparation)	each 110	2	2.00	$ 675.12	$ 1,350.24	$ 148,526.94	110	$ 1,350.24			
	Haul (Hauling)	each 110	1	6.63	$ 441.04	$ 2,925.16	$ 321,767.82	110	$ 2,925.16			
	Setup Blocks (Blocking Crew)	each 110	3	2.00	$ 281.84	$ 563.68	$ 62,005.30	110	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 110	4	26.99	$ 1,183.92	$ 31,953.99	$ 3,514,939.33	110	$ 31,953.99			
	Install Guy Strand (Guy Install)	each 110	39	2.00	$ 1,258.65	$ 2,517.30	$ 276,902.95	110	$ 2,517.30			
	Helicopter Set (HL Helicopter)	each 110	27	0.00	$ 21,899.72	$ -	$ -	110	$ -			
	Crane Set (Y- Tower Erection)	each 110	40	3.50	$ 1,482.09	$ 5,187.33	$ 570,606.24	110	$ 5,187.33			
	Plumb Tower (Tower Plumb)	each 110	41	2.00	$ 913.00	$ 1,826.00	$ 200,860.34	110	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 110	7	1.50	$ 636.64	$ 954.96	$ 105,045.17	110	$ 954.96			
	Hang Travellers (Hang Travellers)	each 110	8	1.00	$ 1,444.07	$ 1,444.07	$ 158,847.36	110	$ 1,444.07			
	Tie -in (Tie -in)	each 110	12	2.00	$ 676.30	$ 1,352.60	$ 148,786.39	110	$ 1,352.60			
		each 110			$ -	$ -	$ -	110	$ -			
	Total Cost = $ 2.942	per pound				$ 50,075.34	$ 5,508,287.84		$ 50,075.34			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D29	**S1-D29 Assembly and Erection of Suspension Tower Type "A3 + 1.5" as per**		**Total structure count:**	**20**	**EA**			**$ 1,023,971.75**		**$ 51,198.59**	**$ -**	**$ 51,198.59**	**$ -**
	S1-D29 Assembly and Erection of Suspension Tower Type "A3 + 1.5" as per dwg. 505573-4622-43DD-0050												
	Total Tower Weight With Guys and Ext. (lb) = 17366	Total Tower Height(ft) = 152	Section Weight (lb) = 16253										
	Site Preparation	Site Preparation	each	20	2	2.00	$ 675.12	$ 1,350.24	$ 27,004.90	20	$ 1,350.24		
	Haul	Hauling	each	20	1	6.85	$ 441.04	$ 3,019.36	$ 60,387.27	20	$ 3,019.36		
	Setup Blocks	Blocking Crew	each	20	3	2.00	$ 281.84	$ 563.68	$ 11,273.69	20	$ 563.68		
	Assemble Tower	Lattice Assembly	each	20	4	27.86	$ 1,183.92	$ 32,983.04	$ 659,660.72	20	$ 32,983.04		
	Install Guy Strand	Guy Install	each	20	39	2.00	$ 1,258.65	$ 2,517.30	$ 50,345.99	20	$ 2,517.30		
	Helicopter Set	HL Helicopter	each	20	27	0.00	$ 21,899.72	$ -	$ -	20	$ -		
	Crane Set	Y- Tower Erection	each	20	40	3.50	$ 1,482.09	$ 5,187.33	$ 103,746.59	20	$ 5,187.33		
	Plumb Tower	Tower Plumb	each	20	41	2.00	$ 913.00	$ 1,826.00	$ 36,520.06	20	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	20	7	1.50	$ 636.64	$ 954.96	$ 19,099.12	20	$ 954.96		
	Hang Travellers	Hang Travellers	each	20	8	1.00	$ 1,444.07	$ 1,444.07	$ 28,881.34	20	$ 1,444.07		
	Tie -in	Tie -in	each	20	12	2.00	$ 676.30	$ 1,352.60	$ 27,052.07	20	$ 1,352.60		
			each	20			$ -	$ -	$ -	20	$ -		
	Total Cost =	$ 2.919	per pound					$ 51,198.59	$ 1,023,971.75		$ 51,198.59		
V::D30	**S1-D30 Assembly and Erection of Suspension Tower Type "A3 + 3" as per dwg. Total structure count:**			**29**	**EA**			**$ 1,504,303.48**		**$ 51,872.53**	**$ -**	**$ 51,872.53**	**$ -**
	S1-D30 Assembly and Erection of Suspension Tower Type "A3 + 3" as per dwg. 505573-4622-43DD-0050												
	Total Tower Weight With Guys and Ext. (lb) = 17720	Total Tower Height(ft) = 157	Section Weight (lb) = 16557										
	Site Preparation	Site Preparation	each	29	2	2.00	$ 675.12	$ 1,350.24	$ 39,157.10	29	$ 1,350.24		
	Haul	Hauling	each	29	1	6.97	$ 441.04	$ 3,075.88	$ 89,200.65	29	$ 3,075.88		
	Setup Blocks	Blocking Crew	each	29	3	2.00	$ 281.84	$ 563.68	$ 16,346.85	29	$ 563.68		
	Assemble Tower	Lattice Assembly	each	29	4	28.38	$ 1,183.92	$ 33,600.46	$ 974,413.38	29	$ 33,600.46		
	Install Guy Strand	Guy Install	each	29	39	2.00	$ 1,258.65	$ 2,517.30	$ 73,001.69	29	$ 2,517.30		
	Helicopter Set	HL Helicopter	each	29	27	0.00	$ 21,899.72	$ -	$ -	29	$ -		
	Crane Set	Y- Tower Erection	each	29	40	3.50	$ 1,482.09	$ 5,187.33	$ 150,432.55	29	$ 5,187.33		
	Plumb Tower	Tower Plumb	each	29	41	2.00	$ 913.00	$ 1,826.00	$ 52,954.09	29	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	29	7	1.50	$ 636.64	$ 954.96	$ 27,693.73	29	$ 954.96		
	Hang Travellers	Hang Travellers	each	29	8	1.00	$ 1,444.07	$ 1,444.07	$ 41,877.94	29	$ 1,444.07		
	Tie -in	Tie -in	each	29	12	2.00	$ 676.30	$ 1,352.60	$ 39,225.50	29	$ 1,352.60		
			each	29			$ -	$ -	$ -	29	$ -		
	Total Cost =	$ 2.906	per pound					$ 51,872.53	$ 1,504,303.48		$ 51,872.53		
V::D31	**S1-D31 Assembly and Erection of Suspension Tower Type "A3 + 4.5" as per**		**Total structure count:**	**35**	**EA**			**$ 1,854,852.21**		**$ 52,995.78**	**$ -**	**$ 52,995.78**	**$ -**
	S1-D31 Assembly and Erection of Suspension Tower Type "A3 + 4.5" as per dwg. 505573-4622-43DD-0050												
	Total Tower Weight With Guys and Ext. (lb) = 18278	Total Tower Height(ft) = 162	Section Weight (lb) = 17064										
	Site Preparation	Site Preparation	each	35	2	2.00	$ 675.12	$ 1,350.24	$ 47,258.57	35	$ 1,350.24		
	Haul	Hauling	each	35	1	7.19	$ 441.04	$ 3,170.09	$ 110,953.01	35	$ 3,170.09		
	Setup Blocks	Blocking Crew	each	35	3	2.00	$ 281.84	$ 563.68	$ 19,728.96	35	$ 563.68		
	Assemble Tower	Lattice Assembly	each	35	4	29.25	$ 1,183.92	$ 34,629.50	$ 1,212,032.62	35	$ 34,629.50		
	Install Guy Strand	Guy Install	each	35	39	2.00	$ 1,258.65	$ 2,517.30	$ 88,105.48	35	$ 2,517.30		
	Helicopter Set	HL Helicopter	each	35	27	0.00	$ 21,899.72	$ -	$ -	35	$ -		
	Crane Set	Y- Tower Erection	each	35	40	3.50	$ 1,482.09	$ 5,187.33	$ 181,556.53	35	$ 5,187.33		
	Plumb Tower	Tower Plumb	each	35	41	2.00	$ 913.00	$ 1,826.00	$ 63,910.11	35	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	35	7	1.50	$ 636.64	$ 954.96	$ 33,423.46	35	$ 954.96		
	Hang Travellers	Hang Travellers	each	35	8	1.00	$ 1,444.07	$ 1,444.07	$ 50,542.34	35	$ 1,444.07		
	Tie -in	Tie -in	each	35	12	2.00	$ 676.30	$ 1,352.60	$ 47,341.12	35	$ 1,352.60		
			each	35			$ -	$ -	$ -	35	$ -		
	Total Cost =	$ 2.886	per pound					$ 52,995.78	$ 1,854,852.21		$ 52,995.78		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	 Hourly Rate	 Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D32	**S1-D32 Assembly and Erection of Suspension Tower Type "A3 + 6" as per dwg. Total structure count:**		**44**	**EA**			**$ 2,341,054.10**		**$ 53,205.78**	**$ -**	**$ 53,205.78**	**$ -**
	S1-D32 Assembly and Erection of Suspension Tower Type "A3 + 6" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 18423	Total Tower Height(ft) = 167		Section Weight (lb) = 17159								
	Site Preparation	Site Preparation each	44	2	2.00	$ 675.12	$ 1,350.24	$ 59,410.78	44	$ 1,350.24		
	Haul	Hauling each	44	1	7.23	$ 441.04	$ 3,187.70	$ 140,258.69	44	$ 3,187.70		
	Setup Blocks	Blocking Crew each	44	3	2.00	$ 281.84	$ 563.68	$ 24,802.12	44	$ 563.68		
	Assemble Tower	Lattice Assembly each	44	4	29.41	$ 1,183.92	$ 34,821.89	$ 1,532,163.14	44	$ 34,821.89		
	Install Guy Strand	Guy Install each	44	39	2.00	$ 1,258.65	$ 2,517.30	$ 110,761.18	44	$ 2,517.30		
	Helicopter Set	HL Helicopter each	44	27	0.00	$ 21,899.72	$ -	$ -	44	$ -		
	Crane Set	Y- Tower Erection each	44	40	3.50	$ 1,482.09	$ 5,187.33	$ 228,242.50	44	$ 5,187.33		
	Plumb Tower	Tower Plumb each	44	41	2.00	$ 913.00	$ 1,826.00	$ 80,344.13	44	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass each	44	7	1.50	$ 636.64	$ 954.96	$ 42,018.07	44	$ 954.96		
	Hang Travellers	Hang Travellers each	44	8	1.00	$ 1,444.07	$ 1,444.07	$ 63,538.95	44	$ 1,444.07		
	Tie -in	Tie -in each	44	12	2.00	$ 676.30	$ 1,352.60	$ 59,514.55	44	$ 1,352.60		
		each	44			$ -	$ -	$ -	44	$ -		
	Total Cost = $ 2.882	per pound					$ 53,205.78	$ 2,341,054.10		$ 53,205.78		
V::D33	**S1-D33 Assembly and Erection of Suspension Tower Type "A3 + 7.5" as per Total structure count:**		**45**	**EA**			**$ 2,435,795.47**		**$ 54,128.79**	**$ -**	**$ 54,128.79**	**$ -**
	S1-D33 Assembly and Erection of Suspension Tower Type "A3 + 7.5" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 18890	Total Tower Height(ft) = 172		Section Weight (lb) = 17575								
	Site Preparation	Site Preparation each	45	2	2.00	$ 675.12	$ 1,350.24	$ 60,761.02	45	$ 1,350.24		
	Haul	Hauling each	45	1	7.40	$ 441.04	$ 3,265.11	$ 146,929.80	45	$ 3,265.11		
	Setup Blocks	Blocking Crew each	45	3	2.00	$ 281.84	$ 563.68	$ 25,365.81	45	$ 563.68		
	Assemble Tower	Lattice Assembly each	45	4	30.13	$ 1,183.92	$ 35,667.49	$ 1,605,037.21	45	$ 35,667.49		
	Install Guy Strand	Guy Install each	45	39	2.00	$ 1,258.65	$ 2,517.30	$ 113,278.48	45	$ 2,517.30		
	Helicopter Set	HL Helicopter each	45	27	0.00	$ 21,899.72	$ -	$ -	45	$ -		
	Crane Set	Y- Tower Erection each	45	40	3.50	$ 1,482.09	$ 5,187.33	$ 233,429.82	45	$ 5,187.33		
	Plumb Tower	Tower Plumb each	45	41	2.00	$ 913.00	$ 1,826.00	$ 82,170.14	45	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass each	45	7	1.50	$ 636.64	$ 954.96	$ 42,973.02	45	$ 954.96		
	Hang Travellers	Hang Travellers each	45	8	1.00	$ 1,444.07	$ 1,444.07	$ 64,983.01	45	$ 1,444.07		
	Tie -in	Tie -in each	45	12	2.00	$ 676.30	$ 1,352.60	$ 60,867.16	45	$ 1,352.60		
		each	45			$ -	$ -	$ -	45	$ -		
	Total Cost = $ 2.866	per pound					$ 54,128.79	$ 2,435,795.47		$ 54,128.79		
V::D34	**S1-D34 Assembly and Erection of Suspension Tower Type "A3 + 9" as per dwg. Total structure count:**		**30**	**EA**			**$ 1,640,712.30**		**$ 54,690.41**	**$ -**	**$ 54,690.41**	**$ -**
	S1-D34 Assembly and Erection of Suspension Tower Type "A3 + 9" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 19194	Total Tower Height(ft) = 177		Section Weight (lb) = 17829								
	Site Preparation	Site Preparation each	30	2	2.00	$ 675.12	$ 1,350.24	$ 40,507.35	30	$ 1,350.24		
	Haul	Hauling each	30	1	7.51	$ 441.04	$ 3,312.21	$ 99,366.22	30	$ 3,312.21		
	Setup Blocks	Blocking Crew each	30	3	2.00	$ 281.84	$ 563.68	$ 16,910.54	30	$ 563.68		
	Assemble Tower	Lattice Assembly each	30	4	30.56	$ 1,183.92	$ 36,182.01	$ 1,085,460.44	30	$ 36,182.01		
	Install Guy Strand	Guy Install each	30	39	2.00	$ 1,258.65	$ 2,517.30	$ 75,518.99	30	$ 2,517.30		
	Helicopter Set	HL Helicopter each	30	27	0.00	$ 21,899.72	$ -	$ -	30	$ -		
	Crane Set	Y- Tower Erection each	30	40	3.50	$ 1,482.09	$ 5,187.33	$ 155,619.88	30	$ 5,187.33		
	Plumb Tower	Tower Plumb each	30	41	2.00	$ 913.00	$ 1,826.00	$ 54,780.09	30	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass each	30	7	1.50	$ 636.64	$ 954.96	$ 28,648.68	30	$ 954.96		
	Hang Travellers	Hang Travellers each	30	8	1.00	$ 1,444.07	$ 1,444.07	$ 43,322.01	30	$ 1,444.07		
	Tie -in	Tie -in each	30	12	2.00	$ 676.30	$ 1,352.60	$ 40,578.11	30	$ 1,352.60		
		each	30			$ -	$ -	$ -	30	$ -		
	Total Cost = $ 2.857	per pound					$ 54,690.41	$ 1,640,712.30		$ 54,690.41		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D35	**S1-D35 Assembly and Erection of Suspension Tower Type "A3 + 10.5" as per** S1-D35 Assembly and Erection of Suspension Tower Type "A3 + 10.5" as per dwg. 505573-4622-43DD-0050		**Total structure count:**	**32**	**EA**			**$ 1,789,475.02**		**$ 55,921.09**	**$ -**	**$ 55,921.09**	**$ -**
	Total Tower Weight With Guys and Ext. (lb) = 19800	Total Tower Height(ft) = 182	Section Weight (lb) = 18384										
Site Preparation	Site Preparation	each	32	2	2.00	$ 675.12	$ 1,350.24	$ 43,207.84	32	$ 1,350.24			
Haul	Hauling	each	32	1	7.74	$ 441.04	$ 3,415.42	$ 109,293.42	32	$ 3,415.42			
Setup Blocks	Blocking Crew	each	32	3	2.00	$ 281.84	$ 563.68	$ 18,037.91	32	$ 563.68			
Assemble Tower	Lattice Assembly	each	32	4	31.51	$ 1,183.92	$ 37,309.49	$ 1,193,903.58	32	$ 37,309.49			
Install Guy Strand	Guy Install	each	32	39	2.00	$ 1,258.65	$ 2,517.30	$ 80,553.59	32	$ 2,517.30			
Helicopter Set	HL Helicopter	each	32	27	0.00	$ 21,899.72	$ -	$ -	32	$ -			
Crane Set	Y- Tower Erection	each	32	40	3.50	$ 1,482.09	$ 5,187.33	$ 165,994.54	32	$ 5,187.33			
Plumb Tower	Tower Plumb	each	32	41	2.00	$ 913.00	$ 1,826.00	$ 58,432.10	32	$ 1,826.00			
haul Insulators and Travellers	Haul Travellers&Glass	each	32	7	1.50	$ 636.64	$ 954.96	$ 30,558.59	32	$ 954.96			
Hang Travellers	Hang Travellers	each	32	8	1.00	$ 1,444.07	$ 1,444.07	$ 46,210.14	32	$ 1,444.07			
Tie -in	Tie -in	each	32	12	2.00	$ 676.30	$ 1,352.60	$ 43,283.31	32	$ 1,352.60			
		each	32			$ -	$ -	$ -	32	$ -			
	Total Cost = $ 2.838	per pound					$ 55,921.09	$ 1,789,475.02		$ 55,921.09			
V::D36	**S1-D36 Assembly and Erection of Suspension Tower Type "A3 + 12" as per** S1-D36 Assembly and Erection of Suspension Tower Type "A3 + 12" as per dwg. 505573-4622-43DD-0050		**Total structure count:**	**24**	**EA**			**$ 1,351,951.74**		**$ 56,331.32**	**$ -**	**$ 56,331.32**	**$ -**
	Total Tower Weight With Guys and Ext. (lb) = 20036	Total Tower Height(ft) = 187	Section Weight (lb) = 18570										
Site Preparation	Site Preparation	each	24	2	2.00	$ 675.12	$ 1,350.24	$ 32,405.88	24	$ 1,350.24			
Haul	Hauling	each	24	1	7.82	$ 441.04	$ 3,449.82	$ 82,795.76	24	$ 3,449.82			
Setup Blocks	Blocking Crew	each	24	3	2.00	$ 281.84	$ 563.68	$ 13,528.43	24	$ 563.68			
Assemble Tower	Lattice Assembly	each	24	4	31.83	$ 1,183.92	$ 37,685.31	$ 904,447.46	24	$ 37,685.31			
Install Guy Strand	Guy Install	each	24	39	2.00	$ 1,258.65	$ 2,517.30	$ 60,415.19	24	$ 2,517.30			
Helicopter Set	HL Helicopter	each	24	27	0.00	$ 21,899.72	$ -	$ -	24	$ -			
Crane Set	Y- Tower Erection	each	24	40	3.50	$ 1,482.09	$ 5,187.33	$ 124,495.91	24	$ 5,187.33			
Plumb Tower	Tower Plumb	each	24	41	2.00	$ 913.00	$ 1,826.00	$ 43,824.07	24	$ 1,826.00			
haul Insulators and Travellers	Haul Travellers&Glass	each	24	7	1.50	$ 636.64	$ 954.96	$ 22,918.95	24	$ 954.96			
Hang Travellers	Hang Travellers	each	24	8	1.00	$ 1,444.07	$ 1,444.07	$ 34,657.61	24	$ 1,444.07			
Tie -in	Tie -in	each	24	12	2.00	$ 676.30	$ 1,352.60	$ 32,462.48	24	$ 1,352.60			
		each	24			$ -	$ -	$ -	24	$ -			
	Total Cost = $ 2.831	per pound					$ 56,331.32	$ 1,351,951.74		$ 56,331.32			
V::D37	**S1-D37 Assembly and Erection of Suspension Tower Type "A3 + 13.5" as per** S1-D37 Assembly and Erection of Suspension Tower Type "A3 + 13.5" as per dwg. 505573-4622-43DD-0050		**Total structure count:**	**22**	**EA**			**$ 1,259,595.39**		**$ 57,254.34**	**$ -**	**$ 57,254.34**	**$ -**
	Total Tower Weight With Guys and Ext. (lb) = 20503	Total Tower Height(ft) = 192	Section Weight (lb) = 18986										
Site Preparation	Site Preparation	each	22	2	2.00	$ 675.12	$ 1,350.24	$ 29,705.39	22	$ 1,350.24			
Haul	Hauling	each	22	1	8.00	$ 441.04	$ 3,527.23	$ 77,599.12	22	$ 3,527.23			
Setup Blocks	Blocking Crew	each	22	3	2.00	$ 281.84	$ 563.68	$ 12,401.06	22	$ 563.68			
Assemble Tower	Lattice Assembly	each	22	4	32.55	$ 1,183.92	$ 38,530.92	$ 847,680.13	22	$ 38,530.92			
Install Guy Strand	Guy Install	each	22	39	2.00	$ 1,258.65	$ 2,517.30	$ 55,380.59	22	$ 2,517.30			
Helicopter Set	HL Helicopter	each	22	27	0.00	$ 21,899.72	$ -	$ -	22	$ -			
Crane Set	Y- Tower Erection	each	22	40	3.50	$ 1,482.09	$ 5,187.33	$ 114,121.25	22	$ 5,187.33			
Plumb Tower	Tower Plumb	each	22	41	2.00	$ 913.00	$ 1,826.00	$ 40,172.07	22	$ 1,826.00			
haul Insulators and Travellers	Haul Travellers&Glass	each	22	7	1.50	$ 636.64	$ 954.96	$ 21,009.03	22	$ 954.96			
Hang Travellers	Hang Travellers	each	22	8	1.00	$ 1,444.07	$ 1,444.07	$ 31,769.47	22	$ 1,444.07			
Tie -in	Tie -in	each	22	12	2.00	$ 676.30	$ 1,352.60	$ 29,757.28	22	$ 1,352.60			
		each	22			$ -	$ -	$ -	22	$ -			
	Total Cost = $ 2.818	per pound					$ 57,254.34	$ 1,259,595.39		$ 57,254.34			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	 Hourly Rate	 Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D38	**S1-D38 Assembly and Erection of Suspension Tower Type "A3 + 15" as per**	**Total structure count:**	**27**	**EA**			**$ 1,570,788.42**		**$ 58,177.35**	**$ -**	**$ 58,177.35**	**$ -**
	S1-D38 Assembly and Erection of Suspension Tower Type "A3 + 15" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 20970	Total Tower Height(ft) = 197	Section Weight (lb) = 19403									
	Site Preparation	Site Preparation	each 27	2	2.00	$ 675.12	$ 1,350.24	$ 36,456.61	27	$ 1,350.24		
	Haul	Hauling	each 27	1	8.17	$ 441.04	$ 3,604.64	$ 97,325.32	27	$ 3,604.64		
	Setup Blocks	Blocking Crew	each 27	3	2.00	$ 281.84	$ 563.68	$ 15,219.48	27	$ 563.68		
	Assemble Tower	Lattice Assembly	each 27	4	33.26	$ 1,183.92	$ 39,376.52	$ 1,063,166.02	27	$ 39,376.52		
	Install Guy Strand	Guy Install	each 27	39	2.00	$ 1,258.65	$ 2,517.30	$ 67,967.09	27	$ 2,517.30		
	Helicopter Set	HL Helicopter	each 27	27	0.00	$ 21,899.72	$ -	$ -	27	$ -		
	Crane Set	Y- Tower Erection	each 27	40	3.50	$ 1,482.09	$ 5,187.33	$ 140,057.89	27	$ 5,187.33		
	Plumb Tower	Tower Plumb	each 27	41	2.00	$ 913.00	$ 1,826.00	$ 49,302.08	27	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each 27	7	1.50	$ 636.64	$ 954.96	$ 25,783.81	27	$ 954.96		
	Hang Travellers	Hang Travellers	each 27	8	1.00	$ 1,444.07	$ 1,444.07	$ 38,989.81	27	$ 1,444.07		
	Tie -in	Tie -in	each 27	12	2.00	$ 676.30	$ 1,352.60	$ 36,520.29	27	$ 1,352.60		
			each 27			$ -	$ -	$ -	27	$ -		
	Total Cost = $ 2.805		per pound				$ 58,177.35	$ 1,570,788.42		$ 58,177.35		
V::D39	**S1-D39 Assembly and Erection of Suspension Tower Type "A3 + 16.5" as per**	**Total structure count:**	**13**	**EA**			**$ 763,670.11**		**$ 58,743.85**	**$ -**	**$ 58,743.85**	**$ -**
	S1-D39 Assembly and Erection of Suspension Tower Type "A3 + 16.5" as per dwg. 505573-4622-43DD-0050											
	Total Tower Weight With Guys and Ext. (lb) = 21276	Total Tower Height(ft) = 202	Section Weight (lb) = 19659									
	Site Preparation	Site Preparation	each 13	2	2.00	$ 675.12	$ 1,350.24	$ 17,553.18	13	$ 1,350.24		
	Haul	Hauling	each 13	1	8.28	$ 441.04	$ 3,652.15	$ 47,477.98	13	$ 3,652.15		
	Setup Blocks	Blocking Crew	each 13	3	2.00	$ 281.84	$ 563.68	$ 7,327.90	13	$ 563.68		
	Assemble Tower	Lattice Assembly	each 13	4	33.70	$ 1,183.92	$ 39,895.51	$ 518,641.69	13	$ 39,895.51		
	Install Guy Strand	Guy Install	each 13	39	2.00	$ 1,258.65	$ 2,517.30	$ 32,724.89	13	$ 2,517.30		
	Helicopter Set	HL Helicopter	each 13	27	0.00	$ 21,899.72	$ -	$ -	13	$ -		
	Crane Set	Y- Tower Erection	each 13	40	3.50	$ 1,482.09	$ 5,187.33	$ 67,435.28	13	$ 5,187.33		
	Plumb Tower	Tower Plumb	each 13	41	2.00	$ 913.00	$ 1,826.00	$ 23,738.04	13	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each 13	7	1.50	$ 636.64	$ 954.96	$ 12,414.43	13	$ 954.96		
	Hang Travellers	Hang Travellers	each 13	8	1.00	$ 1,444.07	$ 1,444.07	$ 18,772.87	13	$ 1,444.07		
	Tie -in	Tie -in	each 13	12	2.00	$ 676.30	$ 1,352.60	$ 17,583.85	13	$ 1,352.60		
			each 13			$ -	$ -	$ -	13	$ -		
	Total Cost = $ 2.797		per pound				$ 58,743.85	$ 763,670.11		$ 58,743.85		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H18	**Assembly and Erection of Suspension Tower Type "A4"**		**Tower Setting Ratio**	**0.00 Helicopter**			**100% Crane**					
V::D40	**S1-D40 Assembly and Erection of Suspension Tower Type "A4 + 0" as per dwg. Total structure count:**		**0**	**EA**			**$ -**		**$ 63,872.13**	**$ -**	**$ 63,872.13**	**$ -**
	S1-D40 Assembly and Erection of Suspension Tower Type "A4 + 0" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 21808	Total Tower Height(ft) = 107	Section Weight (lb) = 21118									
	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	each	0	1	8.90	$ 441.04	$ 3,923.29	$ -	0	$ -		
	Setup Blocks	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	each	0	4	36.20	$ 1,183.92	$ 42,857.37	$ -	0	$ -		
	Install Guy Strand	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -		
	Plumb Tower	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	each	0	7	2.50	$ 636.64	$ 1,591.59	$ -	0	$ -		
	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.817	per pound					$ 63,872.13	$ -		$ -		
V::D41	**S1-D41 Assembly and Erection of Suspension Tower Type "A4 + 1.5" as per Total structure count:**		**0**	**EA**			**$ -**		**$ 65,360.77**	**$ -**	**$ 65,360.77**	**$ -**
	S1-D41 Assembly and Erection of Suspension Tower Type "A4 + 1.5" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 22674	Total Tower Height(ft) = 112	Section Weight (lb) = 21934									
	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	each	0	1	9.24	$ 441.04	$ 4,074.83	$ -	0	$ -		
	Setup Blocks	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	each	0	4	37.60	$ 1,183.92	$ 44,512.78	$ -	0	$ -		
	Install Guy Strand	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -		
	Plumb Tower	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.794	per pound					$ 65,360.77	$ -		$ -		
V::D42	**S1-D42 Assembly and Erection of Suspension Tower Type "A4 + 3" as per dwg. Total structure count:**		**0**	**EA**			**$ -**		**$ 66,664.71**	**$ -**	**$ 66,664.71**	**$ -**
	S1-D42 Assembly and Erection of Suspension Tower Type "A4 + 3" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 23313	Total Tower Height(ft) = 116	Section Weight (lb) = 22523									
	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	each	0	1	9.49	$ 441.04	$ 4,184.19	$ -	0	$ -		
	Setup Blocks	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	each	0	4	38.61	$ 1,183.92	$ 45,707.37	$ -	0	$ -		
	Install Guy Strand	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -		
	Plumb Tower	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.779	per pound					$ 66,664.71	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D43	**S1-D43 Assembly and Erection of Suspension Tower Type "A4 + 4.5" as per**	**Total structure count:**	**0**	**EA**			**$ -**		**$ 68,466.78**	**$ -**	**$ 68,466.78**	**$ -**
	S1-D43 Assembly and Erection of Suspension Tower Type "A4 + 4.5" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 24177	Total Tower Height(ft) = 121	Section Weight (lb) = 23336									
	Site Preparation	Site Preparation	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	Hauling	each 0	1	9.83	$ 441.04	$ 4,335.32	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	Lattice Assembly	each 0	4	40.00	$ 1,183.92	$ 47,358.31	$ -	0	$ -		
	Install Guy Strand	Guy Install	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set	HL Helicopter	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	Y- Tower Erection	each 0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -		
	Plumb Tower	Tower Plumb	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	Haul Travellers&Glass	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers	Hang Travellers	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in	Tie -in	each 0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -		
			each 0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.760	per pound					$ 68,466.78	$ -		$ -		
V::D44	**S1-D44 Assembly and Erection of Suspension Tower Type "A4 + 6" as per dwg.**	**Total structure count:**	**0**	**EA**			**$ -**		**$ 68,720.73**	**$ -**	**$ 68,720.73**	**$ -**
	S1-D44 Assembly and Erection of Suspension Tower Type "A4 + 6" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 24342	Total Tower Height(ft) = 126	Section Weight (lb) = 23451									
	Site Preparation	Site Preparation	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	Hauling	each 0	1	9.88	$ 441.04	$ 4,356.62	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	Lattice Assembly	each 0	4	40.20	$ 1,183.92	$ 47,590.96	$ -	0	$ -		
	Install Guy Strand	Guy Install	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set	HL Helicopter	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	Y- Tower Erection	each 0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -		
	Plumb Tower	Tower Plumb	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	Haul Travellers&Glass	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers	Hang Travellers	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in	Tie -in	each 0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -		
			each 0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.757	per pound					$ 68,720.73	$ -		$ -		
V::D45	**S1-D45 Assembly and Erection of Suspension Tower Type "A4 + 7.5" as per**	**Total structure count:**	**0**	**EA**			**$ -**		**$ 70,581.41**	**$ -**	**$ 70,581.41**	**$ -**
	S1-D45 Assembly and Erection of Suspension Tower Type "A4 + 7.5" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 25232	Total Tower Height(ft) = 131	Section Weight (lb) = 24291									
	Site Preparation	Site Preparation	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	Hauling	each 0	1	10.23	$ 441.04	$ 4,512.66	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	Lattice Assembly	each 0	4	41.64	$ 1,183.92	$ 49,295.59	$ -	0	$ -		
	Install Guy Strand	Guy Install	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set	HL Helicopter	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	Y- Tower Erection	each 0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -		
	Plumb Tower	Tower Plumb	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	Haul Travellers&Glass	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers	Hang Travellers	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in	Tie -in	each 0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -		
			each 0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.738	per pound					$ 70,581.41	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D46	**S1-D46 Assembly and Erection of Suspension Tower Type "A4 + 9" as per dwg. Total structure count:**		**0**	**EA**			**$ -**		**$ 71,885.35**	**$ -**	**$ 71,885.35**	**$ -**
	S1-D46 Assembly and Erection of Suspension Tower Type "A4 + 9" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 25871	Total Tower Height(ft) = 136	Section Weight (lb) = 24879									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	10.48	$ 441.04	$ 4,622.02	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	42.65	$ 1,183.92	$ 50,490.17	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
	Total Cost = $ 2.726		per pound					$ 71,885.35	$ -		$ -	
V::D47	**S1-D47 Assembly and Erection of Suspension Tower Type "A4 + 10.5" as per Total structure count:**		**0**	**EA**			**$ -**		**$ 73,687.42**	**$ -**	**$ 73,687.42**	**$ -**
	S1-D47 Assembly and Erection of Suspension Tower Type "A4 + 10.5" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 26735	Total Tower Height(ft) = 141	Section Weight (lb) = 25693									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	10.82	$ 441.04	$ 4,773.15	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	44.04	$ 1,183.92	$ 52,141.12	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
	Total Cost = $ 2.710		per pound					$ 73,687.42	$ -		$ -	
V::D48	**S1-D48 Assembly and Erection of Suspension Tower Type "A4 + 12" as per Total structure count:**		**0**	**EA**			**$ -**		**$ 73,887.65**	**$ -**	**$ 73,887.65**	**$ -**
	S1-D48 Assembly and Erection of Suspension Tower Type "A4 + 12" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 26876	Total Tower Height(ft) = 146	Section Weight (lb) = 25783									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	10.86	$ 441.04	$ 4,789.94	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	44.20	$ 1,183.92	$ 52,324.55	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
	Total Cost = $ 2.708		per pound					$ 73,887.65	$ -		$ -	

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D49	**S1-D49 Assembly and Erection of Suspension Tower Type "A4 + 13.5" as per** **Total structure count:**	**0**	**EA**				**$ -**		**$ 75,748.33**	**$ -**	**$ 75,748.33**	**$ -**
	S1-D49 Assembly and Erection of Suspension Tower Type "A4 + 13.5" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 27766 Total Tower Height(ft) = 151 Section Weight (lb) = 26623											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	11.21	$ 441.04	$ 4,945.99	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	45.64	$ 1,183.92	$ 54,029.18	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.692	per pound				$ 75,748.33	$ -		$ -			
V::D50	**S1-D50 Assembly and Erection of Suspension Tower Type "A4 + 15" as per** **Total structure count:**	**0**	**EA**				**$ -**		**$ 77,609.01**	**$ -**	**$ 77,609.01**	**$ -**
	S1-D50 Assembly and Erection of Suspension Tower Type "A4 + 15" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 28657 Total Tower Height(ft) = 156 Section Weight (lb) = 27463											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	11.57	$ 441.04	$ 5,102.04	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	47.08	$ 1,183.92	$ 55,733.81	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.678	per pound				$ 77,609.01	$ -		$ -			
V::D51	**S1-D51 Assembly and Erection of Suspension Tower Type "A4 + 16.5" as per** **Total structure count:**	**0**	**EA**				**$ -**		**$ 78,912.95**	**$ -**	**$ 78,912.95**	**$ -**
	S1-D51 Assembly and Erection of Suspension Tower Type "A4 + 16.5" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 29296 Total Tower Height(ft) = 161 Section Weight (lb) = 28052											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	11.82	$ 441.04	$ 5,211.39	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	48.08	$ 1,183.92	$ 56,928.40	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.668	per pound				$ 78,912.95	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D52	**S1-D52 Assembly and Erection of Suspension Tower Type "A4 + 18" as per** **Total structure count:**		**0**	**EA**			**$ -**		**$ 78,953.35**	**$ -**	**$ 78,953.35**	**$ -**
	S1-D52 Assembly and Erection of Suspension Tower Type "A4 + 18" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 29933 Total Tower Height(ft) = 166 Section Weight (lb) = 28638											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	12.06	$ 441.04	$ 5,320.34	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	49.09	$ 1,183.92	$ 58,118.51	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	2.00	$ 1,258.65	$ 2,517.30	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.615	per pound				$ 78,953.35	$ -		$ -			
V::D53	**S1-D53 Assembly and Erection of Suspension Tower Type "A4 + 19.5" as per** **Total structure count:**		**0**	**EA**			**$ -**		**$ 80,915.25**	**$ -**	**$ 80,915.25**	**$ -**
	S1-D53 Assembly and Erection of Suspension Tower Type "A4 + 19.5" as per dwg. 505573-4622-43DD-0056											
	Total Tower Weight With Guys and Ext. (lb) = 30300 Total Tower Height(ft) = 171 Section Weight (lb) = 28956											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	12.20	$ 441.04	$ 5,379.32	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	49.63	$ 1,183.92	$ 58,762.78	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	3.50	$ 1,482.09	$ 5,187.33	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	2.00	$ 676.30	$ 1,352.60	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.654	per pound				$ 80,915.25	$ -		$ -			
V-H19	**Assembly and Erection of Suspension Tower Type "B1"** **Tower Setting Ratio** **0.00 Helicopter** **100% Crane**											
V::D54	**S1-D54 Assembly and Erection of Suspension Tower Type "B1 + 0" as per dwg.** **Total structure count:**		**0**	**EA**			**$ -**		**$ 84,891.64**	**$ -**	**$ 84,891.64**	**$ -**
	S1-D54 Assembly and Erection of Suspension Tower Type "B1 + 0" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 31846 Total Tower Height(ft) = 122 Section Weight (lb) = 30111											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	12.68	$ 441.04	$ 5,593.93	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	51.61	$ 1,183.92	$ 61,107.20	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.662	per pound				$ 84,891.64	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D55	**S1-D55 Assembly and Erection of Suspension Tower Type "B1 + 1.5" as per**	**Total structure count:**	**0**	**EA**			**$ -**		**$ 87,949.70**	**$ -**	**$ 87,949.70**	**$ -**
	S1-D55 Assembly and Erection of Suspension Tower Type "B1 + 1.5" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 33198	Total Tower Height(ft) = 127		Section Weight (lb) = 31348								
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	13.20	$ 441.04	$ 5,823.70	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	53.73	$ 1,183.92	$ 63,617.17	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.50	$ 636.64	$ 1,591.59	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
	Total Cost = $ 2.644	per pound						$ 87,949.70	$ -		$ -	
V::D56	**S1-D56 Assembly and Erection of Suspension Tower Type "B1 + 3" as per dwg.**	**Total structure count:**	**0**	**EA**			**$ -**		**$ 89,423.68**	**$ -**	**$ 89,423.68**	**$ -**
	S1-D56 Assembly and Erection of Suspension Tower Type "B1 + 3" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 34123	Total Tower Height(ft) = 132		Section Weight (lb) = 32157								
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	13.55	$ 441.04	$ 5,974.01	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	55.12	$ 1,183.92	$ 65,259.16	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
	Total Cost = $ 2.633	per pound						$ 89,423.68	$ -		$ -	
V::D57	**S1-D57 Assembly and Erection of Suspension Tower Type "B1 + 4.5" as per**	**Total structure count:**	**0**	**EA**			**$ -**		**$ 92,163.42**	**$ -**	**$ 92,163.42**	**$ -**
	S1-D57 Assembly and Erection of Suspension Tower Type "B1 + 4.5" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 35476	Total Tower Height(ft) = 137		Section Weight (lb) = 33394								
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	14.07	$ 441.04	$ 6,203.78	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	57.24	$ 1,183.92	$ 67,769.13	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
	Total Cost = $ 2.618	per pound						$ 92,163.42	$ -		$ -	

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D58	**S1-D58 Assembly and Erection of Suspension Tower Type "B1 + 6" as per dwg. Total structure count:**		**0**	**EA**			**$ -**		**$ 93,257.36**	**$ -**	**$ 93,257.36**	**$ -**
	S1-D58 Assembly and Erection of Suspension Tower Type "B1 + 6" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 36086	Total Tower Height(ft) = 142		Section Weight (lb) = 33887								
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	14.27	$ 441.04	$ 6,295.53	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	58.09	$ 1,183.92	$ 68,771.33	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
	Total Cost = $ 2.612	per pound						$ 93,257.36	$ -		$ -	
V::D59	**S1-D59 Assembly and Erection of Suspension Tower Type "B1 + 7.5" as per Total structure count:**		**0**	**EA**			**$ -**		**$ 95,088.74**	**$ -**	**$ 95,088.74**	**$ -**
	S1-D59 Assembly and Erection of Suspension Tower Type "B1 + 7.5" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 37029	Total Tower Height(ft) = 147		Section Weight (lb) = 34714								
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	14.62	$ 441.04	$ 6,449.12	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	59.50	$ 1,183.92	$ 70,449.12	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
	Total Cost = $ 2.602	per pound						$ 95,088.74	$ -		$ -	
V::D60	**S1-D60 Assembly and Erection of Suspension Tower Type "B1 + 9" as per dwg. Total structure count:**		**0**	**EA**			**$ -**		**$ 96,744.30**	**$ -**	**$ 96,744.30**	**$ -**
	S1-D60 Assembly and Erection of Suspension Tower Type "B1 + 9" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 37892	Total Tower Height(ft) = 152		Section Weight (lb) = 35462								
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -	
	Haul	Hauling	each	0	1	14.94	$ 441.04	$ 6,587.96	$ -	0	$ -	
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -	
	Assemble Tower	Lattice Assembly	each	0	4	60.79	$ 1,183.92	$ 71,965.83	$ -	0	$ -	
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -	
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -	
	Crane Set	Y- Tower Erection	each	0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -	
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -	
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -	
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -	
	Tie -in	Tie -in	each	0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -	
			each	0			$ -	$ -	$ -	0	$ -	
	Total Cost = $ 2.594	per pound						$ 96,744.30	$ -		$ -	

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D61	**S1-D61 Assembly and Erection of Suspension Tower Type "B1 + 10.5" as per** **Total structure count:**	**0**		**EA**			**$ -**		**$ 99,635.43**	**$ -**	**$ 99,635.43**	**$ -**
	S1-D61 Assembly and Erection of Suspension Tower Type "B1 + 10.5" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 39313 Total Tower Height(ft) = 157 Section Weight (lb) = 36767											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	15.49	$ 441.04	$ 6,830.43	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Tower (Lattice Assembly)	each 0	4	63.02	$ 1,183.92	$ 74,614.50	$ -	0	$ -			
	Install Guy Strand (Guy Install)	each 0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -			
	Helicopter Set (HL Helicopter)	each 0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -			
	Crane Set (Y- Tower Erection)	each 0	40	4.00	$ 1,482.09	$ 5,928.38	$ -	0	$ -			
	Plumb Tower (Tower Plumb)	each 0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Tie -in (Tie -in)	each 0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.581	per pound				$ 99,635.43	$ -		$ -			
V::D62	**S1-D62 Assembly and Erection of Suspension Tower Type "B1 + 12" as per** **Total structure count:**	**11**		**EA**			**$ 1,117,907.68**		**$ 101,627.97**	**$ -**	**$ 101,627.97**	**$ -**
	S1-D62 Assembly and Erection of Suspension Tower Type "B1 + 12" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 40328 Total Tower Height(ft) = 161 Section Weight (lb) = 37666											
	Site Preparation (Site Preparation)	each 11	2	2.00	$ 675.12	$ 1,350.24	$ 14,852.69	11	$ 1,350.24			
	Haul (Hauling)	each 11	1	15.87	$ 441.04	$ 6,997.53	$ 76,972.88	11	$ 6,997.53			
	Setup Blocks (Blocking Crew)	each 11	3	2.00	$ 281.84	$ 563.68	$ 6,200.53	11	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 11	4	64.57	$ 1,183.92	$ 76,439.93	$ 840,839.24	11	$ 76,439.93			
	Install Guy Strand (Guy Install)	each 11	39	3.00	$ 1,258.65	$ 3,775.95	$ 41,535.44	11	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 11	27	0.00	$ 21,899.72	$ -	$ -	11	$ -			
	Crane Set (Y- Tower Erection)	each 11	40	4.00	$ 1,482.09	$ 5,928.38	$ 65,212.14	11	$ 5,928.38			
	Plumb Tower (Tower Plumb)	each 11	41	2.00	$ 913.00	$ 1,826.00	$ 20,086.03	11	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 11	7	2.00	$ 636.64	$ 1,273.27	$ 14,006.02	11	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 11	8	1.00	$ 1,444.07	$ 1,444.07	$ 15,884.74	11	$ 1,444.07			
	Tie -in (Tie -in)	each 11	12	3.00	$ 676.30	$ 2,028.91	$ 22,317.96	11	$ 2,028.91			
		each 11			$ -	$ -	$ -	11	$ -			
	Total Cost = $ 2.572	per pound				$ 101,627.97	$ 1,117,907.68		$ 101,627.97			
V::D63	**S1-D63 Assembly and Erection of Suspension Tower Type "B1 + 13.5" as per** **Total structure count:**	**2**		**EA**			**$ 209,902.42**		**$ 104,951.21**	**$ -**	**$ 104,951.21**	**$ -**
	S1-D63 Assembly and Erection of Suspension Tower Type "B1 + 13.5" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 41275 Total Tower Height(ft) = 166 Section Weight (lb) = 38497											
	Site Preparation (Site Preparation)	each 2	2	2.00	$ 675.12	$ 1,350.24	$ 2,700.49	2	$ 1,350.24			
	Haul (Hauling)	each 2	1	16.22	$ 441.04	$ 7,151.94	$ 14,303.89	2	$ 7,151.94			
	Setup Blocks (Blocking Crew)	each 2	3	2.00	$ 281.84	$ 563.68	$ 1,127.37	2	$ 563.68			
	Assemble Tower (Lattice Assembly)	each 2	4	65.99	$ 1,183.92	$ 78,126.67	$ 156,253.33	2	$ 78,126.67			
	Install Guy Strand (Guy Install)	each 2	39	3.00	$ 1,258.65	$ 3,775.95	$ 7,551.90	2	$ 3,775.95			
	Helicopter Set (HL Helicopter)	each 2	27	0.00	$ 21,899.72	$ -	$ -	2	$ -			
	Crane Set (Y- Tower Erection)	each 2	40	5.00	$ 1,482.09	$ 7,410.47	$ 14,820.94	2	$ 7,410.47			
	Plumb Tower (Tower Plumb)	each 2	41	2.00	$ 913.00	$ 1,826.00	$ 3,652.01	2	$ 1,826.00			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 2	7	2.00	$ 636.64	$ 1,273.27	$ 2,546.55	2	$ 1,273.27			
	Hang Travellers (Hang Travellers)	each 2	8	1.00	$ 1,444.07	$ 1,444.07	$ 2,888.13	2	$ 1,444.07			
	Tie -in (Tie -in)	each 2	12	3.00	$ 676.30	$ 2,028.91	$ 4,057.81	2	$ 2,028.91			
		each 2			$ -	$ -	$ -	2	$ -			
	Total Cost = $ 2.603	per pound				$ 104,951.21	$ 209,902.42		$ 104,951.21			

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)

Payment Item	Description	Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D64	**S1-D64 Assembly and Erection of Suspension Tower Type "B1 + 15" as per**	**Total structure count:**	**3**	**EA**			**$ 320,391.70**		**$ 106,797.23**	**$ -**	**$ 106,797.23**	**$ -**
	S1-D64 Assembly and Erection of Suspension Tower Type "B1 + 15" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 42225	Total Tower Height(ft) = 171	Section Weight (lb) = 39331									
	Site Preparation	Site Preparation	each 3	2	2.00	$ 675.12	$ 1,350.24	$ 4,050.73	3	$ 1,350.24		
	Haul	Hauling	each 3	1	16.57	$ 441.04	$ 7,306.76	$ 21,920.28	3	$ 7,306.76		
	Setup Blocks	Blocking Crew	each 3	3	2.00	$ 281.84	$ 563.68	$ 1,691.05	3	$ 563.68		
	Assemble Tower	Lattice Assembly	each 3	4	67.42	$ 1,183.92	$ 79,817.87	$ 239,453.62	3	$ 79,817.87		
	Install Guy Strand	Guy Install	each 3	39	3.00	$ 1,258.65	$ 3,775.95	$ 11,327.85	3	$ 3,775.95		
	Helicopter Set	HL Helicopter	each 3	27	0.00	$ 21,899.72	$ -	$ -	3	$ -		
	Crane Set	Y- Tower Erection	each 3	40	5.00	$ 1,482.09	$ 7,410.47	$ 22,231.41	3	$ 7,410.47		
	Plumb Tower	Tower Plumb	each 3	41	2.00	$ 913.00	$ 1,826.00	$ 5,478.01	3	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each 3	7	2.00	$ 636.64	$ 1,273.27	$ 3,819.82	3	$ 1,273.27		
	Hang Travellers	Hang Travellers	each 3	8	1.00	$ 1,444.07	$ 1,444.07	$ 4,332.20	3	$ 1,444.07		
	Tie -in	Tie -in	each 3	12	3.00	$ 676.30	$ 2,028.91	$ 6,086.72	3	$ 2,028.91		
			each 3			$ -	$ -	$ -	3	$ -		
	Total Cost = $ 2.595		per pound				$ 106,797.23	$ 320,391.70		$ 106,797.23		
V::D65	**S1-D65 Assembly and Erection of Suspension Tower Type "B1 + 16.5" as per**	**Total structure count:**	**5**	**EA**			**$ 542,190.73**		**$ 108,438.15**	**$ -**	**$ 108,438.15**	**$ -**
	S1-D65 Assembly and Erection of Suspension Tower Type "B1 + 16.5" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 43081	Total Tower Height(ft) = 176	Section Weight (lb) = 40071									
	Site Preparation	Site Preparation	each 5	2	2.00	$ 675.12	$ 1,350.24	$ 6,751.22	5	$ 1,350.24		
	Haul	Hauling	each 5	1	16.88	$ 441.04	$ 7,444.38	$ 37,221.89	5	$ 7,444.38		
	Setup Blocks	Blocking Crew	each 5	3	2.00	$ 281.84	$ 563.68	$ 2,818.42	5	$ 563.68		
	Assemble Tower	Lattice Assembly	each 5	4	68.69	$ 1,183.92	$ 81,321.17	$ 406,605.85	5	$ 81,321.17		
	Install Guy Strand	Guy Install	each 5	39	3.00	$ 1,258.65	$ 3,775.95	$ 18,879.75	5	$ 3,775.95		
	Helicopter Set	HL Helicopter	each 5	27	0.00	$ 21,899.72	$ -	$ -	5	$ -		
	Crane Set	Y- Tower Erection	each 5	40	5.00	$ 1,482.09	$ 7,410.47	$ 37,052.35	5	$ 7,410.47		
	Plumb Tower	Tower Plumb	each 5	41	2.00	$ 913.00	$ 1,826.00	$ 9,130.02	5	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each 5	7	2.00	$ 636.64	$ 1,273.27	$ 6,366.37	5	$ 1,273.27		
	Hang Travellers	Hang Travellers	each 5	8	1.00	$ 1,444.07	$ 1,444.07	$ 7,220.33	5	$ 1,444.07		
	Tie -in	Tie -in	each 5	12	3.00	$ 676.30	$ 2,028.91	$ 10,144.53	5	$ 2,028.91		
			each 5			$ -	$ -	$ -	5	$ -		
	Total Cost = $ 2.588		per pound				$ 108,438.15	$ 542,190.73		$ 108,438.15		
V::D66	**S1-D66 Assembly and Erection of Suspension Tower Type "B1 + 18" as per**	**Total structure count:**	**3**	**EA**			**$ 330,251.83**		**$ 110,083.94**	**$ -**	**$ 110,083.94**	**$ -**
	S1-D66 Assembly and Erection of Suspension Tower Type "B1 + 18" as per dwg. 505573-4622-43DD-0002											
	Total Tower Weight With Guys and Ext. (lb) = 43940	Total Tower Height(ft) = 181	Section Weight (lb) = 40814									
	Site Preparation	Site Preparation	each 3	2	2.00	$ 675.12	$ 1,350.24	$ 4,050.73	3	$ 1,350.24		
	Haul	Hauling	each 3	1	17.19	$ 441.04	$ 7,582.40	$ 22,747.21	3	$ 7,582.40		
	Setup Blocks	Blocking Crew	each 3	3	2.00	$ 281.84	$ 563.68	$ 1,691.05	3	$ 563.68		
	Assemble Tower	Lattice Assembly	each 3	4	69.96	$ 1,183.92	$ 82,828.94	$ 248,486.82	3	$ 82,828.94		
	Install Guy Strand	Guy Install	each 3	39	3.00	$ 1,258.65	$ 3,775.95	$ 11,327.85	3	$ 3,775.95		
	Helicopter Set	HL Helicopter	each 3	27	0.00	$ 21,899.72	$ -	$ -	3	$ -		
	Crane Set	Y- Tower Erection	each 3	40	5.00	$ 1,482.09	$ 7,410.47	$ 22,231.41	3	$ 7,410.47		
	Plumb Tower	Tower Plumb	each 3	41	2.00	$ 913.00	$ 1,826.00	$ 5,478.01	3	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each 3	7	2.00	$ 636.64	$ 1,273.27	$ 3,819.82	3	$ 1,273.27		
	Hang Travellers	Hang Travellers	each 3	8	1.00	$ 1,444.07	$ 1,444.07	$ 4,332.20	3	$ 1,444.07		
	Tie -in	Tie -in	each 3	12	3.00	$ 676.30	$ 2,028.91	$ 6,086.72	3	$ 2,028.91		
			each 3			$ -	$ -	$ -	3	$ -		
	Total Cost = $ 2.581		per pound				$ 110,083.94	$ 330,251.83		$ 110,083.94		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D67	**S1-D67 Assembly and Erection of Suspension Tower Type "B1 + 19.5" as per**	**Total structure count:**	**2**	**EA**				**$ 226,643.63**		**$ 113,321.81**	**$ -**	**$ 113,321.81**	**$ -**
	S1-D67 Assembly and Erection of Suspension Tower Type "B1 + 19.5" as per dwg. 505573-4622-43DD-0002												
	Total Tower Weight With Guys and Ext. (lb) = 45518	Total Tower Height(ft) = 186	Section Weight (lb) = 42276										
	Site Preparation	Site Preparation	each	2	2	2.00	$ 675.12	$ 1,350.24	$ 2,700.49	2	$ 1,350.24		
	Haul	Hauling	each	2	1	17.81	$ 441.04	$ 7,853.95	$ 15,707.90	2	$ 7,853.95		
	Setup Blocks	Blocking Crew	each	2	3	2.00	$ 281.84	$ 563.68	$ 1,127.37	2	$ 563.68		
	Assemble Tower	Lattice Assembly	each	2	4	72.47	$ 1,183.92	$ 85,795.27	$ 171,590.53	2	$ 85,795.27		
	Install Guy Strand	Guy Install	each	2	39	3.00	$ 1,258.65	$ 3,775.95	$ 7,551.90	2	$ 3,775.95		
	Helicopter Set	HL Helicopter	each	2	27	0.00	$ 21,899.72	$ -	$ -	2	$ -		
	Crane Set	Y- Tower Erection	each	2	40	5.00	$ 1,482.09	$ 7,410.47	$ 14,820.94	2	$ 7,410.47		
	Plumb Tower	Tower Plumb	each	2	41	2.00	$ 913.00	$ 1,826.00	$ 3,652.01	2	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	2	7	2.00	$ 636.64	$ 1,273.27	$ 2,546.55	2	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	2	8	1.00	$ 1,444.07	$ 1,444.07	$ 2,888.13	2	$ 1,444.07		
	Tie -in	Tie -in	each	2	12	3.00	$ 676.30	$ 2,028.91	$ 4,057.81	2	$ 2,028.91		
			each	2			$ -	$ -	$ -	2	$ -		
	Total Cost = $ 2.568		per pound					$ 113,321.81	$ 226,643.63		$ 113,321.81		
V::D68	**S1-D68 Assembly and Erection of Suspension Tower Type "B1 + 21" as per**	**Total structure count:**	**3**	**EA**				**$ 349,349.11**		**$ 116,449.70**	**$ -**	**$ 116,449.70**	**$ -**
	S1-D68 Assembly and Erection of Suspension Tower Type "B1 + 21" as per dwg. 505573-4622-43DD-0002												
	Total Tower Weight With Guys and Ext. (lb) = 46377	Total Tower Height(ft) = 191	Section Weight (lb) = 43019										
	Site Preparation	Site Preparation	each	3	2	2.00	$ 675.12	$ 1,350.24	$ 4,050.73	3	$ 1,350.24		
	Haul	Hauling	each	3	1	18.12	$ 441.04	$ 7,991.98	$ 23,975.93	3	$ 7,991.98		
	Setup Blocks	Blocking Crew	each	3	3	2.00	$ 281.84	$ 563.68	$ 1,691.05	3	$ 563.68		
	Assemble Tower	Lattice Assembly	each	3	4	73.74	$ 1,183.92	$ 87,303.04	$ 261,909.11	3	$ 87,303.04		
	Install Guy Strand	Guy Install	each	3	39	3.00	$ 1,258.65	$ 3,775.95	$ 11,327.85	3	$ 3,775.95		
	Helicopter Set	HL Helicopter	each	3	27	0.00	$ 21,899.72	$ -	$ -	3	$ -		
	Crane Set	Y- Tower Erection	each	3	40	6.00	$ 1,482.09	$ 8,892.56	$ 26,677.69	3	$ 8,892.56		
	Plumb Tower	Tower Plumb	each	3	41	2.00	$ 913.00	$ 1,826.00	$ 5,478.01	3	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	3	7	2.00	$ 636.64	$ 1,273.27	$ 3,819.82	3	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	3	8	1.00	$ 1,444.07	$ 1,444.07	$ 4,332.20	3	$ 1,444.07		
	Tie -in	Tie -in	each	3	12	3.00	$ 676.30	$ 2,028.91	$ 6,086.72	3	$ 2,028.91		
			each	3			$ -	$ -	$ -	3	$ -		
	Total Cost = $ 2.597		per pound					$ 116,449.70	$ 349,349.11		$ 116,449.70		
V::D69	**S1-D69 Assembly and Erection of Suspension Tower Type "B1 + 22.5" as per**	**Total structure count:**	**4**	**EA**				**$ 473,964.31**		**$ 118,491.08**	**$ -**	**$ 118,491.08**	**$ -**
	S1-D69 Assembly and Erection of Suspension Tower Type "B1 + 22.5" as per dwg. 505573-4622-43DD-0002												
	Total Tower Weight With Guys and Ext. (lb) = 47414	Total Tower Height(ft) = 196	Section Weight (lb) = 43941										
	Site Preparation	Site Preparation	each	4	2	2.00	$ 675.12	$ 1,350.24	$ 5,400.98	4	$ 1,350.24		
	Haul	Hauling	each	4	1	18.51	$ 441.04	$ 8,163.18	$ 32,652.70	4	$ 8,163.18		
	Setup Blocks	Blocking Crew	each	4	3	2.00	$ 281.84	$ 563.68	$ 2,254.74	4	$ 563.68		
	Assemble Tower	Lattice Assembly	each	4	4	75.32	$ 1,183.92	$ 89,173.21	$ 356,692.83	4	$ 89,173.21		
	Install Guy Strand	Guy Install	each	4	39	3.00	$ 1,258.65	$ 3,775.95	$ 15,103.80	4	$ 3,775.95		
	Helicopter Set	HL Helicopter	each	4	27	0.00	$ 21,899.72	$ -	$ -	4	$ -		
	Crane Set	Y- Tower Erection	each	4	40	6.00	$ 1,482.09	$ 8,892.56	$ 35,570.26	4	$ 8,892.56		
	Plumb Tower	Tower Plumb	each	4	41	2.00	$ 913.00	$ 1,826.00	$ 7,304.01	4	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	4	7	2.00	$ 636.64	$ 1,273.27	$ 5,093.10	4	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	4	8	1.00	$ 1,444.07	$ 1,444.07	$ 5,776.27	4	$ 1,444.07		
	Tie -in	Tie -in	each	4	12	3.00	$ 676.30	$ 2,028.91	$ 8,115.62	4	$ 2,028.91		
			each	4			$ -	$ -	$ -	4	$ -		
	Total Cost = $ 2.589		per pound					$ 118,491.08	$ 473,964.31		$ 118,491.08		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D70	**S1-D70 Assembly and Erection of Suspension Tower Type "B1 + 24" as per**	**Total structure count:**	**3**	**EA**				**$ 368,702.50**		**$ 122,900.83**	**$ -**	**$ 122,900.83**	**$ -**
	S1-D70 Assembly and Erection of Suspension Tower Type "B1 + 24" as per dwg. 505573-4622-43DD-0002												
	Total Tower Weight With Guys and Ext. (lb) = 48183	Total Tower Height(ft) = 201	Section Weight (lb) = 44593										
	Site Preparation	Site Preparation	each	3	2	2.00	$ 675.12	$ 1,350.24	$ 4,050.73	3	$ 1,350.24		
	Haul	Hauling	each	3	1	18.78	$ 441.04	$ 8,284.41	$ 24,853.23	3	$ 8,284.41		
	Setup Blocks	Blocking Crew	each	3	3	2.00	$ 281.84	$ 563.68	$ 1,691.05	3	$ 563.68		
	Assemble Tower	Lattice Assembly	each	3	4	76.44	$ 1,183.92	$ 90,497.54	$ 271,492.62	3	$ 90,497.54		
	Install Guy Strand	Guy Install	each	3	39	3.00	$ 1,258.65	$ 3,775.95	$ 11,327.85	3	$ 3,775.95		
	Helicopter Set	HL Helicopter	each	3	27	0.00	$ 21,899.72	$ -	$ -	3	$ -		
	Crane Set	Y- Tower Erection	each	3	40	8.00	$ 1,482.09	$ 11,856.75	$ 35,570.26	3	$ 11,856.75		
	Plumb Tower	Tower Plumb	each	3	41	2.00	$ 913.00	$ 1,826.00	$ 5,478.01	3	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	3	7	2.00	$ 636.64	$ 1,273.27	$ 3,819.82	3	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	3	8	1.00	$ 1,444.07	$ 1,444.07	$ 4,332.20	3	$ 1,444.07		
	Tie -in	Tie -in	each	3	12	3.00	$ 676.30	$ 2,028.91	$ 6,086.72	3	$ 2,028.91		
			each	3			$ -	$ -	$ -	3	$ -		
	Total Cost =	$ 2.650	per pound					$ 122,900.83	$ 368,702.50		$ 122,900.83		
V::D71	**S1-D71 Assembly and Erection of Suspension Tower Type "B1 + 25.5" as per**	**Total structure count:**	**0**	**EA**				**$ -**		**$ 124,741.97**	**$ -**	**$ 124,741.97**	**$ -**
	S1-D71 Assembly and Erection of Suspension Tower Type "B1 + 25.5" as per dwg. 505573-4622-43DD-0002												
	Total Tower Weight With Guys and Ext. (lb) = 49130	Total Tower Height(ft) = 206	Section Weight (lb) = 45424										
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	Hauling	each	0	1	19.13	$ 441.04	$ 8,438.82	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble Tower	Lattice Assembly	each	0	4	77.86	$ 1,183.92	$ 92,184.27	$ -	0	$ -		
	Install Guy Strand	Guy Install	each	0	39	3.00	$ 1,258.65	$ 3,775.95	$ -	0	$ -		
	Helicopter Set	HL Helicopter	each	0	27	0.00	$ 21,899.72	$ -	$ -	0	$ -		
	Crane Set	Y- Tower Erection	each	0	40	8.00	$ 1,482.09	$ 11,856.75	$ -	0	$ -		
	Plumb Tower	Tower Plumb	each	0	41	2.00	$ 913.00	$ 1,826.00	$ -	0	$ -		
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	2.00	$ 636.64	$ 1,273.27	$ -	0	$ -		
	Hang Travellers	Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -		
	Tie -in	Tie -in	each	0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost =	$ 2.642	per pound					$ 124,741.97	$ -		$ -		
V::D72	**S1-D72 Assembly and Erection of Suspension Tower Type "B1 + 27" as per**	**Total structure count:**	**16**	**EA**				**$ 2,022,204.33**		**$ 126,387.77**	**$ -**	**$ 126,387.77**	**$ -**
	S1-D72 Assembly and Erection of Suspension Tower Type "B1 + 27" as per dwg. 505573-4622-43DD-0002												
	Total Tower Weight With Guys and Ext. (lb) = 49989	Total Tower Height(ft) = 211	Section Weight (lb) = 46167										
	Site Preparation	Site Preparation	each	16	2	2.00	$ 675.12	$ 1,350.24	$ 21,603.92	16	$ 1,350.24		
	Haul	Hauling	each	16	1	19.45	$ 441.04	$ 8,576.84	$ 137,229.50	16	$ 8,576.84		
	Setup Blocks	Blocking Crew	each	16	3	2.00	$ 281.84	$ 563.68	$ 9,018.95	16	$ 563.68		
	Assemble Tower	Lattice Assembly	each	16	4	79.14	$ 1,183.92	$ 93,692.05	$ 1,499,072.72	16	$ 93,692.05		
	Install Guy Strand	Guy Install	each	16	39	3.00	$ 1,258.65	$ 3,775.95	$ 60,415.19	16	$ 3,775.95		
	Helicopter Set	HL Helicopter	each	16	27	0.00	$ 21,899.72	$ -	$ -	16	$ -		
	Crane Set	Y- Tower Erection	each	16	40	8.00	$ 1,482.09	$ 11,856.75	$ 189,708.05	16	$ 11,856.75		
	Plumb Tower	Tower Plumb	each	16	41	2.00	$ 913.00	$ 1,826.00	$ 29,216.05	16	$ 1,826.00		
	haul Insulators and Travellers	Haul Travellers&Glass	each	16	7	2.00	$ 636.64	$ 1,273.27	$ 20,372.40	16	$ 1,273.27		
	Hang Travellers	Hang Travellers	each	16	8	1.00	$ 1,444.07	$ 1,444.07	$ 23,105.07	16	$ 1,444.07		
	Tie -in	Tie -in	each	16	12	3.00	$ 676.30	$ 2,028.91	$ 32,462.48	16	$ 2,028.91		
			each	16			$ -	$ -	$ -	16	$ -		
	Total Cost =	$ 2.635	per pound					$ 126,387.77	$ 2,022,204.33		$ 126,387.77		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H20	**Assembly and Erection of Medium Angle Tower Type "B2"**												
V::D73	**S1-D73 Assembly and Erection of Medium Angle Tower Type "B2" Basic Body**	**Total structure count:**	**0**		**EA**			**$ -**		**$ 104,852.21**	**$ -**	**$ 104,852.21**	**$ -**
	S1-D73 Assembly and Erection of Medium Angle Tower Type "B2" Basic Body as per dwg. 505573-4622-43DD-0058												
	Total Tower Weight With Guys and Ext. (lb) = 38332	Total Tower Height(ft) = 131		Section Weight (lb) = 38332									
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	Hauling	each	0	1	20.15	$ 441.04	$ 8,885.39	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble	Lattice Assembly	each	0	4	56.37	$ 1,183.92	$ 66,738.29	$ -	0	$ -		
	Erect Tower	Tower Topping	each	0	6	11.11	$ 1,656.68	$ 18,406.94	$ -	0	$ -		
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	4.00	$ 636.64	$ 2,546.55	$ -	0	$ -		
	Hang Travellers	Hang Travellers	each	0	8	3.00	$ 1,444.07	$ 4,332.20	$ -	0	$ -		
	Tie -in	Tie -in	each	0	12	3.00	$ 676.30	$ 2,028.91	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.682		per pound					$ 104,852.21	$ -		$ -		
V::D74	**S1-D74 Assembly and Erection of +4.5 m body extension for Medium Angle**	**Total structure count:**	**0**		**EA**			**$ -**		**$ 26,496.03**	**$ -**	**$ 26,496.03**	**$ -**
	S1-D74 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058												
	Total Tower Weight With Guys and Ext. (lb) = 11008	Total Tower Height(ft) = 146		Section Weight (lb) = 11008									
	Site Preparation	Site Preparation	each	0	2		$ 675.12	$ -	$ -	0	$ -		
	Haul	Hauling	each	0	1	4.64	$ 441.04	$ 2,044.99	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Assemble Bottom	Lattice Assembly	each	0	4	16.19	$ 1,183.92	$ 19,165.14	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Set Extension	Tower Topping	each	0	6	3.19	$ 1,656.68	$ 5,285.90	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.407		per pound					$ 26,496.03	$ -		$ -		
V::D75	**S1-D75 Assembly and Erection of +10.5 m body extension for Medium Angle**	**Total structure count:**	**0**		**EA**			**$ -**		**$ 44,862.80**	**$ -**	**$ 44,862.80**	**$ -**
	S1-D75 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058												
	Total Tower Weight With Guys and Ext. (lb) = 18294	Total Tower Height(ft) = 165		Section Weight (lb) = 18294									
	Site Preparation	Site Preparation	each	0	2		$ 675.12	$ -	$ -	0	$ -		
	Haul	Hauling	each	0	1	7.71	$ 441.04	$ 3,398.63	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Assemble Bottom	Lattice Assembly	each	0	4	26.90	$ 1,183.92	$ 31,851.06	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Set Extension	Tower Topping	each	0	6	5.80	$ 1,656.68	$ 9,613.11	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.452		per pound					$ 44,862.80	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D76	**S1-D76 Assembly and Erection of +0 m leg extension for Medium Angle Tower** **Total structure count:** 0 **EA**						$ -		$ 1,392.99	$ -	$ 1,392.99	$ -
	S1-D76 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 2315 Total Tower Height(ft) = 131 Section Weight (lb) = 579											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	0.24	$ 441.04	$ 107.51	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	0.85	$ 1,183.92	$ 1,007.58	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Set Leg (Tower Topping)	each 0	6	0.17	$ 1,656.68	$ 277.90	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.407	per pound				$ 1,392.99	$ -		$ -			
V::D77	**S1-D77 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower** **Total structure count:** 0 **EA**						$ -		$ 1,950.19	$ -	$ 1,950.19	$ -
	S1-D77 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 3241 Total Tower Height(ft) = 136 Section Weight (lb) = 810											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	0.34	$ 441.04	$ 150.52	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	1.19	$ 1,183.92	$ 1,410.61	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Set Leg (Tower Topping)	each 0	6	0.23	$ 1,656.68	$ 389.06	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.407	per pound				$ 1,950.19	$ -		$ -			
V::D78	**S1-D78 Assembly and Erection of +3 m leg extension for Medium Angle Tower** **Total structure count:** 0 **EA**						$ -		$ 3,487.79	$ -	$ 3,487.79	$ -
	S1-D78 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 5796 Total Tower Height(ft) = 141 Section Weight (lb) = 1449											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	0.61	$ 441.04	$ 269.19	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	2.13	$ 1,183.92	$ 2,522.79	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Set Leg (Tower Topping)	each 0	6	0.42	$ 1,656.68	$ 695.81	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.407	per pound				$ 3,487.79	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	 Hourly Rate	 Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D79	**S1-D79 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower** **Total structure count:**	0		**EA**			**$ -**		**$ 4,067.54**	**$ -**	**$ 4,067.54**	**$ -**
	S1-D79 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 6759 Total Tower Height(ft) = 146 Section Weight (lb) = 1690											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	0.71	$ 441.04	$ 313.94	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	2.49	$ 1,183.92	$ 2,942.13	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Set Leg (Tower Topping)	each 0	6	0.49	$ 1,656.68	$ 811.46	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.407	per pound				$ 4,067.54	$ -		$ -			
V::D80	**S1-D80 Assembly and Erection of +6 m leg extension for Medium Angle Tower** **Total structure count:**	0		**EA**			**$ -**		**$ 4,546.46**	**$ -**	**$ 4,546.46**	**$ -**
	S1-D80 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 7555 Total Tower Height(ft) = 151 Section Weight (lb) = 1889											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	0.80	$ 441.04	$ 350.90	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	2.78	$ 1,183.92	$ 3,288.55	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Set Leg (Tower Topping)	each 0	6	0.55	$ 1,656.68	$ 907.01	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.407	per pound				$ 4,546.46	$ -		$ -			
V::D81	**S1-D81 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower** **Total structure count:**	0		**EA**			**$ -**		**$ 5,394.19**	**$ -**	**$ 5,394.19**	**$ -**
	S1-D81 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 8964 Total Tower Height(ft) = 156 Section Weight (lb) = 2241											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	0.94	$ 441.04	$ 416.33	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	3.30	$ 1,183.92	$ 3,901.74	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Set Leg (Tower Topping)	each 0	6	0.65	$ 1,656.68	$ 1,076.13	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.407	per pound				$ 5,394.19	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D82	**S1-D82 Assembly and Erection of +9 m leg extension for Medium Angle Tower**	**Total structure count:**	**0**	**EA**				**$ -**		**$ 7,023.84**	**$ -**	**$ 7,023.84**	**$ -**
	S1-D82 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "B2" as per dwg. 505573-4622-43DD-0058, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 10296	Total Tower Height(ft) = 160	Section Weight (lb) = 2574										
	Site Preparation	Site Preparation	each	0	2		$ 675.12	$ -	$ -	0	$ -		
	Haul	Hauling	each	0	1	1.08	$ 441.04	$ 478.18	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3		$ 281.84	$ -	$ -	0	$ -		
	Assemble Bottom	Lattice Assembly	each	0	4	3.79	$ 1,183.92	$ 4,481.33	$ -	0	$ -		
	Panel Bottom	Lattice Erection	each	0	5		$ 1,519.02	$ -	$ -	0	$ -		
	Assemble Tops	Lattice Assembly	each	0	4		$ 1,183.92	$ -	$ -	0	$ -		
	Set Leg	Tower Topping	each	0	6	1.25	$ 1,656.68	$ 2,064.33	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.729		per pound					$ 7,023.84	$ -		$ -		
V-H21	**Assembly and Erection of Medium Angle Tower Type "C1"**												
V::D83	**S1-D83 Assembly and Erection of Medium Angle Tower Type "C1" Basic Body**	**Total structure count:**	**72**	**EA**				**$ 8,548,588.94**		**$ 118,730.40**	**$ -**	**$ 118,730.40**	**$ -**
	S1-D83 Assembly and Erection of Medium Angle Tower Type "C1" Basic Body as per dwg. 505573-4622-43DD-0004												
	Total Tower Weight With Guys and Ext. (lb) = 39636	Total Tower Height(ft) = 119	Section Weight (lb) = 39636										
	Site Preparation	Site Preparation	each	72	2	2.00	$ 675.12	$ 1,350.24	$ 97,217.63	72	$ 1,350.24		
	Haul	Hauling	each	72	1	16.70	$ 441.04	$ 7,363.49	$ 530,171.07	72	$ 7,363.49		
	Setup Blocks	Blocking Crew	each	72	3	2.00	$ 281.84	$ 563.68	$ 40,585.29	72	$ 563.68		
	Assemble	Lattice Assembly	each	72	4	58.29	$ 1,183.92	$ 69,008.70	$ 4,968,626.58	72	$ 69,008.70		
	Erect Tower	Tower Topping	each	72	6	11.49	$ 1,656.68	$ 19,033.14	$ 1,370,386.15	72	$ 19,033.14		
	haul Insulators and Travellers	Haul Travellers&Glass	each	72	7	3.00	$ 636.64	$ 1,909.91	$ 137,513.68	72	$ 1,909.91		
	Hang Travellers	Hang Travellers	each	72	8	2.00	$ 1,444.07	$ 2,888.13	$ 207,945.64	72	$ 2,888.13		
	Dead-end	Deadends	each	72	13	12.00	$ 1,384.42	$ 16,613.10	$ 1,196,142.90	72	$ 16,613.10		
			each	72			$ -	$ -	$ -	72	$ -		
			each	72			$ -	$ -	$ -	72	$ -		
			each	72			$ -	$ -	$ -	72	$ -		
	Total Cost = $ 2.576		per pound					$ 118,730.40	$ 8,548,588.94		$ 118,730.40		
V::D84	**S1-D84 Assembly and Erection of +4.5 m body extension for Medium Angle**	**Total structure count:**	**14**	**EA**				**$ 326,962.99**		**$ 23,354.50**	**$ -**	**$ 23,354.50**	**$ -**
	S1-D84 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004												
	Total Tower Weight With Guys and Ext. (lb) = 9703	Total Tower Height(ft) = 134	Section Weight (lb) = 9703										
	Site Preparation	Site Preparation	each	14	2		$ 675.12	$ -	$ -	14	$ -		
	Haul	Hauling	each	14	1	4.09	$ 441.04	$ 1,802.53	$ 25,235.36	14	$ 1,802.53		
	Setup Blocks	Blocking Crew	each	14	3		$ 281.84	$ -	$ -	14	$ -		
	Assemble Bottom	Lattice Assembly	each	14	4	14.27	$ 1,183.92	$ 16,892.81	$ 236,499.27	14	$ 16,892.81		
	Panel Bottom	Lattice Erection	each	14	5		$ 1,519.02	$ -	$ -	14	$ -		
	Assemble Tops	Lattice Assembly	each	14	4		$ 1,183.92	$ -	$ -	14	$ -		
	Top / Assembly Tower	Tower Topping	each	14	6	2.81	$ 1,656.68	$ 4,659.17	$ 65,228.35	14	$ 4,659.17		
			each	14			$ -	$ -	$ -	14	$ -		
			each	14			$ -	$ -	$ -	14	$ -		
			each	14			$ -	$ -	$ -	14	$ -		
			each	14			$ -	$ -	$ -	14	$ -		
	Total Cost = $ 2.407		per pound					$ 23,354.50	$ 326,962.99		$ 23,354.50		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D85	**S1-D85 Assembly and Erection of +10.5 m body extension for Medium Angle** **Total structure count:**			**15**	**EA**			**$ 653,997.25**		**$ 43,599.82**	**$ -**	**$ 43,599.82**	**$ -**
	S1-D85 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004												
	Total Tower Weight With Guys and Ext. (lb) = 17769	Total Tower Height(ft) = 169	Section Weight (lb) = 17769										
	Site Preparation	Site Preparation	each	15	2		$ 675.12	$ -	$ -	15	$ -		
	Haul	Hauling	each	15	1	7.48	$ 441.04	$ 3,301.15	$ 49,517.23	15	$ 3,301.15		
	Setup Blocks	Blocking Crew	each	15	3		$ 281.84	$ -	$ -	15	$ -		
	Assemble Bottom	Lattice Assembly	each	15	4	26.13	$ 1,183.92	$ 30,937.52	$ 464,062.75	15	$ 30,937.52		
	Panel Bottom	Lattice Erection	each	15	5		$ 1,519.02	$ -	$ -	15	$ -		
	Assemble Tops	Lattice Assembly	each	15	4		$ 1,183.92	$ -	$ -	15	$ -		
	Top / Assembly Tower	Tower Topping	each	15	6	5.65	$ 1,656.68	$ 9,361.15	$ 140,417.27	15	$ 9,361.15		
			each	15			$ -	$ -	$ -	15	$ -		
			each	15			$ -	$ -	$ -	15	$ -		
			each	15			$ -	$ -	$ -	15	$ -		
			each	15			$ -	$ -	$ -	15	$ -		
	Total Cost = $ 2.454		per pound					$ 43,599.82	$ 653,997.25		$ 43,599.82		
V::D86	**S1-D86 Assembly and Erection of +0 m leg extension for Medium Angle Tower** **Total structure count:**			**0**	**EA**			**$ -**		**$ 2,185.67**	**$ -**	**$ 2,185.67**	**$ -**
	S1-D86 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 3632	Total Tower Height(ft) = 119	Section Weight (lb) = 908										
	Site Preparation	Site Preparation	each	0	2		$ 675.12	$ -	$ -	0	$ -		
	Haul	Hauling	each	0	1	0.38	$ 441.04	$ 168.69	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3		$ 281.84	$ -	$ -	0	$ -		
	Assemble Bottom	Lattice Assembly	each	0	4	1.34	$ 1,183.92	$ 1,580.94	$ -	0	$ -		
	Panel Bottom	Lattice Erection	each	0	5		$ 1,519.02	$ -	$ -	0	$ -		
	Assemble Tops	Lattice Assembly	each	0	4		$ 1,183.92	$ -	$ -	0	$ -		
	Top / Assembly Tower	Tower Topping	each	0	6	0.26	$ 1,656.68	$ 436.04	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.407		per pound					$ 2,185.67	$ -		$ -		
V::D87	**S1-D87 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower** **Total structure count:**			**0**	**EA**			**$ -**		**$ 3,059.94**	**$ -**	**$ 3,059.94**	**$ -**
	S1-D87 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 5085	Total Tower Height(ft) = 124	Section Weight (lb) = 1271										
	Site Preparation	Site Preparation	each	0	2		$ 675.12	$ -	$ -	0	$ -		
	Haul	Hauling	each	0	1	0.54	$ 441.04	$ 236.17	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3		$ 281.84	$ -	$ -	0	$ -		
	Assemble Bottom	Lattice Assembly	each	0	4	1.87	$ 1,183.92	$ 2,213.32	$ -	0	$ -		
	Panel Bottom	Lattice Erection	each	0	5		$ 1,519.02	$ -	$ -	0	$ -		
	Assemble Tops	Lattice Assembly	each	0	4		$ 1,183.92	$ -	$ -	0	$ -		
	Top / Assembly Tower	Tower Topping	each	0	6	0.37	$ 1,656.68	$ 610.45	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.407		per pound					$ 3,059.94	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D88	**S1-D88 Assembly and Erection of +3 m leg extension for Medium Angle Tower** **Total structure count:** **68** **EA**						**$ 271,766.03**		**$ 3,996.56**	**$ -**	**$ 3,996.56**	**$ -**
	S1-D88 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 6641 Total Tower Height(ft) = 129 Section Weight (lb) = 1660											
	Site Preparation (Site Preparation)	each	68	2		$ 675.12	$ -	$ -	68	$ -		
	Haul (Hauling)	each	68	1	0.70	$ 441.04	$ 308.46	$ 20,975.20	68	$ 308.46		
	Setup Blocks (Blocking Crew)	each	68	3		$ 281.84	$ -	$ -	68	$ -		
	Assemble Bottom (Lattice Assembly)	each	68	4	2.44	$ 1,183.92	$ 2,890.80	$ 196,574.14	68	$ 2,890.80		
	Panel Bottom (Lattice Erection)	each	68	5		$ 1,519.02	$ -	$ -	68	$ -		
	Assemble Tops (Lattice Assembly)	each	68	4		$ 1,183.92	$ -	$ -	68	$ -		
	Top / Assembly Tower (Tower Topping)	each	68	6	0.48	$ 1,656.68	$ 797.30	$ 54,216.69	68	$ 797.30		
		each	68			$ -	$ -	$ -	68	$ -		
		each	68			$ -	$ -	$ -	68	$ -		
		each	68			$ -	$ -	$ -	68	$ -		
		each	68			$ -	$ -	$ -	68	$ -		
	Total Cost = $ 2.407	per pound					$ 3,996.56	$ 271,766.03		$ 3,996.56		
V::D89	**S1-D89 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower** **Total structure count:** **24** **EA**						**$ 119,033.12**		**$ 4,959.71**	**$ -**	**$ 4,959.71**	**$ -**
	S1-D89 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 8242 Total Tower Height(ft) = 134 Section Weight (lb) = 2061											
	Site Preparation (Site Preparation)	each	24	2		$ 675.12	$ -	$ -	24	$ -		
	Haul (Hauling)	each	24	1	0.87	$ 441.04	$ 382.80	$ 9,187.11	24	$ 382.80		
	Setup Blocks (Blocking Crew)	each	24	3		$ 281.84	$ -	$ -	24	$ -		
	Assemble Bottom (Lattice Assembly)	each	24	4	3.03	$ 1,183.92	$ 3,587.47	$ 86,099.19	24	$ 3,587.47		
	Panel Bottom (Lattice Erection)	each	24	5		$ 1,519.02	$ -	$ -	24	$ -		
	Assemble Tops (Lattice Assembly)	each	24	4		$ 1,183.92	$ -	$ -	24	$ -		
	Top / Assembly Tower (Tower Topping)	each	24	6	0.60	$ 1,656.68	$ 989.45	$ 23,746.83	24	$ 989.45		
		each	24			$ -	$ -	$ -	24	$ -		
		each	24			$ -	$ -	$ -	24	$ -		
		each	24			$ -	$ -	$ -	24	$ -		
		each	24			$ -	$ -	$ -	24	$ -		
	Total Cost = $ 2.407	per pound					$ 4,959.71	$ 119,033.12		$ 4,959.71		
V::D90	**S1-D90 Assembly and Erection of +6 m leg extension for Medium Angle Tower** **Total structure count:** **60** **EA**						**$ 368,505.97**		**$ 6,141.77**	**$ -**	**$ 6,141.77**	**$ -**
	S1-D90 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 10206 Total Tower Height(ft) = 139 Section Weight (lb) = 2552											
	Site Preparation (Site Preparation)	each	60	2		$ 675.12	$ -	$ -	60	$ -		
	Haul (Hauling)	each	60	1	1.07	$ 441.04	$ 474.03	$ 28,441.69	60	$ 474.03		
	Setup Blocks (Blocking Crew)	each	60	3		$ 281.84	$ -	$ -	60	$ -		
	Assemble Bottom (Lattice Assembly)	each	60	4	3.75	$ 1,183.92	$ 4,442.47	$ 266,548.20	60	$ 4,442.47		
	Panel Bottom (Lattice Erection)	each	60	5		$ 1,519.02	$ -	$ -	60	$ -		
	Assemble Tops (Lattice Assembly)	each	60	4		$ 1,183.92	$ -	$ -	60	$ -		
	Top / Assembly Tower (Tower Topping)	each	60	6	0.74	$ 1,656.68	$ 1,225.27	$ 73,516.08	60	$ 1,225.27		
		each	60			$ -	$ -	$ -	60	$ -		
		each	60			$ -	$ -	$ -	60	$ -		
		each	60			$ -	$ -	$ -	60	$ -		
		each	60			$ -	$ -	$ -	60	$ -		
	Total Cost = $ 2.407	per pound					$ 6,141.77	$ 368,505.97		$ 6,141.77		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D91	**S1-D91 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower** **Total structure count:** **68** **EA**						**$ 488,096.29**		**$ 7,177.89**	**$ -**	**$ 7,177.89**	**$ -**
	S1-D91 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 11928 Total Tower Height(ft) = 144 Section Weight (lb) = 2982											
	Site Preparation (Site Preparation)	each 68	2		$ 675.12	$ -	$ -	68	$ -			
	Haul (Hauling)	each 68	1	1.26	$ 441.04	$ 554.00	$ 37,671.80	68	$ 554.00			
	Setup Blocks (Blocking Crew)	each 68	3		$ 281.84	$ -	$ -	68	$ -			
	Assemble Bottom (Lattice Assembly)	each 68	4	4.39	$ 1,183.92	$ 5,191.92	$ 353,050.42	68	$ 5,191.92			
	Panel Bottom (Lattice Erection)	each 68	5		$ 1,519.02	$ -	$ -	68	$ -			
	Assemble Tops (Lattice Assembly)	each 68	4		$ 1,183.92	$ -	$ -	68	$ -			
	Top / Assembly Tower (Tower Topping)	each 68	6	0.86	$ 1,656.68	$ 1,431.97	$ 97,374.07	68	$ 1,431.97			
		each 68			$ -	$ -	$ -	68	$ -			
		each 68			$ -	$ -	$ -	68	$ -			
		each 68			$ -	$ -	$ -	68	$ -			
		each 68			$ -	$ -	$ -	68	$ -			
	Total Cost = $ 2.407	per pound				$ 7,177.89	$ 488,096.29		$ 7,177.89			
V::D92	**S1-D92 Assembly and Erection of +9 m leg extension for Medium Angle Tower** **Total structure count:** **68** **EA**						**$ 594,547.38**		**$ 8,743.34**	**$ -**	**$ 8,743.34**	**$ -**
	S1-D92 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C1" as per dwg. 505573-4622-43DD-0004, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 14530 Total Tower Height(ft) = 149 Section Weight (lb) = 3632											
	Site Preparation (Site Preparation)	each 68	2		$ 675.12	$ -	$ -	68	$ -			
	Haul (Hauling)	each 68	1	1.53	$ 441.04	$ 674.82	$ 45,887.81	68	$ 674.82			
	Setup Blocks (Blocking Crew)	each 68	3		$ 281.84	$ -	$ -	68	$ -			
	Assemble Bottom (Lattice Assembly)	each 68	4	5.34	$ 1,183.92	$ 6,324.25	$ 430,048.75	68	$ 6,324.25			
	Panel Bottom (Lattice Erection)	each 68	5		$ 1,519.02	$ -	$ -	68	$ -			
	Assemble Tops (Lattice Assembly)	each 68	4		$ 1,183.92	$ -	$ -	68	$ -			
	Top / Assembly Tower (Tower Topping)	each 68	6	1.05	$ 1,656.68	$ 1,744.28	$ 118,610.82	68	$ 1,744.28			
		each 68			$ -	$ -	$ -	68	$ -			
		each 68			$ -	$ -	$ -	68	$ -			
		each 68			$ -	$ -	$ -	68	$ -			
		each 68			$ -	$ -	$ -	68	$ -			
	Total Cost = $ 2.407	per pound				$ 8,743.34	$ 594,547.38		$ 8,743.34			
V-H22	**Assembly and Erection of Medium Angle Tower Type "C2"**											
V::D93	**S1-D93 Assembly and Erection of Medium Angle Tower Type "C2" Basic Body** **Total structure count:** **0** **EA**						**$ -**		**$ 109,893.19**	**$ -**	**$ 109,893.19**	**$ -**
	S1-D93 Assembly and Erection of Medium Angle Tower Type "C2" Basic Body as per dwg. 505573-4622-43DD-0012											
	Total Tower Weight With Guys and Ext. (lb) = 33817 Total Tower Height(ft) = 104 Section Weight (lb) = 33817											
	Site Preparation (Site Preparation)	each 0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -			
	Haul (Hauling)	each 0	1	18.24	$ 441.04	$ 8,046.59	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	49.73	$ 1,183.92	$ 58,877.24	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Erect Tower (Tower Topping)	each 0	6	9.80	$ 1,656.68	$ 16,238.80	$ -	0	$ -			
	haul Insulators and Travellers (Haul Travellers&Glass)	each 0	7	4.00	$ 636.64	$ 2,546.55	$ -	0	$ -			
	Hang Travellers (Hang Travellers)	each 0	8	2.00	$ 1,444.07	$ 2,888.13	$ -	0	$ -			
	Dead-end (Deadends)	each 0	13	14.00	$ 1,384.42	$ 19,381.95	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.516	per pound				$ 109,893.19	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D94	**S1-D94 Assembly and Erection of +4.5 m body extension for Medium Angle** **Total structure count:**	0		**EA**			$ -		$ 24,951.80	$ -	$ 24,951.80	$ -
	S1-D94 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012											
	Total Tower Weight With Guys and Ext. (lb) = 10366 Total Tower Height(ft) = 119 Section Weight (lb) = 10366											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	4.37	$ 441.04	$ 1,925.81	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	15.24	$ 1,183.92	$ 18,048.16	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	3.00	$ 1,656.68	$ 4,977.83	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.407	per pound				$ 24,951.80	$ -		$ -			
V::D95	**S1-D95 Assembly and Erection of +10.5 m body extension for Medium Angle** **Total structure count:**	0		**EA**			$ -		$ -	$ -	$ -	$ -
	S1-D95 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012											
	Total Tower Weight With Guys and Ext. (lb) = 26024 Total Tower Height(ft) = 139 Section Weight (lb) = 0											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	0.00	$ 441.04	$ -	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	0.00	$ 1,183.92	$ -	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	0.00	$ 1,656.68	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = #DIV/0!	per pound				$ -	$ -		$ -			
V::D96	**S1-D96 Assembly and Erection of +0 m leg extension for Medium Angle Tower** **Total structure count:**	0		**EA**			$ -		$ 2,520.65	$ -	$ 2,520.65	$ -
	S1-D96 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 4189 Total Tower Height(ft) = 104 Section Weight (lb) = 1047											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	0.44	$ 441.04	$ 194.55	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	1.54	$ 1,183.92	$ 1,823.24	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	0.30	$ 1,656.68	$ 502.86	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.407	per pound				$ 2,520.65	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D97	**S1-D97 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower** **Total structure count:**	**0**	**EA**				**$ -**		**$ 3,528.91**	**$ -**	**$ 3,528.91**	**$ -**
	S1-D97 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 5864 Total Tower Height(ft) = 109 Section Weight (lb) = 1466											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	0.62	$ 441.04	$ 272.37	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	2.16	$ 1,183.92	$ 2,552.54	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	0.42	$ 1,656.68	$ 704.01	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.407	per pound				$ 3,528.91	$ -		$ -			
V::D98	**S1-D98 Assembly and Erection of +3 m leg extension for Medium Angle Tower** **Total structure count:**	**0**	**EA**				**$ -**		**$ 4,916.60**	**$ -**	**$ 4,916.60**	**$ -**
	S1-D98 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 8170 Total Tower Height(ft) = 114 Section Weight (lb) = 2043											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	0.86	$ 441.04	$ 379.47	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	3.00	$ 1,183.92	$ 3,556.28	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	0.59	$ 1,656.68	$ 980.85	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.407	per pound				$ 4,916.60	$ -		$ -			
V::D99	**S1-D99 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower** **Total structure count:**	**0**	**EA**				**$ -**		**$ 6,153.04**	**$ -**	**$ 6,153.04**	**$ -**
	S1-D99 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 10225 Total Tower Height(ft) = 119 Section Weight (lb) = 2556											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	1.08	$ 441.04	$ 474.90	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	3.76	$ 1,183.92	$ 4,450.63	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	0.74	$ 1,656.68	$ 1,227.52	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.407	per pound				$ 6,153.04	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D100	**S1-D100 Assembly and Erection of +6 m leg extension for Medium Angle Tower**	**Total structure count:**	**0**	**EA**				**$ -**		**$ 7,852.49**	**$ -**	**$ 7,852.49**	**$ -**
	S1-D100 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 13049	Total Tower Height(ft) = 124	Section Weight (lb) = 3262										
	Site Preparation	Site Preparation	each	0	2		$ 675.12	$ -	$ -	0	$ -		
	Haul	Hauling	each	0	1	1.37	$ 441.04	$ 606.06	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3		$ 281.84	$ -	$ -	0	$ -		
	Assemble Bottom	Lattice Assembly	each	0	4	4.80	$ 1,183.92	$ 5,679.87	$ -	0	$ -		
	Panel Bottom	Lattice Erection	each	0	5		$ 1,519.02	$ -	$ -	0	$ -		
	Assemble Tops	Lattice Assembly	each	0	4		$ 1,183.92	$ -	$ -	0	$ -		
	Top / Assembly Tower	Tower Topping	each	0	6	0.95	$ 1,656.68	$ 1,566.55	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.407		per pound					$ 7,852.49	$ -		$ -		
V::D101	**S1-D101 Assembly and Erection of +7.5 m leg extension for Medium Angle**	**Total structure count:**	**0**	**EA**				**$ -**		**$ 9,184.46**	**$ -**	**$ 9,184.46**	**$ -**
	S1-D101 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 15263	Total Tower Height(ft) = 129	Section Weight (lb) = 3816										
	Site Preparation	Site Preparation	each	0	2		$ 675.12	$ -	$ -	0	$ -		
	Haul	Hauling	each	0	1	1.61	$ 441.04	$ 708.87	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3		$ 281.84	$ -	$ -	0	$ -		
	Assemble Bottom	Lattice Assembly	each	0	4	5.61	$ 1,183.92	$ 6,643.31	$ -	0	$ -		
	Panel Bottom	Lattice Erection	each	0	5		$ 1,519.02	$ -	$ -	0	$ -		
	Assemble Tops	Lattice Assembly	each	0	4		$ 1,183.92	$ -	$ -	0	$ -		
	Top / Assembly Tower	Tower Topping	each	0	6	1.11	$ 1,656.68	$ 1,832.28	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.407		per pound					$ 9,184.46	$ -		$ -		
V::D102	**S1-D102 Assembly and Erection of +9 m leg extension for Medium Angle Tower**	**Total structure count:**	**0**	**EA**				**$ -**		**$ 10,483.26**	**$ -**	**$ 10,483.26**	**$ -**
	S1-D102 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C2" as per dwg. 505573-4622-43DD-0012, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 17421	Total Tower Height(ft) = 134	Section Weight (lb) = 4355										
	Site Preparation	Site Preparation	each	0	2		$ 675.12	$ -	$ -	0	$ -		
	Haul	Hauling	each	0	1	1.83	$ 441.04	$ 809.11	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3		$ 281.84	$ -	$ -	0	$ -		
	Assemble Bottom	Lattice Assembly	each	0	4	6.40	$ 1,183.92	$ 7,582.76	$ -	0	$ -		
	Panel Bottom	Lattice Erection	each	0	5		$ 1,519.02	$ -	$ -	0	$ -		
	Assemble Tops	Lattice Assembly	each	0	4		$ 1,183.92	$ -	$ -	0	$ -		
	Top / Assembly Tower	Tower Topping	each	0	6	1.26	$ 1,656.68	$ 2,091.39	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.407		per pound					$ 10,483.26	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H23	**Assembly and Erection of Dead-End Tower Type "D1"**											
V::D103	**S1-D103 Assembly and Erection of Dead-End Tower Type "D1" Basic Body as** **Total structure count:**		**86**	**EA**			**$ 11,513,191.79**		**$ 133,874.32**	**$ -**	**$ 133,874.32**	**$ -**
	S1-D103 Assembly and Erection of Dead-End Tower Type "D1" Basic Body as per dwg. 505573-4622-43DD-0043											
	Total Tower Weight With Guys and Ext. (lb) = 44777 Total Tower Height(ft) = 121 Section Weight (lb) = 44777											
	Site Preparation (Site Preparation)	each	86	2	2.00	$ 675.12	$ 1,350.24	$ 116,121.06	86	$ 1,350.24		
	Haul (Hauling)	each	86	1	18.86	$ 441.04	$ 8,318.61	$ 715,400.34	86	$ 8,318.61		
	Setup Blocks (Blocking Crew)	each	86	3	2.00	$ 281.84	$ 563.68	$ 48,476.87	86	$ 563.68		
	Assemble (Lattice Assembly)	each	86	4	65.85	$ 1,183.92	$ 77,959.85	$ 6,704,547.53	86	$ 77,959.85		
		each	86			$ -	$ -	$ -	86	$ -		
		each	86			$ -	$ -	$ -	86	$ -		
	Erect Tower (Tower Topping)	each	86	6	12.98	$ 1,656.68	$ 21,501.94	$ 1,849,166.75	86	$ 21,501.94		
	haul Insulators and Travellers (Haul Travellers&Glass)	each	86	7	3.00	$ 636.64	$ 1,909.91	$ 164,252.45	86	$ 1,909.91		
	Hang Travellers (Hang Travellers)	each	86	8	2.00	$ 1,444.07	$ 2,888.13	$ 248,379.52	86	$ 2,888.13		
	Dead-end (Deadends)	each	86	13	14.00	$ 1,384.42	$ 19,381.95	$ 1,666,847.28	86	$ 19,381.95		
		each	86			$ -	$ -	$ -	86	$ -		
	Total Cost = $ 2.450	per pound					$ 133,874.32	$ 11,513,191.79		$ 133,874.32		
V::D104	**S1-D104 Assembly and Erection of +4.5 m body extension for Dead-End Tower** **Total structure count:**		**25**	**EA**			**$ 689,862.50**		**$ 27,594.50**	**$ -**	**$ 27,594.50**	**$ -**
	S1-D104 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043											
	Total Tower Weight With Guys and Ext. (lb) = 11464 Total Tower Height(ft) = 136 Section Weight (lb) = 11464											
	Site Preparation (Site Preparation)	each	25	2		$ 675.12	$ -	$ -	25	$ -		
	Haul (Hauling)	each	25	1	4.83	$ 441.04	$ 2,129.77	$ 53,244.34	25	$ 2,129.77		
	Setup Blocks (Blocking Crew)	each	25	3		$ 281.84	$ -	$ -	25	$ -		
	Assemble Bottom (Lattice Assembly)	each	25	4	16.86	$ 1,183.92	$ 19,959.69	$ 498,992.20	25	$ 19,959.69		
	Panel Bottom (Lattice Erection)	each	25	5		$ 1,519.02	$ -	$ -	25	$ -		
	Assemble Tops (Lattice Assembly)	each	25	4		$ 1,183.92	$ -	$ -	25	$ -		
	Top / Assembly Tower (Tower Topping)	each	25	6	3.32	$ 1,656.68	$ 5,505.04	$ 137,625.96	25	$ 5,505.04		
		each	25			$ -	$ -	$ -	25	$ -		
		each	25			$ -	$ -	$ -	25	$ -		
		each	25			$ -	$ -	$ -	25	$ -		
		each	25			$ -	$ -	$ -	25	$ -		
	Total Cost = $ 2.407	per pound					$ 27,594.50	$ 689,862.50		$ 27,594.50		
V::D105	**S1-D105 Assembly and Erection of +10.5 m body extension for Dead-End Tower** **Total structure count:**		**25**	**EA**			**$ 1,331,567.29**		**$ 53,262.69**	**$ -**	**$ 53,262.69**	**$ -**
	S1-D105 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043											
	Total Tower Weight With Guys and Ext. (lb) = 22128 Total Tower Height(ft) = 156 Section Weight (lb) = 22128											
	Site Preparation (Site Preparation)	each	25	2		$ 675.12	$ -	$ -	25	$ -		
	Haul (Hauling)	each	25	1	9.32	$ 441.04	$ 4,110.87	$ 102,771.81	25	$ 4,110.87		
	Setup Blocks (Blocking Crew)	each	25	3		$ 281.84	$ -	$ -	25	$ -		
	Assemble Bottom (Lattice Assembly)	each	25	4	32.54	$ 1,183.92	$ 38,526.04	$ 963,150.91	25	$ 38,526.04		
	Panel Bottom (Lattice Erection)	each	25	5		$ 1,519.02	$ -	$ -	25	$ -		
	Assemble Tops (Lattice Assembly)	each	25	4		$ 1,183.92	$ -	$ -	25	$ -		
	Top / Assembly Tower (Tower Topping)	each	25	6	6.41	$ 1,656.68	$ 10,625.78	$ 265,644.57	25	$ 10,625.78		
		each	25			$ -	$ -	$ -	25	$ -		
		each	25			$ -	$ -	$ -	25	$ -		
		each	25			$ -	$ -	$ -	25	$ -		
		each	25			$ -	$ -	$ -	25	$ -		
	Total Cost = $ 2.407	per pound					$ 53,262.69	$ 1,331,567.29		$ 53,262.69		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D106	**S1-D106 Assembly and Erection of +0 m leg extension for Dead-End Tower**	**Total structure count:**	**0**	**EA**				**$ -**		**$ 1,980.04**	**$ -**	**$ 1,980.04**	**$ -**
	S1-D106 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 3290	Total Tower Height(ft) = 121	Section Weight (lb) = 823										
	Site Preparation	Site Preparation	each	0	2		$ 675.12	$ -	$ -	0	$ -		
	Haul	Hauling	each	0	1	0.35	$ 441.04	$ 152.82	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3		$ 281.84	$ -	$ -	0	$ -		
	Assemble Bottom	Lattice Assembly	each	0	4	1.21	$ 1,183.92	$ 1,432.20	$ -	0	$ -		
	Panel Bottom	Lattice Erection	each	0	5		$ 1,519.02	$ -	$ -	0	$ -		
	Assemble Tops	Lattice Assembly	each	0	4		$ 1,183.92	$ -	$ -	0	$ -		
	Top / Assembly Tower	Tower Topping	each	0	6	0.24	$ 1,656.68	$ 395.01	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost =	$ 2.407	per pound					$ 1,980.04	$ -		$ -		
V::D107	**S1-D107 Assembly and Erection of +1.5 m leg extension for Dead-End Tower**	**Total structure count:**	**0**	**EA**				**$ -**		**$ 2,772.05**	**$ -**	**$ 2,772.05**	**$ -**
	S1-D107 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 4607	Total Tower Height(ft) = 126	Section Weight (lb) = 1152										
	Site Preparation	Site Preparation	each	0	2		$ 675.12	$ -	$ -	0	$ -		
	Haul	Hauling	each	0	1	0.49	$ 441.04	$ 213.95	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3		$ 281.84	$ -	$ -	0	$ -		
	Assemble Bottom	Lattice Assembly	each	0	4	1.69	$ 1,183.92	$ 2,005.09	$ -	0	$ -		
	Panel Bottom	Lattice Erection	each	0	5		$ 1,519.02	$ -	$ -	0	$ -		
	Assemble Tops	Lattice Assembly	each	0	4		$ 1,183.92	$ -	$ -	0	$ -		
	Top / Assembly Tower	Tower Topping	each	0	6	0.33	$ 1,656.68	$ 553.02	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost =	$ 2.407	per pound					$ 2,772.05	$ -		$ -		
V::D108	**S1-D108 Assembly and Erection of +3 m leg extension for Dead-End Tower**	**Total structure count:**	**84**	**EA**				**$ 326,907.27**		**$ 3,891.75**	**$ -**	**$ 3,891.75**	**$ -**
	S1-D108 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 6467	Total Tower Height(ft) = 131	Section Weight (lb) = 1617										
	Site Preparation	Site Preparation	each	84	2		$ 675.12	$ -	$ -	84	$ -		
	Haul	Hauling	each	84	1	0.68	$ 441.04	$ 300.37	$ 25,231.06	84	$ 300.37		
	Setup Blocks	Blocking Crew	each	84	3		$ 281.84	$ -	$ -	84	$ -		
	Assemble Bottom	Lattice Assembly	each	84	4	2.38	$ 1,183.92	$ 2,814.99	$ 236,458.97	84	$ 2,814.99		
	Panel Bottom	Lattice Erection	each	84	5		$ 1,519.02	$ -	$ -	84	$ -		
	Assemble Tops	Lattice Assembly	each	84	4		$ 1,183.92	$ -	$ -	84	$ -		
	Top / Assembly Tower	Tower Topping	each	84	6	0.47	$ 1,656.68	$ 776.40	$ 65,217.24	84	$ 776.40		
			each	84			$ -	$ -	$ -	84	$ -		
			each	84			$ -	$ -	$ -	84	$ -		
			each	84			$ -	$ -	$ -	84	$ -		
			each	84			$ -	$ -	$ -	84	$ -		
	Total Cost =	$ 2.407	per pound					$ 3,891.75	$ 326,907.27		$ 3,891.75		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D109	**S1-D109 Assembly and Erection of +4.5 m leg extension for Dead-End Tower**	**Total structure count:**	**24**	**EA**				**$ 127,215.95**		**$ 5,300.66**	**$ -**	**$ 5,300.66**	**$ -**
	S1-D109 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 8809	Total Tower Height(ft) = 136	Section Weight (lb) = 2202										
	Site Preparation	Site Preparation	each	24	2		$ 675.12	$ -	$ -	24	$ -		
	Haul	Hauling	each	24	1	0.93	$ 441.04	$ 409.11	$ 9,818.67	24	$ 409.11		
	Setup Blocks	Blocking Crew	each	24	3		$ 281.84	$ -	$ -	24	$ -		
	Assemble Bottom	Lattice Assembly	each	24	4	3.24	$ 1,183.92	$ 3,834.08	$ 92,018.00	24	$ 3,834.08		
	Panel Bottom	Lattice Erection	each	24	5		$ 1,519.02	$ -	$ -	24	$ -		
	Assemble Tops	Lattice Assembly	each	24	4		$ 1,183.92	$ -	$ -	24	$ -		
	Top / Assembly Tower	Tower Topping	each	24	6	0.64	$ 1,656.68	$ 1,057.47	$ 25,379.29	24	$ 1,057.47		
			each	24			$ -	$ -	$ -	24	$ -		
			each	24			$ -	$ -	$ -	24	$ -		
			each	24			$ -	$ -	$ -	24	$ -		
			each	24			$ -	$ -	$ -	24	$ -		
	Total Cost =	$ 2.407	per pound					$ 5,300.66	$ 127,215.95		$ 5,300.66		
V::D110	**S1-D110 Assembly and Erection of +6 m leg extension for Dead-End Tower**	**Total structure count:**	**92**	**EA**				**$ 576,881.60**		**$ 6,270.45**	**$ -**	**$ 6,270.45**	**$ -**
	S1-D110 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 10420	Total Tower Height(ft) = 141	Section Weight (lb) = 2605										
	Site Preparation	Site Preparation	each	92	2		$ 675.12	$ -	$ -	92	$ -		
	Haul	Hauling	each	92	1	1.10	$ 441.04	$ 483.96	$ 44,524.35	92	$ 483.96		
	Setup Blocks	Blocking Crew	each	92	3		$ 281.84	$ -	$ -	92	$ -		
	Assemble Bottom	Lattice Assembly	each	92	4	3.83	$ 1,183.92	$ 4,535.55	$ 417,270.71	92	$ 4,535.55		
	Panel Bottom	Lattice Erection	each	92	5		$ 1,519.02	$ -	$ -	92	$ -		
	Assemble Tops	Lattice Assembly	each	92	4		$ 1,183.92	$ -	$ -	92	$ -		
	Top / Assembly Tower	Tower Topping	each	92	6	0.76	$ 1,656.68	$ 1,250.94	$ 115,086.53	92	$ 1,250.94		
			each	92			$ -	$ -	$ -	92	$ -		
			each	92			$ -	$ -	$ -	92	$ -		
			each	92			$ -	$ -	$ -	92	$ -		
			each	92			$ -	$ -	$ -	92	$ -		
	Total Cost =	$ 2.407	per pound					$ 6,270.45	$ 576,881.60		$ 6,270.45		
V::D111	**S1-D111 Assembly and Erection of +7.5 m leg extension for Dead-End Tower**	**Total structure count:**	**60**	**EA**				**$ 448,105.49**		**$ 7,468.42**	**$ -**	**$ 7,468.42**	**$ -**
	S1-D111 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 12411	Total Tower Height(ft) = 146	Section Weight (lb) = 3103										
	Site Preparation	Site Preparation	each	60	2		$ 675.12	$ -	$ -	60	$ -		
	Haul	Hauling	each	60	1	1.31	$ 441.04	$ 576.42	$ 34,585.27	60	$ 576.42		
	Setup Blocks	Blocking Crew	each	60	3		$ 281.84	$ -	$ -	60	$ -		
	Assemble Bottom	Lattice Assembly	each	60	4	4.56	$ 1,183.92	$ 5,402.07	$ 324,124.22	60	$ 5,402.07		
	Panel Bottom	Lattice Erection	each	60	5		$ 1,519.02	$ -	$ -	60	$ -		
	Assemble Tops	Lattice Assembly	each	60	4		$ 1,183.92	$ -	$ -	60	$ -		
	Top / Assembly Tower	Tower Topping	each	60	6	0.90	$ 1,656.68	$ 1,489.93	$ 89,396.00	60	$ 1,489.93		
			each	60			$ -	$ -	$ -	60	$ -		
			each	60			$ -	$ -	$ -	60	$ -		
			each	60			$ -	$ -	$ -	60	$ -		
			each	60			$ -	$ -	$ -	60	$ -		
	Total Cost =	$ 2.407	per pound					$ 7,468.42	$ 448,105.49		$ 7,468.42		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D112	**S1-D112 Assembly and Erection of +9 m leg extension for Dead-End Tower**	**Total structure count:**	**84**		**EA**			**$ 832,396.05**		**$ 9,909.48**	**$ -**	**$ 9,909.48**	**$ -**
	S1-D112 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D1" as per dwg. 505573-4622-43DD-0043, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 16468	Total Tower Height(ft) = 151	Section Weight (lb) = 4117										
	Site Preparation	Site Preparation	each	84	2		$ 675.12	$ -	$ -	84	$ -		
	Haul	Hauling	each	84	1	1.73	$ 441.04	$ 764.82	$ 64,245.23	84	$ 764.82		
	Setup Blocks	Blocking Crew	each	84	3		$ 281.84	$ -	$ -	84	$ -		
	Assemble Bottom	Lattice Assembly	each	84	4	6.05	$ 1,183.92	$ 7,167.74	$ 602,089.75	84	$ 7,167.74		
	Panel Bottom	Lattice Erection	each	84	5		$ 1,519.02	$ -	$ -	84	$ -		
	Assemble Tops	Lattice Assembly	each	84	4		$ 1,183.92	$ -	$ -	84	$ -		
	Top / Assembly Tower	Tower Topping	each	84	6	1.19	$ 1,656.68	$ 1,976.92	$ 166,061.07	84	$ 1,976.92		
			each	84			$ -	$ -	$ -	84	$ -		
			each	84			$ -	$ -	$ -	84	$ -		
			each	84			$ -	$ -	$ -	84	$ -		
			each	84			$ -	$ -	$ -	84	$ -		
	Total Cost = $ 2.407		per pound					$ 9,909.48	$ 832,396.05		$ 9,909.48		
V-H24	**Assembly and Erection of Dead-End Tower Type "D2"**												
V::D113	**S1-D113 Assembly and Erection of Dead-End Tower Type "D2" Basic Body as**	**Total structure count:**	**0**		**EA**			**$ -**		**$ 134,684.54**	**$ -**	**$ 134,684.54**	**$ -**
	S1-D113 Assembly and Erection of Dead-End Tower Type "D2" Basic Body as per dwg. 505573-4622-43DD-0045												
	Total Tower Weight With Guys and Ext. (lb) = 41363	Total Tower Height(ft) = 106	Section Weight (lb) = 41363										
	Site Preparation	Site Preparation	each	0	2	2.00	$ 675.12	$ 1,350.24	$ -	0	$ -		
	Haul	Hauling	each	0	1	21.42	$ 441.04	$ 9,448.55	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3	2.00	$ 281.84	$ 563.68	$ -	0	$ -		
	Assemble	Lattice Assembly	each	0	4	60.83	$ 1,183.92	$ 72,016.09	$ -	0	$ -		
		Lattice Erection	each	0	5		$ 1,519.02	$ -	$ -	0	$ -		
		Lattice Assembly	each	0	4		$ 1,183.92	$ -	$ -	0	$ -		
	Erect Tower	Tower Topping	each	0	6	15.99	$ 1,656.68	$ 26,489.34	$ -	0	$ -		
	haul Insulators and Travellers	Haul Travellers&Glass	each	0	7	4.00	$ 636.64	$ 2,546.55	$ -	0	$ -		
	Hang Travellers	Hang Travellers	each	0	8	2.00	$ 1,444.07	$ 2,888.13	$ -	0	$ -		
	Dead-end	Deadends	each	0	13	14.00	$ 1,384.42	$ 19,381.95	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.656		per pound					$ 134,684.54	$ -		$ -		
V::D114	**S1-D114 Assembly and Erection of +4.5 m body extension for Dead-End Tower**	**Total structure count:**	**0**		**EA**			**$ -**		**$ 37,777.93**	**$ -**	**$ 37,777.93**	**$ -**
	S1-D114 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045												
	Total Tower Weight With Guys and Ext. (lb) = 15695	Total Tower Height(ft) = 121	Section Weight (lb) = 15695										
	Site Preparation	Site Preparation	each	0	2		$ 675.12	$ -	$ -	0	$ -		
	Haul	Hauling	each	0	1	6.61	$ 441.04	$ 2,915.74	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3		$ 281.84	$ -	$ -	0	$ -		
	Assemble Bottom	Lattice Assembly	each	0	4	23.08	$ 1,183.92	$ 27,325.58	$ -	0	$ -		
	Panel Bottom	Lattice Erection	each	0	5		$ 1,519.02	$ -	$ -	0	$ -		
	Assemble Tops	Lattice Assembly	each	0	4		$ 1,183.92	$ -	$ -	0	$ -		
	Top / Assembly Tower	Tower Topping	each	0	6	4.55	$ 1,656.68	$ 7,536.61	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.407		per pound					$ 37,777.93	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D115	**S1-D115 Assembly and Erection of +10.5 m body extension for Dead-End Tower** **Total structure count:**	**0**		**EA**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-D115 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045											
	Total Tower Weight With Guys and Ext. (lb) = 16061 Total Tower Height(ft) = 140 Section Weight (lb) = 16061											
	Site Preparation (Site Preparation)	each	0	2		$ 675.12	$ -	$ -	0	$ -		
	Haul (Hauling)	each	0	1		$ 441.04	$ -	$ -	0	$ -		
	Setup Blocks (Blocking Crew)	each	0	3		$ 281.84	$ -	$ -	0	$ -		
	Assemble Bottom (Lattice Assembly)	each	0	4		$ 1,183.92	$ -	$ -	0	$ -		
	Panel Bottom (Lattice Erection)	each	0	5		$ 1,519.02	$ -	$ -	0	$ -		
	Assemble Tops (Lattice Assembly)	each	0	4		$ 1,183.92	$ -	$ -	0	$ -		
	Top / Assembly Tower (Tower Topping)	each	0	6		$ 1,656.68	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ -	per pound					$ -	$ -		$ -		
V::D116	**S1-D116 Assembly and Erection of +0 m leg extension for Dead-End Tower** **Total structure count:**	**0**		**EA**			**$ -**		**$ 4,445.63**	**$ -**	**$ 4,445.63**	**$ -**
	S1-D116 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 7388 Total Tower Height(ft) = 106 Section Weight (lb) = 1847											
	Site Preparation (Site Preparation)	each	0	2		$ 675.12	$ -	$ -	0	$ -		
	Haul (Hauling)	each	0	1	0.78	$ 441.04	$ 343.12	$ -	0	$ -		
	Setup Blocks (Blocking Crew)	each	0	3		$ 281.84	$ -	$ -	0	$ -		
	Assemble Bottom (Lattice Assembly)	each	0	4	2.72	$ 1,183.92	$ 3,215.62	$ -	0	$ -		
	Panel Bottom (Lattice Erection)	each	0	5		$ 1,519.02	$ -	$ -	0	$ -		
	Assemble Tops (Lattice Assembly)	each	0	4		$ 1,183.92	$ -	$ -	0	$ -		
	Top / Assembly Tower (Tower Topping)	each	0	6	0.54	$ 1,656.68	$ 886.89	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.407	per pound					$ 4,445.63	$ -		$ -		
V::D117	**S1-D117 Assembly and Erection of +1.5 m leg extension for Dead-End Tower** **Total structure count:**	**0**		**EA**			**$ -**		**$ 5,927.51**	**$ -**	**$ 5,927.51**	**$ -**
	S1-D117 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 9850 Total Tower Height(ft) = 111 Section Weight (lb) = 2463											
	Site Preparation (Site Preparation)	each	0	2		$ 675.12	$ -	$ -	0	$ -		
	Haul (Hauling)	each	0	1	1.04	$ 441.04	$ 457.49	$ -	0	$ -		
	Setup Blocks (Blocking Crew)	each	0	3		$ 281.84	$ -	$ -	0	$ -		
	Assemble Bottom (Lattice Assembly)	each	0	4	3.62	$ 1,183.92	$ 4,287.49	$ -	0	$ -		
	Panel Bottom (Lattice Erection)	each	0	5		$ 1,519.02	$ -	$ -	0	$ -		
	Assemble Tops (Lattice Assembly)	each	0	4		$ 1,183.92	$ -	$ -	0	$ -		
	Top / Assembly Tower (Tower Topping)	each	0	6	0.71	$ 1,656.68	$ 1,182.52	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.407	per pound					$ 5,927.51	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D118	**S1-D118 Assembly and Erection of +3 m leg extension for Dead-End Tower** **Total structure count:**	0		**EA**			$ -		$ 7,611.04	$ -	$ 7,611.04	$ -
	S1-D118 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 12648 Total Tower Height(ft) = 116 Section Weight (lb) = 3162											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	1.33	$ 441.04	$ 587.43	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	4.65	$ 1,183.92	$ 5,505.23	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	0.92	$ 1,656.68	$ 1,518.38	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.407	per pound				$ 7,611.04	$ -		$ -			
V::D119	**S1-D119 Assembly and Erection of +4.5 m leg extension for Dead-End Tower** **Total structure count:**	0		**EA**			$ -		$ 8,897.90	$ -	$ 8,897.90	$ -
	S1-D119 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 14786 Total Tower Height(ft) = 121 Section Weight (lb) = 3697											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	1.56	$ 441.04	$ 686.75	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	5.44	$ 1,183.92	$ 6,436.04	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	1.07	$ 1,656.68	$ 1,775.11	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.407	per pound				$ 8,897.90	$ -		$ -			
V::D120	**S1-D120 Assembly and Erection of +6 m leg extension for Dead-End Tower** **Total structure count:**	0		**EA**			$ -		$ 11,744.91	$ -	$ 11,744.91	$ -
	S1-D120 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 19518 Total Tower Height(ft) = 126 Section Weight (lb) = 4879											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	2.06	$ 441.04	$ 906.48	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	7.18	$ 1,183.92	$ 8,495.34	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	1.41	$ 1,656.68	$ 2,343.08	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.407	per pound				$ 11,744.91	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D121	**S1-D121 Assembly and Erection of +7.5 m leg extension for Dead-End Tower**		**Total structure count:**	**0**	**EA**			**$ -**		**$ 13,622.13**	**$ -**	**$ 13,622.13**	**$ -**
	S1-D121 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 22637	Total Tower Height(ft) = 131	Section Weight (lb) = 5659										
	Site Preparation	Site Preparation	each	0	2		$ 675.12	$ -	$ -	0	$ -		
	Haul	Hauling	each	0	1	2.38	$ 441.04	$ 1,051.37	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3		$ 281.84	$ -	$ -	0	$ -		
	Assemble Bottom	Lattice Assembly	each	0	4	8.32	$ 1,183.92	$ 9,853.18	$ -	0	$ -		
	Panel Bottom	Lattice Erection	each	0	5		$ 1,519.02	$ -	$ -	0	$ -		
	Assemble Tops	Lattice Assembly	each	0	4		$ 1,183.92	$ -	$ -	0	$ -		
	Top / Assembly Tower	Tower Topping	each	0	6	1.64	$ 1,656.68	$ 2,717.58	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.407		per pound					$ 13,622.13	$ -		$ -		
V::D122	**S1-D122 Assembly and Erection of +9 m leg extension for Dead-End Tower**		**Total structure count:**	**0**	**EA**			**$ -**		**$ 13,761.43**	**$ -**	**$ 13,761.43**	**$ -**
	S1-D122 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D2" as per dwg. 505573-4622-43DD-0045, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 22869	Total Tower Height(ft) = 135	Section Weight (lb) = 5717										
	Site Preparation	Site Preparation	each	0	2		$ 675.12	$ -	$ -	0	$ -		
	Haul	Hauling	each	0	1	2.41	$ 441.04	$ 1,062.12	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3		$ 281.84	$ -	$ -	0	$ -		
	Assemble Bottom	Lattice Assembly	each	0	4	8.41	$ 1,183.92	$ 9,953.93	$ -	0	$ -		
	Panel Bottom	Lattice Erection	each	0	5		$ 1,519.02	$ -	$ -	0	$ -		
	Assemble Tops	Lattice Assembly	each	0	4		$ 1,183.92	$ -	$ -	0	$ -		
	Top / Assembly Tower	Tower Topping	each	0	6	1.66	$ 1,656.68	$ 2,745.37	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost = $ 2.407		per pound					$ 13,761.43	$ -		$ -		

V-H25 **Assembly and Erection of Dead-End Tower Type "E1"**

V::D123	**S1-D123 Assembly and Erection of Dead-End Tower Type "E1" Basic Body as**		**Total structure count:**	**16**	**EA**			**$ 2,551,977.46**		**$ 159,498.59**	**$ -**	**$ 159,498.59**	**$ -**
	S1-D123 Assembly and Erection of Dead-End Tower Type "E1" Basic Body as per dwg. 505573-4622-43DD-0007												
	Total Tower Weight With Guys and Ext. (lb) = 55056	Total Tower Height(ft) = 121	Section Weight (lb) = 55056										
	Site Preparation	Site Preparation	each	16	2	2.00	$ 675.12	$ 1,350.24	$ 21,603.92	16	$ 1,350.24		
	Haul	Hauling	each	16	1	25.19	$ 441.04	$ 11,110.32	$ 177,765.14	16	$ 11,110.32		
	Setup Blocks	Blocking Crew	each	16	3	2.00	$ 281.84	$ 563.68	$ 9,018.95	16	$ 563.68		
	Assemble	Lattice Assembly	each	16	4	80.97	$ 1,183.92	$ 95,856.40	$ 1,533,702.44	16	$ 95,856.40		
		Lattice Erection	each	16	5		$ 1,519.02	$ -	$ -	16	$ -		
		Lattice Assembly	each	16	4		$ 1,183.92	$ -	$ -	16	$ -		
	Erect Tower	Tower Topping	each	16	6	15.96	$ 1,656.68	$ 26,437.95	$ 423,007.15	16	$ 26,437.95		
	haul Insulators and Travellers	Haul Travellers&Glass	each	16	7	3.00	$ 636.64	$ 1,909.91	$ 30,558.59	16	$ 1,909.91		
	Hang Travellers	Hang Travellers	each	16	8	2.00	$ 1,444.07	$ 2,888.13	$ 46,210.14	16	$ 2,888.13		
	Dead-end	Deadends	each	16	13	14.00	$ 1,384.42	$ 19,381.95	$ 310,111.12	16	$ 19,381.95		
			each	16			$ -	$ -	$ -	16	$ -		
	Total Cost = $ 2.458		per pound					$ 159,498.59	$ 2,551,977.46		$ 159,498.59		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D124	**S1-D124 Assembly and Erection of +4.5 m body extension for Dead-End Tower** **Total structure count:**	**1**	**EA**				**$ 38,595.74**		**$ 38,595.74**	**$ -**	**$ 38,595.74**	**$ -**
	S1-D124 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007											
	Total Tower Weight With Guys and Ext. (lb) = 15851 Total Tower Height(ft) = 136 Section Weight (lb) = 15851											
	Site Preparation (Site Preparation)	each 1	2		$ 675.12	$ -	$ -	1	$ -			
	Haul (Hauling)	each 1	1	7.68	$ 441.04	$ 3,385.86	$ 3,385.86	1	$ 3,385.86			
	Setup Blocks (Blocking Crew)	each 1	3		$ 281.84	$ -	$ -	1	$ -			
	Assemble Bottom (Lattice Assembly)	each 1	4	23.31	$ 1,183.92	$ 27,598.11	$ 27,598.11	1	$ 27,598.11			
	Panel Bottom (Lattice Erection)	each 1	5		$ 1,519.02	$ -	$ -	1	$ -			
	Assemble Tops (Lattice Assembly)	each 1	4		$ 1,183.92	$ -	$ -	1	$ -			
	Top / Assembly Tower (Tower Topping)	each 1	6	4.59	$ 1,656.68	$ 7,611.77	$ 7,611.77	1	$ 7,611.77			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
	Total Cost = $ 2.435	per pound				$ 38,595.74	$ 38,595.74		$ 38,595.74			
V::D125	**S1-D125 Assembly and Erection of +10.5 m body extension for Dead-End Tower** **Total structure count:**	**6**	**EA**				**$ 442,085.13**		**$ 73,680.86**	**$ -**	**$ 73,680.86**	**$ -**
	S1-D125 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007											
	Total Tower Weight With Guys and Ext. (lb) = 30336 Total Tower Height(ft) = 156 Section Weight (lb) = 30336											
	Site Preparation (Site Preparation)	each 6	2		$ 675.12	$ -	$ -	6	$ -			
	Haul (Hauling)	each 6	1	14.28	$ 441.04	$ 6,297.27	$ 37,783.63	6	$ 6,297.27			
	Setup Blocks (Blocking Crew)	each 6	3		$ 281.84	$ -	$ -	6	$ -			
	Assemble Bottom (Lattice Assembly)	each 6	4	44.61	$ 1,183.92	$ 52,816.41	$ 316,898.43	6	$ 52,816.41			
	Panel Bottom (Lattice Erection)	each 6	5		$ 1,519.02	$ -	$ -	6	$ -			
	Assemble Tops (Lattice Assembly)	each 6	4		$ 1,183.92	$ -	$ -	6	$ -			
	Top / Assembly Tower (Tower Topping)	each 6	6	8.79	$ 1,656.68	$ 14,567.18	$ 87,403.07	6	$ 14,567.18			
		each 6			$ -	$ -	$ -	6	$ -			
		each 6			$ -	$ -	$ -	6	$ -			
		each 6			$ -	$ -	$ -	6	$ -			
		each 6			$ -	$ -	$ -	6	$ -			
	Total Cost = $ 2.429	per pound				$ 73,680.86	$ 442,085.13		$ 73,680.86			
V::D126	**S1-D126 Assembly and Erection of +0 m leg extension for Dead-End Tower** **Total structure count:**	**0**	**EA**				**$ -**		**$ 4,652.59**	**$ -**	**$ 4,652.59**	**$ -**
	S1-D126 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg											
	Total Tower Weight With Guys and Ext. (lb) = 7732 Total Tower Height(ft) = 121 Section Weight (lb) = 1933											
	Site Preparation (Site Preparation)	each 0	2		$ 675.12	$ -	$ -	0	$ -			
	Haul (Hauling)	each 0	1	0.81	$ 441.04	$ 359.09	$ -	0	$ -			
	Setup Blocks (Blocking Crew)	each 0	3		$ 281.84	$ -	$ -	0	$ -			
	Assemble Bottom (Lattice Assembly)	each 0	4	2.84	$ 1,183.92	$ 3,365.32	$ -	0	$ -			
	Panel Bottom (Lattice Erection)	each 0	5		$ 1,519.02	$ -	$ -	0	$ -			
	Assemble Tops (Lattice Assembly)	each 0	4		$ 1,183.92	$ -	$ -	0	$ -			
	Top / Assembly Tower (Tower Topping)	each 0	6	0.56	$ 1,656.68	$ 928.18	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
		each 0			$ -	$ -	$ -	0	$ -			
	Total Cost = $ 2.407	per pound				$ 4,652.59	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D127	**S1-D127 Assembly and Erection of +1.5 m leg extension for Dead-End Tower**	**Total structure count:**	**0**	**EA**				**$ -**		**$ 6,203.46**	**$ -**	**$ 6,203.46**	**$ -**
	S1-D127 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 10309	Total Tower Height(ft) = 126	Section Weight (lb) = 2577										
	Site Preparation	Site Preparation	each	0	2		$ 675.12	$ -	$ -	0	$ -		
	Haul	Hauling	each	0	1	1.09	$ 441.04	$ 478.79	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3		$ 281.84	$ -	$ -	0	$ -		
	Assemble Bottom	Lattice Assembly	each	0	4	3.79	$ 1,183.92	$ 4,487.09	$ -	0	$ -		
	Panel Bottom	Lattice Erection	each	0	5		$ 1,519.02	$ -	$ -	0	$ -		
	Assemble Tops	Lattice Assembly	each	0	4		$ 1,183.92	$ -	$ -	0	$ -		
	Top / Assembly Tower	Tower Topping	each	0	6	0.75	$ 1,656.68	$ 1,237.57	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost =	$ 2.407	per pound					$ 6,203.46	$ -		$ -		
V::D128	**S1-D128 Assembly and Erection of +3 m leg extension for Dead-End Tower**	**Total structure count:**	**0**	**EA**				**$ -**		**$ 8,161.60**	**$ -**	**$ 8,161.60**	**$ -**
	S1-D128 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 13563	Total Tower Height(ft) = 131	Section Weight (lb) = 3391										
	Site Preparation	Site Preparation	each	0	2		$ 675.12	$ -	$ -	0	$ -		
	Haul	Hauling	each	0	1	1.43	$ 441.04	$ 629.92	$ -	0	$ -		
	Setup Blocks	Blocking Crew	each	0	3		$ 281.84	$ -	$ -	0	$ -		
	Assemble Bottom	Lattice Assembly	each	0	4	4.99	$ 1,183.92	$ 5,903.46	$ -	0	$ -		
	Panel Bottom	Lattice Erection	each	0	5		$ 1,519.02	$ -	$ -	0	$ -		
	Assemble Tops	Lattice Assembly	each	0	4		$ 1,183.92	$ -	$ -	0	$ -		
	Top / Assembly Tower	Tower Topping	each	0	6	0.98	$ 1,656.68	$ 1,628.22	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Total Cost =	$ 2.407	per pound					$ 8,161.60	$ -		$ -		
V::D129	**S1-D129 Assembly and Erection of +4.5 m leg extension for Dead-End Tower**	**Total structure count:**	**32**	**EA**				**$ 317,506.56**		**$ 9,922.08**	**$ -**	**$ 9,922.08**	**$ -**
	S1-D129 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 16488	Total Tower Height(ft) = 136	Section Weight (lb) = 4122										
	Site Preparation	Site Preparation	each	32	2		$ 675.12	$ -	$ -	32	$ -		
	Haul	Hauling	each	32	1	1.74	$ 441.04	$ 765.80	$ 24,505.50	32	$ 765.80		
	Setup Blocks	Blocking Crew	each	32	3		$ 281.84	$ -	$ -	32	$ -		
	Assemble Bottom	Lattice Assembly	each	32	4	6.06	$ 1,183.92	$ 7,176.85	$ 229,659.24	32	$ 7,176.85		
	Panel Bottom	Lattice Erection	each	32	5		$ 1,519.02	$ -	$ -	32	$ -		
	Assemble Tops	Lattice Assembly	each	32	4		$ 1,183.92	$ -	$ -	32	$ -		
	Top / Assembly Tower	Tower Topping	each	32	6	1.19	$ 1,656.68	$ 1,979.43	$ 63,341.82	32	$ 1,979.43		
			each	32			$ -	$ -	$ -	32	$ -		
			each	32			$ -	$ -	$ -	32	$ -		
			each	32			$ -	$ -	$ -	32	$ -		
			each	32			$ -	$ -	$ -	32	$ -		
	Total Cost =	$ 2.407	per pound					$ 9,922.08	$ 317,506.56		$ 9,922.08		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::D130	**S1-D130 Assembly and Erection of +6 m leg extension for Dead-End Tower**	**Total structure count:**	**8**	**EA**				**$ 97,546.56**		**$ 12,193.32**	**$ -**	**$ 12,193.32**	**$ -**
	S1-D130 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 20263	Total Tower Height(ft) = 141	Section Weight (lb) = 5066										
	Site Preparation	Site Preparation	each	8	2		$ 675.12	$ -	$ -	8	$ -		
	Haul	Hauling	each	8	1	2.13	$ 441.04	$ 941.09	$ 7,528.75	8	$ 941.09		
	Setup Blocks	Blocking Crew	each	8	3		$ 281.84	$ -	$ -	8	$ -		
	Assemble Bottom	Lattice Assembly	each	8	4	7.45	$ 1,183.92	$ 8,819.69	$ 70,557.50	8	$ 8,819.69		
	Panel Bottom	Lattice Erection	each	8	5		$ 1,519.02	$ -	$ -	8	$ -		
	Assemble Tops	Lattice Assembly	each	8	4		$ 1,183.92	$ -	$ -	8	$ -		
	Top / Assembly Tower	Tower Topping	each	8	6	1.47	$ 1,656.68	$ 2,432.54	$ 19,460.31	8	$ 2,432.54		
			each	8			$ -	$ -	$ -	8	$ -		
			each	8			$ -	$ -	$ -	8	$ -		
			each	8			$ -	$ -	$ -	8	$ -		
			each	8			$ -	$ -	$ -	8	$ -		
	Total Cost =	$ 2.407	per pound					$ 12,193.32	$ 97,546.56		$ 12,193.32		
V::D131	**S1-D131 Assembly and Erection of +7.5 m leg extension for Dead-End Tower**	**Total structure count:**	**4**	**EA**				**$ 56,611.18**		**$ 14,152.79**	**$ -**	**$ 14,152.79**	**$ -**
	S1-D131 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 23519	Total Tower Height(ft) = 146	Section Weight (lb) = 5880										
	Site Preparation	Site Preparation	each	4	2		$ 675.12	$ -	$ -	4	$ -		
	Haul	Hauling	each	4	1	2.48	$ 441.04	$ 1,092.33	$ 4,369.31	4	$ 1,092.33		
	Setup Blocks	Blocking Crew	each	4	3		$ 281.84	$ -	$ -	4	$ -		
	Assemble Bottom	Lattice Assembly	each	4	4	8.65	$ 1,183.92	$ 10,237.02	$ 40,948.07	4	$ 10,237.02		
	Panel Bottom	Lattice Erection	each	4	5		$ 1,519.02	$ -	$ -	4	$ -		
	Assemble Tops	Lattice Assembly	each	4	4		$ 1,183.92	$ -	$ -	4	$ -		
	Top / Assembly Tower	Tower Topping	each	4	6	1.70	$ 1,656.68	$ 2,823.45	$ 11,293.80	4	$ 2,823.45		
			each	4			$ -	$ -	$ -	4	$ -		
			each	4			$ -	$ -	$ -	4	$ -		
			each	4			$ -	$ -	$ -	4	$ -		
			each	4			$ -	$ -	$ -	4	$ -		
	Total Cost =	$ 2.407	per pound					$ 14,152.79	$ 56,611.18		$ 14,152.79		
V::D132	**S1-D132 Assembly and Erection of +9 m leg extension for Dead-End Tower**	**Total structure count:**	**20**	**EA**				**$ 322,218.85**		**$ 16,110.94**	**$ -**	**$ 16,110.94**	**$ -**
	S1-D132 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "E1" as per dwg. 505573-4622-43DD-0007, per leg												
	Total Tower Weight With Guys and Ext. (lb) = 26773	Total Tower Height(ft) = 151	Section Weight (lb) = 6693										
	Site Preparation	Site Preparation	each	20	2		$ 675.12	$ -	$ -	20	$ -		
	Haul	Hauling	each	20	1	2.82	$ 441.04	$ 1,243.46	$ 24,869.20	20	$ 1,243.46		
	Setup Blocks	Blocking Crew	each	20	3		$ 281.84	$ -	$ -	20	$ -		
	Assemble Bottom	Lattice Assembly	each	20	4	9.84	$ 1,183.92	$ 11,653.39	$ 233,067.74	20	$ 11,653.39		
	Panel Bottom	Lattice Erection	each	20	5		$ 1,519.02	$ -	$ -	20	$ -		
	Assemble Tops	Lattice Assembly	each	20	4		$ 1,183.92	$ -	$ -	20	$ -		
	Top / Assembly Tower	Tower Topping	each	20	6	1.94	$ 1,656.68	$ 3,214.10	$ 64,281.91	20	$ 3,214.10		
			each	20			$ -	$ -	$ -	20	$ -		
			each	20			$ -	$ -	$ -	20	$ -		
			each	20			$ -	$ -	$ -	20	$ -		
			each	20			$ -	$ -	$ -	20	$ -		
	Total Cost =	$ 2.407	per pound					$ 16,110.94	$ 322,218.85		$ 16,110.94		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H26	**S1-E Installation of Wires and OPGW (S1-Ex)**												
V::E01	**S1-E1 Installation of Counterpoise wire, connection with tower grounding**	**Total structure count:**	**470**		**KM**			**$ 3,445,680.88**		**$ 7,331.24**	**$ -**	**$ 7,331.24**	**$ -**
	S1-E1 Installation of Counterpoise wire, connection with tower grounding												
			Assume		1.2 km/day								
Haul	Wire Hauling	each	470	9	0.15	$ 405.51	$ 62.22	$ 29,243.70	470	$ 62.22			
Plow Counterpoise	Counterpoise Instal	each	470	43	9.17	$ 750.15	$ 6,876.39	$ 3,231,905.43	470	$ 6,876.39			
Connect at tower	Ground Testing	each	470	25	1.50	$ 261.75	$ 392.62	$ 184,531.74	470	$ 392.62			
		each	470			$ -	$ -	$ -	470	$ -			
		each	470			$ -	$ -	$ -	470	$ -			
		each	470			$ -	$ -	$ -	470	$ -			
		each	470			$ -	$ -	$ -	470	$ -			
		each	470			$ -	$ -	$ -	470	$ -			
		each	470			$ -	$ -	$ -	470	$ -			
		each	470			$ -	$ -	$ -	470	$ -			
		each	470			$ -	$ -	$ -	470	$ -			
							$ 7,331.24	$ 3,445,680.88		$ 7,331.24			
V::E02	**S1-E2 Installation of ground rods at crossing obstacles in soil and rock**	**Total structure count:**	**460**		**EA**			**$ 86,267.49**		**$ 187.54**	**$ -**	**$ 187.54**	**$ -**
	S1-E2 Installation of ground rods at crossing obstacles in soil and rock												
Haul and install	Counterpoise Instal	each	460	43	0.25	$ 750.15	$ 187.54	$ 86,267.49	460	$ 187.54			
		each	460			$ -	$ -	$ -	460	$ -			
		each	460			$ -	$ -	$ -	460	$ -			
		each	460			$ -	$ -	$ -	460	$ -			
		each	460			$ -	$ -	$ -	460	$ -			
		each	460			$ -	$ -	$ -	460	$ -			
		each	460			$ -	$ -	$ -	460	$ -			
		each	460			$ -	$ -	$ -	460	$ -			
		each	460			$ -	$ -	$ -	460	$ -			
		each	460			$ -	$ -	$ -	460	$ -			
		each	460			$ -	$ -	$ -	460	$ -			
		each	460			$ -	$ -	$ -	460	$ -			
							$ 187.54	$ 86,267.49		$ 187.54			
V::E03	**S1-E3 Tower Footing resistance measurement**	**Total structure count:**	**470**		**EA**			**$ 61,510.58**		**$ 130.87**	**$ -**	**$ 130.87**	**$ -**
	S1-E3 Tower Footing resistance measurement												
Test Tower ground	Ground Testing	each	470	25	0.50	$ 261.75	$ 130.87	$ 61,510.58	470	$ 130.87			
		each	470			$ -	$ -	$ -	470	$ -			
		each	470			$ -	$ -	$ -	470	$ -			
		each	470			$ -	$ -	$ -	470	$ -			
		each	470			$ -	$ -	$ -	470	$ -			
		each	470			$ -	$ -	$ -	470	$ -			
		each	470			$ -	$ -	$ -	470	$ -			
		each	470			$ -	$ -	$ -	470	$ -			
		each	470			$ -	$ -	$ -	470	$ -			
		each	470			$ -	$ -	$ -	470	$ -			
		each	470			$ -	$ -	$ -	470	$ -			
							$ 130.87	$ 61,510.58		$ 130.87			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::E04	**S1-E4 S1 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Total structure count:**		**0**		**KM**			**$ -**		**$ 70,302.67**	**$ -**	**$ 70,302.67**	**$ -**
	S1-E4 S1 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles												
	1350m per reel / Average Haul distance = 200 km Assume 1.1 km/day												
	Haul	Wire Hauling	each	0	9	7.30	$ 405.51	$ 2,960.84	$ -	0	$ -		
	Prepare Pull site	Pull Site Prep	each	0	10	3.70	$ 1,282.13	$ 4,748.63	$ -	0	$ -		
	Install Rock anchor for pull site 50%	Rock Foundations	each	0	36	0.99	$ 920.20	$ 908.84	$ -	0	$ -		
	Pull In Conductor & Sag	Stringing	each	0	11	10.00	$ 5,977.88	$ 59,778.85	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Sock installation by Helicopter	HeliSockInstall	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
								$ 70,302.67	$ -		$ -		
V::E04-1	**S2-E4 S2 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Total structure count:**		**0**		**KM**			**$ -**		**$ 89,645.00**	**$ -**	**$ 89,645.00**	**$ -**
	S2-E4 S2 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles												
	1350m per reel / Average Haul distance = 700 km Assume 0.9 km/day												
	Haul	Wire Hauling	each	0	9	20.00	$ 405.51	$ 8,110.14	$ -	0	$ -		
	Prepare Pull site	Pull Site Prep	each	0	10	3.70	$ 1,282.13	$ 4,748.63	$ -	0	$ -		
	Install Rock anchor for pull site 100%	Rock Foundations	each	0	36	1.98	$ 920.20	$ 1,817.69	$ -	0	$ -		
	Pull In Conductor & Sag	Stringing	each	0	11	12.22	$ 5,977.88	$ 73,063.04	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Sock installation by Helicopter	HeliSockInstall	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
								$ 89,645.00	$ -		$ -		
V::E04-2	**S3-E4 S3 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Total structure count:**		**0**		**KM**			**$ -**		**$ 86,555.42**	**$ -**	**$ 86,555.42**	**$ -**
	S3-E4 S3 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles												
	1350m per reel / Average Haul distance = 400 km Assume 0.9 km/day												
	Haul	Wire Hauling	each	0	9	12.38	$ 405.51	$ 5,020.56	$ -	0	$ -		
	Prepare Pull site	Pull Site Prep	each	0	10	3.70	$ 1,282.13	$ 4,748.63	$ -	0	$ -		
	Install Rock anchor for pull site 66%	Rock Foundations	each	0	36	1.98	$ 920.20	$ 1,817.69	$ -	0	$ -		
	Pull In Conductor & Sag	Stringing	each	0	11	12.22	$ 5,977.88	$ 73,063.04	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
	Sock installation by Helicopter	HeliSockInstall	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
								$ 86,555.42	$ -		$ -		
V::E04-3	**S4-E4 S4 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Total structure count:**		**290**		**KM**			**$ 21,248,656.73**		**$ 73,271.23**	**$ -**	**$ 73,271.23**	**$ -**
	S4-E4 S4 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles												
	1350m per reel / Average Haul distance = 400 km Assume 1.1 km/day												
	Haul	Wire Hauling	each	290	9	12.38	$ 405.51	$ 5,020.56	$ 1,455,963.17	290	$ 5,020.56		
	Prepare Pull site	Pull Site Prep	each	290	10	3.70	$ 1,282.13	$ 4,748.63	$ 1,377,103.63	290	$ 4,748.63		
	Install Rock anchor for pull site 100%	Rock Foundations	each	290	36	1.98	$ 920.20	$ 1,817.69	$ 527,129.06	290	$ 1,817.69		
	Pull In Conductor & Sag	Stringing	each	290	11	10.00	$ 5,977.88	$ 59,778.85	$ 17,335,865.87	290	$ 59,778.85		
			each	290			$ -	$ -	$ -	290	$ -		
	Sock installation by Helicopter	HeliSockInstall	each	290	34	1.00	$ 1,905.50	$ 1,905.50	$ 552,595.00	290	$ 1,905.50		
			each	290			$ -	$ -	$ -	290	$ -		
			each	290			$ -	$ -	$ -	290	$ -		
			each	290			$ -	$ -	$ -	290	$ -		
			each	290			$ -	$ -	$ -	290	$ -		
								$ 73,271.23	$ 21,248,656.73		$ 73,271.23		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::E04-4	**S5-E4 S5 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR** **Total structure count:**		**180**		**KM**			**$ 11,921,389.46**		**$ 66,229.94**	**$ -**	**$ 66,229.94**	**$ -**
	S5-E4 S5 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, complete for both poles												
	1350m per reel / Average Haul distance = 200 km Assume 1.2 km/day												
	Haul	Wire Hauling	each	180	9	7.30	$ 405.51	$ 2,960.84	$ 532,952.03	180	$ 2,960.84		
	Prepare Pull site	Pull Site Prep	each	180	10	3.70	$ 1,282.13	$ 4,748.63	$ 854,753.98	180	$ 4,748.63		
	Install Rock anchor for pull site 100%	Rock Foundations	each	180	36	1.98	$ 920.20	$ 1,817.69	$ 327,183.56	180	$ 1,817.69		
	Pull In Conductor & Sag	Stringing	each	180	11	9.17	$ 5,977.88	$ 54,797.28	$ 9,863,509.89	180	$ 54,797.28		
			each	180			$ -	$ -	$ -	180	$ -		
	Sock installation by Helicopter	HeliSockInstall	each	180	34	1.00	$ 1,905.50	$ 1,905.50	$ 342,990.00	180	$ 1,905.50		
								$ 66,229.94	$ 11,921,389.46		$ 66,229.94		
V::E05	**S1-E5 Installation of Conductor on Steel Towers - 1192.5 kcmil 54/19 ACSR** **Total structure count:**		**0**		**KM**			**$ -**		**$ 44,488.49**	**$ -**	**$ 44,488.49**	**$ -**
	S1-E5 Installation of Conductor on Steel Towers - 1192.5 kcmil 54/19 ACSR Grackle Conductor, complete for both electrodes												
	1800m per reel / Average Haul distance = 300 km Assume 1.8 km/day												
	Haul	Wire Hauling	each	0	9	3.69	$ 405.51	$ 1,496.51	$ -	0	$ -		
	Prepare Pull site	Pull Site Prep	each	0	10	2.50	$ 1,282.13	$ 3,205.33	$ -	0	$ -		
	Pull In Conductor & Sag		each	0			$ -	$ -	$ -	0	$ -		
	Install Rock anchor for pull site 66%	Rock Foundations	each	0	36	1.47	$ 920.20	$ 1,349.63	$ -	0	$ -		
	Pull In Conductor & Sag	Stringing	each	0	11	6.11	$ 5,977.88	$ 36,531.52	$ -	0	$ -		
	Splicing Time for DE Crew		each	0			$ -	$ -	$ -	0	$ -		
	Sock installation by Helicopter	HeliSockInstall	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
								$ 44,488.49	$ -		$ -		
V::E06	**S1-E6 Installation of Conductor on Steel Towers - 1590.0 kcmil 54/19 ACSR** **Total structure count:**		**0**		**KM**			**$ -**		**$ 63,593.22**	**$ -**	**$ 63,593.22**	**$ -**
	S1-E6 Installation of Conductor on Steel Towers - 1590.0 kcmil 54/19 ACSR Falcon Conductor, complete for both electrodes												
	1800m per reel / Average Haul distance = 700 km Assume 1.3 km/day												
	Haul	Wire Hauling	each	0	9	15.00	$ 405.51	$ 6,082.60	$ -	0	$ -		
	Prepare Pull site	Pull Site Prep	each	0	10	2.50	$ 1,282.13	$ 3,205.33	$ -	0	$ -		
	Pull In Conductor & Sag		each	0			$ -	$ -	$ -	0	$ -		
	Install Rock anchor for pull site 100%	Rock Foundations	each	0	36	1.98	$ 920.20	$ 1,817.69	$ -	0	$ -		
	Pull In Conductor & Sag	Stringing	each	0	11	8.46	$ 5,977.88	$ 50,582.10	$ -	0	$ -		
	Splicing Time for DE Crew		each	0			$ -	$ -	$ -	0	$ -		
	Sock installation by Helicopter	HeliSockInstall	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
								$ 63,593.22	$ -		$ -		
V::E07	**S1-E7 Installation of Conductor on Wood Poles - 1192.5 kcmil 54/19 ACSR** **Total structure count:**		**0**		**KM**			**$ -**		**$ 28,198.24**	**$ -**	**$ 28,198.24**	**$ -**
	S1-E7 Installation of Conductor on Wood Poles - 1192.5 kcmil 54/19 ACSR Grackle Conductor, complete for both electrodes												
	1800m per reel / Average Haul distance = 600 km Assume 1.5 km/day												
	Haul	Wire Hauling	each	0	9	17.46	$ 405.51	$ 7,080.28	$ -	0	$ -		
	Prepare Pull site	Pull Site Prep	each	0	10	2.50	$ 1,282.13	$ 3,205.33	$ -	0	$ -		
	Slack Stringing	Slack Stringing	each	0	50	7.33	$ 2,442.63	$ 17,912.63	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
			each	0			$ -	$ -	$ -	0	$ -		
								$ 28,198.24	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::E08	**S1-E8 Installation of Conductor on Wood Poles - 1590.0 kcmil 54/19 ACSR**	**Total structure count:**	**0**		**KM**			**$ -**		**$ 30,954.03**	**$ -**	**$ 30,954.03**	**$ -**
	S1-E8 Installation of Conductor on Wood Poles - 1590.0 kcmil 54/19 ACSR Falcon Conductor, complete for both electrodes												
	1800m per reel / Average Haul distance = 600 km Assume 1.3 km/day												
	Haul (Wire Hauling)	each	0	9	17.46	$ 405.51	$ 7,080.28	$ -	0	$ -			
	Prepare Pull site (Pull Site Prep)	each	0	10	2.50	$ 1,282.13	$ 3,205.33	$ -	0	$ -			
	Slack Stringing (Slack Stringing)	each	0	50	8.46	$ 2,442.63	$ 20,668.42	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 30,954.03	$ -		$ -			
V::E09	**S1-E9 Installation of ADSS on Wood Poles**	**Total structure count:**	**0**		**KM**			**$ -**		**$ 12,167.46**	**$ -**	**$ 12,167.46**	**$ -**
	S1-E9 Installation of ADSS on Wood Poles												
	1.2 kg/m and 6680 kg / reel Assume 4 km/day												
	Haul (Wire Hauling)	each	0	9	1.13	$ 405.51	$ 456.20	$ -	0	$ -			
	Prepare Pull site (Pull Site Prep)	each	0	10	3.15	$ 1,282.13	$ 4,036.34	$ -	0	$ -			
	Pull In OPGW & Sag (OPGW Install)	each	0	15	2.75	$ 2,790.88	$ 7,674.92	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 12,167.46	$ -		$ -			
V::E10	**S1-E10 ADSS splicing and tests including loss analysis**	**Total structure count:**	**0**		**EA**			**$ -**		**$ 5,562.88**	**$ -**	**$ 5,562.88**	**$ -**
	S1-E10 ADSS splicing and tests including loss analysis												
	Assume number of splice points = 1 @ 24 Minutes/Fibre = 9.60 Hours per 24 fibre splice												
	Haul and install Fibre Splice Box (Tie -in)	each	0	12	4.00	$ 676.30	$ 2,705.21	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
	Splice and test Fibre (OPGW Splice)	each	0	42	9.60	$ 297.67	$ 2,857.67	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 5,562.88	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	 Hourly Rate	 Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::E11	**S1-E11 ADSS end to end test** S1-E11 ADSS end to end test	**Total structure count:**	**0**		**LS**			**$ -**		**$ 7,144.18**	**$ -**	**$ 7,144.18**	**$ -**
	Test OPGW Splice	each	0	42	24.00	$ 297.67	$ 7,144.18	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 7,144.18	$ -		$ -			
V::E12	**S1-E12 S1 - Installation of OPGW** S1-E12 S1 - Installation of OPGW	**Total structure count:**	**0**		**KM**			**$ -**		**$ 15,181.18**	**$ -**	**$ 15,181.18**	**$ -**
	1.2 kg/m and	6680 kg / reel	Assume		3.5 km/day								
	Haul Wire Hauling	each	0	9	1.83	$ 405.51	$ 740.21	$ -	0	$ -			
	Prepare Pull site Pull Site Prep	each	0	10	3.15	$ 1,282.13	$ 4,036.34	$ -	0	$ -			
	Pull In OPGW & Sag OPGW Install	each	0	15	3.14	$ 2,790.88	$ 8,771.34	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
	Sock installation by Helicopter HeliSockInstall	each	0	34	0.86	$ 1,905.50	$ 1,633.29	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 15,181.18	$ -		$ -			
V::E12-1	**S2-E12 S2 - Installation of OPGW** S2-E12 S2 - Installation of OPGW	**Total structure count:**	**0**		**KM**			**$ -**		**$ 18,202.60**	**$ -**	**$ 18,202.60**	**$ -**
	1.2 kg/m and	6680 kg / reel	Assume		3 km/day								
	Haul Wire Hauling	each	0	9	5.00	$ 405.51	$ 2,027.53	$ -	0	$ -			
	Prepare Pull site Pull Site Prep	each	0	10	3.15	$ 1,282.13	$ 4,036.34	$ -	0	$ -			
	Pull In OPGW & Sag OPGW Install	each	0	15	3.67	$ 2,790.88	$ 10,233.23	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
	Sock installation by Helicopter HeliSockInstall	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 18,202.60	$ -		$ -			
V::E12-2	**S3-E12 S3 - Installation of OPGW** S3-E12 S3 - Installation of OPGW	**Total structure count:**	**0**		**KM**			**$ -**		**$ 17,430.21**	**$ -**	**$ 17,430.21**	**$ -**
	1.2 kg/m and	6680 kg / reel	Assume		3 km/day								
	Haul Wire Hauling	each	0	9	3.10	$ 405.51	$ 1,255.14	$ -	0	$ -			
	Prepare Pull site Pull Site Prep	each	0	10	3.15	$ 1,282.13	$ 4,036.34	$ -	0	$ -			
	Pull In OPGW & Sag OPGW Install	each	0	15	3.67	$ 2,790.88	$ 10,233.23	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
	Sock installation by Helicopter HeliSockInstall	each	0	34	1.00	$ 1,905.50	$ 1,905.50	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 17,430.21	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	 Hourly Rate	 Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::E12-3	**S4-E12 S4 - Installation of OPGW** S4-E12 S4 - Installation of OPGW		**Total structure count:**	**290**	**KM**			**$ 5,054,761.07**		**$ 17,430.21**	**$ -**	**$ 17,430.21**	**$ -**
	1.2 kg/m and		6680 kg / reel	Assume	290	3 km/day							
	Haul	Wire Hauling	each	290	9	3.10	$ 405.51	$ 1,255.14	$ 363,990.79	290	$ 1,255.14		
	Prepare Pull site	Pull Site Prep	each	290	10	3.15	$ 1,282.13	$ 4,036.34	$ 1,170,538.09	290	$ 4,036.34		
	Pull In OPGW & Sag	OPGW Install	each	290	15	3.67	$ 2,790.88	$ 10,233.23	$ 2,967,637.19	290	$ 10,233.23		
			each	290			$ -	$ -	$ -	290	$ -		
			each	290			$ -	$ -	$ -	290	$ -		
	Sock installation by Helicopter	HeliSockInstall	each	290	34	1.00	$ 1,905.50	$ 1,905.50	$ 552,595.00	290	$ 1,905.50		
			each	290			$ -	$ -	$ -	290	$ -		
			each	290			$ -	$ -	$ -	290	$ -		
			each	290			$ -	$ -	$ -	290	$ -		
			each	290			$ -	$ -	$ -	290	$ -		
								$ 17,430.21	$ 5,054,761.07		$ 17,430.21		
V::E12-4	**S5-E12 S5 - Installation of OPGW** S5-E12 S5 - Installation of OPGW		**Total structure count:**	**180**	**KM**			**$ 3,044,750.59**		**$ 16,915.28**	**$ -**	**$ 16,915.28**	**$ -**
	1.2 kg/m and		6680 kg / reel	Assume	180	3 km/day							
	Haul	Wire Hauling	each	180	9	1.83	$ 405.51	$ 740.21	$ 133,238.01	180	$ 740.21		
	Prepare Pull site	Pull Site Prep	each	180	10	3.15	$ 1,282.13	$ 4,036.34	$ 726,540.88	180	$ 4,036.34		
	Pull In OPGW & Sag	OPGW Install	each	180	15	3.67	$ 2,790.88	$ 10,233.23	$ 1,841,981.70	180	$ 10,233.23		
			each	180			$ -	$ -	$ -	180	$ -		
			each	180			$ -	$ -	$ -	180	$ -		
	Sock installation by Helicopter	HeliSockInstall	each	180	34	1.00	$ 1,905.50	$ 1,905.50	$ 342,990.00	180	$ 1,905.50		
			each	180			$ -	$ -	$ -	180	$ -		
			each	180			$ -	$ -	$ -	180	$ -		
			each	180			$ -	$ -	$ -	180	$ -		
			each	180			$ -	$ -	$ -	180	$ -		
								$ 16,915.28	$ 3,044,750.59		$ 16,915.28		
V::E13	**S1-E13 OPGW Continuity tests before and after stringing** S1-E13 OPGW Continuity tests before and after stringing		**Total structure count:**	**1**	**LS**			**$ 268,621.09**		**$ 268,621.09**	**$ -**	**$ 268,621.09**	**$ -**
	Assume number of reels =	94											
	Test	OPGW Splice	each	1	42	902.40	$ 297.67	$ 268,621.09	$ 268,621.09	1	$ 268,621.09		
			each	1			$ -	$ -	$ -	1	$ -		
			each	1			$ -	$ -	$ -	1	$ -		
			each	1			$ -	$ -	$ -	1	$ -		
			each	1			$ -	$ -	$ -	1	$ -		
			each	1			$ -	$ -	$ -	1	$ -		
			each	1			$ -	$ -	$ -	1	$ -		
			each	1			$ -	$ -	$ -	1	$ -		
			each	1			$ -	$ -	$ -	1	$ -		
		10512						$ 268,621.09	$ 268,621.09		$ 268,621.09		
		$ 25.55											
V::E14	**S1-E14 OPGW splicing and tests including loss analysis** S1-E14 OPGW splicing and tests including loss analysis		**Total structure count:**	**100**	**EA**			**$ 627,729.60**		**$ 6,277.30**	**$ -**	**$ 6,277.30**	**$ -**
	Assume number of splice points =	1 @	15	Minutes/Fibre =	12.00	Hours per 48 fibre splice							
	Haul and install Fibre Splice Box	Tie -in	each	100	12	4.00	$ 676.30	$ 2,705.21	$ 270,520.70	100	$ 2,705.21		
			each	100			$ -	$ -	$ -	100	$ -		
	Splice and test Fibre	OPGW Splice	each	100	42	12.00	$ 297.67	$ 3,572.09	$ 357,208.89	100	$ 3,572.09		
			each	100			$ -	$ -	$ -	100	$ -		
			each	100			$ -	$ -	$ -	100	$ -		
			each	100			$ -	$ -	$ -	100	$ -		
			each	100			$ -	$ -	$ -	100	$ -		
			each	100			$ -	$ -	$ -	100	$ -		
			each	100			$ -	$ -	$ -	100	$ -		
								$ 6,277.30	$ 627,729.60		$ 6,277.30		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::E15	**S1-E15 OPGW end to end test**	**Total structure count:**	**1**		**LS**			**$ 28,576.71**		**$ 28,576.71**	**$ -**	**$ 28,576.71**	**$ -**
	S1-E15 OPGW end to end test												
	Test OPGW Splice	each	1	42	96.00	$ 297.67	$ 28,576.71	$ 28,576.71	1	$ 28,576.71			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 28,576.71	$ 28,576.71		$ 28,576.71			
V-H27	**S1-F Miscellaneous Tower Attachments and Accessories (S1-Fx)**												
V::F01	**S1-F1 Install 18" Aerial marker cones**	**Total structure count:**	**15**		**EA**			**$ 10,144.53**		**$ 676.30**	**$ -**	**$ 676.30**	**$ -**
	S1-F1 Install 18" Aerial marker cones												
	Haul and Install Tie -in	each	15	12	1.00	$ 676.30	$ 676.30	$ 10,144.53	15	$ 676.30			
		each	15			$ -	$ -	$ -	15	$ -			
		each	15			$ -	$ -	$ -	15	$ -			
		each	15			$ -	$ -	$ -	15	$ -			
		each	15			$ -	$ -	$ -	15	$ -			
		each	15			$ -	$ -	$ -	15	$ -			
		each	15			$ -	$ -	$ -	15	$ -			
		each	15			$ -	$ -	$ -	15	$ -			
		each	15			$ -	$ -	$ -	15	$ -			
							$ 676.30	$ 10,144.53		$ 676.30			
V-H28	**S1-G Framing and Setting of Wood Poles (S1-Gx)**												
V::G01	**S1-G1 Framing and Setting of Single Pole Tangent (0 - 1 deg) as per Drawing**	**Total structure count:**	**0**		**EA**			**$ -**		**$ 5,023.96**	**$ 2,300.00**	**$ 7,323.96**	**$ -**
	S1-G1 Framing and Setting of Single Pole Tangent (0 - 1 deg) as per Drawing 505573-4633-4ZDD-0011												
	Wood pole with crossarm and V brace. Wire assembly on extension bracket												
	Haul Hauling	each	0	1	2.50	$ 441.04	$ 1,102.60	$ -	0	$ -			
	Frame the Structure Wood Assembly	each	0	48	2.00	$ 710.52	$ 1,421.04	$ -	0	$ -			
	Set Wood Erection	each	0	49	1.50	$ 1,216.00	$ 1,824.01	$ -	0	$ -			
	Tie in Tie -in	each	0	12	1.00	$ 676.30	$ 676.30	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 5,023.96	$ -		$ -			
V::G02	**S1-G2 Framing and Setting of Single Pole Light angle (1 - 10 deg) with Guys as**	**Total structure count:**	**0**		**EA**			**$ -**		**$ 7,820.91**	**$ 2,300.00**	**$ 10,120.91**	**$ -**
	S1-G2 Framing and Setting of Single Pole Light angle (1 - 10 deg) with Guys as per Drawing 505573-4633-4ZDD-0012												
	Wood pole with crossarm and V brace. Wire assembly on extension bracket. One side anchor												
	Haul Hauling	each	0	1	2.50	$ 441.04	$ 1,102.60	$ -	0	$ -			
	Frame the Structure Wood Assembly	each	0	48	2.00	$ 710.52	$ 1,421.04	$ -	0	$ -			
	Set Wood Erection	each	0	49	1.50	$ 1,216.00	$ 1,824.01	$ -	0	$ -			
	Anchoring Anchor Crew	each	0	35	4.00	$ 699.24	$ 2,796.95	$ -	0	$ -			
	Tie in Tie -in	each	0	12	1.00	$ 676.30	$ 676.30	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 7,820.91	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::G03	**S1-G3 Framing and Setting of Single Pole Heavy angle (10 - 30 deg) with Guys**	**Total structure count:**	**0**		**EA**			**$ -**		**$ 16,922.27**	**$ 2,300.00**	**$ 19,222.27**	**$ -**
	S1-G3 Framing and Setting of Single Pole Heavy angle (10 - 30 deg) with Guys as per Drawing 505573-4633-4ZDD-0020												
	Wood pole Heavy angle 4 anchors , assembly on extension bracket												
	Haul (Hauling)	each	0	1	2.50	$ 441.04	$ 1,102.60	$ -	0	$ -			
	Frame the Structure (Wood Assembly)	each	0	48	3.00	$ 710.52	$ 2,131.57	$ -	0	$ -			
	Set (Wood Erection)	each	0	49	1.50	$ 1,216.00	$ 1,824.01	$ -	0	$ -			
	Anchoring (Anchor Crew)	each	0	35	16.00	$ 699.24	$ 11,187.79	$ -	0	$ -			
	Tie in (Tie -in)	each	0	12	1.00	$ 676.30	$ 676.30	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 16,922.27	$ -		$ -			
V::G04	**S1-G4 Framing and Setting of Single Pole Dead-end (30 - 90 deg) with Guys as**	**Total structure count:**	**0**		**EA**			**$ -**		**$ 32,277.98**	**$ 2,300.00**	**$ 34,577.98**	**$ -**
	S1-G4 Framing and Setting of Single Pole Dead-end (30 - 90 deg) with Guys as per Drawing 505573-4633-4ZDD-0021												
	Single pole DE 90 degree, 6 anchors, jumpers on extension bracket												
	Haul (Hauling)	each	0	1	2.50	$ 441.04	$ 1,102.60	$ -	0	$ -			
	Frame the Structure (Wood Assembly)	each	0	48	6.00	$ 710.52	$ 4,263.13	$ -	0	$ -			
	Set (Wood Erection)	each	0	49	1.50	$ 1,216.00	$ 1,824.01	$ -	0	$ -			
	Anchoring (Anchor Crew)	each	0	35	24.00	$ 699.24	$ 16,781.69	$ -	0	$ -			
	Dead end (Deadends)	each	0	13	6.00	$ 1,384.42	$ 8,306.55	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 32,277.98	$ -		$ -			
V::G05	**S1-G5 Framing and Setting of Single Pole Floating Dead-end (0 - 1 deg) with**	**Total structure count:**	**0**		**EA**			**$ -**		**$ 21,090.19**	**$ 2,300.00**	**$ 23,390.19**	**$ -**
	S1-G5 Framing and Setting of Single Pole Floating Dead-end (0 - 1 deg) with Guys as per Drawing 505573-4633-4ZDD-0013												
	Single pole floating DE w 2 anchors												
	Haul (Hauling)	each	0	1	2.50	$ 441.04	$ 1,102.60	$ -	0	$ -			
	Frame the Structure (Wood Assembly)	each	0	48	6.00	$ 710.52	$ 4,263.13	$ -	0	$ -			
	Set (Wood Erection)	each	0	49	1.50	$ 1,216.00	$ 1,824.01	$ -	0	$ -			
	Anchoring (Anchor Crew)	each	0	35	8.00	$ 699.24	$ 5,593.90	$ -	0	$ -			
	Dead end (Deadends)	each	0	13	6.00	$ 1,384.42	$ 8,306.55	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 21,090.19	$ -		$ -			
V::G06	**S1-G6 Framing and Setting of Two Pole Dead-end to tap to HVdc Tower in**	**Total structure count:**	**0**		**EA**			**$ -**		**$ 39,695.88**	**$ 2,300.00**	**$ 41,995.88**	**$ -**
	S1-G6 Framing and Setting of Two Pole Dead-end to tap to HVdc Tower in Labrador as per Drawing 505573-4633-4ZDD-0061												
	Two pole DE 90 degree, 8 anchors, jumpers on extension												
	Haul (Hauling)	each	0	1	2.50	$ 441.04	$ 1,102.60	$ -	0	$ -			
	Frame the Structure (Wood Assembly)	each	0	48	6.00	$ 710.52	$ 4,263.13	$ -	0	$ -			
	Set (Wood Erection)	each	0	49	3.00	$ 1,216.00	$ 3,648.01	$ -	0	$ -			
	Anchoring (Anchor Crew)	each	0	35	32.00	$ 699.24	$ 22,375.58	$ -	0	$ -			
	Dead end (Deadends)	each	0	13	6.00	$ 1,384.42	$ 8,306.55	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 39,695.88	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V-H29	**S1-I Optional Pricing (S1-Ix)**											
V::I01	**S1-I1 Perform Geotechnical Investigation and Identify Foundation Type as per** **Total structure count:**		**2**	**LS**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-I1 Perform Geotechnical Investigation and Identify Foundation Type as per Design Drawings and Technical Specifications											
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
							$ -	$ -		$ -		
V::I02	**S1-I2 Design and supply of micropile option as replacement for H-pile design** **Total structure count:**		**2**	**EA**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-I2 Design and supply of micropile option as replacement for H-pile design											
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
		each	2			$ -	$ -	$ -	2	$ -		
							$ -	$ -		$ -		
V::I03	**S1-I3 Optional cost for mulching given area instead of salvaging** **Total structure count:**		**2737**	**Ha**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-I3 Optional cost for mulching given area instead of salvaging											
		each	2737			$ -	$ -	$ -	2737	$ -		
		each	2737			$ -	$ -	$ -	2737	$ -		
		each	2737			$ -	$ -	$ -	2737	$ -		
		each	2737			$ -	$ -	$ -	2737	$ -		
		each	2737			$ -	$ -	$ -	2737	$ -		
		each	2737			$ -	$ -	$ -	2737	$ -		
		each	2737			$ -	$ -	$ -	2737	$ -		
		each	2737			$ -	$ -	$ -	2737	$ -		
		each	2737			$ -	$ -	$ -	2737	$ -		
							$ -	$ -		$ -		
V::I04	**S1-I4 Installation of Access Road - Alternative** **Total structure count:**		**0**	**KM**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-I4 Installation of Access Road - Alternative											
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
		each	0			$ -	$ -	$ -	0	$ -		
							$ -	$ -		$ -		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I05	**S1-I5 Slack Span Connections - Installation of all Conductor and OPGW from** **Total structure count:**			1	**LS**			**$ 46,473.04**		**$ 46,473.04**	**$ -**	**$ 46,473.04**	**$ -**
	S1-I5 Slack Span Connections - Installation of all Conductor and OPGW from Terminal Tower to the Substation Gantry												
	haul Insulators and Travellers Haul Travellers&Glass	each	1	7	2.00	$ 636.64	$ 1,273.27	$ 1,273.27	1	$ 1,273.27			
	Hang Travellers Hang Travellers	each	1	8	1.00	$ 1,444.07	$ 1,444.07	$ 1,444.07	1	$ 1,444.07			
	Install Conductor Stringing	each	1	11	5.00	$ 5,977.88	$ 29,889.42	$ 29,889.42	1	$ 29,889.42			
	Install OPGW OPGW Install	each	1	15	1.00	$ 2,790.88	$ 2,790.88	$ 2,790.88	1	$ 2,790.88			
	Dead-end Deadends	each	1	13	8.00	$ 1,384.42	$ 11,075.40	$ 11,075.40	1	$ 11,075.40			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 46,473.04	$ 46,473.04		$ 46,473.04			
V::I06	**S1-I6 Slack Span Connections - Installation of all Conductor and OPGW/ADSS** **Total structure count:**			0	**LS**			**$ -**		**$ 29,107.20**	**$ -**	**$ 29,107.20**	**$ -**
	S1-I6 Slack Span Connections - Installation of all Conductor and OPGW/ADSS from Terminal Wood Pole to the Electrode Compound Gantry												
	haul Insulators and Travellers Haul Travellers&Glass	each	0	7	3.00	$ 636.64	$ 1,909.91	$ -	0	$ -			
	Hang Travellers Hang Travellers	each	0	8	1.00	$ 1,444.07	$ 1,444.07	$ -	0	$ -			
	Install Conductor Slack Stringing	each	0	50	6.00	$ 2,442.63	$ 14,655.79	$ -	0	$ -			
	Install OPGW / ADSS OPGW Install	each	0	15	1.00	$ 2,790.88	$ 2,790.88	$ -	0	$ -			
	Dead-end Deadends	each	0	13	6.00	$ 1,384.42	$ 8,306.55	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
		each	0			$ -	$ -	$ -	0	$ -			
							$ 29,107.20	$ -		$ -			
V::I07	**S1-I7 Supply and Installation of Culvert - 1000 mm** **Total structure count:**			13	**LM**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-I7 Supply and Installation of Culvert - 1000 mm												
		each	13			$ -	$ -	$ -	13	$ -			
		each	13			$ -	$ -	$ -	13	$ -			
		each	13			$ -	$ -	$ -	13	$ -			
		each	13			$ -	$ -	$ -	13	$ -			
		each	13			$ -	$ -	$ -	13	$ -			
		each	13			$ -	$ -	$ -	13	$ -			
		each	13			$ -	$ -	$ -	13	$ -			
		each	13			$ -	$ -	$ -	13	$ -			
		each	13			$ -	$ -	$ -	13	$ -			
							$ -	$ -		$ -			
V::I08	**S1-I8 Supply and Installation of Culvert - 1200 mm** **Total structure count:**			13	**LM**			**$ -**		**$ -**	**$ -**	**$ -**	**$ -**
	S1-I8 Supply and Installation of Culvert - 1200 mm												
		each	13			$ -	$ -	$ -	13	$ -			
		each	13			$ -	$ -	$ -	13	$ -			
		each	13			$ -	$ -	$ -	13	$ -			
		each	13			$ -	$ -	$ -	13	$ -			
		each	13			$ -	$ -	$ -	13	$ -			
		each	13			$ -	$ -	$ -	13	$ -			
		each	13			$ -	$ -	$ -	13	$ -			
		each	13			$ -	$ -	$ -	13	$ -			
		each	13			$ -	$ -	$ -	13	$ -			
							$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Hourly Rate	Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I09	**S1-I9 Supply and Installation of Culvert - 1600 mm** S1-I9 Supply and Installation of Culvert - 1600 mm	**Total structure count:**	13	LM			$ -		$ -	$ -	$ -	$ -
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
						$ -	$ -		$ -			
V::I10	**S1-I10 Supply and Installation of Culvert - 2000 mm** S1-I10 Supply and Installation of Culvert - 2000 mm	**Total structure count:**	13	LM			$ -		$ -	$ -	$ -	$ -
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
						$ -	$ -		$ -			
V::I11	**S1-I11 Supply and Installation of Culvert - 2400 mm** S1-I11 Supply and Installation of Culvert - 2400 mm	**Total structure count:**	13	LM			$ -		$ -	$ -	$ -	$ -
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
						$ -	$ -		$ -			
V::I12	**S1-I12 Supply and Installation of Culvert - 3000 mm** S1-I12 Supply and Installation of Culvert - 3000 mm	**Total structure count:**	13	LM			$ -		$ -	$ -	$ -	$ -
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
		each	13		$ -	$ -	$ -	13	$ -			
						$ -	$ -		$ -			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) / Description	Units / Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I13	**S1-I13 Assembly and Installation of Foundation Type A1-1/1A, per kg, to be** **Total structure count:**		1	KG			$ 1.39		$ 1.39	$ -	$ 1.39	$ -
	S1-I13 Assembly and Installation of Foundation Type A1-1/1A, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each	1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41		
	Assemble (Grillage Installation)	each	1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
							$ 1.39	$ 1.39		$ 1.39		
V::I14	**S1-I14 Assembly and Installation of Foundation Type A2-1/1A, per kg, to be** **Total structure count:**		1	KG			$ 1.39		$ 1.39	$ -	$ 1.39	$ -
	S1-I14 Assembly and Installation of Foundation Type A2-1/1A, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each	1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41		
	Assemble and install (Grillage Installation)	each	1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
							$ 1.39	$ 1.39		$ 1.39		
V::I15	**S1-I15 Assembly and Installation of Foundation Type A3-1/1A, per kg, to be** **Total structure count:**		1	KG			$ 1.39		$ 1.39	$ -	$ 1.39	$ -
	S1-I15 Assembly and Installation of Foundation Type A3-1/1A, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each	1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41		
	Assemble and install (Grillage Installation)	each	1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
							$ 1.39	$ 1.39		$ 1.39		
V::I16	**S1-I16 Assembly and Installation of Foundation Type A4-1/1A, per kg, to be** **Total structure count:**		1	KG			$ 1.39		$ 1.39	$ -	$ 1.39	$ -
	S1-I16 Assembly and Installation of Foundation Type A4-1/1A, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each	1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41		
	Assemble and install (Grillage Installation)	each	1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
							$ 1.39	$ 1.39		$ 1.39		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description	Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I17	**S1-I17 Assembly and Installation of Foundation Type B1-1/1A, per kg, to be** **Total structure count:**	**1**		**KG**			**$ 1.39**		**$ 1.39**	**$ -**	**$ 1.39**	**$ -**
	S1-I17 Assembly and Installation of Foundation Type B1-1/1A, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble and install (Grillage Installation)	each 1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.39	$ 1.39		$ 1.39			
V::I18	**S1-I18 Assembly and Installation of Foundation Type B2-1/1A, per kg, to be** **Total structure count:**	**1**		**KG**			**$ 1.39**		**$ 1.39**	**$ -**	**$ 1.39**	**$ -**
	S1-I18 Assembly and Installation of Foundation Type B2-1/1A, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble and install (Grillage Installation)	each 1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.39	$ 1.39		$ 1.39			
V::I19	**S1-I19 Assembly and Installation of Foundation Type C1-1, per kg, to be used** **Total structure count:**	**1**		**KG**			**$ 1.39**		**$ 1.39**	**$ -**	**$ 1.39**	**$ -**
	S1-I19 Assembly and Installation of Foundation Type C1-1, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble and install (Grillage Installation)	each 1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.39	$ 1.39		$ 1.39			
V::I20	**S1-I20 Assembly and Installation of Foundation Type C2-1, per kg, to be used** **Total structure count:**	**1**		**KG**			**$ 1.39**		**$ 1.39**	**$ -**	**$ 1.39**	**$ -**
	S1-I20 Assembly and Installation of Foundation Type C2-1, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble and install (Grillage Installation)	each 1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.39	$ 1.39		$ 1.39			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) / Description	Units / Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I21	**S1-I21 Assembly and Installation of Foundation Type D1-1, per kg, to be used** **Total structure count:**		1	KG			$ 1.39		$ 1.39	$ -	$ 1.39	$ -
	S1-I21 Assembly and Installation of Foundation Type D1-1, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each	1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41		
	Assemble and install (Grillage Installation)	each	1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
							$ 1.39	$ 1.39		$ 1.39		
V::I22	**S1-I22 Assembly and Installation of Foundation Type D2-1, per kg, to be used** **Total structure count:**		1	KG			$ 1.39		$ 1.39	$ -	$ 1.39	$ -
	S1-I22 Assembly and Installation of Foundation Type D2-1, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each	1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41		
	Assemble and install (Grillage Installation)	each	1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
							$ 1.39	$ 1.39		$ 1.39		
V::I23	**S1-I23 Assembly and Installation of Foundation Type E1-1, per kg, to be used** **Total structure count:**		1	KG			$ 1.39		$ 1.39	$ -	$ 1.39	$ -
	S1-I23 Assembly and Installation of Foundation Type E1-1, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each	1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41		
	Assemble and install (Grillage Installation)	each	1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
							$ 1.39	$ 1.39		$ 1.39		
V::I24	**S1-I24 Assembly and Installation of Foundation Type A1-2, per kg, to be used** **Total structure count:**		1	KG			$ 1.39		$ 1.39	$ -	$ 1.39	$ -
	S1-I24 Assembly and Installation of Foundation Type A1-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each	1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41		
	Assemble and install (Grillage Installation)	each	1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
							$ 1.39	$ 1.39		$ 1.39		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) / Description	Units / Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I25	**S1-I25 Assembly and Installation of Foundation Type A2-2, per kg, to be used** **Total structure count:**		1	KG			$ 1.39		$ 1.39	$ -	$ 1.39	$ -
	S1-I25 Assembly and Installation of Foundation Type A2-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble and install (Grillage Installation)	each 1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.39	$ 1.39		$ 1.39			
V::I26	**S1-I26 Assembly and Installation of Foundation Type A3-2, per kg, to be used** **Total structure count:**		1	KG			$ 1.39		$ 1.39	$ -	$ 1.39	$ -
	S1-I26 Assembly and Installation of Foundation Type A3-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble and install (Grillage Installation)	each 1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.39	$ 1.39		$ 1.39			
V::I27	**S1-I27 Assembly and Installation of Foundation Type A4-2, per kg, to be used** **Total structure count:**		1	KG			$ 1.39		$ 1.39	$ -	$ 1.39	$ -
	S1-I27 Assembly and Installation of Foundation Type A4-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble and install (Grillage Installation)	each 1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.39	$ 1.39		$ 1.39			
V::I28	**S1-I28 Assembly and Installation of Foundation Type B1-2, per kg, to be used** **Total structure count:**		1	KG			$ 1.39		$ 1.39	$ -	$ 1.39	$ -
	S1-I28 Assembly and Installation of Foundation Type B1-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble and install (Grillage Installation)	each 1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.39	$ 1.39		$ 1.39			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) / Description	Units / Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I29	**S1-I29 Assembly and Installation of Foundation Type B2-2, per kg, to be used** **Total structure count:**		1	KG			$ 1.39		$ 1.39	$ -	$ 1.39	$ -
	S1-I29 Assembly and Installation of Foundation Type B2-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each	1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41		
	Assemble and install (Grillage Installation)	each	1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
							$ 1.39	$ 1.39		$ 1.39		
V::I30	**S1-I30 Assembly and Installation of Foundation Type C1-2, per kg, to be used** **Total structure count:**		1	KG			$ 1.39		$ 1.39	$ -	$ 1.39	$ -
	S1-I30 Assembly and Installation of Foundation Type C1-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each	1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41		
	Assemble and install (Grillage Installation)	each	1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
							$ 1.39	$ 1.39		$ 1.39		
V::I31	**S1-I31 Assembly and Installation of Foundation Type C2-2, per kg, to be used** **Total structure count:**		1	KG			$ 1.39		$ 1.39	$ -	$ 1.39	$ -
	S1-I31 Assembly and Installation of Foundation Type C2-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each	1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41		
	Assemble and install (Grillage Installation)	each	1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
							$ 1.39	$ 1.39		$ 1.39		
V::I32	**S1-I32 Assembly and Installation of Foundation Type D1-2, per kg, to be used** **Total structure count:**		1	KG			$ 1.39		$ 1.39	$ -	$ 1.39	$ -
	S1-I32 Assembly and Installation of Foundation Type D1-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each	1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41		
	Assemble and install (Grillage Installation)	each	1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
							$ 1.39	$ 1.39		$ 1.39		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) / Description	Units / Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I33	**S1-I33 Assembly and Installation of Foundation Type D2-2, per kg, to be used** **Total structure count:**		**1**	**KG**			**$ 1.39**		**$ 1.39**	**$ -**	**$ 1.39**	**$ -**
	S1-I33 Assembly and Installation of Foundation Type D2-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble and install (Grillage Installation)	each 1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.39	$ 1.39		$ 1.39			
V::I34	**S1-I34 Assembly and Installation of Foundation Type E1-2, per kg, to be used** **Total structure count:**		**1**	**KG**			**$ 1.39**		**$ 1.39**	**$ -**	**$ 1.39**	**$ -**
	S1-I34 Assembly and Installation of Foundation Type E1-2, per kg, to be used for weight increases or decreases											
	Haul (Foundation Haul)	each 1	17	0.00092	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble and install (Grillage Installation)	each 1	20	0.00098	$ 1,002.72	$ 0.98	$ 0.98	1	$ 0.98			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 1.39	$ 1.39		$ 1.39			
V::I35	**S1-I35 Assembly and Erection of Tower Type A1, per kg, to be used for weight** **Total structure count:**		1	KG			**$ 4.94**		**$ 4.94**	**$ -**	**$ 4.94**	**$ -**
	S1-I35 Assembly and Erection of Tower Type A1, per kg, to be used for weight increases or decreases											
	Haul (Hauling)	each 1	1	0.00093	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble (Grillage Installation)	each 1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect (Y- Tower Erection)	each 1	40	0.0005	$ 1,482.09	$ 0.74	$ 0.74	1	$ 0.74			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
			2.241024046			$ 4.94	$ 4.94		$ 4.94			
V::I36	**S1-I36 Assembly and Erection of Tower Type A2, per kg, to be used for weight** **Total structure count:**		**1**	**KG**			**$ 5.15**		**$ 5.15**	**$ -**	**$ 5.15**	**$ -**
	S1-I36 Assembly and Erection of Tower Type A2, per kg, to be used for weight increases or decreases											
	Haul (Hauling)	each 1	1	0.00139	$ 441.04	$ 0.61	$ 0.61	1	$ 0.61			
	Assemble (Grillage Installation)	each 1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect (Y- Tower Erection)	each 1	40	0.0005	$ 1,482.09	$ 0.74	$ 0.74	1	$ 0.74			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
		each 1			$ -	$ -	$ -	1	$ -			
						$ 5.15	$ 5.15		$ 5.15			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) / Description	Units / Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I37	**S1-I37 Assembly and Erection of Tower Type A3, per kg, to be used for weight** **Total structure count:**		1	KG			$ 4.94		$ 4.94	$ -	$ 4.94	$ -
	S1-I37 Assembly and Erection of Tower Type A3, per kg, to be used for weight increases or decreases											
	Haul (Hauling)	each	1	1	0.00093	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41		
	Assemble (Grillage Installation)	each	1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79		
	Erect (Y- Tower Erection)	each	1	40	0.0005	$ 1,482.09	$ 0.74	$ 0.74	1	$ 0.74		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
							$ 4.94	$ 4.94		$ 4.94		
V::I38	**S1-I38 Assembly and Erection of Tower Type A4, per kg, to be used for weight** **Total structure count:**		1	KG			$ 4.94		$ 4.94	$ -	$ 4.94	$ -
	S1-I38 Assembly and Erection of Tower Type A4, per kg, to be used for weight increases or decreases											
	Haul (Hauling)	each	1	1	0.00093	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41		
	Assemble (Grillage Installation)	each	1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79		
	Erect (Y- Tower Erection)	each	1	40	0.0005	$ 1,482.09	$ 0.74	$ 0.74	1	$ 0.74		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
							$ 4.94	$ 4.94		$ 4.94		
V::I39	**S1-I39 Assembly and Erection of Tower Type B1, per kg, to be used for weight** **Total structure count:**		1	KG			$ 4.94		$ 4.94	$ -	$ 4.94	$ -
	S1-I39 Assembly and Erection of Tower Type B1, per kg, to be used for weight increases or decreases											
	Haul (Hauling)	each	1	1	0.00093	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41		
	Assemble (Grillage Installation)	each	1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79		
	Erect (Y- Tower Erection)	each	1	40	0.0005	$ 1,482.09	$ 0.74	$ 0.74	1	$ 0.74		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
							$ 4.94	$ 4.94		$ 4.94		
V::I40	**S1-I40 Assembly and Erection of Tower Type B2, per kg, to be used for weight** **Total structure count:**		1	KG			$ 5.04		$ 5.04	$ -	$ 5.04	$ -
	S1-I40 Assembly and Erection of Tower Type B2, per kg, to be used for weight increases or decreases											
	Haul (Hauling)	each	1	1	0.00116	$ 441.04	$ 0.51	$ 0.51	1	$ 0.51		
	Assemble (Grillage Installation)	each	1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79		
	Erect (Y- Tower Erection)	each	1	40	0.0005	$ 1,482.09	$ 0.74	$ 0.74	1	$ 0.74		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
		each	1			$ -	$ -	$ -	1	$ -		
							$ 5.04	$ 5.04		$ 5.04		

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) / Description		Units Total	Crew No.	Crew Cost: Hours per unit	Crew Cost: Hourly Rate	Crew Cost: Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I41	**S1-I41 Assembly and Erection of Tower Type C1, per kg, to be used for weight** **Total structure count:**			1	KG			$ 5.26		$ 5.26	$ -	$ 5.26	$ -
	S1-I41 Assembly and Erection of Tower Type C1, per kg, to be used for weight increases or decreases												
	Haul (Hauling)	each	1	1	0.00093	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble (Grillage Installation)	each	1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect (Tower Topping)	each	1	6	0.0006	$ 1,656.68	$ 1.06	$ 1.06	1	$ 1.06			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 5.26	$ 5.26		$ 5.26			
V::I42	**S1-I42 Assembly and Erection of Tower Type C2, per kg, to be used for weight** **Total structure count:**			1	KG			$ 5.26		$ 5.26	$ -	$ 5.26	$ -
	S1-I42 Assembly and Erection of Tower Type C2, per kg, to be used for weight increases or decreases												
	Haul (Hauling)	each	1	1	0.00093	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble (Grillage Installation)	each	1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect (Tower Topping)	each	1	6	0.0006	$ 1,656.68	$ 1.06	$ 1.06	1	$ 1.06			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 5.26	$ 5.26		$ 5.26			
V::I43	**S1-I43 Assembly and Erection of Tower Type D1, per kg, to be used for weight** **Total structure count:**			1	KG			$ 5.26		$ 5.26	$ -	$ 5.26	$ -
	S1-I43 Assembly and Erection of Tower Type D1, per kg, to be used for weight increases or decreases												
	Haul (Hauling)	each	1	1	0.00093	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble (Grillage Installation)	each	1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect (Tower Topping)	each	1	6	0.0006	$ 1,656.68	$ 1.06	$ 1.06	1	$ 1.06			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 5.26	$ 5.26		$ 5.26			
V::I44	**S1-I44 Assembly and Erection of Tower Type D2, per kg, to be used for weight** **Total structure count:**			1	KG			$ 5.26		$ 5.26	$ -	$ 5.26	$ -
	S1-I44 Assembly and Erection of Tower Type D2, per kg, to be used for weight increases or decreases												
	Haul (Hauling)	each	1	1	0.00093	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble (Grillage Installation)	each	1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect (Tower Topping)	each	1	6	0.0006	$ 1,656.68	$ 1.06	$ 1.06	1	$ 1.06			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 5.26	$ 5.26		$ 5.26			

Payment Item	NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland) Description		Units Total	Crew No.	Crew Cost Hours per unit	Crew Cost Hourly Rate	Crew Cost Unit Cost	Subtotal	Units	Unit Cost	Materials	Total Unit Cost Manhours and Materials	Total Materials
V::I45	**S1-I45 Assembly and Erection of Tower Type E1, per kg, to be used for weight** S1-I45 Assembly and Erection of Tower Type E1, per kg, to be used for weight increases or decreases	**Total structure count:**	**1**	**KG**			**$ 5.26**		**$ 5.26**	**$ -**	**$ 5.26**	**$ -**	
	Haul Hauling	each	1	1	0.00093	$ 441.04	$ 0.41	$ 0.41	1	$ 0.41			
	Assemble Grillage Installation	each	1	20	0.00378	$ 1,002.72	$ 3.79	$ 3.79	1	$ 3.79			
	Erect Tower Topping	each	1	6	0.0006	$ 1,656.68	$ 1.06	$ 1.06	1	$ 1.06			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ 5.26	$ 5.26		$ 5.26			
V::I46	**S1-I46 Survey Cost** S1-I46 Survey Cost	**Total structure count:**	**1**	**LS**			**$ -**		**$ -**	**$ 2,622,289.39**	**$ 2,622,289.39**	**$**	**2,622,289.39**
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
		each	1			$ -	$ -	$ -	1	$ -			
							$ -	$ -		$ -			
B-E(Rider)	**RiderPole**	**Total structure count:**	**150**				**$ 1,480,010.34**		**$ 9,866.74**	**$ 236.90**	**$ 10,103.64**	**$**	**35,535.00**
	Haul Wire Hauling	each	150	9	3.00	$ 405.51	$ 1,216.52	$ 182,478.14	150	$ 1,216.52			
	Install Rider Pole Crew	each	150	16	3.00	$ 1,238.95	$ 3,716.85	$ 557,527.03	150	$ 3,716.85			
	Remove Rider Pole Crew	each	150	16	3.00	$ 1,238.95	$ 3,716.85	$ 557,527.03	150	$ 3,716.85			
	Haul Back Wire Hauling	each	150	9	3.00	$ 405.51	$ 1,216.52	$ 182,478.14	150	$ 1,216.52			
							$ 9,866.74	$ 1,480,010.34		$ 9,866.74			

Construction Total Man Hours Total: $ 183,070,720.39 Mat. Total: $ 204,272,679.94

		1		2		3		4		5	
		Hauling		Site Preparation		Blocking Crew		Lattice Assembly		Lattice Erection	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate										
Supervisor	$ 142.83		$ -		$ -		$ -		$ -		$ -
Foreman	$ 120.15		$ -	0.50	$ 60.07		$ -	1.00	$ 120.15	1.00	$ 120.15
Surveyor	$ 111.85		$ -	0.50	$ 55.92		$ -		$ -		$ -
Lineman	$ 111.85		$ -		$ -		$ -	1.00	$ 111.85	2.00	$ 223.70
Apprentice - 4th Year	$ 103.90		$ -		$ -		$ -	2.00	$ 207.79	1.00	$ 103.90
Apprentice - 3rd Year	$ 95.95		$ -		$ -	1.00	$ 95.95	2.00	$ 191.89	2.00	$ 191.89
Apprentice - 2nd Year	$ 87.99	1.00	$ 87.99		$ -		$ -		$ -		$ -
Apprentice - 1st Year	$ 80.04		$ -		$ -		$ -		$ -		$ -
Equipment Operator	$ 96.49		$ -	2.00	$ 192.99	1.00	$ 96.49	1.00	$ 96.49	1.00	$ 96.49
Truck Driver / Picker Op.	$ 107.16	1.00	$ 107.16		$ -		$ -	1.00	$ 107.16	2.00	$ 214.32
Labourer	$ 87.44		$ -		$ -		$ -		$ -		$ -
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -		$ -		$ -		$ -		$ -
Telecom Foreman	$ 87.44		$ -		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -		$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -		$ -		$ -		$ -		$ -
none	$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**2.00**	**195.16**	**3.00**	**308.98**	**2.00**	**192.44**	**8.00**	**835.34**	**9.00**	**950.45**
Pickup	$ 24.36		$ -	0.50	$ 12.18		$ -		$ -		$ -
Crew Cab Truck	$ 29.20	1.00	$ 29.20	1.00	$ 29.20		$ -	2.00	$ 58.40	2.00	$ 58.40
Conductor Splicing Truck	$ 46.02		$ -		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27		$ -		$ -		$ -	1.00	$ 136.27		$ -
Picker - 38 Ton	$ 180.25		$ -		$ -		$ -		$ -	1.00	$ 180.25
40T RT Crane	$ 195.70		$ -		$ -		$ -		$ -		$ -
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -	1.00	$ 247.20
80T RT Crane	$ 345.05		$ -		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40		$ -		$ -	1.00	$ 89.40		$ -	-	$ -
200T All-Tr. crane	$ 418.72		$ -		$ -		$ -		$ -	-	$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -		$ -		$ -	0.25	$ 21.89	-	$ -
53' Tridem trailer	$ 11.85	4.00	$ 47.38		$ -		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67		$ -		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67	1.00	$ 134.67	-	$ -		$ -		$ -		$ -
Tractor Trailer (Heavy)	$ 134.67		$ -		$ -		$ -		$ -		$ -
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83		$ -	1.00	$ 165.83		$ -		$ -		$ -
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27	0.50	$ 34.63		$ -		$ -	0.50	$ 34.63	1.00	$ 69.27
JD 290 Track-hoe	$ 130.60		$ -	1.00	$ 130.60		$ -		$ -		$ -
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -	-	$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -		$ -		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -		$ -		$ -		$ -
Trencher	$ 84.36		$ -		$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -		$ -	1.00	$ 53.00		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -	1.00	$ 24.21		$ -
Reel Trailer	$ 72.10		$ -		$ -		$ -		$ -		$ -
Tensioner	$ 139.05		$ -		$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -		$ -		$ -		$ -		$ -
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -		$ -
JD 350 LDC Excavator	$ 160.89		$ -		$ -		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -		$ -		$ -		$ -
Grout truck	$ 82.40		$ -		$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46		$ -		$ -		$ -	1.50	$ 20.19	1.00	$ 13.46
Water pump	$ 40.99		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -		$ -		$ -
Travellers (ea)	$ 1.24		$ -		$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -		$ -		$ -
Hoe-Pack	$ 25.75		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65		$ -	0.50	$ 28.33		$ -		$ -		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -	-	$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**6.50**	**245.89**	**4.00**	**366.14**	**1.00**	**89.40**	**7.25**	**348.59**	**6.00**	**568.58**
TOTAL CREW RATE			**$ 441.04**		**$ 675.12**		**$ 281.84**		**$ 1,183.92**		**$ 1,519.02**

		6		7		8		9		10	
		Tower Topping		Haul Travellers&Glass		Hang Travellers		Wire Hauling		Pull Site Prep	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate										
Supervisor	$ 142.83		$ -		$ -		$ -		$ -		$ -
Foreman	$ 120.15	1.00	$ 120.15		$ -	1.00	$ 120.15		$ -	1.00	$ 120.15
Surveyor	$ 111.85		$ -		$ -		$ -		$ -		$ -
Lineman	$ 111.85	2.00	$ 223.70	1.00	$ 111.85	3.00	$ 335.55		$ -	1.00	$ 111.85
Apprentice - 4th Year	$ 103.90	1.00	$ 103.90		$ -		$ -		$ -		$ -
Apprentice - 3rd Year	$ 95.95	2.00	$ 191.89		$ -	3.00	$ 287.84		$ -		$ -
Apprentice - 2nd Year	$ 87.99		$ -	1.00	$ 87.99		$ -	1.00	$ 87.99	2.00	$ 175.99
Apprentice - 1st Year	$ 80.04		$ -		$ -		$ -		$ -		$ -
Equipment Operator	$ 96.49	1.00	$ 96.49	1.00	$ 96.49	1.00	$ 96.49		$ -	3.00	$ 289.48
Truck Driver / Picker Op.	$ 107.16	2.00	$ 214.32	1.00	$ 107.16	-	$ -	1.00	$ 107.16	1.00	$ 107.16
Labourer	$ 87.44		$ -		$ -		$ -		$ -	-	$ -
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -		$ -		$ -		$ -		$ -
Telecom Foreman	$ 87.44		$ -		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -		$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -		$ -		$ -		$ -		$ -
none	$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**9.00**	**950.45**	**4.00**	**403.50**	**8.00**	**840.02**	**2.00**	**195.16**	**8.00**	**804.62**
Pickup	$ 24.36	1.00	$ 24.36		$ -		$ -		$ -	1.00	$ 24.36
Crew Cab Truck	$ 29.20	2.00	$ 58.40	1.00	$ 29.20	2.00	$ 58.40	1.00	$ 29.20	1.00	$ 29.20
Conductor Splicing Truck	$ 46.02		$ -		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27		$ -		$ -		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25		$ -		$ -		$ -		$ -		$ -
40T RT Crane	$ 195.70	1.00	$ 195.70		$ -		$ -		$ -		$ -
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05	1.00	$ 345.05		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40		$ -		$ -		$ -		$ -	1.00	$ 89.40
200T All-Tr. crane	$ 418.72	-	$ -		$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55	-	$ -		$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85	-	$ -		$ -		$ -	1.00	$ 11.85		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67		$ -		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67		$ -	1.00	$ 134.67		$ -		$ -		$ -
Tractor Trailer (Heavy)	$ 134.67		$ -		$ -		$ -	1.00	$ 134.67	1.00	$ 134.67
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83		$ -		$ -		$ -		$ -		$ -
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27	1.00	$ 69.27	1.00	$ 69.27	1.00	$ 69.27	0.50	$ 34.63	1.00	$ 69.27
JD 290 Track-hoe	$ 130.60		$ -		$ -		$ -		$ -	1.00	$ 130.60
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -		$ -	-	$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -		$ -		$ -		$ -
Trencher	$ 84.36		$ -		$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -
Reel Trailer	$ 72.10		$ -		$ -		$ -		$ -		$ -
Tensioner	$ 139.05		$ -		$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -		$ -		$ -		$ -		$ -
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -		$ -
JD 350 LDC Excavator	$ 160.89		$ -		$ -		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -		$ -		$ -		$ -
Grout truck	$ 82.40		$ -		$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46	1.00	$ 13.46		$ -		$ -		$ -		$ -
Water pump	$ 40.99		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -		$ -		$ -
Travellers (ea)	$ 1.24		$ -		$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -		$ -		$ -
Hoe-Pack	$ 25.75		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65		$ -		$ -		$ -		$ -		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -		$ -	0.25	$ 476.38		$ -		$ -
TOTAL EQUIPMENT		**7.00**	**706.23**	**3.00**	**233.14**	**3.25**	**604.04**	**3.50**	**210.35**	**6.00**	**477.51**
TOTAL CREW RATE			**$ 1,656.68**		**$ 636.64**		**$ 1,444.07**		**$ 405.51**		**$ 1,282.13**

		11		12		13		14		15	
		Stringing		Tie -in		Deadends		Spacer Crews		OPGW Install	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate										
Supervisor	$ 142.83	1.00	$ 142.83		$ -		$ -		$ -		$ -
Foreman	$ 120.15	2.00	$ 240.29		$ -	1.00	$ 120.15	1.00	$ 120.15	1.00	$ 120.15
Surveyor	$ 111.85	1.00	$ 111.85		$ -		$ -		$ -		$ -
Lineman	$ 111.85	7.00	$ 782.94	2.00	$ 223.70	2.00	$ 223.70		$ -	3.00	$ 335.55
Apprentice - 4th Year	$ 103.90		$ -		$ -		$ -	3.00	$ 311.69	1.00	$ 103.90
Apprentice - 3rd Year	$ 95.95	4.00	$ 383.78		$ -	2.00	$ 191.89		$ -	2.00	$ 191.89
Apprentice - 2nd Year	$ 87.99		$ -	1.00	$ 87.99		$ -	1.00	$ 87.99		$ -
Apprentice - 1st Year	$ 80.04		$ -		$ -		$ -		$ -		$ -
Equipment Operator	$ 96.49	6.00	$ 578.96		$ -	2.00	$ 192.99		$ -	4.00	$ 385.97
Truck Driver / Picker Op.	$ 107.16	7.00	$ 750.13	1.00	$ 107.16	1.00	$ 107.16	1.00	$ 107.16	3.00	$ 321.48
Labourer	$ 87.44		$ -		$ -		$ -		$ -		$ -
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -		$ -		$ -		$ -		$ -
Telecom Foreman	$ 87.44		$ -		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -		$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -		$ -		$ -		$ -		$ -
none	$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**28.00**	**2,990.79**	**4.00**	**418.85**	**8.00**	**835.88**	**6.00**	**626.99**	**14.00**	**1,458.94**
Pickup	$ 24.36	2.00	$ 48.72		$ -		$ -	1.00	$ 24.36	2.00	$ 48.72
Crew Cab Truck	$ 29.20	7.00	$ 204.40	1.00	$ 29.20	2.00	$ 58.40	1.00	$ 29.20	3.00	$ 87.60
Conductor Splicing Truck	$ 46.02	1.00	$ 46.02		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27	-	$ -		$ -		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25	-	$ -		$ -	1.00	$ 180.25	1.00	$ 180.25		$ -
40T RT Crane	$ 195.70	2.00	$ 391.40		$ -		$ -		$ -	2.00	$ 391.40
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05		$ -		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40	1.00	$ 89.40		$ -		$ -		$ -	1.00	$ 89.40
200T All-Tr. crane	$ 418.72		$ -		$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -		$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85		$ -		$ -		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67		$ -		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67	-	$ -		$ -		$ -		$ -	-	$ -
Tractor Trailer (Heavy)	$ 134.67	2.00	$ 269.35		$ -		$ -		$ -	1.00	$ 134.67
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83	2.00	$ 331.66		$ -	1.00	$ 165.83		$ -	1.00	$ 165.83
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27	2.00	$ 138.54		$ -		$ -		$ -	1.00	$ 69.27
JD 290 Track-hoe	$ 130.60	2.00	$ 261.21		$ -	1.00	$ 130.60		$ -		$ -
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25	2.00	$ 456.50	1.00	$ 228.25		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -		$ -		$ -		$ -
Trencher	$ 84.36		$ -		$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -
Reel Trailer	$ 72.10	3.00	$ 216.30		$ -		$ -		$ -	1.00	$ 72.10
Tensioner	$ 139.05	1.00	$ 139.05		$ -		$ -		$ -		$ -
Puller	$ 139.05	1.00	$ 139.05		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -		$ -		$ -		$ -	1.00	$ 77.25
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -	1.00	$ 77.25
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -	50.00	$ 25.75
JD 350 LDC Excavator	$ 160.89		$ -		$ -		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -		$ -		$ -		$ -
Grout truck	$ 82.40		$ -		$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46	1.00	$ 13.46		$ -	1.00	$ 13.46		$ -		$ -
Water pump	$ 40.99		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -	1.00	$ 92.70
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -	3.00	$ 139.05		$ -
Travellers (ea)	$ 1.24	150.00	$ 185.40		$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -		$ -		$ -
Hoe-Pack	$ 25.75		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65	1.00	$ 56.65		$ -		$ -		$ -		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -		$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**180.00**	**2,987.10**	**2.00**	**257.45**	**6.00**	**548.54**	**6.00**	**372.86**	**65.00**	**1,331.94**
TOTAL CREW RATE			**$ 5,977.88**		**$ 676.30**		**$ 1,384.42**		**$ 999.85**		**$ 2,790.88**

		16		17		18		19		20	
		Rider Pole Crew		Foundation Haul		Foundation Survey ($250/h)		Found Excavation		Grillage Installation	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate										
Supervisor	$ 142.83		$ -	-	$ -		$ -		$ -		$ -
Foreman	$ 120.15	1.00	$ 120.15	-	$ -		$ -	1.00	$ 120.15	1.00	$ 120.15
Surveyor	$ 111.85		$ -	-	$ -	2.00	$ 223.70	1.00	$ 111.85	1.00	$ 111.85
Lineman	$ 111.85	1.00	$ 111.85	-	$ -		$ -		$ -		$ -
Apprentice - 4th Year	$ 103.90		$ -	-	$ -		$ -		$ -		$ -
Apprentice - 3rd Year	$ 95.95		$ -	-	$ -		$ -		$ -	2.00	$ 191.89
Apprentice - 2nd Year	$ 87.99	2.00	$ 175.99	1.00	$ 87.99		$ -		$ -		$ -
Apprentice - 1st Year	$ 80.04		$ -	-	$ -		$ -	1.00	$ 80.04		$ -
Equipment Operator	$ 96.49	1.00	$ 96.49	-	$ -		$ -	3.00	$ 289.48	1.00	$ 96.49
Truck Driver / Picker Op.	$ 107.16	2.00	$ 214.32	1.00	$ 107.16		$ -		$ -	1.00	$ 107.16
Labourer	$ 87.44		$ -	-	$ -		$ -		$ -		$ -
3rd Party Density Tester	$ 243.80		$ -	-	$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -	-	$ -		$ -		$ -		$ -
Telecom Foreman	$ 87.44		$ -	-	$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -	-	$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -	-	$ -		$ -		$ -		$ -
none	$ -		$ -	-	$ -		$ -		$ -		$ -
TOTAL LABOUR		**7.00**	**718.80**	**2.00**	**195.16**	**2.00**	**223.70**	**6.00**	**601.52**	**6.00**	**627.54**
Pickup	$ 24.36		$ -	-	$ -	1.00	$ 24.36	1.00	$ 24.36	1.00	$ 24.36
Crew Cab Truck	$ 29.20	1.00	$ 29.20	1.00	$ 29.20	-	$ -	1.00	$ 29.20	1.00	$ 29.20
Conductor Splicing Truck	$ 46.02		$ -	-	$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -	-	$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27	1.00	$ 136.27	-	$ -		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25		$ -	-	$ -		$ -		$ -		$ -
40T RT Crane	$ 195.70		$ -	-	$ -		$ -		$ -	1.00	$ 195.70
60T RT Crane	$ 247.20		$ -	-	$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05		$ -	-	$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40	1.00	$ 89.40	-	$ -		$ -		$ -		$ -
200T All-Tr. crane	$ 418.72		$ -	-	$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -	-	$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -	-	$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -	-	$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85		$ -	4.00	$ 47.38		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -	-	$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67		$ -	-	$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -	-	$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -	-	$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -	-	$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -	-	$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67		$ -	1.00	$ 134.67		$ -		$ -		$ -
Tractor Trailer (Heavy)	$ 134.67	1.00	$ 134.67	-	$ -		$ -		$ -		$ -
Self-Loader	$ 134.67		$ -	-	$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -	-	$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -	-	$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83		$ -	-	$ -		$ -		$ -		$ -
JD 310 Back Hoe	$ 68.13		$ -	-	$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27		$ -	0.50	$ 34.63		$ -	1.00	$ 69.27	1.00	$ 69.27
JD 290 Track-hoe	$ 130.60	1.00	$ 130.60	-	$ -		$ -		$ -		$ -
Skid-Steer Loader	$ 38.11		$ -	-	$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -	-	$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -	-	$ -		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -	-	$ -		$ -		$ -		$ -
Trencher	$ 84.36		$ -	-	$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -	-	$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -	-	$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -	-	$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -	-	$ -	1.00	$ 24.21		$ -		$ -
Reel Trailer	$ 72.10		$ -	-	$ -		$ -		$ -		$ -
Tensioner	$ 139.05		$ -	-	$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -	-	$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -	-	$ -		$ -		$ -		$ -
Single Tensioner	$ 77.25		$ -	-	$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -	-	$ -		$ -		$ -		$ -
JD 350 LDC Excavator	$ 160.89		$ -	-	$ -		$ -	2.00	$ 321.77		$ -
Compressor	$ 22.04		$ -	-	$ -		$ -		$ -		$ -
Grout truck	$ 82.40		$ -	-	$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -	-	$ -		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46		$ -	-	$ -		$ -		$ -		$ -
Water pump	$ 40.99		$ -	-	$ -		$ -	1.00	$ 40.99		$ -
Pilot Line Winder	$ 92.70		$ -	-	$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -	-	$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -	-	$ -		$ -		$ -		$ -
Travellers (ea)	$ 1.24		$ -	-	$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -	-	$ -		$ -		$ -		$ -
Hoe-Pack	$ 25.75		$ -	-	$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -	-	$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -	-	$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65		$ -	-	$ -	1.00	$ 56.65	1.00	$ 56.65	1.00	$ 56.65
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -	-	$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -	-	$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -	-	$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**5.00**	**520.15**	**6.50**	**245.89**	**3.00**	**105.21**	**7.00**	**542.24**	**5.00**	**375.18**
TOTAL CREW RATE			**$ 1,238.95**		**$ 441.04**		**$ 328.91**		**$ 1,143.76**		**$ 1,002.72**

		21		22		23		24		25		26	
		Backfill and Compact		Site Cleanup		Grout Crew		Concrete Foundations		Ground Testing		Sign Crew	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate												
Supervisor	$ 142.83		$ -		$ -		$ -		$ -		$ -		$ -
Foreman	$ 120.15		$ -		$ -		$ -	1.00	$ 120.15		$ -		$ -
Surveyor	$ 111.85	0.50	$ 55.92		$ -		$ -	1.00	$ 111.85		$ -		$ -
Lineman	$ 111.85		$ -		$ -		$ -		$ -	1.00	$ 111.85		$ -
Apprentice - 4th Year	$ 103.90		$ -		$ -		$ -		$ -		$ -		$ -
Apprentice - 3rd Year	$ 95.95		$ -		$ -		$ -		$ -		$ -		$ -
Apprentice - 2nd Year	$ 87.99		$ -		$ -		$ -		$ -		$ -		$ -
Apprentice - 1st Year	$ 80.04		$ -		$ -	2.00	$ 160.08		$ -		$ -	2.00	$ 160.08
Equipment Operator	$ 96.49	3.00	$ 289.48	1.00	$ 96.49		$ -		$ -	1.00	$ 96.49		$ -
Truck Driver / Picker Op.	$ 107.16		$ -		$ -		$ -	1.00	$ 107.16		$ -		$ -
Labourer	$ 87.44	1.00	$ 87.44		$ -		$ -	2.00	$ 174.87		$ -		$ -
3rd Party Density Tester	$ 243.80	-	$ -		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -		$ -	1.00	$ 100.05	1.00	$ 100.05		$ -		$ -
Telecom Foreman	$ 87.44		$ -		$ -		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -		$ -		$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -		$ -		$ -		$ -		$ -		$ -
none	$ -		$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**4.50**	**432.84**	**1.00**	**96.49**	**3.00**	**260.13**	**6.00**	**614.08**	**2.00**	**208.34**	**2.00**	**160.08**
Pickup	$ 24.36	0.50	$ 12.18		$ -	-	$ -	2.00	$ 48.72		$ -	2.00	$ 48.72
Crew Cab Truck	$ 29.20	2.00	$ 58.40	1.00	$ 29.20	1.00	$ 29.20	1.00	$ 29.20	1.00	$ 29.20		$ -
Conductor Splicing Truck	$ 46.02		$ -		$ -		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27		$ -		$ -		$ -		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25		$ -		$ -		$ -	1.00	$ 180.25		$ -		$ -
40T RT Crane	$ 195.70		$ -		$ -		$ -		$ -		$ -		$ -
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05		$ -		$ -		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40		$ -		$ -		$ -		$ -		$ -		$ -
200T All-Tr. crane	$ 418.72		$ -		$ -		$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -		$ -		$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85		$ -		$ -		$ -		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67		$ -		$ -		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -
Tractor Trailer (Heavy)	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83		$ -		$ -		$ -		$ -		$ -		$ -
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27	1.00	$ 69.27	1.00	$ 69.27		$ -		$ -		$ -		$ -
JD 290 Track-hoe	$ 130.60	1.00	$ 130.60		$ -		$ -		$ -		$ -		$ -
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -		$ -		$ -		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -		$ -		$ -	-	$ -		$ -
Trencher	$ 84.36		$ -		$ -		$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -		$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -	1.00	$ 24.21		$ -
Reel Trailer	$ 72.10		$ -		$ -		$ -		$ -		$ -		$ -
Tensioner	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -		$ -		$ -		$ -		$ -		$ -
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -		$ -		$ -
JD 350 LDC Excavator	$ 160.89	1.00	$ 160.89		$ -		$ -		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -	1.00	$ 22.04		$ -		$ -		$ -
Grout truck	$ 82.40		$ -		$ -	1.00	$ 82.40		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -		$ -		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46		$ -		$ -		$ -	0.50	$ 6.73		$ -		$ -
Water pump	$ 40.99	1.00	$ 40.99		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -		$ -		$ -		$ -
Travellers (ea)	$ 1.24		$ -		$ -		$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -		$ -		$ -	2.00	$ 43.67
Hoe-Pack	$ 25.75	1.00	$ 25.75		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65	0.50	$ 28.33		$ -		$ -	1.00	$ 56.65		$ -		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -		$ -		$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**8.00**	**526.41**	**2.00**	**98.47**	**3.00**	**133.64**	**5.50**	**321.55**	**2.00**	**53.41**	**4.00**	**92.39**
TOTAL CREW RATE			**$ 959.25**		**$ 194.96**		**$ 393.78**		**$ 935.63**		**$ 261.75**		**$ 252.48**

		27		28		29		30		31		32	
		HL Helicopter		Camp Site Preparation		Supervisory		Sign Crew		Flagging Crew		Welding Support	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate												
Supervisor	$ 142.83	2.00	$ 285.67		$ -	1.00	$ 142.83		$ -		$ -		$ -
Foreman	$ 120.15	5.00	$ 600.73	1.00	$ 120.15		$ -		$ -		$ -		$ -
Surveyor	$ 111.85		$ -	0.50	$ 55.92		$ -		$ -		$ -		$ -
Lineman	$ 111.85	8.00	$ 894.79		$ -		$ -		$ -		$ -		$ -
Apprentice - 4th Year	$ 103.90	8.00	$ 831.18		$ -		$ -		$ -		$ -		$ -
Apprentice - 3rd Year	$ 95.95	8.00	$ 767.57		$ -		$ -		$ -		$ -		$ -
Apprentice - 2nd Year	$ 87.99		$ -		$ -		$ -		$ -		$ -		$ -
Apprentice - 1st Year	$ 80.04		$ -		$ -		$ -	2.00	$ 160.08	2.00	$ 160.08	1.00	$ 80.04
Equipment Operator	$ 96.49	1.00	$ 96.49	3.00	$ 289.48		$ -		$ -		$ -	1.00	$ 96.49
Truck Driver / Picker Op.	$ 107.16	1.00	$ 107.16		$ -		$ -		$ -		$ -		$ -
Labourer	$ 87.44		$ -		$ -		$ -		$ -		$ -		$ -
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -		$ -		$ -		$ -		$ -		$ -
Telecom Foreman	$ 87.44		$ -		$ -		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -		$ -		$ -		$ -		$ -		$ -
Included Super or Operator	$ -	4.00	$ -		$ -		$ -		$ -		$ -		$ -
none	$ -		$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**37.00**	**3,583.59**	**4.50**	**465.55**	**1.00**	**142.83**	**2.00**	**160.08**	**2.00**	**160.08**	**2.00**	**176.53**
Pickup	$ 24.36	2.00	$ 48.72	1.00	$ 24.36	1.00	$ 24.36	2.00	$ 48.72	2.00	$ 48.72		$ -
Crew Cab Truck	$ 29.20	10.00	$ 292.01	1.00	$ 29.20		$ -		$ -		$ -	1.00	$ 29.20
Conductor Splicing Truck	$ 46.02		$ -		$ -		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27		$ -		$ -		$ -		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25	1.00	$ 180.25		$ -		$ -		$ -		$ -		$ -
40T RT Crane	$ 195.70		$ -		$ -		$ -		$ -		$ -		$ -
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05		$ -		$ -		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40		$ -		$ -		$ -		$ -		$ -	1.00	$ 89.40
200T All-Tr. crane	$ 418.72		$ -		$ -		$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -		$ -		$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85		$ -		$ -		$ -		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67		$ -	1.00	$ 121.67		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67		$ -	-	$ -		$ -		$ -		$ -		$ -
Tractor Trailer (Heavy)	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83		$ -	1.00	$ 165.83		$ -		$ -		$ -		$ -
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27	1.00	$ 69.27		$ -		$ -		$ -		$ -		$ -
JD 290 Track-hoe	$ 130.60		$ -	1.00	$ 130.60		$ -		$ -		$ -		$ -
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -		$ -		$ -		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -		$ -		$ -		$ -		$ -
Trencher	$ 84.36		$ -		$ -		$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -		$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -		$ -
Reel Trailer	$ 72.10		$ -		$ -		$ -		$ -		$ -		$ -
Tensioner	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -		$ -		$ -		$ -		$ -		$ -
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -		$ -		$ -
JD 350 LDC Excavator	$ 160.89		$ -		$ -		$ -		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -		$ -		$ -		$ -		$ -
Grout truck	$ 82.40		$ -		$ -		$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -		$ -		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46		$ -		$ -		$ -		$ -		$ -		$ -
Water pump	$ 40.99		$ -		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -		$ -		$ -		$ -
Travellers (ea)	$ 1.24		$ -		$ -		$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -	2.00	$ 43.67		$ -		$ -
Hoe-Pack	$ 25.75		$ -		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -	-	$ -		$ -
Survey Equipment	$ 56.65		$ -	0.50	$ 28.33		$ -		$ -	-	$ -		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89	1.00	$ 17,725.89		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -	-	$ -		$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**15.00**	**18,316.13**	**5.50**	**499.99**	**1.00**	**24.36**	**4.00**	**92.39**	**2.00**	**48.72**	**2.00**	**118.60**
TOTAL CREW RATE			**$ 21,899.72**		**$ 965.54**		**$ 167.19**		**$ 252.48**		**$ 208.80**		**$ 295.14**

		33		34		35		36		37		38		39	
		Roads and Reclaim		HeliSockInstall		Anchor Crew		Rock Foundations		Bird Diverter		Pole Tag Crew		Guy Install	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate														
Supervisor	$ 142.83		$ -		$ -		$ -		$ -		$ -	1.00	$ 142.83		$ -
Foreman	$ 120.15	1.00	$ 120.15		$ -	1.00	$ 120.15	1.00	$ 120.15	1.00	$ 120.15	1.00	$ 120.15	1.00	$ 120.15
Surveyor	$ 111.85		$ -		$ -		$ -	1.00	$ 111.85		$ -		$ -	0.50	$ 55.92
Lineman	$ 111.85		$ -		$ -		$ -		$ -		$ -	1.00	$ 111.85	2.00	$ 223.70
Apprentice - 4th Year	$ 103.90		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Apprentice - 3rd Year	$ 95.95		$ -		$ -	1.00	$ 95.95		$ -		$ -		$ -	2.00	$ 191.89
Apprentice - 2nd Year	$ 87.99		$ -		$ -		$ -	1.00	$ 87.99	2.00	$ 175.99	1.00	$ 87.99		$ -
Apprentice - 1st Year	$ 80.04		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Equipment Operator	$ 96.49	4.00	$ 385.97		$ -	1.00	$ 96.49	1.00	$ 96.49		$ -		$ -	1.00	$ 96.49
Truck Driver / Picker Op.	$ 107.16		$ -		$ -	1.00	$ 107.16		$ -	2.00	$ 214.32		$ -	1.00	$ 107.16
Labourer	$ 87.44		$ -		$ -		$ -		$ -	2.00	$ 174.87		$ -		$ -
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -		$ -		$ -	1.00	$ 100.05		$ -		$ -		$ -
Telecom Foreman	$ 87.44		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -	1.00	$ -		$ -		$ -		$ -		$ -		$ -
none	$ -		$ -	-	$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**5.00**	**506.12**	**1.00**	**-**	**4.00**	**419.75**	**5.00**	**516.53**	**7.00**	**685.33**	**4.00**	**462.82**	**7.50**	**795.31**
Pickup	$ 24.36	1.00	$ 24.36		$ -		$ -	2.00	$ 48.72	1.00	$ 24.36		$ -	0.50	$ 12.18
Crew Cab Truck	$ 29.20	1.00	$ 29.20		$ -	1.00	$ 29.20	1.00	$ 29.20	1.00	$ 29.20	1.00	$ 29.20	2.00	$ 58.40
Conductor Splicing Truck	$ 46.02		$ -		$ -		$ -		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25		$ -		$ -		$ -		$ -	1.00	$ 180.25		$ -	1.00	$ 180.25
40T RT Crane	$ 195.70		$ -		$ -		$ -		$ -		$ -		$ -		$ -
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40		$ -		$ -	1.00	$ 89.40	-	$ -		$ -		$ -		$ -
200T All-Tr. crane	$ 418.72		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -		$ -		$ -		$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85		$ -		$ -		$ -		$ -		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67	1.00	$ 121.67		$ -		$ -		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Tractor Trailer (Heavy)	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83	1.00	$ 165.83		$ -		$ -		$ -		$ -		$ -		$ -
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27	1.00	$ 69.27		$ -		$ -		$ -		$ -		$ -	1.00	$ 69.27
JD 290 Track-hoe	$ 130.60	1.00	$ 130.60		$ -		$ -	1.00	$ 130.60		$ -		$ -		$ -
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -	-	$ -		$ -		$ -		$ -		$ -
Trencher	$ 84.36		$ -		$ -		$ -		$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -	-	$ -		$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -	2.00	$ 48.41	2.00	$ 48.41	1.00	$ 24.21
Reel Trailer	$ 72.10		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Tensioner	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -		$ -		$ -		$ -		$ -		$ -	1.00	$ 77.25
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -		$ -		$ -		$ -
JD 350 LDC Excavator	$ 160.89		$ -		$ -	1.00	$ 160.89		$ -		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -		$ -	1.00	$ 22.04		$ -		$ -		$ -
Grout truck	$ 82.40		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -		$ -	1.00	$ 103.00		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46		$ -		$ -		$ -	1.00	$ 13.46		$ -		$ -	1.00	$ 13.46
Water pump	$ 40.99		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -		$ -	2.00	$ 92.70		$ -		$ -
Travellers (ea)	$ 1.24		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Hoe-Pack	$ 25.75		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65		$ -		$ -		$ -	1.00	$ 56.65		$ -		$ -	0.50	$ 28.33
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -	1.00	$ 1,905.50		$ -		$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**6.00**	**540.93**	**1.00**	**1,905.50**	**3.00**	**279.49**	**8.00**	**403.67**	**7.00**	**374.92**	**3.00**	**77.61**	**8.00**	**463.34**
TOTAL CREW RATE			**$1,047.05**		**$ 1,905.50**		**$ 699.24**		**$ 920.20**		**$1,060.25**		**$ 540.43**		**$1,258.65**

		40		41		42		43		44		45		46	
		Y- Tower Erection		Tower Plumb		OPGW Splice		Counterpoise Instal		L/A Account		Camp Setup		Camp Haul	
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate														
Supervisor	$ 142.83		$ -		$ -		$ -		$ -		$ -	1.00	$ 142.83		$ -
Foreman	$ 120.15	1.00	$ 120.15	1.00	$ 120.15		$ -	1.00	$ 120.15		$ -	1.00	$ 120.15		$ -
Surveyor	$ 111.85		$ -	1.00	$ 111.85		$ -	1.00	$ 111.85		$ -	0.50	$ 55.92		$ -
Lineman	$ 111.85	1.00	$ 111.85	1.00	$ 111.85		$ -		$ -		$ -	1.00	$ 111.85		$ -
Apprentice - 4th Year	$ 103.90	1.00	$ 103.90		$ -		$ -		$ -		$ -		$ -		$ -
Apprentice - 3rd Year	$ 95.95	2.00	$ 191.89	2.00	$ 191.89		$ -		$ -		$ -		$ -		$ -
Apprentice - 2nd Year	$ 87.99	1.00	$ 87.99	2.00	$ 175.99		$ -		$ -		$ -		$ -		$ -
Apprentice - 1st Year	$ 80.04	1.00	$ 80.04		$ -		$ -		$ -		$ -		$ -		$ -
Equipment Operator	$ 96.49	1.00	$ 96.49		$ -		$ -	2.00	$ 192.99		$ -	2.00	$ 192.99		$ -
Truck Driver / Picker Op.	$ 107.16	1.00	$ 107.16		$ -		$ -		$ -		$ -	1.00	$ 107.16	1.00	$ 107.16
Labourer	$ 87.44		$ -		$ -		$ -		$ -		$ -	3.00	$ 262.31		$ -
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -		$ -		$ -		$ -		$ -	3.00	$ 300.15		$ -
Telecom Foreman	$ 87.44		$ -		$ -	1.00	$ 87.44		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -		$ -	1.00	$ 87.44		$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -		$ -		$ -		$ -	1.00	$ -		$ -		$ -
none	$ -		$ -		$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**9.00**	**899.47**	**7.00**	**711.72**	**2.00**	**174.87**	**4.00**	**424.98**	**1.00**	**-**	**12.50**	**1,293.35**	**1.00**	**107.16**
Pickup	$ 24.36	1.00	$ 24.36	1.00	$ 24.36	-	$ -	1.00	$ 24.36		$ -	1.00	$ 24.36		$ -
Crew Cab Truck	$ 29.20	2.00	$ 58.40	2.00	$ 58.40	1.00	$ 29.20	1.00	$ 29.20		$ -	2.00	$ 58.40		$ -
Conductor Splicing Truck	$ 46.02		$ -		$ -		$ -		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -	1.00	$ 93.60		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25		$ -		$ -		$ -		$ -		$ -		$ -		$ -
40T RT Crane	$ 195.70		$ -		$ -		$ -		$ -		$ -	1.00	$ 195.70		$ -
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05	1.00	$ 345.05		$ -		$ -		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40		$ -		$ -		$ -		$ -		$ -		$ -		$ -
200T All-Tr. crane	$ 418.72		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -		$ -		$ -		$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85		$ -		$ -		$ -		$ -		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -		$ -		$ -		$ -		$ -		$ -
T/A Rock Truck	$ 121.67		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67		$ -		$ -		$ -		$ -		$ -	1.00	$ 134.67		$ -
Tractor Trailer (Heavy)	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -	1.00	$ 134.67
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83		$ -		$ -		$ -		$ -		$ -	1.00	$ 165.83		$ -
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -		$ -		$ -		$ -		$ -
JD 554 Loader	$ 69.27	-	$ -		$ -		$ -		$ -		$ -	1.00	$ 69.27		$ -
JD 290 Track-hoe	$ 130.60	1.00	$ 130.60		$ -		$ -		$ -		$ -	1.00	$ 130.60		$ -
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -		$ -	1.00	$ 130.60		$ -		$ -		$ -
Trencher	$ 84.36		$ -		$ -		$ -	1.00	$ 84.36		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -		$ -		$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21	1.00	$ 24.21	2.00	$ 48.41		$ -		$ -		$ -		$ -		$ -
Reel Trailer	$ 72.10		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Tensioner	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -		$ -		$ -		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -		$ -		$ -		$ -		$ -		$ -		$ -
JD 350 LDC Excavator	$ 160.89		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Grout truck	$ 82.40		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46		$ -	1.00	$ 13.46		$ -		$ -		$ -		$ -		$ -
Water pump	$ 40.99		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Travellers (ea)	$ 1.24		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Hoe-Pack	$ 25.75		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65		$ -	1.00	$ 56.65		$ -	1.00	$ 56.65		$ -	0.50	$ 28.33		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -		$ -		$ -		$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**6.00**	**582.62**	**7.00**	**201.28**	**2.00**	**122.80**	**5.00**	**325.17**	**-**	**-**	**8.50**	**807.16**	**1.00**	**134.67**
TOTAL CREW RATE			**$ 1,482.09**		**$ 913.00**		**$ 297.67**		**$ 750.15**		**$ -**		**$ 2,100.51**		**$ 241.83**

		47		48		49		50		99	
		Geotech		Wood Assembly		Wood Erection		Slack Stringing			
		No.	Rate	No.	Rate	No.	Rate	No.	Rate	No.	Rate
Designation	Rate										
Supervisor	$ 142.83	1.00	$ 142.83		$ -		$ -		$ -		$ -
Foreman	$ 120.15		$ -	1.00	$ 120.15	1.00	$ 120.15	1.00	$ 120.15		$ -
Surveyor	$ 111.85		$ -		$ -		$ -		$ -		$ -
Lineman	$ 111.85		$ -	1.00	$ 111.85	1.00	$ 111.85	3.00	$ 335.55		$ -
Apprentice - 4th Year	$ 103.90		$ -		$ -	1.00	$ 103.90	2.00	$ 207.79		$ -
Apprentice - 3rd Year	$ 95.95		$ -	1.00	$ 95.95		$ -	2.00	$ 191.89		$ -
Apprentice - 2nd Year	$ 87.99		$ -		$ -		$ -	2.00	$ 175.99		$ -
Apprentice - 1st Year	$ 80.04		$ -		$ -		$ -		$ -		$ -
Equipment Operator	$ 96.49	1.00	$ 96.49	1.00	$ 96.49	1.00	$ 96.49	2.00	$ 192.99		$ -
Truck Driver / Picker Op.	$ 107.16	0.25	$ 26.79	1.00	$ 107.16	2.00	$ 214.32	2.00	$ 214.32		$ -
Labourer	$ 87.44	1.00	$ 87.44		$ -		$ -		$ -		$ -
3rd Party Density Tester	$ 243.80		$ -		$ -		$ -		$ -		$ -
Carpenter	$ 100.05		$ -		$ -		$ -		$ -		$ -
Telecom Foreman	$ 87.44		$ -		$ -		$ -		$ -		$ -
Telecom Cable Splicer	$ 87.44		$ -		$ -		$ -		$ -		$ -
Included Super or Operator	$ -		$ -		$ -		$ -		$ -		$ -
none	$ -		$ -		$ -		$ -		$ -		$ -
TOTAL LABOUR		**3.25**	**353.55**	**5.00**	**531.60**	**6.00**	**646.71**	**14.00**	**1,438.68**	**-**	**-**
Pickup	$ 24.36	1.00	$ 24.36		$ -		$ -	1.00	$ 24.36		$ -
Crew Cab Truck	$ 29.20	1.00	$ 29.20	1.00	$ 29.20	2.00	$ 58.40	3.00	$ 87.60		$ -
Conductor Splicing Truck	$ 46.02		$ -		$ -		$ -		$ -		$ -
OPGW Splicing Truck	$ 93.60		$ -		$ -		$ -		$ -		$ -
Picker - 17 Ton	$ 136.27		$ -	1.00	$ 136.27		$ -		$ -		$ -
Picker - 38 Ton	$ 180.25		$ -		$ -		$ -	2.00	$ 360.50		$ -
40T RT Crane	$ 195.70		$ -		$ -	1.00	$ 195.70		$ -		$ -
60T RT Crane	$ 247.20		$ -		$ -		$ -		$ -		$ -
80T RT Crane	$ 345.05		$ -		$ -		$ -		$ -		$ -
Digger - TelElect 5052	$ 89.40		$ -		$ -	-	$ -	-	$ -		$ -
200T All-Tr. crane	$ 418.72		$ -		$ -		$ -		$ -		$ -
Texoma	$ 162.23		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -
120' Gene Lift	$ 87.55		$ -		$ -		$ -		$ -		$ -
53' Tridem trailer	$ 11.85		$ -		$ -		$ -		$ -		$ -
T/A Gravel Truck	$ 68.13		$ -		$ -	1.00	$ 68.13		$ -		$ -
T/A Rock Truck	$ 121.67		$ -		$ -		$ -		$ -		$ -
Watson 1010	$ 190.55		$ -		$ -		$ -		$ -		$ -
Watson 1100	$ 247.20		$ -		$ -	-	$ -		$ -		$ -
Watson 2500	$ 309.00		$ -		$ -		$ -		$ -		$ -
Soilmec SR65	$ 437.75		$ -		$ -		$ -		$ -		$ -
Tractor Trailer/Picker	$ 134.67	0.25	$ 33.67		$ -		$ -		$ -		$ -
Tractor Trailer (Heavy)	$ 134.67		$ -		$ -		$ -		$ -		$ -
Self-Loader	$ 134.67		$ -		$ -		$ -		$ -		$ -
55' Bucket Truck	$ 81.11		$ -		$ -		$ -		$ -		$ -
Pole Trailer	$ 22.04		$ -		$ -		$ -		$ -		$ -
Crawler Tractors 750 JD	$ 165.83		$ -		$ -		$ -		$ -		$ -
JD 310 Back Hoe	$ 68.13		$ -		$ -		$ -	1.00	$ 68.13		$ -
JD 554 Loader	$ 69.27		$ -		$ -		$ -		$ -		$ -
JD 290 Track-hoe	$ 130.60	1.00	$ 130.60		$ -	1.00	$ 130.60	1.00	$ 130.60		$ -
Skid-Steer Loader	$ 38.11		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker up to 17 Ton	$ 170.36		$ -		$ -		$ -		$ -		$ -
Nodwells - Picker over 17 Ton	$ 228.25		$ -		$ -		$ -		$ -		$ -
Nodwell - Digger	$ 130.60		$ -		$ -		$ -		$ -		$ -
Trencher	$ 84.36		$ -		$ -		$ -		$ -		$ -
10T Tele-Handler	$ 53.00		$ -		$ -		$ -		$ -		$ -
LGP Texoma Nodwell	$ 162.23		$ -		$ -		$ -		$ -		$ -
LGP Highboy ROW Trailer	$ 32.45		$ -		$ -		$ -		$ -		$ -
Quad or Side by Side	$ 24.21		$ -		$ -		$ -		$ -		$ -
Reel Trailer	$ 72.10		$ -		$ -		$ -	1.00	$ 72.10		$ -
Tensioner	$ 139.05		$ -		$ -		$ -		$ -		$ -
Puller	$ 139.05		$ -		$ -		$ -		$ -		$ -
1 Drum Puller	$ 77.25		$ -		$ -		$ -	-	$ -		$ -
Single Tensioner	$ 77.25		$ -		$ -		$ -		$ -		$ -
Single Traveller	$ 0.52		$ -		$ -		$ -	-	$ -		$ -
JD 350 LDC Excavator	$ 160.89		$ -		$ -		$ -		$ -		$ -
Compressor	$ 22.04		$ -		$ -		$ -		$ -		$ -
Grout truck	$ 82.40		$ -		$ -		$ -		$ -		$ -
Rock Drill	$ 103.00		$ -		$ -	1.00	$ 103.00		$ -		$ -
Press & Pump, Genset, Light plant	$ 13.46		$ -	1.00	$ 13.46	1.00	$ 13.46	1.00	$ 13.46		$ -
Water pump	$ 40.99		$ -		$ -		$ -		$ -		$ -
Pilot Line Winder	$ 92.70		$ -		$ -		$ -		$ -		$ -
Wire Winder	$ 17.69		$ -		$ -		$ -		$ -		$ -
Spacer Buggy	$ 46.35		$ -		$ -		$ -		$ -		$ -
Travellers (ea)	$ 1.24		$ -		$ -		$ -	200.00	$ 247.20		$ -
Traffic Control Sign	$ 21.84		$ -		$ -		$ -		$ -		$ -
Hoe-Pack	$ 25.75		$ -		$ -		$ -		$ -		$ -
Pile Driving Crew (per m)	$ 211.07		$ -		$ -		$ -		$ -		$ -
Concrete Pumper	$ 206.00		$ -		$ -		$ -		$ -		$ -
Survey Equipment	$ 56.65		$ -		$ -		$ -		$ -		$ -
Heavy Lift Helicopter - Operated	$ 17,725.89		$ -		$ -		$ -		$ -		$ -
Medium Lift Helicopter - Operated	$ 3,071.98		$ -		$ -		$ -		$ -		$ -
Light Duty Helicopter - Operated	$ 1,905.50		$ -		$ -		$ -		$ -		$ -
TOTAL EQUIPMENT		**3.25**	**217.83**	**3.00**	**178.93**	**7.00**	**569.30**	**210.00**	**1,003.96**	**-**	**-**
TOTAL CREW RATE			**$ 571.38**		**$ 710.52**		**$1,216.00**		**$2,442.63**		**$ -**

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.

Rate Blending

Based On 11.0 **Hours per Day**
7.0 **Days per Week**
77.0 **Hour Week**

Daily Living Allowance $ - Assumes 0% no LA
LA For 7 **days / week**

	Blended Hourly Rate	Unloaded Hourly Rate			Multiplier	Loaded Hourly Rate			Hours Per Week			Wage Cost				Weekly Living Cost	Weekly Cost Total	Blended Cost Per Hour		ST & OT Rates c/w Sustenance			
		ST	OT	DT		ST	OT	DT	ST	OT	DT	ST	OT	DT	Total			Hours	Cost		ST	OT	DT
Personnel Rates																							
Supervisor	$ 142.83	109.19	163.13	217.18	1.00	$ 109.19	$ 163.13	$ 217.18	40.0	26.0	11.0	$ 4,367.66	$ 4,241.44	$ 2,389.00	$ 10,998.11	$ -	$ 10,998.11	77.0	$ 142.83	Supervisor	$ 109.19	$ 163.13	$ 217.18
Senior Foreman	$ 131.69	100.67	150.40	200.23	1.00	$ 100.67	$ 150.40	$ 200.23	40.0	26.0	11.0	$ 4,026.80	$ 3,910.42	$ 2,202.56	$ 10,139.77	$ -	$ 10,139.77	77.0	$ 131.69	Senior Foreman	$ 100.67	$ 150.40	$ 200.23
Foreman	$ 120.15	99.28	132.75	166.23	1.00	$ 99.28	$ 132.75	$ 166.23	40.0	26.0	11.0	$ 3,971.20	$ 3,451.60	$ 1,828.51	$ 9,251.31	$ -	$ 9,251.31	77.0	$ 120.15	Foreman	$ 99.28	$ 132.75	$ 166.23
Sub-Foreman	$ 117.18	97.02	129.36	161.71	1.00	$ 97.02	$ 129.36	$ 161.71	40.0	26.0	11.0	$ 3,880.83	$ 3,363.49	$ 1,778.80	$ 9,023.12	$ -	$ 9,023.12	77.0	$ 117.18	Sub-Foreman	$ 97.02	$ 129.36	$ 161.71
Surveyor	$ 111.85	92.95	123.26	153.58	1.00	$ 92.95	$ 123.26	$ 153.58	40.0	26.0	11.0	$ 3,718.16	$ 3,204.88	$ 1,689.33	$ 8,612.37	$ -	$ 8,612.37	77.0	$ 111.85	Surveyor	$ 92.95	$ 123.26	$ 153.58
Lineman	$ 111.85	92.95	123.26	153.58	1.00	$ 92.95	$ 123.26	$ 153.58	40.0	26.0	11.0	$ 3,718.16	$ 3,204.88	$ 1,689.33	$ 8,612.37	$ -	$ 8,612.37	77.0	$ 111.85	Lineman	$ 92.95	$ 123.26	$ 153.58
Apprentice - 4th Year	$ 103.90	86.89	114.17	141.45	1.00	$ 86.89	$ 114.17	$ 141.45	40.0	26.0	11.0	$ 3,475.67	$ 2,968.46	$ 1,555.96	$ 8,000.09	$ -	$ 8,000.09	77.0	$ 103.90	Apprentice - 4th Year	$ 86.89	$ 114.17	$ 141.45
Apprentice - 3rd Year	$ 95.95	80.83	105.08	129.33	1.00	$ 80.83	$ 105.08	$ 129.33	40.0	26.0	11.0	$ 3,233.18	$ 2,732.04	$ 1,422.60	$ 7,387.81	$ -	$ 7,387.81	77.0	$ 95.95	Apprentice - 3rd Year	$ 80.83	$ 105.08	$ 129.33
Apprentice - 2nd Year	$ 87.99	74.77	95.99	117.20	1.00	$ 74.77	$ 95.99	$ 117.20	40.0	26.0	11.0	$ 2,990.70	$ 2,495.61	$ 1,289.23	$ 6,775.54	$ -	$ 6,775.54	77.0	$ 87.99	Apprentice - 2nd Year	$ 74.77	$ 95.99	$ 117.20
Apprentice - 1st Year	$ 80.04	68.71	86.89	105.08	1.00	$ 68.71	$ 86.89	$ 105.08	40.0	26.0	11.0	$ 2,748.21	$ 2,259.19	$ 1,155.86	$ 6,163.26	$ -	$ 6,163.26	77.0	$ 80.04	Apprentice - 1st Year	$ 68.71	$ 86.89	$ 105.08
Equipment Operator	$ 96.49	78.91	107.12	135.32	1.00	$ 78.91	$ 107.12	$ 135.32	40.0	26.0	11.0	$ 3,156.41	$ 2,785.00	$ 1,488.53	$ 7,429.93	$ -	$ 7,429.93	77.0	$ 96.49	Equipment Operator	$ 78.91	$ 107.12	$ 135.32
Truck Driver / Picker Op.	$ 107.16	87.04	119.32	151.59	1.00	$ 87.04	$ 119.32	$ 151.59	40.0	26.0	11.0	$ 3,481.75	$ 3,102.21	$ 1,667.46	$ 8,251.42	$ -	$ 8,251.42	77.0	$ 107.16	Truck Driver / Picker Op.	$ 87.04	$ 119.32	$ 151.59
Labourer	$ 87.44	72.01	96.76	121.51	1.00	$ 72.01	$ 96.76	$ 121.51	40.0	26.0	11.0	$ 2,880.23	$ 2,515.73	$ 1,336.63	$ 6,732.58	$ -	$ 6,732.58	77.0	$ 87.44	Labourer	$ 72.01	$ 96.76	$ 121.51
Carpenter	$ 100.05	81.62	111.18	140.74	1.00	$ 81.62	$ 111.18	$ 140.74	40.0	26.0	11.0	$ 3,264.85	$ 2,890.74	$ 1,548.17	$ 7,703.76	$ -	$ 7,703.76	77.0	$ 100.05	Carpenter	$ 81.62	$ 111.18	$ 140.74
Telecom Foreman	$ 87.44	72.01	96.76	121.51	1.00	$ 72.01	$ 96.76	$ 121.51	40.0	26.0	11.0	$ 2,880.23	$ 2,515.73	$ 1,336.63	$ 6,732.58	$ -	$ 6,732.58	77.0	$ 87.44	Telecom Foreman	$ 72.01	$ 96.76	$ 121.51
Telecom Cable Splicer	$ 87.44	72.01	96.76	121.51	1.00	$ 72.01	$ 96.76	$ 121.51	40.0	26.0	11.0	$ 2,880.23	$ 2,515.73	$ 1,336.63	$ 6,732.58	$ -	$ 6,732.58	77.0	$ 87.44	Telecom Cable Splicer	$ 72.01	$ 96.76	$ 121.51

Equipment Rates	
General Highway Equipment	
Pickup	$ 24.36
Crew Cab Truck	$ 29.20
Conductor Splicing Truck	$ 46.02
OPGW Splicing Truck	$ 93.60
Picker - 17 Ton	$ 136.27
Picker - 38 Ton	$ 180.25
40T RT Crane	$ 195.70
60T RT Crane	$ 247.20
80T RT Crane	$ 345.05
Digger - TelElect 5052	$ 89.40
T/A Gravel Truck	$ 68.13
T/A Rock Truck	$ 121.67
Texoma	$ 162.23
Watson 1010	$ 190.55
Watson 1100	$ 247.20
Watson 2500	$ 309.00
Soilmec SR65	$ 437.75
Tractor Trailer/Picker	$ 134.67
Tractor Trailer (Heavy)	$ 134.67
Self-Loader	$ 134.67
55' Bucket Truck	$ 81.11
Pole Trailer	$ 22.04
Rock Drill	$ 103.00
Contract Construction Equipment	
200T All-Tr. crane	$ 418.72
Contract Welder	$ 144.20
Quad or Side by Side	$ 24.21
120' Gene Lift	$ 87.55
53' Tridem trailer	$ 11.85
Heavy Construction Equipment	
Crawler Tractors 750 JD	$ 165.83
JD 310 Back Hoe	$ 68.13
JD 554 Loader	$ 69.27
JD 290 Track-hoe	$ 130.60
Skid-Steer Loader	$ 38.11
LGP Construction Equipment	
Nodwells - Picker up to 17 Ton	$ 170.36
Nodwells - Picker over 17 Ton	$ 228.25
Nodwell - Digger	$ 130.60
Trencher	$ 84.36
10T Tele-Handler	$ 53.00
LGP Texoma Nodwell	$ 162.23
LGP Highboy ROW Trailer	$ 32.45
Stringing Equipment	
Reel Trailer	$ 72.10
Tensioner	$ 139.05
Puller	$ 139.05
1 Drum Puller	$ 77.25
Single Tensioner	$ 77.25
Single Traveller	$ 0.52
JD 350 LDC Excavator	$ 160.89
Compressor	$ 22.04
Grout Truck	$ 82.40
Press & Pump, Genset, Light plar	$ 13.46
Press & Pump	$ 40.99
Water Pump	$ 40.99
Pilot Line Winder	$ 92.70
Wire Winder	$ 17.69
Spacer Buggy	$ 46.35
Travellers (ea)	$ 1.24
Traffic Control Sign	$ 21.84

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::A01	**S1-A1 Initial Mobilization**		**Unit Cost:**	$ -	1	$ -
	S1-A1 Initial Mobilization		17			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::A02	**S1-A2 Final Demobilization**		**Unit Cost:**	$ -	1	$ -
	S1-A2 Final Demobilization		28			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::A03	**S1-A3 Accommodation Camp Installation**		**Unit Cost:**	$ 45,687,843.87	1	$ 45,687,843.87
	S1-A3 Accommodation Camp Installation		39			
	Screened Crushed Rock (Tonne)	12000	$ 47.38	$ 568,560.00		
	Camp incidental Material	4	$ 143,750.00	$ 575,000.00		
	Contractor Fuel(l)	105000	$ 1.33	$ 140,070.00		
	Camp Hauling with pilot car	6080	$ 218.50	$ 1,328,480.00		
	Room and Board (day)	172294	$ 250.01	$ 43,075,733.87		
			$ -	$ -		
	Total material Cost per Structure			$ 45,687,843.87		
V::A04	**S1-A4 Boarding and Lodging for Company/Engineer with 3 meals per day**		**Unit Cost:**	$ 250.01	24000	$ 6,000,309.00
	S1-A4 Boarding and Lodging for Company/Engineer with 3 meals per day		71			
	Room and Board (day)	1	$ 250.01	$ 250.01		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 250.01		
V::A05	**S1-A5 Meals for Company/Engineer visitors**		**Unit Cost:**	$ 41.68	2000	$ 83,354.29
	S1-A5 Meals for Company/Engineer visitors		82			
	Room and Board (day)	0.1667	$ 250.01	$ 41.68		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 41.68		
V::A06	**S1-A6 Parent Guarantee Article 7.4**		**Unit Cost:**	$ -	1	$ -
	S1-A6 Parent Guarantee Article 7.4		124			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::A07	**S1-A7 Letter Of Credit Article 7.6**		**Unit Cost:**	$ -	1	$ -
	S1-A7 Letter Of Credit Article 7.6		134			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::A08	**S1-A8 Performance Bonding Article 7.1**		**Unit Cost:**	$ -	1	$ -
	S1-A8 Performance Bonding Article 7.1		144			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::A09	**S1-A9 Labour and Materials Bonding Article 7.2**		**Unit Cost:**	**$ -**	**1**	**$ -**
	S1-A9 Labour and Materials Bonding Article 7.2		158			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::B01	**S1-B1 ROW Clearing**		**Unit Cost:**	**$ 19,550.00**	**2737**	**$ 53,508,350.00**
	S1-B1 ROW Clearing		174			
	ROW Clearing	1.00	$ 19,550.00	$ 19,550.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 19,550.00**		
V::B02	**S1-B2 Removal of selected danger trees**		**Unit Cost:**	**$ 210.00**	**1000**	**$ 210,000.00**
	S1-B2 Removal of selected danger trees		188			
	Removal of selected danger trees	1.00	$ 210.00	$ 210.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 210.00**		
V::B03	**S1-B3 Supply and Installation of Culvert - 600 mm x 1.6 mm thick**		**Unit Cost:**	**$ 426.01**	**1455**	**$ 619,838.73**
	S1-B3 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2		202			
	Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2	1.00	$ 426.01	$ 426.01		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 426.01**		
V::B04	**S1-B4 Supply and Installation of Bridge - 3 m**		**Unit Cost:**	**$ 32,700.00**	**219**	**$ 7,161,300.00**
	S1-B4 Supply and Installation of Bridge - 3 m		216			
	Supply and Installation of Bridge - 3 m	1.00	$ 32,700.00	$ 32,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 32,700.00**		
V::B05	**S1-B5 Supply and Installation of Bridge - 4 m**		**Unit Cost:**	**$ 43,600.00**	**2**	**$ 87,200.00**
	S1-B5 Supply and Installation of Bridge - 4 m		231			
	Supply and Installation of Bridge - 4 m	1.00	$ 43,600.00	$ 43,600.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 43,600.00**		
V::B06	**S1-B6 Supply and Installation of Bridge - 5 m**		**Unit Cost:**	**$ 54,500.00**	**20**	**$ 1,090,000.00**
	S1-B6 Supply and Installation of Bridge - 5 m		275			
	Supply and Installation of Bridge - 5 m	1.00	$ 54,500.00	$ 54,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 54,500.00**		
V::B07	**S1-B7 Supply and Installation of Bridge - 6 m**		**Unit Cost:**	**$ 65,400.00**	**0**	**$ -**
	S1-B7 Supply and Installation of Bridge - 6 m		292			
	Supply and Installation of Bridge - 6 m	1.00	$ 65,400.00	$ 65,400.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 65,400.00**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::B08	**S1-B8 Supply and Installation of Bridge - 7 m**		**Unit Cost:**	**$ 76,300.00**	**15**	**$ 1,144,500.00**
	S1-B8 Supply and Installation of Bridge - 7 m		309			
	Supply and Installation of Bridge - 7 m	1.00	$ 76,300.00	$ 76,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 76,300.00**		
V::B09	**S1-B9 Supply and Installation of Bridge - 8 m**		**Unit Cost:**	**$ 87,200.00**	**0**	**$ -**
	S1-B9 Supply and Installation of Bridge - 8 m		326			
	Supply and Installation of Bridge - 8 m	1.00	$ 87,200.00	$ 87,200.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 87,200.00		
V::B10	**S1-B10 Supply and Installation of Bridge - 10 m**		**Unit Cost:**	**$ 109,000.00**	**10**	**$ 1,090,000.00**
	S1-B10 Supply and Installation of Bridge - 10 m		343			
	Supply and Installation of Bridge - 10 m	1.00	$ 109,000.00	$ 109,000.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 109,000.00**		
V::B11	**S1-B11 Supply and Installation of Bridge - 13 m**		**Unit Cost:**	**$ 141,700.00**	**1**	**$ 141,700.00**
	S1-B11 Supply and Installation of Bridge - 13 m		360			
	Supply and Installation of Bridge - 13 m	1.00	$ 141,700.00	$ 141,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 141,700.00		
V::B12	**S1-B12 Supply and Installation of Bridge - 14 m**		**Unit Cost:**	$ 152,600.00	**0**	**$ -**
	S1-B12 Supply and Installation of Bridge - 14 m		377			
	Supply and Installation of Bridge - 14 m	1.00	$ 152,600.00	$ 152,600.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 152,600.00**		
V::B13	**S1-B13 Supply and Installation of Bridge - 15 m**		**Unit Cost:**	**$ 163,500.00**	**0**	**$ -**
	S1-B13 Supply and Installation of Bridge - 15 m		394			
	Supply and Installation of Bridge - 15 m	1.00	$ 163,500.00	$ 163,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 163,500.00**		
V::B14	**S1-B14 Supply and Installation of Bridge - 16 m**		**Unit Cost:**	**$ 174,400.00**	**0**	**$ -**
	S1-B14 Supply and Installation of Bridge - 16 m		411			
	Supply and Installation of Bridge - 16 m	1.00	$ 174,400.00	$ 174,400.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 174,400.00**		
V::B15	**S1-B15 Supply and Installation of Bridge - 25 m**		**Unit Cost:**	**$ 272,500.00**	**0**	**$ -**
	S1-B15 Supply and Installation of Bridge - 25 m		425			
	Supply and Installation of Bridge - 25 m	1.00	$ 272,500.00	$ 272,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 272,500.00**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::B16	**S1-B16 Supply and Installation of Bridge - 35 m**		**Unit Cost:**	**$ 381,500.00**	**1**	**$ 381,500.00**
	S1-B16 Supply and Installation of Bridge - 35 m		439			
	Supply and Installation of Bridge - 35 m	1.00	$ 381,500.00	$ 381,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 381,500.00**		
V::B17	**S1-B17 Supply and Installation of Bridge - 50 m**		**Unit Cost:**	**$ 545,000.00**	**0**	**$ -**
	S1-B17 Supply and Installation of Bridge - 50 m		453			
	Supply and Installation of Bridge - 50 m	1.00	$ 545,000.00	$ 545,000.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 545,000.00**		
V::B18	**S1-B18 Supply and Installation of Bridge - 60 m**		**Unit Cost:**	**$ 654,000.00**	**0**	**$ -**
	S1-B18 Supply and Installation of Bridge - 60 m		467			
	Supply and Installation of Bridge - 60 m	1.00	$ 654,000.00	$ 654,000.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 654,000.00**		
V::B19	**S1-B19 Supply and Installation of Bridge - 65 m**		**Unit Cost:**	**$ 708,500.00**	**0**	**$ -**
	S1-B19 Supply and Installation of Bridge - 65 m		482			
	Supply and Installation of Bridge - 65 m	1.00	$ 708,500.00	$ 708,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 708,500.00**		
V::B20	**S1-B20 Installation of Corduroy Road**		**Unit Cost:**	**$ 139.45**	**8233**	**$ 1,148,083.62**
	S1-B20 Installation of Corduroy Road		497			
	Installation of Corduroy Road	1.00	$ 139.45	$ 139.45		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 139.45**		
V::B21	**S1-B21 Installation of Access Road - Access Class 3**		**Unit Cost:**	**$ 80,700.00**	**402**	**$ 32,441,400.00**
	S1-B21 Installation of Access Road - Access Class 3		511			
	Installation of Access Road - Access Class 3	1.00	$ 80,700.00	$ 80,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 80,700.00**		
V::B22	**S1-B22 Installation of Access Road - Access Trail**		**Unit Cost:**	**$ 80,700.00**	**41**	**$ 3,308,700.00**
	S1-B22 Installation of Access Road - Access Trail		525			
	Installation of Access Road - Access Trail	1.00	$ 80,700.00	$ 80,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 80,700.00**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::B23	**S1-B23 Installation of Access Road - Bypass Trail**		**Unit Cost:**	**$ 80,700.00**	**35**	**$ 2,824,500.00**
	S1-B23 Installation of Access Road - Bypass Trail		594			
	Installation of Access Road - Bypass Trail	1.00	$ 80,700.00	$ 80,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 80,700.00**		
V::B24	**S1-B24 Installation of Access Road - Ice Bridge**		**Unit Cost:**	**$ 7,200.00**	**57**	**$ 410,400.00**
	S1-B24 Installation of Access Road - Ice Bridge		607			
	Installation of Access Road - Ice Bridge	1.00	$ 7,200.00	$ 7,200.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 7,200.00		
V::B25	**S1-B25 ROW Clearing**		**Unit Cost:**	**$ 19,550.00**	**0**	**$ -**
	S1-B25 ROW Clearing		623			
	ROW Clearing	1.00	$ 19,550.00	$ 19,550.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 19,550.00**		
V::B26	**S1-B26 Removal of selected danger trees**		**Unit Cost:**	**$ 210.00**	**0**	**$ -**
	S1-B26 Removal of selected danger trees		637			
	Removal of selected danger trees	1.00	$ 210.00	$ 210.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 210.00**		
V::B27	**S1-B27 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2**		**Unit Cost:**	**$ 426.01**	**0**	**$ -**
	S1-B27 Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2		680			
	Supply and Installation of Culvert - 600 mm x 1.6 mm thick aluminized type 2	1.00	$ 426.01	$ 426.01		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 426.01**		
V::B28	**S1-B28 Supply and Installation of Bridge - 3 m**		**Unit Cost:**	**$ 32,700.00**	**0**	**$ -**
	S1-B28 Supply and Installation of Bridge - 3 m		698			
	Supply and Installation of Bridge - 3 m	1.00	$ 32,700.00	$ 32,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 32,700.00**		
V::B29	**S1-B29 Supply and Installation of Bridge - 4 m**		**Unit Cost:**	**$ 43,600.00**	**0**	**$ -**
	S1-B29 Supply and Installation of Bridge - 4 m		713			
	Supply and Installation of Bridge - 4 m	1.00	$ 43,600.00	$ 43,600.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 43,600.00**		
V::B30	**S1-B30 Supply and Installation of Bridge - 5 m**		**Unit Cost:**	**$ 54,500.00**	**0**	**$ -**
	S1-B30 Supply and Installation of Bridge - 5 m		728			
	Supply and Installation of Bridge - 5 m	1.00	$ 54,500.00	$ 54,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 54,500.00**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::B31	**S1-B31 Supply and Installation of Bridge - 6 m**		**Unit Cost:**	**$ 65,400.00**	**0**	**$ -**
	S1-B31 Supply and Installation of Bridge - 6 m		743			
	Supply and Installation of Bridge - 6 m	1.00	$ 65,400.00	$ 65,400.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 65,400.00**		
V::B32	**S1-B32 Supply and Installation of Bridge - 7 m**		**Unit Cost:**	**$ 76,300.00**	**0**	**$ -**
	S1-B32 Supply and Installation of Bridge - 7 m		774			
	Supply and Installation of Bridge - 7 m	1.00	$ 76,300.00	$ 76,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 76,300.00**		
V::B33	**S1-B33 Supply and Installation of Bridge - 8 m**		**Unit Cost:**	**$ 87,200.00**	**0**	**$ -**
	S1-B33 Supply and Installation of Bridge - 8 m		792			
	Supply and Installation of Bridge - 8 m	1.00	$ 87,200.00	$ 87,200.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 87,200.00**		
V::B34	**S1-B34 Supply and Installation of Bridge - 10 m**		**Unit Cost:**	**$ 109,000.00**	**0**	**$ -**
	S1-B34 Supply and Installation of Bridge - 10 m		807			
	Supply and Installation of Bridge - 10 m	1.00	$ 109,000.00	$ 109,000.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 109,000.00**		
V::B35	**S1-B35 Supply and Installation of Bridge - 13 m**		**Unit Cost:**	**$ 141,700.00**	**0**	**$ -**
	S1-B35 Supply and Installation of Bridge - 13 m		822			
	Supply and Installation of Bridge - 13 m	1.00	$ 141,700.00	$ 141,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 141,700.00**		
V::B36	**S1-B36 Supply and Installation of Bridge - 14 m**		**Unit Cost:**	**$ 152,600.00**	**0**	**$ -**
	S1-B36 Supply and Installation of Bridge - 14 m		837			
	Supply and Installation of Bridge - 14 m	1.00	$ 152,600.00	$ 152,600.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 152,600.00**		
V::B37	**S1-B37 Supply and Installation of Bridge - 15 m**		**Unit Cost:**	**$ 163,500.00**	**0**	**$ -**
	S1-B37 Supply and Installation of Bridge - 15 m		872			
	Supply and Installation of Bridge - 15 m	1.00	$ 163,500.00	$ 163,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 163,500.00**		
V::B38	**S1-B38 Supply and Installation of Bridge - 16 m**		**Unit Cost:**	**$ 174,400.00**	**0**	**$ -**
	S1-B38 Supply and Installation of Bridge - 16 m		888			
	Supply and Installation of Bridge - 16 m	1.00	$ 174,400.00	$ 174,400.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 174,400.00**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::B39	**S1-B39 Supply and Installation of Bridge - 25 m**		**Unit Cost:**	**$ 272,500.00**	**0**	**$ -**
	S1-B39 Supply and Installation of Bridge - 25 m		904			
	Supply and Installation of Bridge - 25 m	1.00	$ 272,500.00	$ 272,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 272,500.00**		
V::B40	**S1-B40 Supply and Installation of Bridge - 35 m**		**Unit Cost:**	**$ 381,500.00**	**0**	**$ -**
	S1-B40 Supply and Installation of Bridge - 35 m		920			
	Supply and Installation of Bridge - 35 m	1.00	$ 381,500.00	$ 381,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 381,500.00**		
V::B41	**S1-B41 Supply and Installation of Bridge - 50 m**		**Unit Cost:**	**$ 545,000.00**	**0**	**$ -**
	S1-B41 Supply and Installation of Bridge - 50 m		936			
	Supply and Installation of Bridge - 50 m	1.00	$ 545,000.00	$ 545,000.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 545,000.00**		
V::B42	**S1-B42 Supply and Installation of Bridge - 60 m**		**Unit Cost:**	**$ 654,000.00**	**0**	**$ -**
	S1-B42 Supply and Installation of Bridge - 60 m		952			
	Supply and Installation of Bridge - 60 m	1.00	$ 654,000.00	$ 654,000.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 654,000.00**		
V::B43	**S1-B43 Supply and Installation of Bridge - 65 m**		**Unit Cost:**	**$ 708,500.00**	**0**	**$ -**
	S1-B43 Supply and Installation of Bridge - 65 m		968			
	Supply and Installation of Bridge - 65 m	1.00	$ 708,500.00	$ 708,500.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 708,500.00**		
V::B44	**S1-B44 Installation of Corduroy Road**		**Unit Cost:**	**$ 139.45**	**0**	**$ -**
	S1-B44 Installation of Corduroy Road		984			
	Installation of Corduroy Road	1.00	$ 139.45	$ 139.45		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 139.45**		
V::B45	**S1-B45 Installation of Access Road - Access Class 3**		**Unit Cost:**	**$ 80,700.00**	**0**	**$ -**
	S1-B45 Installation of Access Road - Access Class 3		1020			
	Installation of Access Road - Access Class 3	1.00	$ 80,700.00	$ 80,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 80,700.00**		
V::B46	**S1-B46 Installation of Access Road - Access Trail**		**Unit Cost:**	**$ 80,700.00**	**0**	**$ -**
	S1-B46 Installation of Access Road - Access Trail		1036			
	Installation of Access Road - Access Trail	1.00	$ 80,700.00	$ 80,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 80,700.00**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::B47	**S1-B47 Installation of Access Road - Bypass Trail**		**Unit Cost:**	**$ 80,700.00**	**0**	**$ -**
	S1-B47 Installation of Access Road - Bypass Trail		1052			
	Installation of Access Road - Bypass Trail	1.00	$ 80,700.00	$ 80,700.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 80,700.00**		
V::C01	**S1-C1 Installation of Guy Wire Anchor in soil as per design drawings and technical specifi**		**Unit Cost:**	**$ 468.58**	**31000**	**$ 14,526,107.04**
	S1-C1 Installation of Guy Wire Anchor in soil as per design drawings and technical specification		1071			
	Guy Anchor in soil (/m)	1	$ 431.08	$ 431.08		
	Anchor Grout (l)	0	$ 1.73	$ -		
	Room and Board (day)	0.15	$ 250.01	$ 37.50		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 468.58		
V::C02	**S1-C2 Installation of Guy Wire Anchor in rock as per design drawings and technical specif**		**Unit Cost:**	$ 432.81	**29000**	**$ 12,551,352.51**
	S1-C2 Installation of Guy Wire Anchor in rock as per design drawings and technical specification	Manhour Row:	1088			
	Guy Anchor in rock (/m)	1	$ 395.30	$ 395.30		
	Anchor Grout (l)	0	$ 1.73	$ -		
	Room and Board (day)	0.15	$ 250.01	$ 37.50		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 432.81**		
V::C02-1	**S1-C2 Testing of Guy Wire Anchor up to 550kN as per design drawings and technical spec**		**Unit Cost:**	**$ 994.35**	**4068**	**$ 4,045,029.51**
	S1-C2 Testing of Guy Wire Anchor up to 550kN as per design drawings and technical specification	Manhour Row:	1105			
	Pull Test	1	$ 994.35	$ 994.35		
	Room and Board (day)	0	$ 250.01	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 994.35**		
V::C02-2	**S1-C2 Testing of Guy Wire Anchorup to 900kN as per design drawings and**		**Unit Cost:**	**$ 994.35**	**208**	**$ 206,825.50**
	S1-C2 Testing of Guy Wire Anchorup to 900kN as per design drawings and technical specification	Manhour Row:	1120			
	Pull Test	1	$ 994.35	$ 994.35		
	Room and Board (day)	0	$ 250.01	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 994.35**		
V::C03	**S1-C3 Assembly and Installation of Foundation Types A1-1 (100 kPa) as per Dwg 505573-4**		**Unit Cost:**	**$ 278.62**	**29**	**$ 8,080.06**
	S1-C3 Assembly and Installation of Foundation Types A1-1 (100 kPa) as per Dwg 505573-4622-42[	Manhour Row:	1137			
	Screened Crushed Rock (Tonne)	5.88	$ 47.38	$ 278.62		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 278.62**		
V::C04	**S1-C4 Assembly and Installation of Foundation Types A2-1 (100 kPa) as per Dwg 505573-4**		**Unit Cost:**	**$ 468.98**	**0**	**$ -**
	S1-C4 Assembly and Installation of Foundation Types A2-1 (100 kPa) as per Dwg 505573-4622-42[	Manhour Row:	1148			
	Screened Crushed Rock (Tonne)	9.90	$ 47.38	$ 468.98		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 468.98**		
V::C05	**S1-C5 Assembly and Installation of Foundation Types A3-1 (100 kPa) as per Dwg 505573-4**		**Unit Cost:**	**$ 377.13**	**22**	**$ 8,296.77**
	S1-C5 Assembly and Installation of Foundation Types A3-1 (100 kPa) as per Dwg 505573-4622-42[	Manhour Row:	1161			
	Screened Crushed Rock (Tonne)	7.96	$ 47.38	$ 377.13		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 377.13**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C06	**S1-C6 Assembly and Installation of Foundation Types A4-1 (100 kPa) as per Dwg 505573-4**		**Unit Cost:**	**$ 468.98**	**0**	**$ -**
	S1-C6 Assembly and Installation of Foundation Types A4-1 (100 kPa) as per Dwg 505573-4622-42[		Manhour Row: 1174			
	Screened Crushed Rock (Tonne)	9.90	$ 47.38	$ 468.98		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 468.98**		
V::C07	**S1-C7 Assembly and Installation of Foundation Types B1-1 (100 kPa) as per Dwg 505573-4**		**Unit Cost:**	**$ 538.82**	**2**	**$ 1,077.65**
	S1-C7 Assembly and Installation of Foundation Types B1-1 (100 kPa) as per Dwg 505573-4622-42[		Manhour Row: 1187			
	Screened Crushed Rock (Tonne)	11.37	$ 47.38	$ 538.82		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 538.82**		
V::C08	**S1-C8 Assembly and Installation of Foundation Types B2-1 (100 kPa) as per Dwg 505573-4**		**Unit Cost:**	**$ 446.78**	**0**	**$ -**
	S1-C8 Assembly and Installation of Foundation Types B2-1 (100 kPa) as per Dwg 505573-4622-42[		Manhour Row: 1200			
	Screened Crushed Rock (Tonne)	9.43	$ 47.38	$ 446.78		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 446.78**		
V::C09	**S1-C9 Assembly and Installation of Foundation Types A1-1A (250 kPa) as per Dwg 505573**		**Unit Cost:**	**$ 126.90**	**164**	**$ 20,812.03**
	S1-C9 Assembly and Installation of Foundation Types A1-1A (250 kPa) as per Dwg 505573-4622-4[		Manhour Row: 1213			
	Screened Crushed Rock (Tonne)	2.68	$ 47.38	$ 126.90		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 126.90**		
V::C10	**S1-C10 Assembly and Installation of Foundation Types A2-1A (250 kPa) as per Dwg 50557**		**Unit Cost:**	**$ 246.96**	**0**	**$ -**
	S1-C10 Assembly and Installation of Foundation Types A2-1A (250 kPa) as per Dwg 505573-4622-4		Manhour Row: 1226			
	Screened Crushed Rock (Tonne)	5.21	$ 47.38	$ 246.96		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 246.96**		
V::C11	**S1-C11 Assembly and Installation of Foundation Types A3-1A (250 kPa) as per Dwg 50557**		**Unit Cost:**	**$ 168.54**	**121**	**$ 20,393.64**
	S1-C11 Assembly and Installation of Foundation Types A3-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for To		1239			
	Screened Crushed Rock (Tonne)	3.56	$ 47.38	$ 168.54		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 168.54**		
V::C12	**S1-C12 Assembly and Installation of Foundation Types A4-1A (250 kPa) as per Dwg 50557**		**Unit Cost:**	**$ 246.96**	**0**	**$ -**
	S1-C12 Assembly and Installation of Foundation Types A4-1A (250 kPa) as per Dwg 505573-4622-42DD-0084 for To		1252			
	Screened Crushed Rock (Tonne)	5.21	$ 47.38	$ 246.96		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 246.96**		
V::C13	**S1-C13 Assembly and Installation of Foundation Types B1-1A (250 kPa) as per Dwg 50557**		**Unit Cost:**	**$ 264.42**	**14**	**$ 3,701.92**
	S1-C13 Assembly and Installation of Foundation Types B1-1A (250 kPa) as per Dwg 505573-4622-4		Manhour Row: 1265			
	Screened Crushed Rock (Tonne)	5.58	$ 47.38	$ 264.42		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 264.42**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C14	**S1-C14 Assembly and Installation of Foundation Types B2-1A (250 kPa) as per Dwg 50557**		**Unit Cost:**	**$ 446.78**	**0**	**$ -**
	S1-C14 Assembly and Installation of Foundation Types B2-1A (250 kPa) as per Dwg 505573-4622-4		Manhour Row: 1278			
	Screened Crushed Rock (Tonne)	9.43	$ 47.38	$ 446.78		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 446.78**		
V::C15	**S1-C15 Assembly and Installation of Foundation Types C1-1 (100 kPa) as per Dwg 505573-**		**Unit Cost:**	**$ 471.41**	**96**	**$ 45,255.10**
	S1-C15 Assembly and Installation of Foundation Types C1-1 (100 kPa) as per Dwg 505573-4622-4		Manhour Row: 1291			
	Screened Crushed Rock (Tonne)	9.95	$ 47.38	$ 471.41		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 471.41		
V::C16	**S1-C16 Assembly and Installation of Foundation Types C2-1 (100 kPa) as per Dwg 505573-**		**Unit Cost:**	$ 577.46	**0**	**$ -**
	S1-C16 Assembly and Installation of Foundation Types C2-1 (100 kPa) as per Dwg 505573-4622-4		Manhour Row: 1336			
	Screened Crushed Rock (Tonne)	12.19	$ 47.38	$ 577.46		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 577.46**		
V::C17	**S1-C17 Assembly and Installation of Foundation Types D1-1 (100 kPa) as per Dwg 505573-**		**Unit Cost:**	**$ 624.60**	**112**	**$ 69,955.05**
	S1-C17 Assembly and Installation of Foundation Types D1-1 (100 kPa) as per Dwg 505573-4622-4		Manhour Row: 1349			
	Screened Crushed Rock (Tonne)	13.18	$ 47.38	$ 624.60		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 624.60**		
V::C18	**S1-C18 Assembly and Installation of Foundation Types D2-1 (100 kPa) as per Dwg 505573-**		**Unit Cost:**	$ 683.89	**0**	**$ -**
	S1-C18 Assembly and Installation of Foundation Types D2-1 (100 kPa) as per Dwg 505573-4622-4		Manhour Row: 1362			
	Screened Crushed Rock (Tonne)	14.43	$ 47.38	$ 683.89		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 683.89**		
V::C19	**S1-C19 Assembly and Installation of Foundation Types E1-1 (100 kPa) as per Dwg 505573-**		**Unit Cost:**	**$ 756.68**	**20**	**$ 15,133.65**
	S1-C19 Assembly and Installation of Foundation Types E1-1 (100 kPa) as per Dwg 505573-4622-4		Manhour Row: 1375			
	Screened Crushed Rock (Tonne)	15.97	$ 47.38	$ 756.68		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 756.68**		
V::C20	**S1-C20 Uplift testing per leg for Types C1-1, or D2-1, or E1-1 (100 kPa) as per technical sp**		**Unit Cost:**	**$ -**	**6**	**$ -**
	S1-C20 Uplift testing per leg for Types C1-1, or D2-1, or E1-1 (100 kPa) as per technical specificatio		Manhour Row: 1388			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::C21	**S1-C21 Downward, uplift, and lateral load testing per leg for Types C1-3, or D2-3, or E1-3 a**		**Unit Cost:**	**$ -**	**6**	**$ -**
	S1-C21 Downward, uplift, and lateral load testing per leg for Types C1-3, or D2-3, or E1-3 as per tec		Manhour Row: 1404			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C22	**S1-C22 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 1,909.69**	**211**	**$ 402,944.59**
	S1-C22 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0074 f		Manhour Row: 1421			
	Small Q Concrete (m^3)	1.66	$ 1,150.00	$ 1,909.69		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 1,909.69**		
V::C23	**S1-C23 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,798.41**	**0**	**$ -**
	S1-C23 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0074 f		Manhour Row: 1438			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,798.41		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,798.41**		
V::C24	**S1-C24 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 1,909.69**	**154**	**$ 294,092.26**
	S1-C24 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0074 f		Manhour Row: 1455			
	Small Q Concrete (m^3)	1.66	$ 1,150.00	$ 1,909.69		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 1,909.69**		
V::C25	**S1-C25 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,798.41**	**0**	**$ -**
	S1-C25 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0074 f		Manhour Row: 1472			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,798.41		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,798.41**		
V::C26	**S1-C26 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,798.41**	**19**	**$ 53,169.79**
	S1-C26 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0074 f		Manhour Row: 1489			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,798.41		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,798.41**		
V::C27	**S1-C27 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**0**	**$ -**
	S1-C27 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1506			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C28	**S1-C28 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 1,523.52**	**18**	**$ 27,423.36**
	S1-C28 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1523			
	Small Q Concrete (m^3)	1.32	$ 1,150.00	$ 1,523.52		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 1,523.52**		
V::C29	**S1-C29 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,541.85**	**0**	**$ -**
	S1-C29 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1540			
	Small Q Concrete (m^3)	2.21	$ 1,150.00	$ 2,541.85		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,541.85**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C30	**S1-C30 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,073.68**	**14**	**$ 29,031.52**
	S1-C30 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1557			
	Small Q Concrete (m^3)	1.80	$ 1,150.00	$ 2,073.68		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,073.68**		
V::C31	**S1-C31 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,541.85**	**0**	**$ -**
	S1-C31 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1574			
	Small Q Concrete (m^3)	2.21	$ 1,150.00	$ 2,541.85		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 2,541.85		
V::C32	**S1-C32 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,708.48**	**3**	**$ 8,125.44**
	S1-C32 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1591			
	Small Q Concrete (m^3)	2.36	$ 1,150.00	$ 2,708.48		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,708.48**		
V::C33	**S1-C33 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 1,523.52**	**159**	**$ 242,239.68**
	S1-C33 Assembly and Installation of Foundation Type A1-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1608			
	Small Q Concrete (m^3)	1.32	$ 1,150.00	$ 1,523.52		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 1,523.52**		
V::C34	**S1-C34 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,541.85**	**0**	**$ -**
	S1-C34 Assembly and Installation of Foundation Type A2-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1625			
	Small Q Concrete (m^3)	2.21	$ 1,150.00	$ 2,541.85		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,541.85**		
V::C35	**S1-C35 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,073.68**	**117**	**$ 242,620.56**
	S1-C35 Assembly and Installation of Foundation Type A3-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1642			
	Small Q Concrete (m^3)	1.80	$ 1,150.00	$ 2,073.68		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,073.68**		
V::C36	**S1-C36 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,541.85**	**0**	**$ -**
	S1-C36 Assembly and Installation of Foundation Type A4-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1659			
	Small Q Concrete (m^3)	2.21	$ 1,150.00	$ 2,541.85		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,541.85**		
V::C37	**S1-C37 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,708.48**	**15**	**$ 40,627.20**
	S1-C37 Assembly and Installation of Foundation Type B1-2 as per Dwg 505573-4622-42DD-0058 f		Manhour Row: 1675			
	Small Q Concrete (m^3)	2.36	$ 1,150.00	$ 2,708.48		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,708.48**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C38	**S1-C38 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**0**	**$ -**
	S1-C38 Assembly and Installation of Foundation Type B2-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1692			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C39	**S1-C39 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**104**	**$ 290,484.48**
	S1-C39 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1709			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 2,793.12		
V::C40	**S1-C40 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	$ 2,793.12	**0**	**$ -**
	S1-C40 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1726			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C41	**S1-C41 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	$ 2,793.12	**124**	**$ 346,346.88**
	S1-C41 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1743			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C42	**S1-C42 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	$ 2,793.12	**0**	**$ -**
	S1-C42 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1760			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C43	**S1-C43 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**24**	**$ 67,034.88**
	S1-C43 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1777			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C44	**S1-C44 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**84**	**$ 234,622.08**
	S1-C44 Assembly and Installation of Foundation Type C1-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1794			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C45	**S1-C45 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**0**	**$ -**
	S1-C45 Assembly and Installation of Foundation Type C2-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1811			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C46	**S1-C46 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**104**	**$ 290,484.48**
	S1-C46 Assembly and Installation of Foundation Type D1-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1828			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C47	**S1-C47 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	**$ 2,793.12**	**0**	**$ -**
	S1-C47 Assembly and Installation of Foundation Type D2-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1846			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 2,793.12		
V::C48	**S1-C48 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD**		**Unit Cost:**	$ 2,793.12	**20**	$ 55,862.40
	S1-C48 Assembly and Installation of Foundation Type E1-2 as per Dwg 505573-4622-42DD-0026 f		Manhour Row: 1863			
	Small Q Concrete (m^3)	2.43	$ 1,150.00	$ 2,793.12		
	Non-Shrink grout (l)		$ 9.20	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,793.12**		
V::C49	**S1-C49 Installation and Testing of 25M Mechanical Rock Anchor as per design drawings a**		**Unit Cost:**	**$ 23.48**	**12924**	**$ 303,500.24**
	S1-C49 Installation and Testing of 25M Mechanical Rock Anchor as per design drawings and technic		Manhour Row: 1880			
	Non-Shrink grout (l)	2.6	$ 9.20	$ 23.48		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 23.48**		
V::C50	**S1-C50 Installation and Testing of 29M Mechanical Rock Anchor as per design drawings a**		**Unit Cost:**	**$ 30.52**	**870**	**$ 26,551.62**
	S1-C50 Installation and Testing of 29M Mechanical Rock Anchor as per design drawings and technic		Manhour Row: 1896			
	Non-Shrink grout (l)	3.3	$ 9.20	$ 30.52		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 30.52**		
V::C51	**S1-C51 Installation and Testing of 32M Mechanical Rock Anchor as per design drawings a**		**Unit Cost:**	**$ 37.28**	**0**	**$ -**
	S1-C51 Installation and Testing of 32M Mechanical Rock Anchor as per design drawings and technic		Manhour Row: 1912			
	Non-Shrink grout (l)	4.1	$ 9.20	$ 37.28		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 37.28**		
V::C52	**S1-C52 Installation and Testing of 43M Mechanical Rock Anchor as per design drawings a**		**Unit Cost:**	**$ 46.03**	**22104**	**$ 1,017,393.66**
	S1-C52 Installation and Testing of 43M Mechanical Rock Anchor as per design drawings and technic		Manhour Row: 1928			
	Non-Shrink grout (l)	5.0	$ 9.20	$ 46.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 46.03**		
V::C53	**S1-C53 Installation and Testing of 57M Mechanical Rock Anchor as per design drawings a**		**Unit Cost:**	**$ 64.71**	**0**	**$ -**
	S1-C53 Installation and Testing of 57M Mechanical Rock Anchor as per design drawings and technic		Manhour Row: 1944			
	Non-Shrink grout (l)	7.0	$ 9.20	$ 64.71		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 64.71**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C54	**S1-C54 Installation and Testing of 64M Mechanical Rock Anchor as per design drawings a**		**Unit Cost:**	**$ 76.09**	**45**	**$ 3,423.89**
	S1-C54 Installation and Testing of 64M Mechanical Rock Anchor as per design drawings and techni		Manhour Row:	1961		
	Non-Shrink grout (l)	8.3	$ 9.20	$ 76.09		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 76.09**		
V::C55	**S1-C55 Design, Assembly and Installation of Foundation Type A1-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 44,266.30**	**6**	**$ 265,597.82**
	S1-C55 Design, Assembly and Installation of Foundation Type A1-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C55	1	$ 40,516.11	$ 40,516.11		
	Room and Board (day)	15	$ 250.01	$ 3,750.19		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 44,266.30**		
V::C56	**S1-C56 Design, Assembly and Installation of Foundation Type A2-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 44,266.30**	**0**	**$ -**
	S1-C56 Design, Assembly and Installation of Foundation Type A2-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C56	1	$ 40,516.11	$ 40,516.11		
	Room and Board (day)	15	$ 250.01	$ 3,750.19		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 44,266.30**		
V::C57	**S1-C57 Design, Assembly and Installation of Foundation Type A3-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 44,266.30**	**5**	**$ 221,331.52**
	S1-C57 Design, Assembly and Installation of Foundation Type A3-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C57	1	$ 40,516.11	$ 40,516.11		
	Room and Board (day)	15	$ 250.01	$ 3,750.19		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 44,266.30**		
V::C58	**S1-C58 Design, Assembly and Installation of Foundation Type A4-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 44,266.30**	**0**	**$ -**
	S1-C58 Design, Assembly and Installation of Foundation Type A4-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C58	1	$ 40,516.11	$ 40,516.11		
	Room and Board (day)	15	$ 250.01	$ 3,750.19		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 44,266.30**		
V::C59	**S1-C59 Design, Assembly and Installation of Foundation Type B1-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 44,266.30**	**1**	**$ 44,266.30**
	S1-C59 Design, Assembly and Installation of Foundation Type B1-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C59	1	$ 40,516.11	$ 40,516.11		
	Room and Board (day)	15	$ 250.01	$ 3,750.19		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 44,266.30**		
V::C60	**S1-C60 Design, Assembly and Installation of Foundation Type B2-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 208,457.28**	**0**	**$ -**
	S1-C60 Design, Assembly and Installation of Foundation Type B2-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C60	1	$ 188,456.25	$ 188,456.25		
	Room and Board (day)	80	$ 250.01	$ 20,001.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 208,457.28**		
V::C61	**S1-C61 Design, Assembly and Installation of Foundation Type C1-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 208,457.28**	**4**	**$ 833,829.12**
	S1-C61 Design, Assembly and Installation of Foundation Type C1-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C61	1	$ 188,456.25	$ 188,456.25		
	Room and Board (day)	80	$ 250.01	$ 20,001.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 208,457.28**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C62	**S1-C62 Design, Assembly and Installation of Foundation Type C2-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 208,457.28**	**0**	**$ -**
	S1-C62 Design, Assembly and Installation of Foundation Type C2-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C62	1	$ 188,456.25	$ 188,456.25		
	Room and Board (day)	80	$ 250.01	$ 20,001.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 208,457.28**		
V::C63	**S1-C63 Design, Assembly and Installation of Foundation Type D1-3 per Dwg 505573-4622-**		**Unit Cost:**	**$ 208,457.28**	**4**	**$ 833,829.12**
	S1-C63 Design, Assembly and Installation of Foundation Type D1-3 per Dwg 505573-4622-42DD-0(		Manhour Row:			
	NorthStar Price for Steel Piling Caps C63	1	$ 188,456.25	$ 188,456.25		
	Room and Board (day)	80	$ 250.01	$ 20,001.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 208,457.28**		
V::C64	**S1-C64 Design, Assembly and Installation of Foundation Type D2-3 as per Dwg 505573-46**		**Unit Cost:**	$ 208,457.28	**0**	**$ -**
	S1-C64 Design, Assembly and Installation of Foundation Type D2-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C64	1	$ 188,456.25	$ 188,456.25		
	Room and Board (day)	80	$ 250.01	$ 20,001.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 208,457.28**		
V::C65	**S1-C65 Design, Assembly and Installation of Foundation Type E1-3 as per Dwg 505573-46**		**Unit Cost:**	**$ 208,457.28**	**0**	**$ -**
	S1-C65 Design, Assembly and Installation of Foundation Type E1-3 as per Dwg 505573-4622-42DD		Manhour Row:			
	NorthStar Price for Steel Piling Caps C65	1	$ 188,456.25	$ 188,456.25		
	Room and Board (day)	80	$ 250.01	$ 20,001.03		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 208,457.28**		
V::C66	**S1-C66 Rock anchor to be installed with S1-C60 to S1-C65 item above as per the design d**		**Unit Cost:**	$ 468.58	**480**	**$ 224,920.37**
	S1-C66 Rock anchor to be installed with S1-C60 to S1-C65 item above as per the design drawings a		Manhour Row:			
	Guy Anchor in soil (/m)	1	$ 431.08	$ 431.08		
	Room and Board (day)	0.15	$ 250.01	$ 37.50		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 468.58**		
V::C67	**S1-C67 Supply, and installation of H-Piles, HP 360 x 108, Grade 350AT**		**Unit Cost:**	**$ 580.69**	**2400**	**$ 1,393,654.41**
	S1-C67 Supply, and installation of H-Piles, HP 360 x 108, Grade 350AT		Manhour Row:			
	NorthStar Price for piles by LM	1	$ 555.69	$ 555.69		
	Room and Board (day)	0.1	$ 250.01	$ 25.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 580.69**		
V::C68	**S1-C68 Supply and Installation of Cribs for excavation protection of tower types A1, A2, A**		**Unit Cost:**	**$ 254.37**	**10700**	**$ 2,721,742.95**
	S1-C68 Supply and Installation of Cribs for excavation protection of tower types A1, A2, A3, A4, B1, I		Manhour Row:			
	Bolt a Plate Culvert (m^2)	1	$ 254.37	$ 254.37		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 254.37**		
V::C69	**S1-C69 Transportation of native backfill**		**Unit Cost:**	**$ -**	**2000**	**$ -**
	S1-C69 Transportation of native backfill		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.

Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::C70	**S1-C70 Supply and transportation of approved fill from an alternate source/processed ma**		**Unit Cost:**	**$ 106.61**	**21000**	**$ 2,238,705.00**
	S1-C70 Supply and transportation of approved fill from an alternate source/processed material/road		Manhour Row:			
	Screened Crushed Rock (Tonne)	2.25	$ 47.38	$ 106.61		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 106.61**		
V::C71	**S1-C71 Rock blasting/preparation**		**Unit Cost:**	**$ -**	**1100**	**$ -**
	S1-C71 Rock blasting/preparation					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D01	**S1-D1 Assembly and Erection of Suspension Tower Type "A1 + 0" as per dwg. 505573-462**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D1 Assembly and Erection of Suspension Tower Type "A1 + 0" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D02	**S1-D2 Assembly and Erection of Suspension Tower Type "A1 + 1.5" as per dwg. 505573-4**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D2 Assembly and Erection of Suspension Tower Type "A1 + 1.5" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D03	**S1-D3 Assembly and Erection of Suspension Tower Type "A1 + 3" as per dwg. 505573-46**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D3 Assembly and Erection of Suspension Tower Type "A1 + 3" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D04	**S1-D4 Assembly and Erection of Suspension Tower Type "A1 + 4.5" as per dwg. 505573-4**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D4 Assembly and Erection of Suspension Tower Type "A1 + 4.5" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D05	**S1-D5 Assembly and Erection of Suspension Tower Type "A1 + 6" as per dwg. 505573-46**		**Unit Cost:**	**$ -**	**88**	**$ -**
	S1-D5 Assembly and Erection of Suspension Tower Type "A1 + 6" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D06	**S1-D6 Assembly and Erection of Suspension Tower Type "A1 + 7.5" as per dwg. 505573-4**		**Unit Cost:**	**$ -**	**39**	**$ -**
	S1-D6 Assembly and Erection of Suspension Tower Type "A1 + 7.5" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D07	**S1-D7 Assembly and Erection of Suspension Tower Type "A1 + 9" as per dwg. 505573-46**		**Unit Cost:**	**$ -**	**45**	**$ -**
	S1-D7 Assembly and Erection of Suspension Tower Type "A1 + 9" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D08	**S1-D8 Assembly and Erection of Suspension Tower Type "A1 + 10.5" as per dwg. 505573-**		**Unit Cost:**	**$ -**	**56**	**$ -**
	S1-D8 Assembly and Erection of Suspension Tower Type "A1 + 10.5" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D09	**S1-D9 Assembly and Erection of Suspension Tower Type "A1 + 12" as per dwg. 505573-4**		**Unit Cost:**	**$ -**	**57**	**$ -**
	S1-D9 Assembly and Erection of Suspension Tower Type "A1 + 12" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D10	**S1-D10 Assembly and Erection of Suspension Tower Type "A1 + 13.5" as per dwg. 50557**		**Unit Cost:**	**$ -**	**63**	**$ -**
	S1-D10 Assembly and Erection of Suspension Tower Type "A1 + 13.5" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D11	**S1-D11 Assembly and Erection of Suspension Tower Type "A1 + 15" as per dwg. 505573-**		**Unit Cost:**	**$ -**	**81**	**$ -**
	S1-D11 Assembly and Erection of Suspension Tower Type "A1 + 15" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D12	**S1-D12 Assembly and Erection of Suspension Tower Type "A1 + 16.5" as per dwg. 50557**		**Unit Cost:**	**$ -**	**77**	**$ -**
	S1-D12 Assembly and Erection of Suspension Tower Type "A1 + 16.5" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D13	**S1-D13 Assembly and Erection of Suspension Tower Type "A1 + 18" as per dwg. 505573-**		**Unit Cost:**	**$ -**	**80**	**$ -**
	S1-D13 Assembly and Erection of Suspension Tower Type "A1 + 18" as per dwg. 505573-4622-43DD-0042					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D14	**S1-D14 Assembly and Erection of Suspension Tower Type "A2 + 0" as per dwg. 505573-46**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D14 Assembly and Erection of Suspension Tower Type "A2 + 0" as per dwg. 505573-4622-43DD-0044					
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D15	**S1-D15 Assembly and Erection of Suspension Tower Type "A2 + 1.5" as per dwg. 505573-**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D15 Assembly and Erection of Suspension Tower Type "A2 + 1.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D16	**S1-D16 Assembly and Erection of Suspension Tower Type "A2 + 3" as per dwg. 505573-4**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D16 Assembly and Erection of Suspension Tower Type "A2 + 3" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D17	**S1-D17 Assembly and Erection of Suspension Tower Type "A2 + 4.5" as per dwg. 505573-**		**Unit Cost:**	$ -	0	$ -
	S1-D17 Assembly and Erection of Suspension Tower Type "A2 + 4.5" as per dwg. 505573-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D18	**S1-D18 Assembly and Erection of Suspension Tower Type "A2 + 6" as per dwg. 505573-4**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D18 Assembly and Erection of Suspension Tower Type "A2 + 6" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D19	**S1-D19 Assembly and Erection of Suspension Tower Type "A2 + 7.5" as per dwg. 505573-**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D19 Assembly and Erection of Suspension Tower Type "A2 + 7.5" as per dwg. 505573-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D20	**S1-D20 Assembly and Erection of Suspension Tower Type "A2 + 9" as per dwg. 505573-4**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D20 Assembly and Erection of Suspension Tower Type "A2 + 9" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D21	**S1-D21 Assembly and Erection of Suspension Tower Type "A2 + 10.5" as per dwg. 50557**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D21 Assembly and Erection of Suspension Tower Type "A2 + 10.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D22	**S1-D22 Assembly and Erection of Suspension Tower Type "A2 + 12" as per dwg. 505573-**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D22 Assembly and Erection of Suspension Tower Type "A2 + 12" as per dwg. 505573-4622-43I		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D23	**S1-D23 Assembly and Erection of Suspension Tower Type "A2 + 13.5" as per dwg. 50557**		**Unit Cost:**	$ -	0	$ -
	S1-D23 Assembly and Erection of Suspension Tower Type "A2 + 13.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D24	**S1-D24 Assembly and Erection of Suspension Tower Type "A2 + 15" as per dwg. 505573-**		**Unit Cost:**	$ -	0	$ -
	S1-D24 Assembly and Erection of Suspension Tower Type "A2 + 15" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D25	**S1-D25 Assembly and Erection of Suspension Tower Type "A2 + 16.5" as per dwg. 50557**		**Unit Cost:**	$ -	0	$ -
	S1-D25 Assembly and Erection of Suspension Tower Type "A2 + 16.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D26	**S1-D26 Assembly and Erection of Suspension Tower Type "A2 + 18" as per dwg. 505573-**		**Unit Cost:**	$ -	0	$ -
	S1-D26 Assembly and Erection of Suspension Tower Type "A2 + 18" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D27	**S1-D27 Assembly and Erection of Suspension Tower Type "A2 + 19.5" as per dwg. 505573**		**Unit Cost:**	$ -	0	$ -
	S1-D27 Assembly and Erection of Suspension Tower Type "A2 + 19.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D28	**S1-D28 Assembly and Erection of Suspension Tower Type "A3 + 0" as per dwg. 505573-46**		**Unit Cost:**	$ -	110	$ -
	S1-D28 Assembly and Erection of Suspension Tower Type "A3 + 0" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D29	S1-D29 Assembly and Erection of Suspension Tower Type "A3 + 1.5" as per dwg. 505573-		Unit Cost:	$ -	20	$ -
	S1-D29 Assembly and Erection of Suspension Tower Type "A3 + 1.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D30	S1-D30 Assembly and Erection of Suspension Tower Type "A3 + 3" as per dwg. 505573-4		Unit Cost:	$ -	29	$ -
	S1-D30 Assembly and Erection of Suspension Tower Type "A3 + 3" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D31	S1-D31 Assembly and Erection of Suspension Tower Type "A3 + 4.5" as per dwg. 505573-		Unit Cost:	$ -	35	$ -
	S1-D31 Assembly and Erection of Suspension Tower Type "A3 + 4.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D32	S1-D32 Assembly and Erection of Suspension Tower Type "A3 + 6" as per dwg. 505573-4		Unit Cost:	$ -	44	$ -
	S1-D32 Assembly and Erection of Suspension Tower Type "A3 + 6" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D33	S1-D33 Assembly and Erection of Suspension Tower Type "A3 + 7.5" as per dwg. 505573-		Unit Cost:	$ -	45	$ -
	S1-D33 Assembly and Erection of Suspension Tower Type "A3 + 7.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D34	S1-D34 Assembly and Erection of Suspension Tower Type "A3 + 9" as per dwg. 505573-4		Unit Cost:	$ -	30	$ -
	S1-D34 Assembly and Erection of Suspension Tower Type "A3 + 9" as per dwg. 505573-4622-43DI		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D35	**S1-D35 Assembly and Erection of Suspension Tower Type "A3 + 10.5" as per dwg. 50557**		**Unit Cost:**	**$ -**	**32**	**$ -**
	S1-D35 Assembly and Erection of Suspension Tower Type "A3 + 10.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D36	**S1-D36 Assembly and Erection of Suspension Tower Type "A3 + 12" as per dwg. 505573-**		**Unit Cost:**	**$ -**	**24**	**$ -**
	S1-D36 Assembly and Erection of Suspension Tower Type "A3 + 12" as per dwg. 505573-4622-43[		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D37	**S1-D37 Assembly and Erection of Suspension Tower Type "A3 + 13.5" as per dwg. 50557**		**Unit Cost:**	**$ -**	**22**	**$ -**
	S1-D37 Assembly and Erection of Suspension Tower Type "A3 + 13.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D38	**S1-D38 Assembly and Erection of Suspension Tower Type "A3 + 15" as per dwg. 505573-**		**Unit Cost:**	**$ -**	**27**	**$ -**
	S1-D38 Assembly and Erection of Suspension Tower Type "A3 + 15" as per dwg. 505573-4622-43[		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D39	**S1-D39 Assembly and Erection of Suspension Tower Type "A3 + 16.5" as per dwg. 50557**		**Unit Cost:**	**$ -**	**13**	**$ -**
	S1-D39 Assembly and Erection of Suspension Tower Type "A3 + 16.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D40	**S1-D40 Assembly and Erection of Suspension Tower Type "A4 + 0" as per dwg. 505573-46**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D40 Assembly and Erection of Suspension Tower Type "A4 + 0" as per dwg. 505573-4622-43D[		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D41	**S1-D41 Assembly and Erection of Suspension Tower Type "A4 + 1.5" as per dwg. 505573-**		**Unit Cost:**	$ -	0	$ -
	S1-D41 Assembly and Erection of Suspension Tower Type "A4 + 1.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D42	**S1-D42 Assembly and Erection of Suspension Tower Type "A4 + 3" as per dwg. 505573-4**		**Unit Cost:**	$ -	0	$ -
	S1-D42 Assembly and Erection of Suspension Tower Type "A4 + 3" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D43	**S1-D43 Assembly and Erection of Suspension Tower Type "A4 + 4.5" as per dwg. 505573-**		**Unit Cost:**	$ -	0	$ -
	S1-D43 Assembly and Erection of Suspension Tower Type "A4 + 4.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D44	**S1-D44 Assembly and Erection of Suspension Tower Type "A4 + 6" as per dwg. 505573-4**		**Unit Cost:**	$ -	0	$ -
	S1-D44 Assembly and Erection of Suspension Tower Type "A4 + 6" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D45	**S1-D45 Assembly and Erection of Suspension Tower Type "A4 + 7.5" as per dwg. 505573-**		**Unit Cost:**	$ -	0	$ -
	S1-D45 Assembly and Erection of Suspension Tower Type "A4 + 7.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D46	**S1-D46 Assembly and Erection of Suspension Tower Type "A4 + 9" as per dwg. 505573-4**		**Unit Cost:**	$ -	0	$ -
	S1-D46 Assembly and Erection of Suspension Tower Type "A4 + 9" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D47	S1-D47 Assembly and Erection of Suspension Tower Type "A4 + 10.5" as per dwg. 50557		Unit Cost:	$ -	0	$ -
	S1-D47 Assembly and Erection of Suspension Tower Type "A4 + 10.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D48	S1-D48 Assembly and Erection of Suspension Tower Type "A4 + 12" as per dwg. 505573-		Unit Cost:	$ -	0	$ -
	S1-D48 Assembly and Erection of Suspension Tower Type "A4 + 12" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D49	S1-D49 Assembly and Erection of Suspension Tower Type "A4 + 13.5" as per dwg. 50557		Unit Cost:	$ -	0	$ -
	S1-D49 Assembly and Erection of Suspension Tower Type "A4 + 13.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D50	S1-D50 Assembly and Erection of Suspension Tower Type "A4 + 15" as per dwg. 505573-		Unit Cost:	$ -	0	$ -
	S1-D50 Assembly and Erection of Suspension Tower Type "A4 + 15" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D51	S1-D51 Assembly and Erection of Suspension Tower Type "A4 + 16.5" as per dwg. 50557		Unit Cost:	$ -	0	$ -
	S1-D51 Assembly and Erection of Suspension Tower Type "A4 + 16.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D52	S1-D52 Assembly and Erection of Suspension Tower Type "A4 + 18" as per dwg. 505573-		Unit Cost:	$ -	0	$ -
	S1-D52 Assembly and Erection of Suspension Tower Type "A4 + 18" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D53	S1-D53 Assembly and Erection of Suspension Tower Type "A4 + 19.5" as per dwg. 50557		Unit Cost:	$ -	0	$ -
	S1-D53 Assembly and Erection of Suspension Tower Type "A4 + 19.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D54	S1-D54 Assembly and Erection of Suspension Tower Type "B1 + 0" as per dwg. 505573-46		Unit Cost:	$ -	0	$ -
	S1-D54 Assembly and Erection of Suspension Tower Type "B1 + 0" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D55	S1-D55 Assembly and Erection of Suspension Tower Type "B1 + 1.5" as per dwg. 505573		Unit Cost:	$ -	0	$ -
	S1-D55 Assembly and Erection of Suspension Tower Type "B1 + 1.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D56	S1-D56 Assembly and Erection of Suspension Tower Type "B1 + 3" as per dwg. 505573-4		Unit Cost:	$ -	0	$ -
	S1-D56 Assembly and Erection of Suspension Tower Type "B1 + 3" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
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			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D57	S1-D57 Assembly and Erection of Suspension Tower Type "B1 + 4.5" as per dwg. 505573		Unit Cost:	$ -	0	$ -
	S1-D57 Assembly and Erection of Suspension Tower Type "B1 + 4.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D58	S1-D58 Assembly and Erection of Suspension Tower Type "B1 + 6" as per dwg. 505573-4		Unit Cost:	$ -	0	$ -
	S1-D58 Assembly and Erection of Suspension Tower Type "B1 + 6" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D59	**S1-D59 Assembly and Erection of Suspension Tower Type "B1 + 7.5" as per dwg. 505573-**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D59 Assembly and Erection of Suspension Tower Type "B1 + 7.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D60	**S1-D60 Assembly and Erection of Suspension Tower Type "B1 + 9" as per dwg. 505573-4**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D60 Assembly and Erection of Suspension Tower Type "B1 + 9" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D61	**S1-D61 Assembly and Erection of Suspension Tower Type "B1 + 10.5" as per dwg. 50557**		**Unit Cost:**	**$ -**	**0**	**$ -**
	S1-D61 Assembly and Erection of Suspension Tower Type "B1 + 10.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D62	**S1-D62 Assembly and Erection of Suspension Tower Type "B1 + 12" as per dwg. 505573-**		**Unit Cost:**	**$ -**	**11**	**$ -**
	S1-D62 Assembly and Erection of Suspension Tower Type "B1 + 12" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D63	**S1-D63 Assembly and Erection of Suspension Tower Type "B1 + 13.5" as per dwg. 50557**		**Unit Cost:**	**$ -**	**2**	**$ -**
	S1-D63 Assembly and Erection of Suspension Tower Type "B1 + 13.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		
V::D64	**S1-D64 Assembly and Erection of Suspension Tower Type "B1 + 15" as per dwg. 505573-**		**Unit Cost:**	**$ -**	**3**	**$ -**
	S1-D64 Assembly and Erection of Suspension Tower Type "B1 + 15" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ -**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D65	S1-D65 Assembly and Erection of Suspension Tower Type "B1 + 16.5" as per dwg. 50557		Unit Cost:	$ -	5	$ -
	S1-D65 Assembly and Erection of Suspension Tower Type "B1 + 16.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D66	S1-D66 Assembly and Erection of Suspension Tower Type "B1 + 18" as per dwg. 505573-		Unit Cost:	$ -	3	$ -
	S1-D66 Assembly and Erection of Suspension Tower Type "B1 + 18" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D67	S1-D67 Assembly and Erection of Suspension Tower Type "B1 + 19.5" as per dwg. 505573		Unit Cost:	$ -	2	$ -
	S1-D67 Assembly and Erection of Suspension Tower Type "B1 + 19.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D68	S1-D68 Assembly and Erection of Suspension Tower Type "B1 + 21" as per dwg. 505573-4		Unit Cost:	$ -	3	$ -
	S1-D68 Assembly and Erection of Suspension Tower Type "B1 + 21" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
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			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D69	S1-D69 Assembly and Erection of Suspension Tower Type "B1 + 22.5" as per dwg. 505573		Unit Cost:	$ -	4	$ -
	S1-D69 Assembly and Erection of Suspension Tower Type "B1 + 22.5" as per dwg. 505573-4622-43		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
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			$ -	$ -		
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			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D70	S1-D70 Assembly and Erection of Suspension Tower Type "B1 + 24" as per dwg. 505573-4		Unit Cost:	$ -	3	$ -
	S1-D70 Assembly and Erection of Suspension Tower Type "B1 + 24" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D71	S1-D71 Assembly and Erection of Suspension Tower Type "B1 + 25.5" as per dwg. 505573		Unit Cost:	$ -	0	$ -
	S1-D71 Assembly and Erection of Suspension Tower Type "B1 + 25.5" as per dwg. 505573-4622-4		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D72	S1-D72 Assembly and Erection of Suspension Tower Type "B1 + 27" as per dwg. 505573-4		Unit Cost:	$ -	16	$ -
	S1-D72 Assembly and Erection of Suspension Tower Type "B1 + 27" as per dwg. 505573-4622-43D		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D73	S1-D73 Assembly and Erection of Medium Angle Tower Type "B2" Basic Body as per dwg		Unit Cost:	$ -	0	$ -
	S1-D73 Assembly and Erection of Medium Angle Tower Type "B2" Basic Body as per dwg. 505573-		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D74	S1-D74 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "I		Unit Cost:	$ -	0	$ -
	S1-D74 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "B2" as per		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D75	S1-D75 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type '		Unit Cost:	$ -	0	$ -
	S1-D75 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "B2" as pe		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D76	S1-D76 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "B2"		Unit Cost:	$ -	0	$ -
	S1-D76 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "B2" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D77	**S1-D77 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "B2**		**Unit Cost:**	$ -	0	$ -
	S1-D77 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "B2" as per d		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D78	**S1-D78 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "B2"**		**Unit Cost:**	$ -	0	$ -
	S1-D78 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "B2" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D79	**S1-D79 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "B2**		**Unit Cost:**	$ -	0	$ -
	S1-D79 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "B2" as per d		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D80	**S1-D80 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "B2"**		**Unit Cost:**	$ -	0	$ -
	S1-D80 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "B2" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D81	**S1-D81 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "B2**		**Unit Cost:**	$ -	0	$ -
	S1-D81 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "B2" as per d		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D82	**S1-D82 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "B2"**		**Unit Cost:**	$ -	0	$ -
	S1-D82 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "B2" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D83	S1-D83 Assembly and Erection of Medium Angle Tower Type "C1" Basic Body as per dwg		Unit Cost:	$ -	72	$ -
	S1-D83 Assembly and Erection of Medium Angle Tower Type "C1" Basic Body as per dwg. 505573-		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D84	S1-D84 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "(		Unit Cost:	$ -	14	$ -
	S1-D84 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "C1" as per		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D85	S1-D85 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type '		Unit Cost:	$ -	15	$ -
	S1-D85 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "C1" as pe		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D86	S1-D86 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C1"		Unit Cost:	$ -	0	$ -
	S1-D86 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C1" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D87	S1-D87 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C1		Unit Cost:	$ -	0	$ -
	S1-D87 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C1" as per c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D88	S1-D88 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C1"		Unit Cost:	$ -	68	$ -
	S1-D88 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C1" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D89	**S1-D89 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C1**		**Unit Cost:**	$ -	24	$ -
	S1-D89 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C1" as per c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D90	**S1-D90 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C1"**		**Unit Cost:**	$ -	60	$ -
	S1-D90 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C1" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D91	**S1-D91 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C1**		**Unit Cost:**	$ -	68	$ -
	S1-D91 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C1" as per c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D92	**S1-D92 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C1"**		**Unit Cost:**	$ -	68	$ -
	S1-D92 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C1" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D93	**S1-D93 Assembly and Erection of Medium Angle Tower Type "C2" Basic Body as per dwg**		**Unit Cost:**	$ -	0	$ -
	S1-D93 Assembly and Erection of Medium Angle Tower Type "C2" Basic Body as per dwg. 505573-		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D94	**S1-D94 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "C**		**Unit Cost:**	$ -	0	$ -
	S1-D94 Assembly and Erection of +4.5 m body extension for Medium Angle Tower Type "C2" as per		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D95	**S1-D95 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type '**		**Unit Cost:**	$ -	0	$ -
	S1-D95 Assembly and Erection of +10.5 m body extension for Medium Angle Tower Type "C2" as pe		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D96	**S1-D96 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C2"**		**Unit Cost:**	$ -	0	$ -
	S1-D96 Assembly and Erection of +0 m leg extension for Medium Angle Tower Type "C2" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D97	**S1-D97 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C2**		**Unit Cost:**	$ -	0	$ -
	S1-D97 Assembly and Erection of +1.5 m leg extension for Medium Angle Tower Type "C2" as per c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D98	**S1-D98 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C2"**		**Unit Cost:**	$ -	0	$ -
	S1-D98 Assembly and Erection of +3 m leg extension for Medium Angle Tower Type "C2" as per dw		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D99	**S1-D99 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C2**		**Unit Cost:**	$ -	0	$ -
	S1-D99 Assembly and Erection of +4.5 m leg extension for Medium Angle Tower Type "C2" as per c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D100	**S1-D100 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C2'**		**Unit Cost:**	$ -	0	$ -
	S1-D100 Assembly and Erection of +6 m leg extension for Medium Angle Tower Type "C2" as per d		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D101	**S1-D101 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C**	**Unit Cost:**		$ -	0	$ -
	S1-D101 Assembly and Erection of +7.5 m leg extension for Medium Angle Tower Type "C2" as per	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$** -		
V::D102	**S1-D102 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C2'**	**Unit Cost:**		$ -	0	$ -
	S1-D102 Assembly and Erection of +9 m leg extension for Medium Angle Tower Type "C2" as per d	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D103	**S1-D103 Assembly and Erection of Dead-End Tower Type "D1" Basic Body as per dwg. 5(**	**Unit Cost:**		$ -	86	$ -
	S1-D103 Assembly and Erection of Dead-End Tower Type "D1" Basic Body as per dwg. 505573-46	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D104	**S1-D104 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D1"**	**Unit Cost:**		$ -	25	$ -
	S1-D104 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D1" as per dv	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D105	**S1-D105 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D1**	**Unit Cost:**		$ -	25	$ -
	S1-D105 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D1" as per c	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D106	**S1-D106 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D1" as**	**Unit Cost:**		$ -	0	$ -
	S1-D106 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D1" as per dwg.	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D107	S1-D107 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D1" a		Unit Cost:	$ -	0	$ -
	S1-D107 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D1" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D108	S1-D108 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D1" as		Unit Cost:	$ -	84	$ -
	S1-D108 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D1" as per dwg.		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D109	S1-D109 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D1" a		Unit Cost:	$ -	24	$ -
	S1-D109 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D1" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D110	S1-D110 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D1" as		Unit Cost:	$ -	92	$ -
	S1-D110 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D1" as per dwg.		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D111	S1-D111 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D1" a		Unit Cost:	$ -	60	$ -
	S1-D111 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D1" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D112	S1-D112 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D1" as		Unit Cost:	$ -	84	$ -
	S1-D112 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D1" as per dwg.		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D113	S1-D113 Assembly and Erection of Dead-End Tower Type "D2" Basic Body as per dwg. 5(		Unit Cost:	$ -	0	$ -
	S1-D113 Assembly and Erection of Dead-End Tower Type "D2" Basic Body as per dwg. 505573-46		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D114	S1-D114 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D2"		Unit Cost:	$ -	0	$ -
	S1-D114 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "D2" as per dv		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D115	S1-D115 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D2		Unit Cost:	$ -	0	$ -
	S1-D115 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "D2" as per c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D116	S1-D116 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D2" as		Unit Cost:	$ -	0	$ -
	S1-D116 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "D2" as per dwg. !		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D117	S1-D117 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D2" as		Unit Cost:	$ -	0	$ -
	S1-D117 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "D2" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D118	S1-D118 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D2" as		Unit Cost:	$ -	0	$ -
	S1-D118 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "D2" as per dwg. !		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D119	S1-D119 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D2" a	Unit Cost:		$ -	0	$ -
	S1-D119 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "D2" as per dwg	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D120	S1-D120 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D2" as	Unit Cost:		$ -	0	$ -
	S1-D120 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "D2" as per dwg.	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D121	S1-D121 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D2" a	Unit Cost:		$ -	0	$ -
	S1-D121 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "D2" as per dwg	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D122	S1-D122 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D2" as	Unit Cost:		$ -	0	$ -
	S1-D122 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "D2" as per dwg.	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D123	S1-D123 Assembly and Erection of Dead-End Tower Type "E1" Basic Body as per dwg. 50	Unit Cost:		$ -	16	$ -
	S1-D123 Assembly and Erection of Dead-End Tower Type "E1" Basic Body as per dwg. 505573-462	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D124	S1-D124 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "E1"	Unit Cost:		$ -	1	$ -
	S1-D124 Assembly and Erection of +4.5 m body extension for Dead-End Tower Type "E1" as per dv	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D125	**S1-D125 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "E1**		**Unit Cost:**	$ -	6	$ -
	S1-D125 Assembly and Erection of +10.5 m body extension for Dead-End Tower Type "E1" as per d		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D126	**S1-D126 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "E1" as**		**Unit Cost:**	$ -	0	$ -
	S1-D126 Assembly and Erection of +0 m leg extension for Dead-End Tower Type "E1" as per dwg.		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D127	**S1-D127 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "E1" as**		**Unit Cost:**	$ -	0	$ -
	S1-D127 Assembly and Erection of +1.5 m leg extension for Dead-End Tower Type "E1" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D128	**S1-D128 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "E1" as**		**Unit Cost:**	$ -	0	$ -
	S1-D128 Assembly and Erection of +3 m leg extension for Dead-End Tower Type "E1" as per dwg.		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D129	**S1-D129 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "E1" as**		**Unit Cost:**	$ -	32	$ -
	S1-D129 Assembly and Erection of +4.5 m leg extension for Dead-End Tower Type "E1" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D130	**S1-D130 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "E1" as**		**Unit Cost:**	$ -	8	$ -
	S1-D130 Assembly and Erection of +6 m leg extension for Dead-End Tower Type "E1" as per dwg.		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::D131	**S1-D131 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "E1" as**		**Unit Cost:**	$ -	4	$ -
	S1-D131 Assembly and Erection of +7.5 m leg extension for Dead-End Tower Type "E1" as per dwg		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::D132	**S1-D132 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "E1" as**		**Unit Cost:**	$ -	20	$ -
	S1-D132 Assembly and Erection of +9 m leg extension for Dead-End Tower Type "E1" as per dwg.		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E01	**S1-E1 Installation of Counterpoise wire, connection with tower grounding**		**Unit Cost:**	$ -	470	$ -
	S1-E1 Installation of Counterpoise wire, connection with tower grounding		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E02	**S1-E2 Installation of ground rods at crossing obstacles in soil and rock**		**Unit Cost:**	$ -	460	$ -
	S1-E2 Installation of ground rods at crossing obstacles in soil and rock		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E03	**S1-E3 Tower Footing resistance measurement**		**Unit Cost:**	$ -	470	$ -
	S1-E3 Tower Footing resistance measurement		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E04	**S1-E4 S1 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conducto**		**Unit Cost:**	$ -	0	$ -
	S1-E4 S1 - Installation of Conductor on Steel Towers - 3633.0 kcmil 110/7 ACSR Conductor, compl		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::E05	**S1-E5 Installation of Conductor on Steel Towers - 1192.5 kcmil 54/19 ACSR Grackle Condu**		**Unit Cost:**	$ -	0	$ -
	S1-E5 Installation of Conductor on Steel Towers - 1192.5 kcmil 54/19 ACSR Grackle Conductor, co		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E06	**S1-E6 Installation of Conductor on Steel Towers - 1590.0 kcmil 54/19 ACSR Falcon Condu**		**Unit Cost:**	$ -	0	$ -
	S1-E6 Installation of Conductor on Steel Towers - 1590.0 kcmil 54/19 ACSR Falcon Conductor, con		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E07	**S1-E7 Installation of Conductor on Wood Poles - 1192.5 kcmil 54/19 ACSR Grackle Condu**		**Unit Cost:**	$ -	0	$ -
	S1-E7 Installation of Conductor on Wood Poles - 1192.5 kcmil 54/19 ACSR Grackle Conductor, con		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E08	**S1-E8 Installation of Conductor on Wood Poles - 1590.0 kcmil 54/19 ACSR Falcon Conduc**		**Unit Cost:**	$ -	0	$ -
	S1-E8 Installation of Conductor on Wood Poles - 1590.0 kcmil 54/19 ACSR Falcon Conductor, com		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E09	**S1-E9 Installation of ADSS on Wood Poles**		**Unit Cost:**	$ -	0	$ -
	S1-E9 Installation of ADSS on Wood Poles		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E10	**S1-E10 ADSS splicing and tests including loss analysis**		**Unit Cost:**	$ -	0	$ -
	S1-E10 ADSS splicing and tests including loss analysis		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::E11	**S1-E11 ADSS end to end test**		**Unit Cost:**	$ -	0	$ -
	S1-E11 ADSS end to end test	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E12	**S1-E12 S1 - Installation of OPGW**		**Unit Cost:**	$ -	0	$ -
	S1-E12 S1 - Installation of OPGW	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E13	**S1-E13 OPGW Continuity tests before and after stringing**		**Unit Cost:**	$ -	1	$ -
	S1-E13 OPGW Continuity tests before and after stringing	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E14	**S1-E14 OPGW splicing and tests including loss analysis**		**Unit Cost:**	$ -	100	$ -
	S1-E14 OPGW splicing and tests including loss analysis	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::E15	**S1-E15 OPGW end to end test**		**Unit Cost:**	$ -	1	$ -
	S1-E15 OPGW end to end test	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::F01	**S1-F1 Install 18" Aerial marker cones**		**Unit Cost:**	$ -	15	$ -
	S1-F1 Install 18" Aerial marker cones	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::G01	**S1-G1 Framing and Setting of Single Pole Tangent (0 - 1 deg) as per Drawing 505573-463**		**Unit Cost:**	**$ 2,300.00**	**0**	**$ -**
	S1-G1 Framing and Setting of Single Pole Tangent (0 - 1 deg) as per Drawing 505573-4633-4ZDD-		Manhour Row:			
	Wood pole 2 m blast	0.4	$ 5,750.00	$ 2,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,300.00**		
V::G02	**S1-G2 Framing and Setting of Single Pole Light angle (1 - 10 deg) with Guys as per Drawir**		**Unit Cost:**	**$ 2,300.00**	**0**	**$ -**
	S1-G2 Framing and Setting of Single Pole Light angle (1 - 10 deg) with Guys as per Drawing 50557		Manhour Row:			
	Wood pole 2 m blast	0.4	$ 5,750.00	$ 2,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,300.00**		
V::G03	**S1-G3 Framing and Setting of Single Pole Heavy angle (10 - 30 deg) with Guys as per Drav**		**Unit Cost:**	**$ 2,300.00**	**0**	**$ -**
	S1-G3 Framing and Setting of Single Pole Heavy angle (10 - 30 deg) with Guys as per Drawing 505		Manhour Row:			
	Wood pole 2 m blast	0.4	$ 5,750.00	$ 2,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,300.00**		
V::G04	**S1-G4 Framing and Setting of Single Pole Dead-end (30 - 90 deg) with Guys as per Drawin**		**Unit Cost:**	**$ 2,300.00**	**0**	**$ -**
	S1-G4 Framing and Setting of Single Pole Dead-end (30 - 90 deg) with Guys as per Drawing 50557		Manhour Row:			
	Wood pole 2 m blast	0.4	$ 5,750.00	$ 2,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,300.00**		
V::G05	**S1-G5 Framing and Setting of Single Pole Floating Dead-end (0 - 1 deg) with Guys as per I**		**Unit Cost:**	**$ 2,300.00**	**0**	**$ -**
	S1-G5 Framing and Setting of Single Pole Floating Dead-end (0 - 1 deg) with Guys as per Drawing 5		Manhour Row:			
	Wood pole 2 m blast	0.4	$ 5,750.00	$ 2,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,300.00**		
V::G06	**S1-G6 Framing and Setting of Two Pole Dead-end to tap to HVdc Tower in Labrador as pe**		**Unit Cost:**	**$ 2,300.00**	**0**	**$ -**
	S1-G6 Framing and Setting of Two Pole Dead-end to tap to HVdc Tower in Labrador as per Drawing		Manhour Row:			
	Wood pole 2 m blast	0.4	$ 5,750.00	$ 2,300.00		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			**$ 2,300.00**		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I01	**S1-I1 Perform Geotechnical Investigation and Identify Foundation Type as per Design Dra**		**Unit Cost:**	$ -	2	$ -
	S1-I1 Perform Geotechnical Investigation and Identify Foundation Type as per Design Drawings and		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I02	**S1-I2 Design and supply of micropile option as replacement for H-pile design**		**Unit Cost:**	$ -	2	$ -
	S1-I2 Design and supply of micropile option as replacement for H-pile design		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I03	**S1-I3 Optional cost for mulching given area instead of salvaging**		**Unit Cost:**	$ -	2737	$ -
	S1-I3 Optional cost for mulching given area instead of salvaging		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I04	**S1-I4 Installation of Access Road - Alternative**		**Unit Cost:**	$ -	0	$ -
	S1-I4 Installation of Access Road - Alternative		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I05	**S1-I5 Slack Span Connections - Installation of all Conductor and OPGW from Terminal To**		**Unit Cost:**	$ -	1	$ -
	S1-I5 Slack Span Connections - Installation of all Conductor and OPGW from Terminal Tower to th		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I06	**S1-I6 Slack Span Connections - Installation of all Conductor and OPGW/ADSS from Termi**		**Unit Cost:**	$ -	0	$ -
	S1-I6 Slack Span Connections - Installation of all Conductor and OPGW/ADSS from Terminal Woo		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I07	**S1-I7 Supply and Installation of Culvert - 1000 mm**		**Unit Cost:**	$ -	13	$ -
	S1-I7 Supply and Installation of Culvert - 1000 mm	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I08	**S1-I8 Supply and Installation of Culvert - 1200 mm**		**Unit Cost:**	$ -	13	$ -
	S1-I8 Supply and Installation of Culvert - 1200 mm	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I09	**S1-I9 Supply and Installation of Culvert - 1600 mm**		**Unit Cost:**	$ -	13	$ -
	S1-I9 Supply and Installation of Culvert - 1600 mm	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I10	**S1-I10 Supply and Installation of Culvert - 2000 mm**		**Unit Cost:**	$ -	13	$ -
	S1-I10 Supply and Installation of Culvert - 2000 mm	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I11	**S1-I11 Supply and Installation of Culvert - 2400 mm**		**Unit Cost:**	$ -	13	$ -
	S1-I11 Supply and Installation of Culvert - 2400 mm	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I12	**S1-I12 Supply and Installation of Culvert - 3000 mm**		**Unit Cost:**	$ -	13	$ -
	S1-I12 Supply and Installation of Culvert - 3000 mm	Manhour Row:				
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I13	S1-I13 Assembly and Installation of Foundation Type A1-1/1A, per kg, to be used for weigh		Unit Cost:	$ -	1	$ -
	S1-I13 Assembly and Installation of Foundation Type A1-1/1A, per kg, to be used for weight increase		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I14	S1-I14 Assembly and Installation of Foundation Type A2-1/1A, per kg, to be used for weigh		Unit Cost:	$ -	1	$ -
	S1-I14 Assembly and Installation of Foundation Type A2-1/1A, per kg, to be used for weight increase		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I15	S1-I15 Assembly and Installation of Foundation Type A3-1/1A, per kg, to be used for weigh		Unit Cost:	$ -	1	$ -
	S1-I15 Assembly and Installation of Foundation Type A3-1/1A, per kg, to be used for weight increase		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I16	S1-I16 Assembly and Installation of Foundation Type A4-1/1A, per kg, to be used for weigh		Unit Cost:	$ -	1	$ -
	S1-I16 Assembly and Installation of Foundation Type A4-1/1A, per kg, to be used for weight increase		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I17	S1-I17 Assembly and Installation of Foundation Type B1-1/1A, per kg, to be used for weigh		Unit Cost:	$ -	1	$ -
	S1-I17 Assembly and Installation of Foundation Type B1-1/1A, per kg, to be used for weight increase		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I18	S1-I18 Assembly and Installation of Foundation Type B2-1/1A, per kg, to be used for weigh		Unit Cost:	$ -	1	$ -
	S1-I18 Assembly and Installation of Foundation Type B2-1/1A, per kg, to be used for weight increase		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I19	S1-I19 Assembly and Installation of Foundation Type C1-1, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I19 Assembly and Installation of Foundation Type C1-1, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I20	S1-I20 Assembly and Installation of Foundation Type C2-1, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I20 Assembly and Installation of Foundation Type C2-1, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I21	S1-I21 Assembly and Installation of Foundation Type D1-1, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I21 Assembly and Installation of Foundation Type D1-1, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I22	S1-I22 Assembly and Installation of Foundation Type D2-1, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I22 Assembly and Installation of Foundation Type D2-1, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I23	S1-I23 Assembly and Installation of Foundation Type E1-1, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I23 Assembly and Installation of Foundation Type E1-1, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I24	S1-I24 Assembly and Installation of Foundation Type A1-2, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I24 Assembly and Installation of Foundation Type A1-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I25	S1-I25 Assembly and Installation of Foundation Type A2-2, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I25 Assembly and Installation of Foundation Type A2-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I26	S1-I26 Assembly and Installation of Foundation Type A3-2, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I26 Assembly and Installation of Foundation Type A3-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I27	S1-I27 Assembly and Installation of Foundation Type A4-2, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I27 Assembly and Installation of Foundation Type A4-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I28	S1-I28 Assembly and Installation of Foundation Type B1-2, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I28 Assembly and Installation of Foundation Type B1-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I29	S1-I29 Assembly and Installation of Foundation Type B2-2, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I29 Assembly and Installation of Foundation Type B2-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I30	S1-I30 Assembly and Installation of Foundation Type C1-2, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I30 Assembly and Installation of Foundation Type C1-2, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I31	S1-I31 Assembly and Installation of Foundation Type C2-2, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I31 Assembly and Installation of Foundation Type C2-2, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I32	S1-I32 Assembly and Installation of Foundation Type D1-2, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I32 Assembly and Installation of Foundation Type D1-2, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I33	S1-I33 Assembly and Installation of Foundation Type D2-2, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I33 Assembly and Installation of Foundation Type D2-2, per kg, to be used for weight increases c		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I34	S1-I34 Assembly and Installation of Foundation Type E1-2, per kg, to be used for weight ir		Unit Cost:	$ -	1	$ -
	S1-I34 Assembly and Installation of Foundation Type E1-2, per kg, to be used for weight increases o		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I35	S1-I35 Assembly and Erection of Tower Type A1, per kg, to be used for weight increases c		Unit Cost:	$ -	1	$ -
	S1-I35 Assembly and Erection of Tower Type A1, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I36	S1-I36 Assembly and Erection of Tower Type A2, per kg, to be used for weight increases c		Unit Cost:	$ -	1	$ -
	S1-I36 Assembly and Erection of Tower Type A2, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I37	S1-I37 Assembly and Erection of Tower Type A3, per kg, to be used for weight increases c		Unit Cost:	$ -	1	$ -
	S1-I37 Assembly and Erection of Tower Type A3, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I38	S1-I38 Assembly and Erection of Tower Type A4, per kg, to be used for weight increases c		Unit Cost:	$ -	1	$ -
	S1-I38 Assembly and Erection of Tower Type A4, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I39	S1-I39 Assembly and Erection of Tower Type B1, per kg, to be used for weight increases c		Unit Cost:	$ -	1	$ -
	S1-I39 Assembly and Erection of Tower Type B1, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I40	S1-I40 Assembly and Erection of Tower Type B2, per kg, to be used for weight increases c		Unit Cost:	$ -	1	$ -
	S1-I40 Assembly and Erection of Tower Type B2, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I41	S1-I41 Assembly and Erection of Tower Type C1, per kg, to be used for weight increases c		Unit Cost:	$ -	1	$ -
	S1-I41 Assembly and Erection of Tower Type C1, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I42	S1-I42 Assembly and Erection of Tower Type C2, per kg, to be used for weight increases c		Unit Cost:	$ -	1	$ -
	S1-I42 Assembly and Erection of Tower Type C2, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.
Material Summaries - by Structure

	Description	QTY	Unit Price	Cost per item	Quantity	Total
V::I43	S1-I43 Assembly and Erection of Tower Type D1, per kg, to be used for weight increases c		Unit Cost:	$ -	1	$ -
	S1-I43 Assembly and Erection of Tower Type D1, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I44	S1-I44 Assembly and Erection of Tower Type D2, per kg, to be used for weight increases c		Unit Cost:	$ -	1	$ -
	S1-I44 Assembly and Erection of Tower Type D2, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I45	S1-I45 Assembly and Erection of Tower Type E1, per kg, to be used for weight increases c		Unit Cost:	$ -	1	$ -
	S1-I45 Assembly and Erection of Tower Type E1, per kg, to be used for weight increases or decreas		Manhour Row:			
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ -		
V::I46	S1-I46 Survey Cost		Unit Cost:	$ 2,622,289.39	1	$ 2,622,289.39
	S1-I46 Survey Cost		Manhour Row:			
	Survey Cost Segment 4	1	$ 1,541,853.21	$ 1,541,853.21		
	Survey Cost Segment 5	1	$ 1,080,436.17	$ 1,080,436.17		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 2,622,289.39		
B-E(Rider)	RiderPole		Unit Cost:	$ 236.90	150	$ 35,535.00
	RiderPole		Manhour Row:			
	Screened Crushed Rock (Tonne)	5	$ 47.38	$ 236.90		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
			$ -	$ -		
	Total material Cost per Structure			$ 236.90		
	Total Materials:		$ 204,272,679.94			

External Data Input		Return?	no	(yes/no)
Link from Other Page		Distance (1-way):	5600	km
Link for Other Page		Average distance/hr.:	70	km/hr.

Personnel

Designation	Quantity	Rate	Hrs.
Supervisor	2	$ 142.83	80.00
Foreman	17	$ 120.15	80.00
Surveyor	7	$ 111.85	80.00
Lineman	18	$ 111.85	80.00
Apprentice - 4th Year	15	$ 103.90	80.00
Apprentice - 3rd Year	23	$ 95.95	80.00
Apprentice - 2nd Year	8	$ 87.99	80.00
Apprentice - 1st Year	4	$ 80.04	80.00
Equipment Operator	27	$ 96.49	80.00
Truck Driver / Picker Op.	23	$ 107.16	80.00
Labourer	4	$ 87.44	80.00

Equipment

Description	Quantity	Rate	Hrs.
Pickup	12	$ 24.36	80.00
Crew Cab Truck	38	$ 29.20	80.00
Conductor Splicing Truck	1	$ 46.02	80.00
OPGW Splicing Truck	1	$ 93.60	80.00
Picker - 17 Ton	8	$ 136.27	80.00
Picker - 38 Ton	2	$ 180.25	80.00
40T RT Crane	3	$ 195.70	80.00
60T RT Crane	1	$ 247.20	80.00
80T RT Crane	1	$ 345.05	80.00
Digger - TelElect 5052	2	$ 89.40	80.00
120' Gene Lift	2	$ 87.55	80.00
53' Tridem trailer	13	$ 11.85	80.00
T/A Gravel Truck	1	$ 68.13	80.00
T/A Rock Truck	1	$ 121.67	80.00
Tractor Trailer/Picker	4	$ 134.67	80.00
Tractor Trailer (Heavy)	5	$ 134.67	80.00
Crawler Tractors 750 JD	3	$ 165.83	80.00
JD 310 Back Hoe	1	$ 68.13	80.00
JD 554 Loader	12	$ 69.27	80.00
JD 290 Track-hoe	6	$ 130.60	80.00
Nodwells - Picker over 17 Ton	2	$ 228.25	80.00
Nodwell - Digger	1	$ 130.60	80.00
Trencher	1	$ 84.36	80.00
10T Tele-Handler	7	$ 53.00	80.00
Quad or Side by Side	9	$ 24.21	80.00
Reel Trailer	3	$ 72.10	80.00
Tensioner	1	$ 139.05	80.00
Puller	1	$ 139.05	80.00
1 Drum Puller	1	$ 77.25	80.00
Single Tensioner	1	$ 77.25	80.00
Single Traveller	50	$ 0.52	80.00
JD 350 LDC Excavator	4	$ 160.89	80.00
Compressor	2	$ 22.04	80.00
Grout truck	1	$ 82.40	80.00
Rock Drill	2	$ 103.00	80.00
Press & Pump, Genset, Light plant	15	$ 13.46	80.00
Water pump	2	$ 40.99	80.00
Pilot Line Winder	1	$ 92.70	80.00
Spacer Buggy	3	$ 46.35	80.00
Travellers (ea)	200	$ 1.24	80.00
Traffic Control Sign	2	$ 21.84	80.00
Hoe-Pack	1	$ 25.75	80.00
Survey Equipment	7	$ 56.65	80.00
Medium Lift Helicopter - Operated	1	$ 3,071.98	80.00
Light Duty Helicopter - Operated	1	$ 1,905.50	20.00

Lowbedding

Description	Quantity	Rate	Hrs.
Dead-heads	50	$ 218.50	160.00
Direct-hauls	8	$ 218.50	80.00

NALCOR 350 kV HVdc Line Construction Front 3 (Newfoundland)
Project Estimate - Valard Construction Ltd.

Indirect Costs

External Data Input	
Link from Other Page	
Link for Other Page	

Project Duration: 18 Months
450 Days

	Positions	Hrs Day	Days	Hourly Rate
Quanta Executive Representative	1	11	325	N/C
Project manager	1	11	650	$ 200.00
Supervisors	5	11	650	$ 142.83
QA	5	11	650	$ 103.90
Human Resources Coordinator	0.5	11	650	$ 95.95
Environmental Lead	0.33	11	650	$ 200.00
Environmental Coordinator	1	11	650	$ 142.83
Environmental Monitor	2	11	650	$ 95.95
Project Administration	6	11	650	$ 95.95
Safety Supervisor	3	11	650	$ 142.83
Camp Field Medical Staff	5	12	650	$ 142.83
First Aid Attendant	4	11	650	$ 142.83
HS&E Manager	1	11	650	$ 142.83
Geotechnical consultant	0	11	650	$ 175.00
Material Manager c/w truck	2	11	650	$ 128.26
ROW coordinator	7.5	11	450	$ 142.83
Mechanic	3	11	650	$ 111.85
Pick up Trucks For Above	40.33333333	11	650	$ 24.36

Facilities:

	Units	Quantity	Months	Monthly Rate
Office Trailer	each	6	28	$ 1,800.00
Storage Vans	each	15	28	$ 350.00
Washrooms	each	8	28	$ 150.00
Yard and Waste Handling	month	3	28	$ 2,500.00
Fuel Storage	Lump Sum	3	28	$ 2,500.00

Training & Orientation — Extra Training Allowance — 8 Hours

Crew #	Crew	Hrs / Week	Total Hours	Hourly Rate	Crews
1	Hauling	1	209	217	$ 195.16	1
2	Site Preparation	1	33	41	$ 308.98	1
3	Blocking Crew	1	33	41	$ 192.44	1
4	Lattice Assembly	1	643	651	$ 835.34	1
6	Tower Topping	1	42	50	$ 950.45	1
7	Haul Travellers&Glass	1	32	40	$ 403.50	1
8	Hang Travellers	1	23	31	$ 840.02	1
9	Wire Hauling	1	93	101	$ 195.16	1
10	Pull Site Prep	1	42	50	$ 804.62	1
11	Stringing	1	60	68	$ 2,990.79	1
12	Tie -in	1	34	42	$ 418.85	1
13	Deadends	1	30	38	$ 835.88	1
15	OPGW Install	1	23	31	$ 1,458.94	1
16	Rider Pole Crew	1	12	20	$ 718.80	1
17	Foundation Haul	1	55	63	$ 195.16	1
18	Foundation Survey ($250/h)	1	3	11	$ 223.70	1
19	Found Excavation	1	115	123	$ 601.52	1
20	Grillage Installation	1	55	63	$ 627.54	1
21	Backfill and Compact	1	69	77	$ 432.84	1
22	Site Cleanup	1	48	56	$ 96.49	1
23	Grout Crew	1	85	93	$ 260.13	1
24	Concrete Foundations	1	109	117	$ 614.08	1
25	Ground Testing	1	13	21	$ 208.34	1
28	Camp Site Preparation	1	16	24	$ 465.55	1
29	Supervisory	1	23	31	$ 142.83	1
36	Rock Foundations	1	101	109	$ 516.53	1
39	Guy Install	1	29	37	$ 795.31	1
40	Y- Tower Erection	1	43	51	$ 899.47	1
41	Tower Plumb	1	28	36	$ 711.72	1
42	OPGW Splice	1	33	41	$ 174.87	1
43	Counterpoise Instal	1	58	66	$ 424.98	1
45	Camp Setup	1	12	20	$ 1,293.35	1
46	Camp Haul	1	109	117	$ 107.16	1
						1

Road Flagging along Active Haul Roads - 2x flaggers	Days	$ 814.00	60
Aircraft - Cessna Conquest	Hours	$ 1,300.00	371
Executive Air Fare - Commercial 325 Tickets at $800.00 / trip	Each	$ 800.00	325
Air Fare - Commercial 2570 Tickets at $800.00 / trip	Each	$ 800.00	2570
Temporary Shop Facilities	Each	$ 60,000.00	1
Employee Drug Testing	test	$ 115.00	395
Buttdowns materials	Ea	$ 1,600.00	80
Grounding Material for slug sites	Ea	$ 20,000.00	2
Special grips for 3633 kcmil	Ea	$ 1,600.00	30
Special hoist (12t)	Ea	$ 2,400.00	20
Mappin cost (work planning, drawings)	Ea	$ 175.00	30
Buttdown security	Night	$ 650.00	120
Implo storage and maintenance	Month	$ 5,000.00	26
Property rental	Month	$ 3,500.00	78
Doctor support	Month	$ 5,000.00	26
S4 Additional culverts based on 2 culverts per/km over 1104km of all season road including	ls	$ 961,920.00	1
S5 Additional culverts based on 2 culverts per/km over 1104km of all season road including	ls	$ 607,880.00	1
S4 Additional culverts based on 2 culverts per/km over 1104km of all season road including	ls	$ 1,226,880.00	1
S5 Additional culverts based on 2 culverts per/km over 1104km of all season road including	ls	$ 775,320.00	1
Winter road maintenance/snowplowing	ea	$ 259,200.00	2
Environmental Response Material (per section)	LS	$ 50,000.00	2
Misc. Material (galvacon, pins, stakes, flagging, hoarding material)	LS	$ 40,000.00	2

Tools:

	Unit	Unit cost	Quantity
Traffic Accommdation Signage	Lump Sum	$ 37,000.00	2
IT System	Lump Sum	$ 30,000.00	1
Videoconference System	Lump Sum	$ 35,000.00	2
Computer & Office Equipment	ea	$ 1,000.00	15
Operate Cell Phone	unit-month	$ 400.00	50

Other:

Engineering Support	Lump Sum	$ 150,000.00	1

ATTACHMENT 11

MOU BETWEEN LCMC, QUANTA SERVICES AND VALARD CONSTRUCTION LP

MEMORANDUM OF UNDERSTANDING

LOWER CHURCHILL MANAGEMENT CORPORATION

and

QUANTA SERVICES, INC.

and

VALARD CONSTRUCTION LP

THIS MEMORANDUM OF UNDERSTANDING (**"MOU"**) is made as of March 28, 2014 (the **"Effective Date"**).

BETWEEN:

LOWER CHURCHILL MANAGEMENT CORPORATION, a body corporate constituted pursuant to the *Corporations Act*, RSNL 1990, c. C-36, as amended, and having its head office in the City of St. John's in the Province of Newfoundland and Labrador, Canada (hereinafter referred to as "LCMC"), on behalf of itself and Labrador Transmission Corporation (an Affiliate of LCMC) and Labrador-Island Link Limited Partnership (an Affiliate of LCMC);

and

QUANTA SERVICES, INC., a body incorporated under the laws of Delaware, U.S.A., with its head office in the State of Texas, U.S.A. (hereinafter referred to as "Quanta");

and

VALARD CONSTRUCTION LP, a limited partnership formed pursuant to the laws of the Province of Alberta, Canada, represented by its general partner, Valard Construction 2008 Ltd. (hereinafter referred to as "Valard").

(Each of the above parties are hereinafter referred to as **"Party"** and collectively as the **"Parties"**)

WHEREAS:

A. LCMC and Quanta entered into a Confidentiality and Non-Disclosure Agreement dated the 14th day of November, 2013 (the "NDA"), to explore potential business relationships or transactions involving Quanta or certain of its Affiliates, for the construction of the HVdc transmission line between Muskrat Falls and Soldier's Pond (the "Work") relating to the Lower Churchill Project (the "LCP") in the Province of Newfoundland and Labrador (the "Province");

B. Quanta's Affiliate, Valard, has been leading the development of Quanta's proposal for the Work dated the 16th day of December, 2013 (the "Proposal"), in accordance with the documents and drawings provided by LCMC;

C. The Parties wish to enter into arrangements and transactions as described herein on the basis set out in this MOU; and

D. For the purposes of this MOU, the term "Affiliate" has the meaning given to affiliate in the *Canada Business Corporations Act*, R.S.C. 1985, c. C-44 and includes any limited partnership whose general partner is an affiliate of Company under that statute.

IT IS AGREED as follows:

1. LCMC, on behalf of Labrador-Island Link Limited Partnership (an Affiliate of LCMC), and Valard will enter into good faith negotiations to conclude a formal agreement between Labrador-Island Link Limited Partnership and Valard (the "Agreement") in respect of the Work, subject to and in accordance with the other provisions of this MOU.

2. The execution plan, work schedule and management organization for the Work will be generally consistent with the Proposal, including the establishment of a project office in the City of St. John's in the Province from which control and management of the Work will be led by a full-time Project Director, with supporting staff, of Valard.

3. The Articles and Exhibit 14 (Performance Security) of the Agreement will be consistent, mutatis mutandis, with those of the agreement between Labrador Transmission Corporation and Valard for the Construction of HVac Transmission Lines (MF to CF), effectively dated the 17th day of December 2013, being Agreement No. CT0319, except:

   (a) The liquidated damages amounts are as stated in Attachment 1 hereto.

   (b) The value of the Letter of Credit will be negotiated in good faith between Valard and LCMC.

   (c) Article 24.16 will be deleted and the following clause will replace Article 21.14:

   "Except for a Party's indemnity obligations to the other Party in respect of third party Claims under this **Article 21** and liquidated damages pursuant to **Article 26**, a Party has no responsibility and shall not be liable under this Agreement to the other Party for any Claim in respect of loss of profit, business interruption, loss of use, or any similar indirect or consequential damages or losses resulting from, arising out of or in connection with the Work or any obligation pursuant to this Agreement howsoever caused."

   (d) Article 21.5(g) will be revised to delete the word "sole".

   (e) Article 21.10(a) will be revised to insert the phrase, "except as otherwise expressly provided in this Article 21," at the beginning of sub-clause (a).

   (f) A new Article 21.15 will be inserted as follows:

   "Notwithstanding anything to the contrary in this Agreement, the maximum aggregate liability of Contractor to Company for all Claims arising out of or connected with the Work or performance or breach of this Agreement shall be limited to the sum of:

   (a) one hundred percent (100%) of the total Contract Price; and

   (b) the amount of actual insurance proceeds received with respect to such Claims from insurance to be maintained under this Agreement, less any applicable deductible in respect of any proceeds received by Company under Contractor's third party liability insurance;

   provided however that such limitation shall not apply in cases of:

   (i) Claims for personal injury (including death) for which Contractor is liable to Company or has a duty to indemnify Company under this Agreement;

(ii) Claims for property damage or loss for which Contractor is liable to Company or has a duty to indemnify Company under this Agreement, except for damage to or loss of the Work;

(iii) Contractor's fraud, willful misconduct or gross negligence;

(iv) Taxes, fines and/or penalties imposed by any Authority for which Contractor is liable under this Agreement;

(v) Claims for infringement of patents and/or other intellectual property rights, or breach of the confidentiality provisions of this Agreement;

(vi) Claims for any environmental damage or loss for which Contractor is liable to Company or has a duty to indemnify Company under this Agreement or resulting from a breach of this Agreement by Contractor; and

(vii) any other Claims by a third party, including any Authority, for which Contractor has a duty to indemnify Company under this Agreement. "

4. Valard will revise its Proposal to amend its price for the Work to the amount of eight hundred and twenty million Canadian Dollars ($820,000,000 CDN), except that this amended price will not include:

(a) an amount for right-of-way (ROW) clearing and access preparation, which will be negotiated in good faith between Valard and LCMC;

(b) the estimated amount of twenty million Canadian Dollars ($20,000,000 CDN) which represents the potential savings that may be possible from alternate foundation designs, which may or may not be included in the Agreement; and

(c) the cost of the performance security and the financing cost of the holdback to be provided under the Agreement.

5. The Parties acknowledge that the price in the Proposal for the ROW clearing and access construction scope of the Work can be significantly reduced from the original estimate of two hundred and seventy-three million three hundred thousand Canadian Dollars ($273,300,000 CDN). LCMC and Valard will work collaboratively in order to optimize access and ROW clearing requirements and execution approaches in order to reduce this price for such scope of the Work, including all of the following:

(a) LCMC and Valard will work to define the preferred execution approach for such scope of Work, including evaluating all viable options including Valard self-performing, using third party clearing and access contractors, or other commercial alternatives.

(b) LCMC and Valard will work to reduce the total amount of Class C1 access road construction from the estimate of approximately one thousand one hundred and thirty (1,130) kilometres and resolve the aggregate price below the initial estimate of eighty thousand seven hundred Canadian Dollars ($80,700 CDN) per kilometre.

(c) LCMC and Valard will evaluate timber density in order to optimize clearing methods and techniques (i.e. full harvest versus mulch) so as to reduce the aggregate price below the initial estimate of approximately seventeen thousand five hundred ($17,500 CDN) per hectare.

(d) In the event of using such third party clearing and access contractors, these will be

selected by Valard through bids using a procurement model agreed between LCMC and Valard. Such third party contracts will be in the name of Labrador-Island Link Limited Partnership, with direct payment obligations to such third party contractors, while Valard will manage their field activities.

(e) Valard will act in the capacity of a construction manager and general contractor for all ROW clearing and access construction including providing camps, fuel, catering, medical support and health, safety and environment (HSE) programs for all third party contractors.

(f) LCMC intends to augment Valard's management of such scope of Work by the assignment of key human resources to the joint LCMC/Valard organization.

6. LCMC and Valard will continue to collaborate in order to develop materials marshalling/staging and transportation plans for the Work that is in the best interest of both Parties.

7. LCMC and its Affiliates do not commit to award to Valard any other transmission works constructed by LCMC or its Affiliates or partners (including Emera Inc. and its Affiliates). However, Valard will maintain its targeted profit margin at nine percent (9.0%) or less in any proposals involving such works.

8. With respect to Valard's proposal as a response to the Request for Proposal No. CD0502 – Construction of AC Substations, Valard will adjust its proposed price to reflect a nine percent (9.0%) target profit margin, subject to the negotiation and agreement of the Parties on the other contract terms.

9. The Parties will work together to explore opportunities for commissioning support that may be required by LCMC as part of the commissioning of the LCP.

10. Valard will establish, through its involvement in the LCP, a longer-term presence in the Province to provide operational capability in support of the industry's future capital and operational investment in the Province's electrical grid.

11. Subject to the Parties' good faith obligation as referenced in Clauses 1, 3 and 4 herein, neither Party shall be liable to the other whatsoever, on any basis, for such Party's failure to agree and execute an Agreement.

12. (a) This MOU shall come into force from the Effective Date and shall remain effective four (4) months thereafter, unless such expiry is extended by mutual agreement in writing by the Parties.

(b) Notwithstanding the foregoing, and without prejudice to any other rights or remedies available to a Party under this MOU or at law, any Party may immediately terminate this MOU by giving the other Parties written notice if any such other Party is in breach or default of any material term or condition of this MOU and such party fails to commence to cure such breach or default within seven (7) days of receipt of written notice of such breach or default by the Party not in default. In addition, a Party may forthwith terminate this MOU in the event that another Party has been declared insolvent or bankrupt or has

filed a petition in bankruptcy or made any arrangement or trust mortgage for the benefit of creditors, or if a receiver, a liquidator, a guardian, a conservator, trustee in bankruptcy or a similar body has officially been appointed by a competent court to take charge of all or part of such other Party's property or business.

(c) Notwithstanding Clause 12(a), the following provisions of this MOU shall survive the termination or expiration of this MOU and remain in full force and effect for a period of seven (7) years from the date of termination or expiration:

(i) Clauses 7, 8, 9 and 10, subject to the conclusion of an Agreement pursuant to Clause 1 herein; and

(ii) Clause 16.

(d) Notwithstanding Clause 12(a), the following provisions of this MOU shall survive the termination or expiration of this MOU and remain in full force and effect: Clauses 11, 14, 16, 17, 18, 22 and 24.

13. Each Party shall use all reasonable efforts to identify as soon as practically possible any Board of Directors approvals which may be required for the transactions contemplated by this MOU. This MOU shall be conditional upon such approvals.

14. Each Party agrees to bear its own expenses in negotiating and concluding an Agreement and this MOU, including but not limited to legal fees and fees of other advisors.

15. The NDA is incorporated in this MOU by reference and applies to all Confidential Information (as defined therein) disclosed by either Party to the other under or in connection with this MOU, with the Party disclosing Confidential Information being the Disclosing Party, as defined in the NDA, and the Party receiving Confidential Information being the Recipient, as defined in the NDA.

16. This MOU shall be governed by, construed, interpreted and enforced in accordance with the substantive law of the Province of Newfoundland and Labrador, excluding any conflict of law principles. Each Party irrevocably submits to the exclusive jurisdiction of the Courts of the Province, and irrevocably waives any objection which it may have at any time to the forum of any proceedings brought in any such Court. Nothing in this MOU precludes either Party from enforcing in any jurisdiction any judgment, order or award obtained in such Court.

17. Unless otherwise provided, any notice, demand, request or communication under this MOU shall be deemed given when delivered either by email, hand, courier or mailed by certified mail to the following addresses:

Lower Churchill Management Corporation
Re: Lower Churchill Project
350 Torbay Road, Suite No. 2
St. John's, NL, Canada
A1A 4E1
Attn: Jason Kean
Email: jasonkean@lowerchurchillproject.ca

Quanta Services, Inc.
2800 Post Oak Blvd., Suite 2600
Houston, Texas, U.S.A.
77056-6175
Attn: B.J. Ducey, Vice President
Email: bducey@quantaservices.com

Valard Construction LP
Suite 301, 4209 99 Street
Edmonton, AB, Canada
T6E 5V7
Attn: Adam Budzinski, President
Email: abudzinski@valard.com

Notices shall be effective upon actual receipt or deemed delivered seven (7) days after mailing. The designation and title of the person to be notified or the address of such person may be changed at any time by written notice given in accordance with this paragraph.

18. Notwithstanding anything to the contrary elsewhere in this MOU, in no event shall any Party or its representatives or Affiliates be liable to any other Party or its representatives or Affiliates in connection with this MOU for any loss of profit, loss of revenue, cost of capital, loss of opportunity, any indirect, punitive, exemplary or consequential damages regardless of whether such liability arises out of contract, tort (including negligence), strict liability, or otherwise.

19. The Parties acknowledge that they each have reviewed this MOU and have had access to legal counsel. Any rule of interpretation that would otherwise require any aspect of this MOU to be interpreted least favourably against the Party primarily responsible for its drafting shall not be employed in the interpretation of this MOU.

20. For the purposes of this MOU, each Party represents to the other that it has the power and authority to enter into this MOU, subject to Clause 13.

21. This MOU and its Attachments, and the documents listed and referenced therein, constitute the entire agreement and understanding among the Parties with respect to the subject matter hereof. This MOU cancels, replaces and supersedes all other previous verbal or written agreements among the Parties with respect to the subject matter hereof. Any waiver, modification or alteration or addition to this MOU or any of its provisions shall not be binding on any Party unless all Parties have agreed to it in writing. No such waiver shall preclude the Parties exercising such waiver from requiring the fulfillment of any obligations set out herein at any time in the future. The failure of a Party to insist upon its rights upon a breach of this MOU shall not however be deemed a waiver of such rights either with respect to that breach or any subsequent breach whether similar or dissimilar in nature.

22. The invalidity of any term, condition or stipulation of this MOU shall not affect the validity of the remaining terms, conditions or stipulations of this MOU or its validity.

23. No Party may, without the prior written consent of the other Parties (which consent may be withheld in the sole and absolute discretion of such Parties), assign, transfer, encumber, or otherwise dispose of or deal with all or any of its rights or obligations under this MOU or any interest therein.

24. Nothing in this MOU shall be construed as constituting the Parties as partners of each other.

25. This MOU may be executed in any number of counterparts each of which when executed and delivered shall be an original, but all counterparts together shall constitute one and the same instrument.

EXECUTED AS AN MOU:

For and on behalf of Lower Churchill Management Corporation

_____

Name: Gilbert Bennett
Title: Vice President

For and on behalf of Quanta Services, Inc.

_____

Name: B.J. Ducey
Title: Vice President

For and on behalf of Valard Construction LP,
by its general partner Valard Construction 2008 Ltd.

_____

Name: Adam Budzinski
Title: President

Execution Page to the Memorandum of Understanding effectively dated the 28th day of March, 2014 among Lower Churchill Management Corporation, Quanta Services, Inc. and Valard Construction LP.

Attachment 1

Liquidated Damages

1. The scheduled date of Substantial Completion is 30 June 2017.

2. If Contractor achieves Substantial Completion within 15 days from the scheduled date of Substantial Completion (the "Expiry of the Grace Period"), no liquidated damages will apply.

2. If Contractor achieves Substantial Completion between 16 and 45 days inclusive after the scheduled date of Substantial Completion (July 16, 2017 to August 15, 2017 inclusive), Contractor shall pay Company as liquidated damages $350,000 CDN for each day of such failure after the Expiry of the Grace Period.

3. If Contractor achieves Substantial Completion 46 days after the scheduled date of Substantial Completion (August 16, 2017), or later, Contractor shall pay Company as liquidated damages $750,000 CDN for each day of such failure.

4. Contractor's limit of liability for liquidated damages payable by Contractor to Company will be a maximum of ten percent (10%) of the Contract Price.

5. All other terms and conditions regarding liquidated damages will be consistent, mutatis mutandis, with those of the Articles of the agreement between Labrador Transmission Corporation and Valard for the Construction of HVac Transmission Lines (MF to CF), effectively dated the 17th day of December 2013, being Agreement No. CT0319.

nalcor energy LOWER CHURCHILL PROJECT	Bidder Selection and Preliminary Award Recommendation	Rev. No.	Date
	CT0327 – CONSTRUCTION OF 350KV HVDC TRANSMISSION LINE	00	31-MAR-2014

ATTACHMENT 12

ESTIMATED CONTRACT VALUE AND COMPARISON TO BUDGET

HOLD - PENDING CONCLUSION OF FINAL AGMT.