

From: kenmclintock@lowerchurchillproject.ca
To: geraldcahill@lowerchurchillproject.ca
Subject: CH0009 Review
Date: Thursday, June 18, 2015 2:20:33 PM
Attachments: [.png](#)
[.png](#)
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[Exhibit 2 Compensation.docx](#)
[Exhibit 9 b.docx](#)
[Exhibit 9a.docx](#)
[ATTD3U8F.pdf](#)
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Exhibit 2 Compensation.docx



Exhibit 9 b.docx



Exhibit 9a.docx



CH0009 - Scope of Work Specification_B1.pdf



Coordination Procedures.docx

Hi Gerald

I hope your weather has been fine and your game has been stellar!

John Skinner told me it was OK to contact you whilst you were down there....so I am.

I am trying to get CH0009 locked down. We are targetting the end of June to have finished the evaluation (this evaluation will overlay whatever else was done previously by Mark Turpin and Roy Lewis).

We have had a significant task in locking down all the technical items, but I believe we are very close. Several small items exist like scope reductions, but they are minor. We are now at a point that only real risk (or costly) items

will be presented to the Bidders, otherwise we will raise them at negotiation time. There is only one technical item which we have agreed in principle with, but need engineering to get details for a more in-depth review.....possible risk item at this point.

Another wrinkle is that we are asking for Optional Pricing to accommodate our future decision

to delay River Diversion by one season.9See attached Exhibit 9b.

The Articles are well-advanced. Now awaiting final comments from Bidders. Articles have been cycled back and forth once already and Aiden does not see any show stoppers.

We are expecting Bidders to deliver their final pricing and any execution changes based on our reviews over the past 4 weeks.....by mid next week.

The reason for this is a request that you take a (preliminary) look at a few of the documents that I can provide at this point...SOW, Exhibit 2 (without Appendices), Coordination Procedures and Exhibit 9. There will be some changes to these documents but I hope you will at least use them for familiarity purposes so as to make the review of the finals a little easier (and quicker).

Please let me know if you agree with this approach....if not, no problem.

Take Care

Ken

Ken McClintock

Consultant

PROJECT DELIVERY TEAM

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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?

EXHIBIT 2

COMPENSATION

1.0 GENERAL

- 1.1 Company shall compensate Contractor for the Work, in accordance with the provisions of this Agreement. The total Contract Price for the performance of the Work consists of:
- the total of the fixed lump sum amounts and unit prices (times actual quantities), as listed in Appendix A – Schedule of Price Breakdown; plus
 - the actual travel allowances for trades labour as described in Section 10 of this Exhibit 2.
- 1.2 Subject to any additional compensation pursuant to a Change Order, the lump sum amounts and unit rates stated in the Schedule of Price Breakdown, plus the actual costs of travel allowances for trades labour, shall be fully inclusive of all obligations under this Agreement. Costs not specifically identified are deemed to be included in the lump sum amounts and unit rates for the Work. Company does not guarantee a minimum or a maximum amount of Work.
- 1.3 No payment in excess of the Contract Price will be made without a formal Change Order to the Agreement.
- 1.4 Invoices shall be issued by Contractor in accordance with Article 12 of the Agreement, Exhibit 2 – Compensation, Exhibit 3 – Coordination Procedures, and Exhibit 13 – Provincial Benefits.

2.0 FIXED LUMP SUM

- 2.1 The following provisions in this Section 2 apply only to Work completed on a lump sum basis.
- 2.2 The payment items for Work completed on a lump sum basis are stated in Appendix A – Schedule of Price Breakdown of this Exhibit. All such payment items are fixed prices and their aggregate total shall form the fixed lump sum price of this Agreement.
- 2.3 Lump sum items stated in Appendix A – Schedule of Price Breakdown shall include all elements necessary to achieve completion of the item, whether specifically identified, or whether inherent in the Work.
- 2.4 Pursuant to Article 12 of the Agreement, payment for each lump sum item shall be made progressively as the Contractor has satisfied the requirements of the payment item.
- 2.5 If required by the Engineer, the Contractor shall submit to the Engineer, before making its application for payment under this Agreement, an Acceptable schedule of values of the various parts of the Work and totalling the full amount of the fixed lump sum price. Such schedule of values shall be a more detailed breakdown of Appendix A - Schedule of

Price Breakdown. Subject to the Articles of Agreement and other provisions in this Exhibit 2, the schedule of values shall be used as a guideline for applications by the Contractor for payment.

- 2.6 Measurement of any Work items paid on a lump sum basis shall be undertaken on a monthly basis by Contractor and Engineer and submitted to Engineer for Acceptance.

3.0 UNIT PRICES

- 3.1 The following provisions in this Section 3 apply only to Work completed on a unit price basis.
- 3.2 Full compensation for unit price Work shall be determined in accordance with the unit prices set forth in Appendix A - Schedule of Price Breakdown of this Exhibit 2 (the "Unit Prices").
- 3.3 Any quantities of units estimated are not guaranteed, and payment shall only be for actual quantities of Work installed. There shall be no adjustment of the Unit Prices due to installed quantity variances (increases/decreases) from the estimated quantities.
- 3.4 Measurement of any Work items paid on a unit price basis shall be undertaken on a monthly basis by Contractor and Engineer. Such measurement shall form the basis of all progress and final payments for such Work items. Only Accepted unit price measurements shall form the basis of invoices of Contractor.
- 3.5 Unless otherwise specifically stated, all Unit Prices shall be complete and inclusive of all costs required for the Work.

4.0 REIMBURSABLE WORK

- 4.1 The following provisions in this Section 4 apply only to Work resulting from a Change Order which has been determined to be completed on a reimbursable basis. Contractor shall obtain prior Approval of Company or Engineer before commencing any such Work. Company will not be responsible for any amounts whatsoever in relation to such Work which has not been so Approved prior to its commencement.
- 4.2 Where applicable, full compensation to Contractor for full and complete performance of any Work performed on a reimbursable basis shall be the sum of the following costs (which include mark-ups for all overheads and profit) exclusive of HST:
- (a) Sum of Contractor's Labour Rates, as detailed in Appendix C - Personnel Rate Schedule, multiplied by Accepted hours of Work, detailed on Accepted timesheets;

- (b) Sum of Contractor's Equipment Rates, as detailed in Appendix D - Equipment Rate Schedule, multiplied by Accepted hours of use, detailed on Accepted timesheets; and
- (c) pre-Accepted material expenses, travel and mileage expenses, and third party expenses.

Contractor shall advise Engineer in writing when it has expended seventy-five percent (75%) of the total estimated price for such reimbursable Work.

The labour and equipment rates stated in the Appendices of this Exhibit 2 are fixed for the duration of the Agreement.

The Contractor shall not be compensated for any Contractor's Personnel not identified in Appendix C – Personnel Rate Schedule.

4.3 When Contractor is requested to purchase materials on a reimbursable basis:

- (a) All actual costs to Contractor for materials supplied for incorporation into the permanent facility to which the Work applies (including those costs related to transportation to the Site) shall be at actual invoiced cost to Contractor (exclusive of HST) as substantiated by invoices certified as paid or by such documentation as may be required by Company, plus a mark-up of five percent (5%). This Section 4.3 (a) does not refer to small tools which cost Contractor less than \$2,000.00 Canadian dollars each, or consumables and Personal Protective Equipment; the cost of these items is included in the Rates listed in Appendix C – Personnel Rate Schedule.
- (b) To be eligible for reimbursement, invoicing for third party supplied materials shall be fully supported by Billing Information and any other documentation that Engineer may reasonably require.
- (c) Company reserves the right to provide, at no cost to Contractor, materials, equipment, services, supplies or incidentals required to perform the Work.

4.4 When Contractor is requested to supply equipment on a reimbursable basis:

- (a) All costs of Contractor for Contractor-owned equipment shall be at the rates set forth in Appendix D - Equipment Rate Schedule.
- (b) When Contractor's equipment does not resemble the equipment having rental rates listed in Appendix D - Equipment Rate Schedule, the rate of such equipment shall be determined insofar as it is practical to do so, in accordance with and in the manner provided for in the latest revised edition of the publication of the Government of Newfoundland and Labrador, Department of Works, Services and

Transportation, Highway Design Division's Form 1000 entitled "Newfoundland Equipment Rental Schedule" at the time of the Effective Date.

- (c) All costs of Contractor, exclusive of HST, for equipment which is rented from third parties and does not resemble the equipment having rental rates listed in Appendix D - Equipment Rate Schedule - must be Accepted prior to rental and shall be at actual cost, exclusive of HST, to Contractor, including transportation to the Site, as substantiated by invoices certified paid or by such documentation as may be required by Company, plus a mark-up of five percent (5%).
 - (d) To be eligible for reimbursement, invoicing for third party equipment shall be fully supported by Billing Information and any other documentation that Engineer may reasonably require.
 - (e) For reimbursable equipment, Company reserves the right to substitute and provide, at no cost to Contractor, equipment to perform the Work. Contractor shall not be allowed to claim for loss of profit and/or any of its own costs resulting from such substitution by Company.
- 4.5 When Contractor requires third party services to assist with Work being performed on a reimbursable basis:
- (a) Contractor shall secure pre-Acceptance of any third party services that are required for the performance of the Work and are additional to that which is included in Appendix A - Schedule of Price Breakdown, Unit Prices and lump sum amounts. Company shall reimburse Contractor for the actual, documented and necessary costs (exclusive of HST) of such services.
 - (b) All third party services provided by others for performance of the Work which have been previously Accepted shall be at actual cost to Contractor, exclusive of HST, of such third party services plus a mark-up of five percent (5%).
 - (c) In no instance shall the third party rates plus mark-up exceed Contractor's rates for similar services.
 - (d) To be eligible for reimbursement, invoicing for third party services shall be fully supported by Billing Information and any other documentation that Engineer may reasonably require.
- 4.6 When Contractor requires labour for Work being performed on a reimbursable basis:
- (a) All costs of Contractor for such labour shall be at the rates set forth in Appendix C - Personnel Rate Schedule, which rates include a mark-up for overhead and profit of twelve percent (12%). Contractor represents that such rates includes such mark-up.

- (b) All costs of Contractor, exclusive of HST, for labour that does not resemble that which is listed in Appendix C - Personnel Rate Schedule - must be Accepted prior to the engagement of such labour and shall be at actual cost, exclusive of HST, to Contractor, as substantiated by Accepted time sheets or by such documentation as may be required by Company, plus a mark-up of twelve percent (12%).
 - (c) To be eligible for reimbursement, invoicing for such labour shall be fully supported by Billing Information and any other documentation that Engineer may reasonably require.
- 4.7 In relation to Contractor's unionized employees deployed at the Site under this Agreement, any and all costs, exclusive of HST, relating to Contractor provided:
- (a) air transportation;
 - (b) travel allowance; and
 - (c) board (but only to the extent that accommodations are not available at Site for such employees);
- will be compensated in accordance with the applicable labour agreement between Contractor and its employees relating to the Site, as pass through expenses without any mark-up for administration, overhead and/or profit, provided that these have not already been included in the Contract Price as awarded. Contractor shall not be compensated for any other items, costs or expenses in relation to Contractor's Personnel.
- 4.8 For all Work carried out on a reimbursable basis, Contractor shall prepare time sheets for all Personnel, equipment, material and third party services assigned to the performance of the Work which will be provided daily to the Engineer for Acceptance. Copies of time sheets shall accompany all Contractor invoices.
- 4.9 When Contractor uses materials, equipment and/or services of any of its Affiliates or any Person with which Contractor has a non-arm's length relationship (including but not limited to common ownership, subsidiary, strategic partner or licensee) to undertake reimbursable Work, then the Contractor shall be entitled to charge Company the actual documented base cost of such Affiliate or Person (as the case may be) for such materials, equipment and/or services, subject to the removal of any element of overhead and/or profit, plus a mark-up of five percent (5%).
- 4.10 For all Work carried out on a reimbursable basis and to be performed by third party suppliers or service providers, Contractor shall solicit a minimum of three bids for material purchases of \$25,000.00 Canadian and greater. Contractor shall select the qualified bidder with the lowest bid unless otherwise directed and/or Accepted by

Engineer. Contractor's procurement process shall be subject to Acceptance. At Engineer's request, all received bids and bid evaluation information, including Contractor's award recommendation, shall be made available to Engineer prior to award.

5.0 CHANGES

Compensation for a Change shall be determined in accordance with the Articles of Agreement, this Exhibit 2 and Exhibit 3 – Coordination Procedures. Rates and prices outlined in Appendices A - Schedule of Price Breakdown (when applicable), C - Personnel Rate Schedule and D - Equipment Rate Schedule of this Exhibit 2 will apply for both increases and decreases in the Work.

Where any Work relating to a Change is performed without agreement between Company and Contractor on a price for such Work:

- (a) the adjustment to the Contract Price shall be in accordance with the provisions of the Articles of this Agreement; and
- (b) for the purpose of Article 14.10(b)(i) of this Agreement, the allowance referenced therein shall consist of:
 - (c) for purchased materials: the percentage amount stated in Section 4.3(a);
 - (d) for supplied equipment: the amount included in the rental rates of Appendix D, and the percentage amount stated in Section 4.4(c);
 - (e) for third party services: the percentage amount stated in Section 4.5(b);
 - (f) for labour: the percentage amount stated in Section 4.6(b);

but only if, and to the extent that, purchased materials, supplied equipment, third party services and/or labour are required for such Change Work and Approved by Company.

6.0 STANDBY TIME

When the Work is suspended pursuant to Article 28.2 or Company requires Contractor to standby pursuant to Article 29.7 and, after Contractor's best efforts to mitigate any resulting expenses, it is necessary to retain equipment and /or labour in the Work area at Site for extended periods, as Approved by Company, the following provisions shall apply:

- (a) Company will pay Contractor for equipment standby time as follows:

- (b) for equipment, other than rented equipment and operated rented equipment, at fifty percent (50%) of the applicable rate stated in Appendix D - Equipment Rate Schedule; and
- (c) for rented equipment and operated rented equipment at one hundred percent (100%) of the lessor's invoice price.
- (d) Company will pay for labour standby time at the straight time rates listed in Appendix C – Personnel Rate Schedule – with the modifications as noted.
- (e) For all standby time Approved by Company, Contractor shall prepare daily time sheets for all labour and equipment assigned to the performance of the Work, which will be reviewed, and if Accepted, signed by the Engineer. Copies of time sheets shall accompany all Contractor invoices.
- (f) Payment for all such standby will be limited to not more than eight hours in a twenty-four hour day or forty hours in a week.

Notwithstanding the above, no compensation will be allowed for equipment that is inoperable due to breakdown, unavailability or the like. No payment will be allowed for equipment that is not operating because the Work has been delayed or suspended by Contractor for its own reasons.

7.0 MONTHLY PAYMENT FORECAST SCHEDULE

Appendix B - Monthly Payment Forecast Schedule - of this Exhibit 2 includes the Monthly Payment Forecast Schedule provided by Contractor. Company will pay the Contractor monthly for actual progress achieved which shall be accompanied by all relevant supporting documentation as Company or Engineer may require to verify completion of the progress.

8.0 PROJECT LABOUR AGREEMENT

This Agreement is based on Newfoundland and Labrador Regulation 67/13 – a Special Project order under the Labour Relations Act of Newfoundland and Labrador - and the associated Project Labour Agreement which has been negotiated for the Lower Churchill Project.

Project Labour Agreement (or “PLA”) means the “Collective Agreement between Muskrat Falls Employers’ Association Inc. and Resource Development Trades Council of Newfoundland and Labrador”. The PLA is included in Exhibit 11 - Company Supplied Documents.

The Contractor shall be bound to the terms of the PLA for the duration of its Work, become a member of the applicable Project Employers’ Association and name at least one (1) staff person to be responsible for daily labour relations matters at the Site. Prior to working at Site, all Contractor’s Personnel will be required to attend an LCP Site orientation session that includes: health, safety and environment obligations; human resources policies, including respectful workplace, cultural sensitivity, gender equity and diversity; and labour relations, including PLA overview, Site standards, corrective action and dispute resolution.

9.0 [LIQUIDATED DAMAGES FOR DELAY- SUBJECT TO FURTHER DISCUSSION]

If Contractor fails to achieve any of the following Milestones listed below by the date specified for such Milestone in Exhibit 9 - Schedule, Contractor shall pay Company as liquidated damages the full amount stipulated for that Milestone for each day, including any part thereof, of the delay of that Milestone, from the date the delay commenced to the date the Milestone is achieved, subject to the liability limit referred to in Article 26.1 of this Agreement, unless the failure to achieve the Milestone is due to an event of Force Majeure.

Milestone	Liquidated Damages per Calendar Day of Delay \$CAD
Substantial Completion	\$ 60,000.00

10.0 TRAVEL COSTS

10.1 Travel Allowances - Trades Labour: Company shall pay the actual travel allowances /air transportation of the Contractor’s trades labour covered by the Collective Agreement and working at Site. All such travel allowances/air transportation shall be strictly in accordance with the stipulations of the Collective Agreement. Arrangements for air transportation must be made at least two weeks in advance. These costs are pass through and Company shall not pay any mark-up, of any kind, on the travel allowances/cost of air transportation. Travel time is not reimbursable per the Collective Agreement.

10.2 Contractor’s Personnel Not Covered by the Collective Agreement: For all Contractor’s Personnel, working at Site and not covered by the Collective Agreement, including managers and staff:

- travel costs, including any travel time, to mobilize on commencement of the Work and to demobilize on completion of the Work are included in the lump sums for mobilization and demobilization under Price Items 1 and 26 respectively of the Schedule of Price Breakdown;

- travel costs for rotational leave during the execution of the Work are included in the Schedule of Price Breakdown under Price Items 6 and 7, under "Profit and Other".

11.0 ESCALATION OF FUEL, CEMENT AND FLYASH

11.1 Fuel Escalation

Contractor shall assume the fuel prices are fixed at **\$.90 litre (not \$1.40 litre)** for diesel and gasoline (price includes PMT and FET, but excludes HST taxes) which shall be subject to the following price adjustment provision.

11.2 Escalation of Cost of Fuel

Escalation for fuel shall be calculated using the following formula.

$$EL_F = [H - (h \times P_b)]$$

In which:

EL_F = Escalation for fuel, calculated for the particular Escalation Period.

H = Actual cost of the fuel purchased at the Company fuel station at Company's laydown area during the particular Escalation Period.

h = actual number of litres of fuel purchased at the Company fuel station during the particular Escalation Period.

P_b = Base Index Number for fuel = \$CAD .90/litre.

- ### 11.3 Payment of Quarterly Escalation Escalation (EL_F), whether an increase or a decrease, for a given Escalation Period shall be invoiced in the second month following the end of the Escalation Period; or the month at which all Index Numbers are available, whichever is later.

11.4 Escalation of Cement and Flyash

Contractor shall assume the price for each of cement and flyash is \$380.00 (Cdn.) per tonne delivered to the Site. The Contract Price shall be adjusted up or down on a dollar for dollar basis without mark-up based on variations in the assumed quantities and pricing.

11.4(a) Payment of Quarterly Price Escalation

Contractor shall calculate the price adjustment, for cement and flyash, up or down at the end of each fiscal calendar quarter (Escalation Period), based on the actual price paid and actual quantities delivered to Site. Contractor shall invoice in the second month following the end of the Escalation Period.

11.4(b) Payment of Quantity Adjustment

Contractor shall calculate the price adjustment up or down after the RCC mix design has finalized and agreed between the parties. Contractor shall invoice on a monthly basis, based on quantities placed.

12.0 OPTIONAL PRICES

The Schedule of Price Breakdown –Appendix A- includes a number of optional prices which are excluded from the Contract Price. These optional prices can only be exercised by the Company via a Change Order or Amendment to the Agreement.

EXHIBIT 2 - APPENDIX A
SCHEDULE OF PRICE BREAKDOWN

EXHIBIT 2 - APPENDIX B

MONTHLY PAYMENT FORECAST SCHEDULE

EXHIBIT 2 - APPENDIX C
PERSONNEL RATE SCHEDULE

EXHIBIT 2 - APPENDIX D
EQUIPMENT RATE SCHEDULE

EXHIBIT 2 - APPENDIX E

ESTIMATED TRADE PERSON-HOUR SCHEDULE

EXHIBIT 2 - APPENDIX F

SWORN DECLARATION

SWORN DECLARATION – ACCOMPANYING INVOICE FOR PAYMENT

CANADA) IN THE MATTER OF THE AGREEMENT
) BETWEEN COMPANY AND
 PROVINCE OF NEWFOUNDLAND) **[CONTRACTOR]** DATED AS OF **[DATE]** FOR
 AND LABRADOR) THE **[DESCRIPTION OF WORK]** BEING
) AGREEMENT NO. **[INSERT NO.]** (the
) “Agreement”)

I, **[●]**, of the City of **[●]**, in the **[Province]/[State]** of **[●]**,**[Country]**, do solemnly declare that:

1. I am the **[title]** of **[full legal name of Contractor]** and as such have personal knowledge of the facts set out in this Declaration.
2. Defined terms used in this sworn Declaration but not defined in this Declaration have the meanings given to those terms in the Agreement.
3. All (a) payments due to Subcontractors, (b) wages and benefit payments due to any of the Contractor’s Personnel, and (c) Taxes, contributions, premiums, allowances and remittances due to any Authority, pension fund, benefit plan or union fund in accordance with a collective agreement or Applicable Laws, have been paid in a timely manner on or before the date of the Invoice and associated Payment Certificate to which this Declaration relates, subject to any withholdings or holdbacks required by Applicable Laws.
4. Title to the applicable part of the Work will pass to Company in accordance with Article 27 of the Agreement.
5. (a) There are no known outstanding Claims under the Agreement, including but not limited to Claims by Contractor against Company, except for those Claims which have already been communicated to Company in a timely manner in the form of Notice required by the Agreement and which are described and listed in the Appendix to this Declaration, including an estimate of the value of each such Claim;

or

- (b) There are outstanding Claims, including but not limited to Claims by Contractor against Company, which have not been communicated to Company and each of these outstanding Claims is described and listed in the Appendix to this Declaration and is delivered to Company in a timely manner, and there are no other known outstanding Claims under the Agreement, except for those Claims which have already been communicated to Company in a timely manner in the form of Notice

required by the Agreement and which are described and listed in the Appendix to this Declaration, including an estimate of the value of each such Claim.

- 6. The last application for payment for which we have received payment is No. _____ dated the _____ day of _____, 20__.

I make this Declaration conscientiously believing it to be true and knowing it is of the same force as if made under oath.

DECLARED before me at the City of _____)
[•], _____)
in the [Province]/[State] of _____)
[•], _____)
[Country] _____)
on [Month], [Date], 20[•] _____)
_____)

Name:
A Commissioner, etc.

Declarant

APPENDIX TO SWORN DECLARATION

[Date]

(a) Claims previously communicated to Company:

Description

Estimated Value

(b) Claims not previously communicated to Company:

Description:

Estimated Value:

EXHIBIT 3

COORDINATION PROCEDURES

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1 INTRODUCTION

This Exhibit 3 – Coordination Procedures is intended to govern Contractor, Engineer and Company in the administration and management of this Agreement.

Contractor shall use its own systems, methods and procedures in the administration of the Work. However, Company has certain requirements regarding Agreement administration, monitoring and coordination, consistency and project controls with which Contractor shall comply. These requirements are described in this Exhibit 3. Where necessary, Contractor shall adapt its own systems, methods and procedures to satisfy such Company requirements.

It is Company's intention that Company and Contractor work together to mutually agree on a set of methods and procedures for performing the Work. In this regard, Company will require a series of meetings in Company offices immediately following Effective Date. During the meetings, Contractor, Company and Engineer will review Contractor's proposed methods and procedures for executing the Work. Following this review, the Parties will agree on any modifications to Contractor's methods and procedures required to satisfy the requirements of this Exhibit 3.

2 EARLY ACTIVITIES AND GENERAL EXECUTION

2.1 SCOPE

This Section 2 sets forth minimum early activities associated with preparation for execution as well as general execution activities.

2.2 OBJECTIVES

Contractor shall employ a systematic management approach to the Work embracing sound management principles, including:

- a) Finalization of an Execution Plan as it pertains to the Work (as described in Section 2.4 below); and
- b) Understanding of and alignment with Company's objectives, priorities, and philosophies with the aim of Contractor developing appropriate plans and procedures.

2.3 CONTRACTOR DUTIES

Contractor shall:

- a) Review Contractor's proposed Execution Plan with Company. Update the plan with all Accepted changes and enhancements and maintain on an ongoing basis;
- b) Participate in meetings, as scheduled by Engineer, to mutually agree on methods and procedures for performing the Work. Meetings shall be held in Company offices and may be scheduled to begin within fourteen (14) days of the Effective Date and shall be completed within forty-five (45) days of the Effective Date;
- c) Provide all information requested by Company to support Company's appraisal of

Contractor's performance of the Work, including performance of other members of the Contractor Group. Such information may include, without limitation, Contractor Group systems, methods and procedures for performing the Work; copies of calculations, working drawings, specifications, purchase requisitions and recommendations (if applicable); estimates; labor productivity data; schedules; procedures; and alternative studies;

- d) Contractor shall maintain close management alignment with Company and Engineer during execution of the Work;
- e) Actively support and participate in project reviews as required by Company and as they relate to the Work.

2.4 SPECIFIC REQUIREMENTS

Early Deliverables

A list of all early deliverables and the timing of their submission to Company is specified in Exhibit 4 - Supplier Document Requirements List.

Execution Plan

The Execution Plan forms an integral part of this Agreement. Contractor shall make all changes based on Engineer's comments and submit a final Execution Plan (based on the Execution Plan submitted by Contractor with its bid in response to the Request for Proposal relating to this Agreement) to Engineer for Acceptance by the date specified in Exhibit 4 – Supplier Document Requirements List. The Execution Plan will serve as the basis for developing the detailed plans for the Work.

The Execution Plan shall:

- a) Document the results of the overall planning process for the Work. The Execution Plan is a framework from which will evolve execution strategies and approaches, work plans, risk identification and mitigation plans, detailed procedures, organizational structures, logic networks, schedules and other material needed by Contractor's Personnel to develop execution details and Contractor's plans for the Work, including detailed fabrication and construction plans;
- b) Document Contractor's objectives, priorities and philosophies that are based on and consistent with Company's objectives, priorities and philosophy for the Work; and
- c) Outline formalized processes to be employed to identify broad strategic issues, evaluate impact, develop mitigation measures/action plans, and to follow-up on results of mitigation measures/action plans.

Contractor shall maintain the Execution Plan as a living, working document. Changes to such plan will be subject to the review and Approval of Company. As changes arise, Contractor shall identify and document critical issues and/or potential constraints that could adversely affect the accomplishment of Company's objectives for the Work and shall submit such changes to Company for Approval.

Coordination Teams

As one of the early project activities, coordination teams will be established at various levels within Contractor's and Company's organizations. Contractor and Company will mutually agree on the composition of each team and agree on the frequency of meetings. If there is a failure to agree on such composition and/or frequency, Engineer shall have the authority to determine these matters.

The initial meetings of the coordination teams will be to:

- a) Develop positive working relationships between team members;
- b) Develop plans to meet objectives, guidelines for individual and team behaviours, and teamwork, and determine Contractor / Company success criteria;
- c) Identify and review, as appropriate by team, challenging areas or areas of opportunity which require special attention; and
- d) Establish the initial framework for the specific plans for the Work as referenced in this Exhibit 3.

3 ORGANIZATION, ADMINISTRATION AND REPORTING

3.1 CONTRACTOR DUTIES

Contractor shall:

- a) Submit proposed, and Accepted or Company Approved organization charts, identifying key positions required for executing the Work. These shall be included within the Execution Plan;
- b) Provide information required by Company and seek Company's Approval on matters as required by this Agreement;
- c) Participate in regular meetings with Company, Engineer and Company's Other Contractors to discuss the status of the Work, methods for resolving problems encountered or anticipated, and other topics pertinent to the Work;
- d) Produce timely, accurate and consistent progress reports for the Work that facilitate proactive management; and
- e) Provide to Company Group Personnel offices, logistical support and facilities at Contractor's offices and the Worksite(s), as required by Company and Engineer (to be specified in Section 3.2.6 below, if required).

3.2 SPECIFIC REQUIREMENTS

3.2.1 CONTRACTOR ORGANIZATION

Within the time specified in Exhibit 4 - Supplier Document Requirements List, and to be included in the Execution Plan, Contractor shall submit a description of its project organization for the Work indicating clear lines of decision making, authority and responsibility addressing as a minimum the following:

- a) Project management organization;
- b) Health and safety management organization both at home office and for the Worksite(s);
- c) Quality management organization, including Quality Manager, Worksite(s) quality organizations and vendor inspection organization;
- d) Engineering management organization;
- e) Technical Interface management;
- f) Provincial Benefits Management;
- g) Regulatory and environment organization(s);
- h) Procurement organization, including purchasing, subcontracting and material management for both Contractor’s home office and for the Worksite(s);
- i) Project controls including cost and schedule management for both Contractor’s home office and for the Worksite(s);
- j) Technical organization, including engineering, design, constructability and document control;
- k) Construction Worksite(s) including engineering support, planning, cost and schedule control, material management, quality, safety and construction operations (including field supervision);
- l) Completions organization (if applicable); and
- m) Start-up organization (if applicable).

Each organization within the overall organization of the Work shall have key Personnel assigned and have designated authority and responsibility for the given portion of Work.

For each position designated as being key Personnel, the following information shall be provided:

- a) Roles and responsibilities;
- b) Job titles;
- c) Approval authority assigned to each position;
- d) Contact address(es) and telephone number(s); and
- e) Candidate's most recent resume.

Contractor shall update the organization charts, contact addresses and phone numbers as changes occur to the Work, as Contractor's overall organization changes or as requested by Engineer.

The organization charts shall clearly indicate how and to whom Contractor's organization for the Work reports in its home and/or any affiliated offices and the relationship of Contractor's organization for the Work to its corporate and/or departmental organization.

Listed below are Contractor’s key Personnel for the management, control and execution of the Work. Contractor shall maintain up-to-date organization charts, which shall be submitted to Engineer in the event of changes.

POSITION DESCRIPTION (TITLE)	NAME
[insert]	[insert]

[insert]	[insert]
[insert]	[insert]
[insert]	[insert]

Key Personnel shall be assigned on a full time basis and be committed to continue throughout the Term in order to maintain continuity. The appointment, transfer and replacement of key Personnel shall be subject to Engineer’s prior Acceptance.

3.2.2 CORRESPONDENCE AND COMMUNICATION REQUIREMENTS

Correspondence and Notices

Company and Contractor shall jointly establish a correspondence plan and procedures which shall be periodically updated so as to keep them current.

Aconex shall be utilized to manage all written communication between Company/Engineer and Contractor. Aconex is an electronic document management system which is a secure on-line platform for storing, managing and distributing project information that can be accessed via an internet connection and a web browser (www.aconex.com). The implementation of Aconex Mail will be coordinated during the kick-off meeting between Contractor and Engineer.

The Aconex module, “LCP Rev Controlled”, will be utilized for all technical documentation (refer to the document entitled “LCP Supplier Document Requirements” provided in Exhibit 11 - Company Supplied Documents).

Administration:

- A. All formal correspondence and notices relating to this Agreement shall be exchanged between Engineer, Contractor’s Representative and the Company Representative, using official letterhead and submitted c/o Company’s Document Control via Aconex and shall include the following: subject, date and reference correspondence. Letters will be, to the degree possible, specific to one subject matter.
- B. All Agreement deliverables shall be exchanged between Contractor’s Representative and Engineer, as defined for each deliverable.
- C. All Agreement deliverables shall be submitted to Engineer, c/o Company Document Control via Aconex, using a uniquely numbered document transmittal.
- D. The Company Approved date format for the LCP is dd-mm-yyyy (i.e. 20-Oct-2013).

Company and Contractor Representatives

All formal correspondence, documents and Agreement deliverables required by this Agreement, including this Exhibit 3, from Contractor to Company shall be addressed to the Company Representative. Likewise all correspondence from Company to Contractor shall be sent to Contractor's Representative.

Company Representative

The Company Representative has the responsibility of managing this Agreement on behalf of Company, including Approval of Changes, amendments to this Agreement and issuance and receiving of Notices.

The Company Representative has the authority to stop the Work for the purposes of safety, quality and risk of damaging Company property under the care, custody and control of Contractor. Notification of stoppage can be addressed verbally, and then supported by writing. Contractor shall resume Work when appropriate actions are addressed to the satisfaction of Company. No compensation will be provided for Work stoppages of this nature.

The Company Representative may delegate any of his or her responsibilities to any nominated deputy. Notice of delegation shall be provided to Contractor's Representative and Engineer in writing.

Engineer

Engineer's role and responsibilities are detailed in Article 11 of this Agreement. Company may delegate any of Engineer's responsibilities to any nominated deputy. Notice of delegation shall be provided to Contractor's Representative in writing.

Contractor's Representative

Contractor shall appoint a Contractor's Representative for the Work, who shall have full authority to receive instructions and administer this Agreement for and on behalf of Contractor, in addition to those authorities stated in the Articles of this Agreement.

The Contractor's Representative shall have the responsibility for receiving, acknowledging, countersigning and returning any instructions, decisions, Notices, authorizations and acknowledgements to Contractor under this Agreement, in addition to those responsibilities stated in the Articles of this Agreement. Contractor's Representative shall also be responsible for administering, monitoring, reviewing and coordinating all aspects of the Work on behalf of Contractor.

Contractor's Representative may delegate any of his or her responsibilities to any nominated deputy upon prior Notice to the Company Representative and Engineer. Notifications, information, authorizations, acknowledgements and decisions from any such nominated deputy shall be as if from Contractor's Representative.

3.2.3 REPORTS AND MEETINGS

Contractor shall submit reports to Company on the progress of engineering, procurement, construction and completions, and on the status of other activities for the Work as otherwise provided below and other provisions in this Exhibit 3 (see Section 7.7 for further details).

Weekly Report

Contractor shall submit a weekly report (“Weekly Report”), which shall reflect the current status of the Work, progress and issues. The timing, format and content shall be as agreed between Contractor and Engineer, but shall address the following as a minimum:

- Brief summary of status of the Work;
- Management and administration;
- Significant items planned for the following weeks;
- Health, safety and environment;
- Quality management;
- Highlights and concerns including any required and implemented corrective action in all of the following main areas:
 - engineering
 - procurement
 - manufacturing
 - fabrication
 - construction
 - installation
 - completions;
- Interface activities;
- Status of Change Requests; and
- Receipt of major components and/or materials at the Site.

Monthly Progress Report

Contractor shall submit a monthly progress report (“Monthly Progress Report”) based on a cut-off date of the 25th of each month. The timing of the submission of this report shall be by close of business no later than the 5th calendar day of the following month. The first Monthly Progress Report shall be issued not later than forty-five (45) calendar days after the Effective Date. The format and content of the Monthly Progress Report shall be as agreed between Contractor and Engineer, but shall address the following as a minimum:

- a) Highlights in bullet point style of the significant accomplishments achieved and issues addressed during the reporting period;
- b) A description of problems or delays encountered or anticipated, and corrective actions initiated or contemplated to counteract or minimize the effect of such problem, together with the results of any corrective actions already taken;
- c) The Worksites’ safety status including health and safety statistics for the past month and for the Work to date. The content and format for the safety statistics are provided in Exhibit 5 – Health and Safety Requirements. Major safety problems shall be highlighted and action plans to improve conditions outlined. Safety initiatives undertaken during the past month and/or planned for the forthcoming month shall be discussed;
- d) Short narrative covering all significant events during the reporting period;

- e) Management, including mobilization, systems implementation, procedures development and other administrative activities;
- f) Current status of the Work. Progress data (progress curves, histograms, productivity information and Summary Schedules) shall be provided on graphs which show actual versus planned progress as further described in Section 9 of this Exhibit 3 for: (i) engineering, (ii) equipment and materials orders, (iii) equipment and materials deliveries at the Worksite(s), (iv) construction, (v) completions and (vi) overall Work progress. For activities that are behind schedule, an analysis of reasons for the slippage shall be included, together with a description of actions to be taken to recover;
- g) All constructability issues;
- h) The quality status including quality statistics for the past month and for the Work to date;
- i) Interface management status;
- j) Cost and financial reports as defined and/or specified in Sections 6 and 13 of this Exhibit 3;
- k) The status of planning, scheduling and schedule control, including coverage of relevant activities called for within Section 7 of this Exhibit 3;
- l) The status of Changes, if any, and the corresponding current value of the Contract Price including the effect of Change Orders and Change Requests;
- m) The status of procurement and subcontracting, including placement of Subcontracts (including Subcontractors' subcontracts of every tier), status of spare parts orders, performance of Subcontractors (including Subcontractors' subcontracts of every tier), and Subcontract administration matters (including Subcontractors' subcontracts of every tier);
- n) The status of items involving Authorities such as inspections, approvals, permits, clearances and licenses, as further described in Exhibit 6 - Environmental and Regulatory Compliance Requirements;
- o) Provincial Benefits report as described in Exhibit 13- Provincial Benefits;
- p) Monthly risk report consisting of the following:
 - A structured narrative that describes major risk activities and events during the reporting period containing major changes in the Risk Register (as defined in Section 9.1(c) below) with a focus on medium and high level risks;
 - Highlights of the most important risk management activities and events; and
 - An updated Risk Register (as defined in Section 9.1(c) below); and
- q) Status of planned tests and/or hold points.

Final Contract Report

A final report summarizing the Work shall be submitted by Contractor to Engineer for Acceptance, the content and timing of which shall be specified by Engineer. Contractor shall submit such an Accepted final report to Engineer by Contractor prior to Contractor's request by Notice for a Final Completion Certificate.

Meetings

Meetings of key Contractor's Personnel, Company Representative, Engineer and/or Company Personnel, shall be held regularly.

Monthly and weekly progress meetings will be held, details of format and content of which will be as agreed between Contractor and Engineer. If there is a failure to agree on such format and/or content, Engineer shall have the authority to determine these matters.

Engineer may hold other meetings with Contractor to discuss matters of technical, interface management, health, safety, environmental, design, quality, verification, certification, documentation, engineering data, cost, accounting, scheduling, construction, progress and the like, and as may be otherwise required for the Work and this Agreement. Contractor shall ensure sufficient and appropriate qualified Personnel are available to attend.

In general, meetings shall adhere to the following guidelines:

- a) The agenda items for any meeting will be issued by Engineer to the Parties no less than two Business Days prior to such meeting. Both Engineer and Contractor shall ensure, in accordance with their respective responsibilities that reports, reproducible documentation and forward planning information relating to agenda items are issued in sufficient time to allow adequate preparatory study and evaluation;
- b) The meeting will address only the items covered by the agenda and any other minor topics relevant to the Parties and subject concerned;
- c) In those instances where matters of urgency need to be addressed, Company and Contractor will make every effort to address such items at the earliest opportunity; and
- d) It shall be the responsibility of Engineer to record minutes of all meetings unless otherwise instructed by Engineer. Minutes should be brief, indicate with whom the responsibility for action lies, the date the action was assigned and the date required for completion of such action. Minutes should also state the results of assigned actions outlined in previous minutes, including the actual date of completion of the action.

Photographs

Contractor shall provide photographs as Company may request of sufficient quality for possible inclusion in Company's publications depicting significant activities and general progress of the Work.

3.2.4 INFORMATION SYSTEMS AND TECHNOLOGY (IS/IT)

Contractor shall:

- a) Establish and maintain an IS/IT infrastructure and associated computing environment to ensure overall reliability, performance and security control;
- b) Provide access, for Engineer and Company Personnel, to any software applications and supporting services required in order for Engineer and Company to perform their work;
- c) Maintain an upgrade path for electronic formats that will keep data formats compatible with that of Engineer;
- d) Securely transfer data and information electronically to Engineer on a timely basis using industry recognized standards, processes, systems and methodologies;

- e) Ensure control practices and risk mitigation plans are in place to provide protection and safeguard for all data and information related to the Work including but not limited to access management, data corruption, data loss, backup and disaster recovery procedures; and
- f) Within thirty (30) days of the Effective Date, provide to Engineer a description of the IS/IT support organization and how it is structured to support the Work.

3.2.5 DATA

All documentation and information, including correspondence, notes reports, information identified and/or required by this Agreement, drawings, specifications, schedules, weekly, bi-weekly and/or monthly reports, databases, records, videos, photos and other documents (hereinafter collectively referred to as "Data") shall be made available to Engineer and Company in electronic native format as well as hard copy. The transfer of Data will be by storage medium such as optical or magnetic discs, or other form specified from time to time by Engineer. Contractor shall undertake all reasonable efforts to ensure Data is provided in a form fully useable by Engineer and Company with well recognized industry standard applications.

Where the software necessary to enable Engineer and Company to fully utilize Data is based in whole or in part on Contractor's proprietary information/software, Contractor shall grant Company Group a non-exclusive, perpetual, royalty free, irrevocable and non-transferable (except to a permitted assignee of this Agreement) license to such information/software.

Where the software is not proprietary to Contractor and obtained through usage of software leased or purchased from third parties, Contractor shall, subject to Company Approval, arrange for and obtain for the benefit of Company Group a non-exclusive, perpetual, royalty free, irrevocable and non-transferable (except to a permitted assignee of this Agreement) license to use such software to enable Engineer and Company to fully utilize Data.

Throughout the Term, Company in conjunction with Engineer shall review Data to ascertain what data is to be passed to Company by Contractor for future use.

3.2.6 FACILITIES AND SERVICES FOR COMPANY PERSONNEL

Contractor shall provide Company Group Personnel with the following office facilities and services at Worksites, as may be required by Company and Engineer:

- [insert]
- [insert]
- [insert]
- [insert]

Where individual Company Personnel are assigned to Contractor office(s) for extended periods of time, office space and office equipment shall be provided to the standard afforded to Personnel of equal organizational level within the Contractor's organization.

Where individual Company Personnel are required to visit Contractor office(s), or offices of Contractor's Subcontractors, temporary space shall be provided, which shall include a fully equipped office space with phone and internet connections.

4 INTERFACE MANAGEMENT

Contractor shall manage external interfaces with other organizations involved in the LCP, including Engineer, Company's Other Contractors and their subcontractor(s) and vendor(s) of every tier, Authorities and other entities associated with the Work. Refer to Exhibit 1 - Scope of Work for further information on interfaces at each of the Worksites.

4.1 OBJECTIVES

Contractor shall:

- a) Have primary responsibility for managing technical and execution interfaces and thus coordinating its activities with other organizations as required to effectively accomplish the Work;
- b) Identify major interfaces early in the Work through a structured process;
- c) Define the interface information needed for the Work. Contractor and other interfacing entities (including originating and responding organizations) shall then agree on roles, responsibilities and timing for providing agreed upon information or actions;
- d) Ensure that all communications with other organizations shall be clear, accurate, timely and consistent to accomplish their intended purpose of transferring information between organizations or ensuring agreed action is taken to progress the Work;
- e) Ensure that interface resolution issues with potential for impacts to cost or schedule shall be identified quickly and communicated to all interfacing entities, including Engineer, in order to minimize their impact; and
- f) Cooperate with Engineer and comply with the requirements of Engineer's interface management system as it relates to the Work.

4.2 SPECIFIC REQUIREMENTS

Contractor shall:

- a) Develop an interface management plan and shall implement systems and methodology for ensuring the identification of originators and responders, quality, accuracy and timeliness of interface information;
- b) Incorporate the schedules for submittal of its deliverables (as determined by interface management activities) as milestones in Contractor's schedule for the Work. Contractor shall manage compliance with such milestones accordingly;
- c) Schedule and participate in interface coordination meetings with Engineer, Company, Company's Other Contractor(s), and their subcontractor(s) and vendor(s) of every tier, and other organizations, as required to properly manage interfaces; and
- d) Regularly advise Engineer on the status of resolution of interface issues. Contractor shall promptly elevate unresolved interfaces and interface issues to Engineer/Company for resolution.

5 PROCUREMENT AND MATERIAL MANAGEMENT

Contractor shall maintain records of materials procured for the Work. Engineer will have the right to carry out periodic inspection of all Contractor Group's storage and inventory control records for the Work as well as physical spot checks of all material held in storage.

5.1 COMPANY SUPPLIED ITEMS

Contractor shall:

- a) Receive from Company all Company supplied items and as applicable unload, unpack, inspect, and confirm receipt and condition of receipt by issuing a material receiving report to Engineer confirming Contractor acceptance of items and the condition of items at the time of acceptance;
- b) Ensure that all materials are used correctly and no materials are substituted without prior Acceptance;
- c) Be responsible for the security and safe keeping of all Company supplied items and ensure all items are visually marked as being provided for the Work;
- d) Maintain index records and account for all Company supplied items received and installed, and the remaining surplus and scrap. The index shall, at a minimum, include description, part number, serial number, storage location, status and receipt date;
- e) Secure, protect and maintain all Company supplied items in accordance with specifications and preservation requirements in accordance with industry practice and standards and as set forth in this Agreement; and
- f) Be responsible for any costs incurred as a result of Contractor's failure to properly store, preserve and protect Company supplied items.

Company shall have the right to inspect Company supplied items at Contractor Group's storage location(s) and storage records at any time without prior Notice. Such inspection shall not relieve the Contractor of any responsibility for the accountability and safe keeping of Company supplied items.

5.2 INSPECTION

Contractor shall be responsible for and undertake inspection of Contractor Group's supplied equipment and materials for the Work. When requested, Contractor shall issue to Engineer inspection reports accompanied by all relevant inspection documents.

5.3 SHIPPING

Contractor shall be responsible for shipment of all materials, components and equipment to the Worksite(s), including those shipments made by all members of Contractor Group. Contractor shall satisfy itself that shipping arrangements by such members are satisfactory, or alternatively organize critical shipments itself or through the use of an appointed shipping or forwarding agent.

Contractor shall establish and issue to all members of Contractor Group proper packaging, shipping and marking instructions including necessary addresses, proforma invoices, bills of lading, customs releases and the like, depending on the various methods of transport, border crossings and receiving location(s).

Contractor shall be responsible for all necessary loading and off loading at all locations.

A logistics and transportation plan shall be produced by Contractor and submitted to Company by the date specified in Exhibit 4 – Supplier Document Requirements List for Company review and Approval.

6 COST MANAGEMENT

6.1 COST CONTROL ACCOUNTS

Engineer will provide cost control accounts to Contractor within thirty (30) days of the Effective Date. The cost control accounts will be cross referenced to the compensation amounts outlined in Exhibit 2 – Compensation.

6.2 COST REPORTS

Contractor will submit to Company, by the 20th day of each and every calendar month, an incurred cost flow report specifying:

- a) the costs actually incurred by the Contractor from the Effective Date up to the 25th day of such month (accordingly, the final five day period of such month shall be estimated); and
- b) the estimated cost flow to be incurred by Contractor from the 25th day of such month to the remainder of the Term.

Such report shall be consistent with the control accounts and payment elements contained in Exhibit 2 – Compensation.

In addition, Contractor shall prepare a cost report to be included as a section of the Monthly Progress Report. Reporting will be consistent with the control accounts and payment elements contained in Exhibit 2 – Compensation. Within thirty (30) days of the Effective Date, Contractor shall submit to Engineer a sample cost report for Acceptance. In general, the cost report shall address the following as a minimum:

- a) Contract Price and all changes thereto;
- b) Forecast final Contract Price (previous period, current period and monthly variance);
- c) Reimbursable cost status, if applicable;
- d) Change Order status;
- e) Contract incurred cost flow (actual/forecast); and
- f) Invoice and payment status, including cash flow forecast by currency.

6.3 COST MANAGEMENT PLAN

Where the Work includes significant elements of reimbursable activities, Contractor shall

prepare and submit to Company, within thirty (30) days of the Effective Date, a cost management plan for Company review and Approval.

7 SCHEDULE MANAGEMENT

This Section 7 sets forth the minimum requirements for Contractor's planning, scheduling, measurement and reporting of physical progress, and schedule control activities for the Work.

7.1 DEFINITIONS

- a. **Earned Value Management**: A method to measure the value of Work performed. it compares the effort of Work that was actually expended with what was physically completed.
- b. **Control Schedule (CS)**: The Control Schedule (also referred to as the Construction Schedule within this Agreement) forms the benchmark for comparison and identification of schedule deviations. The Control Schedule shall represent the total Work execution and interfaces with others (Milestones, key dates, design, procurement, regulatory, fabrication and manufacturing, transportation, installation, construction and completion) covering the entire duration of the Work, and includes roll-up details of all Contractor's schedules. The Control Schedule is to be a schedule network, which is calculated using the critical path method. Contractor will ensure that the Control Schedule aligns with Exhibit 9 - Schedule. The Control Schedule shall be developed using Primavera (P6 or later version) or equivalent. If software other than Primavera is used, the native file shall have the capability to be easily converted to Primavera P6 and shall be subject to the Acceptance of Engineer.
- c. **Milestone**: The start or completion of an activity in the performance of the Work and which is identified as such in Exhibit 9 – Schedule.
- d. **Control Schedule Baseline Document (CSBD)**: A series of schedules, s-curves, histograms, tables and narrative which together form the basis of the Control Schedule. The Control Schedule Baseline Document is updated and re-issued following re-baselining of the Control Schedule. The CSBD includes the Control Schedule, as well as identification of critical and near-critical path(s). It shall include all baseline assumptions regarding schedule durations, logic, installation rates, progress weighting and relevant material as deemed necessary by Engineer.
- e. **Summary Schedule (SS)**: The Summary Schedule incorporates all Milestones and is a roll-up of schedule information from the detailed Control Schedule and any subject deemed necessary by the Engineer to adequately convey a rollup or the CS.
- f. **Schedule Development and Control Plan (SDCP)**: A formal document providing the approach to planning and schedule control including schedule development, interfaces, analysis, forecasting, reporting, corrective action and the method for incorporation of

Changes. In particular, the plan shall provide a detailed description of Contractor's progress measurement system including how Contractor measures, verifies and reports physical progress of each major activity of the Work (such as engineering, procurement, fabrication, construction etc.).

- g. **Monthly Cut-Off Date:** The month end date that Contractor uses as a basis to compile its progress during the month. The Monthly Cut-off Date will be agreed with Contractor and Company.

7.2 CONTRACTOR DUTIES

With respect to planning, scheduling and schedule control of the Work, Contractor will:

- a) Prepare, implement and maintain a Schedule Development and Control Plan (SDCP) in accordance with the date specified in Exhibit 4 – Supplier Document Requirements List for the Work using methods and procedures that are in accordance with industry recommended practice (i.e., Association for Advancement of Cost Engineering);
- b) Impose the same Control Schedule and progress measurement requirements in this Agreement on other members of Contractor Group;
- c) Analyze and calculate Work completed using industry recognized Earned Value Management practices where actual progress is based on physical Work completed measured against the current Work plan. Incorporate the results of progress and related status information into schedule forecasts, Weekly Reports and Monthly Progress Reports, as required under this Agreement;
- d) Develop recovery plans and associated schedules if slippage is apparent, or as required by Company. Recovery plans will be reviewed with Company and implemented upon Company's Approval. Recovery plans will be monitored and adjustments made as needed to keep the Work on schedule;
- e) Make changes in the schedule preparation, progress measurement and schedule control procedures at Engineer's request;
- f) Provide Engineer with the Control Schedule (CS) in hard copy and electronic form, in accordance with the date specified in Exhibit 4 – Supplier Document Requirements List. The native electronic file shall include all information necessary to duplicate Contractor's schedule, progress measurement analysis and resource requirements. In addition to the electronic file, the schedule software settings, calendar definitions and application generated scheduling report shall be included;
- g) Provide a Control Schedule Baseline Document (CSBD) in accordance with the date specified in Exhibit 4 – Supplier Document Requirements List.

7.3 SCHEDULE DEVELOPMENT AND CONTROL PLAN (SDCP)

Contractor's Schedule Development and Control Plan shall cover all areas of schedule development and control, including development, analysis, forecasting, reporting and corrective action. In particular, the plan shall provide a detailed description of Contractor's progress measurement system. The SDCP can be based on Contractor's existing planning and progress procedures.

Contractor's Schedule Development and Control Plan will, include:

- a) How Contractor's detailed schedule and current Work plans will be developed, reviewed and updated;
- b) Methodology that Contractor will use to analyze and forecast the progress of the Work relative to current schedules;
- c) How interface management will be addressed, including how interfaces are identified, stewarded and their status reported;
- d) Identification of how interfaces, outside of Contractor's control, could impact the Control Schedule;
- e) The number, types, uses, frequency of updates (and responsibility for updates) and level of detail for each of the various schedules the Contractor intends to use to control the Work;
- f) Methods for analyzing critical path and conducting float analysis;
- g) Procedure for re-baselining the Control Schedule (subject to Engineer's Acceptance);
- h) Coding system for schedules;
- i) The methods that will be used to measure physical progress of each of the various activities or groups of activities such as engineering, procurement, construction etc. Methods for engineering shall specifically address use of computer aided design and drafting (CADD);
- j) Procedures within Contractor's organization for review and verification of progress measurement information prepared at each Worksite;
- k) The methods to control over progressing of activities; and verification methods confirming that all activities reported as 100% complete are actually complete;
- l) The method for recognizing the impact of rework on apparent progress, during engineering, procurement, fabrication and construction and the method for specifically progressing and tracking the Work;
- m) The methods and procedures for incorporating the effects of Changes on the assessment of progress;
- n) The method for weighting and combining individual elements of Work into an overall progress. Progress weightings shall be subject to Engineer's review and Acceptance, and once Accepted shall not be changed without Engineer's prior Acceptance; and
- o) Contractor plans to manage and report receipt of materials and/or components at the Worksites.

7.4 CONTROL SCHEDULE BASELINE DOCUMENT (CSBD)

Contractor shall prepare and submit to Engineer for its review and Acceptance the Control Schedule Baseline Document in hard copy, portable document format (PDF) and native electronic format. All information required to reproduce the Control Schedule Baseline Document including scheduling software settings, working calendars, application time conversion factors, and precedence and scheduling output reports from the scheduling software, will be included with the submission.

The Control Schedule Baseline Document shall be organized into an overall summary section and a detailed section for each component of the Work (such as engineering, procurement, manufacturing, fabrication, testing and handover). Each section shall be organized as follows:

- a) Assumptions underpinning the execution methodology and Control Schedule, as well as any issues that may impact the Work. This section will also include the basis for any planned changes to the Control Schedule;
- b) Summary Schedule;
- c) Progress curves and tables;
- d) Critical and sub-critical path(s); and
- e) Control Schedule.

7.5 CONTROL SCHEDULE (CS)

A detailed Control Schedule for the Work will be prepared by the Contractor and submitted to Engineer for its review and Acceptance. Contractor shall develop the Control schedule in accordance with Company's work breakdown structure and code of accounts and Exhibit 9 - Schedule.

The Control Schedule will show activities that provide sufficient detail in all areas of Work execution (such as Milestones, key dates, design, procurement, manufacturing, transportation, installation, construction, completions and all relevant interfaces) to enable monitoring and control of the Work.

7.6 GENERAL SCHEDULING AND PROGRESS REQUIREMENTS

Contractor's planning, scheduling and schedule control activities for the Work will, at a minimum, include the following:

- a) A time-scaled critical path method (CPM) logic network that shall set forth the order and estimated times by which planned activities are to be completed. This network shall identify the critical and subcritical paths (a subcritical path is defined as any series of activities whose completion is within one (1) week of the critical path completion). The logic network shall clearly indicate all restraints and interrelationships and shall incorporate Exhibit 9 - Schedule;
- b) A description of those activities associated with material sources, other members of Contractor Group and fabrication. All interfaces will be incorporated into the Control Schedule;
- c) All schedule and progress information (CS, SS, tables, histograms, s-curves, document register, procurement plan, manufacturing schedule and support documentation) shall be issued on a monthly basis;
- d) Progress measurements such that the physical progress of the Work can be related easily to the Control Schedule activities. Progress shall be evaluated on discrete, identifiable deliverables for each Work activity weighted by budgeted person hours or other methods to determine a total percent for each activity. Physical progress measurement relates to the assessment of the proportion of actual Work accomplished towards completion of given components of the Work;
- e) The ability to assess progress for all progress earning activities required for each component of Work, regardless of source. As additional progress earning components are identified, they will be added to the base level of Work through a change management

- process, to be accomplished and progress measured and reported;
- f) Indicate the schedule calendars used to develop the schedule including, daily work hours, work week, shift schedule, scheduled facility shutdowns (if any) and holidays. Any planned non-work periods shall be clearly indicated with an explanation indicating the period of non-work and the rationale for the non-work period;
 - g) Show status of all interfaces within the components of the Work (such as engineering, procurement, manufacturing, fabrication, construction and completions);
 - h) Exclude home office and field support functions, such as project management, coordination, engineering office follow-up during construction, construction and fabrication management and supervision, warehousing, material handling and clean-up, from physical progress measurements;
 - i) Produce and maintain a schedule network that is logically linked, with a minimal number of constraints utilized. Where constraints are required, the fewest possible constraints necessary to meet the required objective will be used. The reason for the constraint shall be noted in the notebook file for that activity. Constraints that affect the backward pass calculation of the network (“Mandatory Finish”, “Mandatory Start”, “Finish On Or Before”, “Start On Or Before”, “Finish On”, “Start On”) are to be strictly avoided, unless Accepted by Engineer;
 - j) Use of activity lags is discouraged. If a lag is used, the reason and rationale for the lag shall be noted in the notebook file for that activity;
 - k) Scheduling option that retains the current logic (“retained logic”) of activities started out of sequence will be used. Where necessary, the logic for those activities for which the relationship is no longer applicable will be manually changed;
 - l) Schedule time forecasting shall not be based upon the percentage of schedule completed. The scheduling control software function for linking remaining duration and such percentage shall be disabled;
 - m) Control Schedule will be structured to provide five (5) activity code fields, for summarization and reporting purposes, for exclusive use by Engineer. Each code field will be ten (10) characters in length and will be titled LCP1, LCP2, LCP3, LCP4 and LCP5. Engineer will provide the applicable coding to Contractor for inclusion within these code fields. Contractor will populate and maintain these code fields for all schedule activities;
 - n) Schedule calendars and activity codes will be prefixed with the six character package identifier and a dash (for example, “CH0007-”). This is to prevent potential data errors in the Engineer’s planning system;
 - o) Schedule activity descriptions shall clearly identify the work associated with the activity, and shall be consistently applied throughout the schedule;
 - p) Activity durations shall not, in general, exceed twice the update frequency;
 - q) Start to Finish (SF) relationship types shall be avoided;
 - r) Open ends within the schedule network shall be avoided;
 - s) Network logic shall be consistently applied throughout the schedule;
 - t) The “Work Breakdown Structure” (WBS) shall not be the only coding system used within the schedule network. Activity codes are required to enable effective schedule development, review and analysis;
 - u) Gantt or bar chart displays shall have the current schedule bar assigned to position 1, with the baseline schedule bar assigned to position 2; and

- v) Engineer will have free and direct access to all information associated with Contractor's progress and performance management systems, including planning, scheduling, progress measurement, person hours, resources and productivity data.

7.7 PROGRESS REPORTING

Contractor shall provide Weekly Reports and Monthly Progress Reports as described in Section 3 of this Exhibit 3 and, with respect to progress reporting, as more fully detailed below:

- a) Weekly Reports shall include the following:
- Number of daily resources (headcounts and man-hours) by trade;
 - Progress table including quantities/statistics for current engineering, procurement, and fabrication/construction/installation/completions activities;
 - A Primavera two (2) week look ahead schedule with activities in-progress and completed in the previous week; and
 - A resource histogram showing a two (2) week look ahead and actual resources the previous week.
- b) Monthly Progress Reports shall include the following:
- Planning and schedule control reports will be updated and issued monthly. Reports shall include the Control Schedule, Summary Schedule, tables, resource histograms, progress s-curves, document register, procurement plan, manufacturing schedule and support documentation. Contractor shall supply a copy of the schedule using Primavera (P6 or later version) or equivalent, as well as hard copy format. If software other than Primavera is used, the native file shall have the capability to be easily converted to Primavera P6 and shall be subject to the Acceptance of Engineer;
 - Deviations from schedule in time or progress, reasons for delays and deviations with recommended actions for recovery;
 - Status of planned tests and/or hold points;
 - Tabulation of project man-hours addressing planned, actual and forecast at completion;
 - Progress table including quantities/statistics for current engineering, procurement, and fabrication/construction/installation/completions activities; and
 - Identification of critical and sub-critical path(s).

8 CHANGES TO THE WORK

8.1 INTRODUCTION

This Section 8 sets forth minimum requirements for identifying and processing Changes in support of Article 14 of this Agreement.

Changes will be initiated in one of two ways:

- a) by completing a Change Request, in the form as attached to this Exhibit 3 as Appendix A –

- Change Request; or
- b) by the issuance of a Change Order (which includes a Field Work Order).

Change Orders will be in one of the forms set out in this Exhibit 3 - an interim document and a final document. The Field Work Order form is an interim document used for Company directed Changes issued at the Site. The maximum value of a Field Work Order, in the form as attached to this Exhibit 3 as Appendix F – Field Work Order, shall be limited to \$25,000.00. Company shall issue the final Change Order form for each Field Work Order or for a group of Field Work Orders. The final Change Order form shall also be used for Changes initiated by Change Requests and for any Change not subject of a Field Work Order.

Contractor shall specify its assessment of cost and schedule impacts in each Change Request or proposal presented in accordance with this Section 8.

If Company issues a Change Order (including a Field Work Order) to proceed with a Change on a reimbursable basis, Contractor shall prepare daily time sheets for Company's signature covering such Change and submit them to the Company within twenty four (24) hours where the Change is performed on Site, or within one (1) week where the Change was performed elsewhere, after such Change has been performed. Company's signature of Contractor presented time sheets shall not commit Company to any particular payment in respect of the Change, but shall serve as a record of events in the eventual resolution of any difference of opinion between Company and Contractor regarding the cost or schedule impacts of the Change. Contractor shall also present details of its assessment of any effect of the Change on the Control Schedule.

Company will be entitled to an equitable reduction in the Contract Price and/or an equitable adjustment of the Control Schedule in respect of any reduction in the Work pursuant to a Change Order and in accordance with the provisions of Article 14 of this Agreement.

Contractor is not entitled to recover any costs related to preparation and administration of Change Orders, responses to Change Requests or preparation of Change Requests.

Each Change Order shall be deemed to take full account of the cumulative effects on the Contract Price and of all prior Change Orders.

8.2 ENGINEER REQUESTED CHANGES

Company may issue a Change Order (including a Field Work Order) directly to Contractor or may request a proposal from Contractor for a contemplated Change through Engineer by issuance of a Change Request.

Upon receipt of a Change Request from Engineer, Contractor shall prepare a proposal for the Change Request and submit it within five (5) Business Days to Engineer for further processing. Contractor's proposal shall include:

- a) A detailed execution methodology for the proposed Change;
- b) A detailed schedule for the execution of the Change and the impact on the Control

Schedule;

- c) An estimated price for the Change using the items in the applicable Schedule(s) of Exhibit 2 - Compensation or if such Schedule(s) is not applicable, a lump sum price for the Change (if Contractor proposes any other method of compensation it shall provide its rationale for that method); and
- d) Details of the impact on the Execution Plan, the Quality Plan, the health and safety plan referenced in Article 15.2 of this Agreement and the environmental protection plan referenced in Article 15.3 of this Agreement.

If Contractor cannot present the proposal for the Change Request to Engineer within five (5) Business Days of the receipt of the relevant Change Request from Engineer, Contractor shall promptly notify Engineer and provide reasons for the delay and the date the proposal will be ready. Contractor shall not unduly delay submission of the proposal to Engineer. Engineer, at its sole discretion, can reject any proposal not submitted in accordance with the requirements outlined herein.

Engineer will review Contractor's proposal within ten (10) Business Days and either Accept and return a Change Order (in the form as attached to this Exhibit 3 as Appendix B - Change Order) for Contractor execution or reject the proposal for resubmission or cancellation.

8.3 CONTRACTOR IDENTIFIED CHANGES

Contractor may request a Change by submitting a Change Request to Engineer. The Change Request will include:

- a) A detailed explanation of why Contractor considers that a Change has occurred along with detailed support to enable Engineer to easily evaluate and assess the merits of the Change Request. Contractor shall specify the relevant provision(s) of this Agreement which it interprets as the basis for the Change Request;
- b) A detailed schedule for the execution of the Change and the impact on the Control Schedule;
- c) An estimated price for the Change using the items in the applicable Schedule(s) in Exhibit 2 - Compensation or if such Schedule(s) is not applicable, a lump sum price for the Change (if Contractor proposes any other method of compensation it shall provide its rationale for that method); and
- d) Details of the impact on the Execution Plan, the Quality Plan, the health and safety plan referenced in Article 15.2 of this Agreement and the environmental protection plan referenced in Article 15.3 of this Agreement.

Contractor has the responsibility to identify, by the issuance of a Change Request, any change to the Work that it believes to be necessary for environmental integrity, or that will benefit Company in terms of capital or operating cost, or improved performance flexibility, safety or operation of the Work.

8.4 CHANGE ORDER PRICE

Contractor's proposed price for any Change will generally be stated as an estimate based on the rates in the applicable Schedule(s) in Exhibit 2 - Compensation or if such Schedule(s) is not applicable, then a lump sum price shall be proposed. If Contractor proposes any other method of compensation, it shall provide its rationale for such method. Contractor shall provide such substantiation as Company may reasonably request regarding such proposed price. Each lump sum price for a Change shall be determined using the rates and prices outlined in Exhibit 2 - Compensation or on a basis to be agreed between Engineer and Contractor if there are no applicable rates in Exhibit 2 – Compensation.

For any Change proposed to be compensated on a reimbursable basis, Contractor shall include an estimated total price for the Change in the Change Request or in its proposal in response to a Change Request. Changes performed on a reimbursable basis will be priced in accordance with Exhibit 2 – Compensation.

Each Change Order shall fully define the terms of payment and invoicing provisions.

Contractor shall not be entitled to additional compensation in respect of:

- a) Personnel already assigned full time to the Work, except when such Personnel are paid overtime, shift premiums or their assignment to the Work is extended, specifically in relation to the Change; and
- b) Contractor's Items already assigned full time to the Work, except when the hire period of rented items is extended specifically in relation to the Change.

8.5 CHANGE IMPACT ON CONTROL SCHEDULE

Contractor will submit to Engineer, all necessary information to support any proposed impact of a Change on the Control Schedule, in both hard copy and electronic format. The information shall include detailed critical path analysis, identification and full accounting for the use of float and the current Control Schedule.

Each Change Order shall be deemed to take full account of the cumulative effects on the Control Schedule and all prior Change Orders. Due consideration will be given to cumulative effects that may not have manifested themselves in previous Change Orders, such as a Change that is accommodated by reducing available float. Any cumulative schedule effects assessed by Contractor shall be supported by detailed analysis to account for the use of float. This analysis shall include an electronic version of the current Control Schedule that clearly highlights the schedule effects to enable Engineer to verify Contractor's analysis prior to the issuance of the relevant Change Order.

Contractor shall update the Control Schedule for Company's Approval within five (5) Business Days after Company's issuance of any Change Order affecting the Control Schedule.

8.6 CHANGE REGISTER

Contractor shall maintain, fully updated at all times, a register of all Change Requests and Change Orders (with Field Work Orders identified separately). The register will include:

- a) Change Request number and date;
- b) Change Order number and date and reference to a Change Request;
- c) Brief description of the Change;
- d) Status of Change Request and Change Order;
- e) Value;
- f) Effects on Control Schedule; and
- g) Brief description of the basis for the Change Request.

Each Change Request will be identified by means of a unique sequential reference number beginning with 1000 for any Change Request issued by Engineer and Company, and 2000 for any Change Request issued by Contractor. Each Change Order will be identified by means of a unique reference number, which will be assigned by Engineer.

All Change Orders that affect the Control Schedule shall be individually detailed, by reference number and summary description, in the successive Control Schedule updates issued by Contractor for Company's Approval.

Contractor shall submit the Change register in the Monthly Progress Report or more frequently as required by Engineer.

9 RISK MANAGEMENT

Contractor's Risk Management activities will be a continuation of the risk assessment process initiated during the bidding process. Requirements for ongoing risk management and reporting will be agreed between Contractor and Engineer at the kick-off meeting. Depending on the nature of the Work, Company shall have the authority to specify the type of risks (such as schedule, quality, cost, safety and environmental) which shall be reported by Contractor. Some risks will be identified as "internal" risks, not subject to reporting.

9.1 RISK MANAGEMENT REQUIREMENTS

- a) Contractor shall establish and implement a risk management system to identify, address and manage safety, health and environment, cost, schedule, quality and other execution risks, for the duration of the Work.
- b) Contractor's risk management system shall be based on the following principals:
 - All risks shall be identified and captured in the Risk Register (as defined in Section 9.1(c) below);
 - All risk scenarios shall be evaluated for elimination or mitigation through appropriate measures; and
 - All higher and medium risk scenarios and associated risk management strategies shall be communicated and accepted by the appropriate level of Contractor's

management.

- c) Contractor's risk management system shall include the following features:
- Contractor shall develop a risk management plan indicating the formal risk process to be followed during Work execution, with risk assessment approach and frequency. The plan shall also include assessments required for safety, health and environment and execution risks referenced elsewhere in this Exhibit 3;
 - Contractor shall develop and maintain a risk register ("Risk Register") to capture all details required to monitor identified risks. The format and content shall be subject to the Acceptance of Engineer. It shall be submitted as part of the Monthly Progress Report, along with other reporting requirements specified within this Exhibit 3;
 - Contractor shall perform risk assessments using qualified and knowledgeable Personnel. Contractor shall consult with Engineer regarding meeting target levels of safety. Contractor shall also include active involvement of Engineer's Personnel and external expertise, as appropriate;
 - Risk assessments and recommended prevention and/or mitigation measures shall be formally documented in the Risk Register;
 - Risk mitigation and prevention strategies for assessed risks in the higher and medium categories are required to be reviewed for acceptability by specified levels of Contractor's and Engineer's management. These strategies shall be supported by formal actions captured in an action log and be appropriate to the nature and magnitude of the risk, with decisions and updates clearly documented;
 - Results of formal risk assessments shall be considered in the preparation or review of emergency response plans and procedures; and
 - Follow-up processes to ensure that decisions have been implemented shall be formally documented and maintained in an action log. At a predetermined frequency, compliance reviews shall be undertaken to verify that formal risk assessments and follow-up actions are implemented.
- d) Where appropriate, Engineer shall be invited to observe and/or participate in risk assessments performed by Contractor. Results of risk assessments related to the Work shall be distributed to Engineer upon completion of any of the assessments included within Contractor's risk management plan.
- e) Contractor shall also participate in risk assessments conducted by Engineer, Company or Company's Other Contractors when these risk assessments relate to activities for which interfaces exist with the Work or where Contractor is involved.

10 ENGINEERING REQUIREMENTS

10.1 INTRODUCTION

This Section 10 sets forth minimum requirements for engineering coordination in support of this Agreement, including Articles 3 and 37 of this Agreement, and the document entitled Supplier/Contractor Document Requirements included in Exhibit 11 – Company Supplied Documents.

10.2 GENERAL REQUIREMENTS

- a) It is the responsibility of Contractor to maintain an electronic system for monitoring, recording and tracking all revisions and changes to drawings and documentation.
- b) Any documents which require Approval of any Authority, will be submitted to such Authority by Contractor for Approval, unless otherwise agreed.
- c) All applicable documents shall be marked "Issued for Construction" or similar status, prior to commencement of fabrication, manufacture, construction or installation of the Work.
- d) Contractor shall not commence any Work involving permanent installation of any equipment, materials or products until Contractor has submitted to Engineer and Engineer has Accepted the health, safety and environmental protection plans required by Article 15 of this Agreement.

10.3 DESIGN CONTROL

Contractor shall establish and implement a system to control Engineering activities in order to ensure achievement of a satisfactory level of quality and compliance with requirements including those of all Authorities and this Agreement.

Contractor's Engineering control activities shall include the following:

- a) Implement a system for (internal) discipline checking, including the use of check lists where appropriate, to substantiate compliance with the requirements of Authorities, Agreement requirements and Supplier and Subcontractor requirements. Discipline checks shall be documented and traceable
- b) Ensure that all aspects of the design (including Supplier information) are systematically verified
- c) Ensure that there is no conflict between documents, and
- d) Systematically record, for each revision of all documents, originator, checker, Contractor and approval signatures, and, where required, Company Approval, and to incorporate comments as required during the checking and approval processes.

10.4 ENGINEER/COMPANY REVIEW AND ACCEPTANCE/APPROVAL OF CONTRACTOR DOCUMENTS

Throughout this Section 10 and elsewhere in this Agreement, wherever there is a stated requirement for Approval by Company or Acceptance of a Contractor drawing, procedure, specification or other documentation (Document), this shall mean:

- a) After Contractor's IDC, and subject to the Document being free of significant "holds", Contractor shall issue the Document for Company's/Engineer's review and comments.
- b) Related engineering required to allow Company/Engineer to review each Document must be made available by Contractor, if not already in Company's/Engineer's possession.
- c) Contractor shall revise the Document to take account of Company's/Engineer's comments as part of the Work.
- d) Where required/specified by Company/Engineer, Contractor shall obtain Company's/Engineer's Approval/Acceptance of the Document before it is issued for implementation.

- e) Company/Engineer will review and return Documents in accordance with the schedule agreed upon. The review periods are based upon Contractor issuing quality documents in a regular flow; undue batching of large quantities of documents issued at irregular intervals will entitle Company/Engineer to an extended review period applicable to each batch.
- f) Company's/Engineer's review is for conformity to the requirements of this Agreement design concept and for general arrangement only.
- g) Company's/Engineer's review will not relieve Contractor of responsibility for errors or omissions in any Document submitted by Contractor or for meeting all requirements of this Agreement unless Company/Engineer expressly notes the Approval/Acceptance of a deviation on the Document.
- h) Upon Company's/Engineer's request, Contractor will revise and resubmit Documents, which Company/Engineer reasonably rejects as inconsistent with this Agreement unless otherwise directed by Company/Engineer. Contractor will notify Company/Engineer in writing of any revisions to the resubmission other than those requested by Company/Engineer.
- i) Company/Engineer shall have the right to raise additional comments at any time to address Contractor's errors and omissions and Contractor shall incorporate such comments into the Work.

10.5 TECHNICAL QUERY PROCEDURE

Requests for clarification or guidance related to technical details contained within Company Supplied Data shall be formally presented by Contractor to Engineer as a Site Query (SQ). Refer to Section 11 below for details on the use of an SQ.

11 CONSTRUCTION MANAGEMENT

11.1 OBJECTIVES

In executing the Work, Contractor shall, and ensure that the other members of Contractor Group shall:

- a) Assign experienced and qualified project management Personnel and craft workers with demonstrated skills during the field work / construction phase of the Work and provide continuity of such Personnel throughout the execution of the Work;
- b) Maintain adequate controls and oversight during the field work / construction phase of the Work to ensure conformance with all requirements of this Agreement;
- c) Minimize Work execution risks and risks to Company's assets;
- d) Develop adequate contingency and recovery plans to mitigate impacts on schedule of unforeseen events (e.g. weather events); and
- e) Provide Worksite(s) that are safe, secure and free of industrial health hazards.

11.2 CONTRACTOR'S DUTIES

With respect to the Work, Contractor shall:

- a) Plan and co-ordinate the design, fabrication, transportation, installation, construction and

- completions of the Work with Engineer to ensure all interfaces are identified and managed;
- b) Identify execution risks and develop mitigation plans and procedures covering all reasonable events during the field work / construction phases;
 - c) Conduct all engineering for field work, fabrication, transportation, construction and completions as stipulated in this Agreement;
 - d) Prepare, maintain and implement:
 - Emergency preparedness and response procedures;
 - Detailed fabrication, construction, transportation and material management plans for major Worksites;
 - Security measures at the Worksite; and
 - A health and safety program;
 - e) Provide all construction and installation equipment, tools and temporary facilities required to perform the Work;
 - f) Provide Personnel and facilities for all field testing, inspection, supervision and coordination activities associated with the Work;
 - g) Support Company's construction management activities related to the Work; and
 - h) Contractor shall not commence any Work involving permanent installation of any equipment, materials or products until Contractor has submitted to Engineer and Engineer has Accepted the health, safety and environmental protection plans required by Article 15 of this Agreement.

11.3 SITE QUERY (SQ)

The Site Query (SQ) process, as described in this Exhibit 3, shall be used by Contractor to facilitate the timely resolution of minor engineering and construction problems encountered at the Worksites. The SQ is used to formally transmit and co-ordinate technical queries with Engineer and to document the resolution to the query. Engineer shall not be involved in answering Site Queries, which are entirely within Contractor's own responsibility.

Contractor may raise an SQ (in the form attached as Appendix C - Site Query) to clarify Technical Requirements, which require a formal response. The SQ will include separate sections for Contractor's query and for Engineer's response. Any relevant documents that might assist those assigned to respond to the query in understanding the issue should be included or referenced with mark-ups as required. Contractor's SQ shall be approved by an appropriate level of authority within Contractor's organization and submitted formally to Engineer (distribution list to be provided). Contractor shall assign an SQ number based upon the Accepted numbering system, which will be provided to the Contractor.

Engineer shall review the SQ and provide a response within the appropriate section of the SQ. It will be Contractor's responsibility to implement any actions associated with the response. Responses may simply be explanatory in nature and require no additional action. Where appropriate, an SQ response may be accompanied by a Site Instruction (in the form attached as Appendix D - Site Instruction) or an Engineering Change Notice (in the form attached as Appendix E - Engineering Change Notice). An SQ will remain open until any associated actions have been completed, to the satisfaction of Engineer.

Open SQs shall be reviewed at weekly Site meetings in order to resolve all matters relating to their resolution.

11.4 SITE INSTRUCTION (SI)

The Site Instruction (SI) process, as described in this Exhibit 3, shall be used to provide a formal record of an instruction or verbal agreement originated directly at Site from Engineer to the Contractor.

SIs (in the form attached as Appendix D - Site Instruction) will be provided to address the following items (examples only):

- a) Instructions to Contractor related to safety or quality;
- b) Confirmation of verbal instructions/notifications;
- c) Site administration;
- d) Reporting requirements;
- e) Work clarification; and
- f) Instruction subsequent to a Site Query response.

Open SIs shall be reviewed at weekly meetings in order to resolve all matters relating to their implementation.

11.5 ENGINEERING CHANGE NOTICE (ECN)

The Engineering Change Notice (ECN) process, as described in this Exhibit 3, will be followed by Engineer to highlight the issuance of any engineering design change to the Contractor whenever:

- a) Issued for Construction (IFC) drawings or specifications are revised after their issue to Contractor;
- b) New IFC drawings or specifications are issued that are not listed in Exhibit 1 - Scope of Work; and
- c) IFC, sketches, documents or any such typical instructions are issued.

Engineer will generate an ECN, using the form found in Appendix E - Engineering Change Notice of this Exhibit 3, to describe and communicate Issued for Construction (IFC) document changes to the Contractor. These changes will be described on the ECN form and accompanied by the associated drawings, specifications, sketches and related documents for implementation by Contractor. Where an ECN is the result of an SQ or a SI, it will reference the relevant document. The ECN will be assigned a unique number by Engineer for future reference and reporting.

11.6 CONCESSION REQUEST

The Concession Request (in the form attached as Appendix G – Concession Request) shall be used by Contractor to facilitate Engineer or Company written authorization to use, substitute,

or release item(s) that do not conform to the contractual or specified requirements.

12 INVOICING AND PAYMENT

12.1 OBJECTIVES

Contractor shall submit accurate, complete and detailed invoices that reflect the Work completed by Contractor, in a format that will be established by the Engineer and with the necessary supporting/verification documentation to enable Engineer to efficiently attest the invoices and recommend Approval and payment of Contractor's invoices by Company, and all in accordance with the Articles of this Agreement.

12.2 CONTRACTOR'S DUTIES

- a) Contractor shall submit invoices in accordance with this Agreement complete with Company Approved Payment Certificates and all supporting/verification documentation Acceptable to Engineer.
- b) Contractor shall submit to Engineer, a monthly report that summarizes invoices submitted and payments made, along with applicable dates of both the invoices and the payments and other pertinent information that Engineer or Company may require.
- c) Contractor shall submit to the Engineer, each month, a cash forecast report by currency for the following three (3) months. This report shall be submitted by the 20th day of every month.

12.3 PROCEDURAL REQUIREMENTS

- a) Contractor shall submit to Engineer one original invoice, along with one (1) PDF copy of the invoice and all required Billing Information. At Engineer's request, all supporting schedules and calculations supporting the invoice shall be provided in native file format.
- b) Each invoice shall be organized such that it is easily understood and:
 - contains a clear description of the completed Work being invoiced;
 - the charges can be easily and efficiently verified against this Agreement and the Billing Information; and
 - all charges are clearly cross referenced to the Billing Information.
- c) All invoice amounts shall be detailed based on Company's code of accounts.
- d) The invoice shall include the following information:
 - Contractor's name, address and tax identification number (HST registration number);
 - Invoice date and invoice number;
 - Agreement number and name;
 - Charges detailed by code of accounts along with cumulative value of all invoices for this Agreement detailed by Company's code of accounts;
 - Adjustments, if any, from prior invoices;
 - Subtotal, tax (HST applicable to the invoice) and total;
 - All invoices shall be in the currencies detailed in Exhibit 2 - Compensation;

- Complete and accurate supporting documentation, including without limitation Billing Information and any other pertinent information that Company may require to verify completion of the Work, the accuracy of the fees, charges and third party charges; complete with a summary sheet cross referencing all supporting documentation to the charges covered on the invoice;
 - Approved Payment Certificate (in the form as stated in Appendix H - Payment Certificate) accompanied by all relevant supporting documentation;
 - If Contractor is a non-resident, in accordance with Exhibit 10 – Declaration of Residency, Contractor shall note on each invoice whether any portion of the Work covered by such invoice was performed inside or outside of Canada for the purposes of Canadian income tax legislation, or such other information requested or required by Company to properly assess withholding requirements; and
 - Where appropriate, Change Order amounts may be shown separately and the invoice will itemize charges associated with each Change Order, including without limitation, a detailed description of each item being invoiced. A copy of the Change Order shall accompany the invoice.
- e) Before Company pays an invoice, Company may request clarification or substantiation in relation to any charges on the invoice and Contractor shall promptly comply with any such request. Invoice review meetings (or pre-payment meetings) may be held to agree on charges to be included on an invoice.
- f) If an invoice is deemed incorrect by Company, Company is entitled to reject such invoice and shall provide reasons for the rejection.
- g) A Final Completion Certificate will be required before final payment will be made. When Contractor believes the requirements of Final Completion have been satisfied, as described in Article 25 of this Agreement, Contractor shall request by Notice, a Final Completion Certificate. Such request shall be in the form as contained in Appendix J - Request for Final Completion Certificate.

12.4 INVOICING FOR CHANGE WORK

Contractor shall submit separate invoices for Changes, unless Company or Engineer directs otherwise, with the Change Order number and date mentioned on the invoice. Invoicing provisions shall be specified on each Change Order. All Changes shall be subject to the compensation provisions and payment terms set out in Article 12 of this Agreement, Exhibit 2 – Compensation and Exhibit 3 – Coordination Procedures.

Contractor will not invoice Company for any amounts which result in the cumulative amount invoiced being greater than the Contract Price.

Under no circumstances will Contractor present invoices for a Change, nor will Company compensate Contractor for any Change, in the absence of a Change Order.

12.5 BANKING INFORMATION

- a) Payments of invoices shall, where possible, be made by electronic funds transfer to

Contractor's bank account, as specified in writing by Contractor to the Company Representative.

- b) Any changes in Contractor's banking information or payment instructions shall be submitted in writing to the Company Representative. The Company shall not be held responsible for errors or delays resulting from incorrect or delayed submission of changes in banking instructions by Contractor.

13 INFORMATION MANAGEMENT

13.1 SCOPE

This Section 14 provides the minimum requirements in relation to information management (IM) which includes the areas of records and document management and control.

13.2 OBJECTIVES

- A. To establish an effective IM environment for the execution of this Agreement, where people can work safely and collaboratively with a confidence that information, and the systems that manage it, are accessible, accurate, reliable, up to date and timely throughout the Term.
- B. For the function of IM and its associated processes, to be seen as an enabler and not a hindrance to project progress and success.
- C. To establish clear communication methods for the exchange of information, both technical and non-technical.
- D. To use standards (electronic formats, physical formats, data, numbering, etc.) to ensure a consistent information deliverable for incorporation into Company systems, regardless of origin.
- E. To produce and deliver a quality information asset that will support and enable the ongoing operation and maintenance of physical assets.
- F. To provide the people, processes and tools required to facilitate and enable efficient and effective IM practices for the execution of this Agreement.
- G. To ensure that adequate orientation, training and guidance is provided to all team members in the specific areas of IM and supporting systems.
- H. Personal, confidential and restricted information shall be handled using best practice protocol to ensure access to only authorized Personnel in both the physical and electronic environments.
- I. No incidents of illegal information brokering as Contractor performs the Work.

13.3 CONTRACTORS DUTIES

Contractor shall:

- A. Develop an IM plan (including procedures, organizational charts, systems, training programs, etc.) to address the following areas of IM:
 - a. Administrative records management; and

- b. Document management/control (engineering services, Contractor, procedural, etc.);
- B. Adhere to the documents included in Exhibit 11 - Company Supplied Documents;
- C. Provide statistical and status reporting for documentation and data as defined by Company;
- D. Ensure all IM related standards and procedures agreed between Company and Contractor are followed by Contractor's Personnel;
- E. Facilitate inspections and assessments of IM processes and systems by the Company Representative for Contractor Group;
- F. Provide process improvement suggestions throughout the Term where there are efficiencies to be gained; and
- G. Highlight and work to resolve any IM related issues relating to the Work.

13.4 COMPANY'S AUTHORITY

Company shall have the authority to:

- A. Provide general oversight to the IM components relating to the execution of this Agreement;
- B. Review and Approve plans and procedural documentation created by Contractor in support of IM for the execution of this Agreement;
- C. Conduct inspections and assessments of Contractor Group's IM programs and systems as appropriate;
- D. Provide statistical reporting requirements to Contractor as required;
- E. Provide applicable IM related standards to Contractor;
- F. Identify restricted information as appropriate;
- G. Provide process improvement suggestions throughout the Term where there are efficiencies to be gained; and
- H. Highlight and work to resolve any IM related issues or inefficiencies relating to the execution of this Agreement.

13.5 SPECIFIC REQUIREMENTS

13.5.1 ADMINISTRATIVE RECORDS

- A. Contractor shall maintain a distinct set of project related administrative records consisting of all non-revision controlled information received or created/generated in support of the Work. Administrative records shall be managed in an electronic content environment. Contractor shall provide reports of these records upon request from Company. Contractor shall provide copies of records as requested by Company at any point during the Term.
- B. Contractor may use existing file plans and classification systems within its own organization, but shall capture all communication with Company using Aconex.
- C. Contractor shall maintain a correspondence register within Aconex.
- D. Formal correspondence shall be by letter and shall be limited to one subject per letter. The subject line shall include reference to Agreement numbering as well as the specific subject.
- E. All correspondence shall be sent by Aconex. Use of signed PDF documents is acceptable. Details on the use and application of Aconex will be provided by Company and addressed

at the kick-off meeting accordingly. Contractor shall be aware of the following:

- a. Aconex is a cloud based computer software program that can be accessed via an internet connection and a web browser (www.aconex.com).
- b. Aconex Project Mail is a module within Aconex that can be used to send and receive emails similar in function to most other email software systems (i.e., Microsoft Outlook, Lotus Notes, etc.).
- c. Tutorials for using Aconex and Aconex Project Mail are available at (www.aconex.com).
- d. Aconex serves as an electronic project mailroom and archive.
- e. All correspondence relating to the project can be created, delivered, recorded and archived by the system.
- f. On Aconex, project mail is not held in individuals' folders but in a company mailbox, the equivalent of a central filing system.
- g. Correspondence is available to all project participants within the organization and confidentiality can be enabled when required.
- h. All project mail is delivered on company specific templates, maintaining a firm's identity within the project.
- i. Aconex mail functions are very familiar, as they mirror standard email packages.
- j. Files may be attached to any piece of project mail from the controlled documents register, or the local drive or network.
- k. Hard copy letters and existing documents can be captured into the system through a scan/registration process, ensuring all correspondence is logged.
- l. All project mail is automatically logged and cannot be deleted or modified once sent.
- m. Mail can be filtered by a variety of attributes, free text and wildcards. Mail to or from any members within a company or project can be found instantly, ensuring accountability and full quality assurance.
- n. Support for the use of this system can be provided from Aconex at 1-888-5-ACONEX or speak with any member of the LCP Information Management Team (LCPDCC@lowerchurchillproject.ca).

13.5.2 DOCUMENT MANAGEMENT/CONTROL

- A. Company will facilitate the document numbering upon submission by Contractor of the initial Supplier Document Register as per Exhibit 4 – Supplier Document Requirements List. All documents, and all pages and sheets within, shall bear this number and the associated revision number.
- B. All documents shall be prepared and submitted by Contractor in accordance with the document entitled “Supplier/Contractor Document Requirements” (as provided in Exhibit 11 - Company Supplied Documents) and as required under Exhibit 4 – Supplier Document Requirements List.

APPENDIX A

CHANGE REQUEST

APPENDIX B

CHANGE ORDER

LOWER CHURCHILL PROJECT	CHANGE ORDER Between Company and Contractor/Supplier		
Agreement No: _____		CHO No. _____	
Agreement Title: _____		Rev. No: _____	
Company: _____		CHR No. _____	
Contractor/Supplier: _____		Date: _____	
Description of Change:			
Supporting information that forms part of this Change Order:			
Change Includes: <input type="checkbox"/> Price <input type="checkbox"/> Schedule Adjustment Type: <input type="checkbox"/> Lump Sum <input type="checkbox"/> Unit Rate <input type="checkbox"/> Fixed Amount <input type="checkbox"/> Estimate <input type="checkbox"/> Reimbursable		Original Contract Price _____ Previous Change Orders Price _____ This Change Order Price _____ Total Contract Price to Date \$ _____	
Impact on Control Schedule:			
Revised Finished Date: _____			
This Change Order shall form and be read and construed as an integral part of the above-noted Agreement. The above adjustment to the Contract Price constitutes full compensation (including all impact costs) to the Contractor/Supplier for the above Change.			
Issued by Company:		Acknowledgement of Contractor/Supplier Receipt: _____ Signature: _____ Name: _____ Date: _____	
Supply Chain Manager or Delegate Name:			
Signature: _____	Date: _____		
Company Representative Name:			
Signature: _____	Date: _____		

APPENDIX C

SITE QUERY

APPENDIX D

SITE INSTRUCTION

APPENDIX E

ENGINEERING CHANGE NOTICE

Lower Churchill Project	ENGINEERING CHANGE NOTICE	Page 1 of 2
		ECN No.:
		Date :

ECN Title:	
Agreement No.:	Contractor:
Agreement Title:	
Physical Component (WBS):	

This ECN is issued for:	
<input type="checkbox"/>	The Issue for Construction (IFC) of new technical documents not previously issued.
<input type="checkbox"/>	The Issue for Construction (IFC) of revised technical documents previously issued.

Summary Description of Changes

Received by Contractor		
<div style="border: 1px solid black; width: 150px; height: 30px; margin: 0 auto;"></div> Name	<div style="border: 1px solid black; width: 150px; height: 30px; margin: 0 auto;"></div> Signature	<div style="border: 1px solid black; width: 150px; height: 30px; margin: 0 auto;"></div> Date

	Title	Name	Signature	Date
Prepared by:	Discipline Engineer			
Reviewed by:	Lead Discipline Engineer			
Approved by:	Component Eng. Manager			
Approved by:	Package Leader			

LCP-PT-MD-0000-EN-FR-0004-01, Rev. B4

APPENDIX F

FIELD WORK ORDER

LOWER CHURCHILL PROJECT	FIELD WORK ORDER <small>(In no case shall this Field Work Order (FWO) exceed \$ 25,000 CAD)</small>
------------------------------------	---

Company:	Date	Rev.	Page of
Project Name & Location:	Field Work Order No.:		
Contractor:	FIELD WORK ORDER RELATED TO:		
Agreement No.:	SAFETY <input type="checkbox"/>	ENVIRONMENT <input type="checkbox"/>	
Agreement Title:	QUALITY <input type="checkbox"/>	SCOPE <input type="checkbox"/>	
Plant Area / Bldg No.:	OTHER <input type="checkbox"/>		
Reference Specification:			
Reference Drawing No.:			
Description of the Work:			
	Title	Name	Signature
Originated by:			
Reason:			
Schedule Impact:			
Work Start Date:			
Lump Sum Price:	Estimated Price:	Unit Price <input type="checkbox"/>	Time & Materials <input type="checkbox"/>
Company:			
	Contract Administrator	Area Construction Manager	
	Date:	Date:	
Acknowledgment of Receipt:			
Contractor:	Signature	Title	Date

LCP-PT-MD-0000-SC-FR-0002-01, Rev B3

APPENDIX G

CONCESSION REQUEST

Lower Churchill Project	CONCESSION REQUEST (Construction Contract)
------------------------------------	---

Concession Request Title:		Page 1 of 2	
Contractor Name & Location:		Date	Concession Request (Construction) No.
Agreement Number:			
Agreement Title:		<i>DISTRIBUTION (NAME PLUS DISCIPLINE OR COMPANY)</i>	
Plant Area / Bldg No.:		From:	
Type of Materials:		To:	
Tag / Part No.:	Physical Component WBS:	Copies to:	
Drawings No.:	Drawings Rev. No.:	TYPE <input type="checkbox"/> Documentation <input type="checkbox"/> Fabrication <input type="checkbox"/> Mechanical <input type="checkbox"/> Instruments <input type="checkbox"/> Material <input type="checkbox"/> Code / Specification	<input type="checkbox"/> Electrical <input type="checkbox"/> Welding <input type="checkbox"/> Contractor <input type="checkbox"/> Civil / Architectural <input type="checkbox"/> Structural <input type="checkbox"/> Other Specify:
Specification No.:			
Specification Rev. No.:			
Quantity involved:			
1. BY CONTRACTOR			
Description of concession (attach applicable documentation):			
Requirements:			
Proposed action and justification (attach applicable documentation):			
Adverse Consequences:			
1.	Cost:	2.	Schedule:
1.1	Contractor / Supplier:	3.	Warranty:
1.2	Subcontractor:	4.	Quality Control:
1.3	LCP Team:	5.	Other
1.4	Company		Specify:
<i>If no cost or schedule impact is identified on this form, then in accordance with Article 38.2 of the Articles of Agreement, the signatures on behalf of Contractor and Company constitute the express written waiver for the concession requested, including the proposed action, as specified on this form.</i>			
	TITLE	NAME	SIGNATURE
Requested by:			DATE
Contractor	_____	_____	_____

LCP-PT-MD-0000-EN-FR-0002-01, Rev. B6

Lower Churchill Project	CONCESSION REQUEST (Construction Contract)
--------------------------------	---

Contractor Name & Location:	Page 2 of 2
Agreement Number :	Concession Request (Construction) No.

2. REVIEWS

Possible Quality Control implications: by Area Construction Manager/Resident Engineer /Package Lead

Accepted
 Conditional Acceptance
 Rejected

	TITLE	NAME	SIGNATURE	DATE
Approved by:	_____	_____	_____	_____
Approved by:	_____	_____	_____	_____

DISCIPLINE	NAME	SIGNATURE	DATE	RECOMMENDED		REMARKS
				YES	NO	
Civil & Architectural				<input type="checkbox"/>	<input type="checkbox"/>	
Electrical				<input type="checkbox"/>	<input type="checkbox"/>	
Instrumentation				<input type="checkbox"/>	<input type="checkbox"/>	
Mechanical				<input type="checkbox"/>	<input type="checkbox"/>	
Structural				<input type="checkbox"/>	<input type="checkbox"/>	
Project Controls				<input type="checkbox"/>	<input type="checkbox"/>	
Procurement				<input type="checkbox"/>	<input type="checkbox"/>	
Construction				<input type="checkbox"/>	<input type="checkbox"/>	
Commissioning				<input type="checkbox"/>	<input type="checkbox"/>	
Area Manager				<input type="checkbox"/>	<input type="checkbox"/>	

Recommendation supported by: Component Engineering Manager

Accepted
 Conditional
 Rejected

Operation Impact? Yes No

	NAME	SIGNATURE	DATE
Component Engineering Manager			
Area Construction Manager			

3. APPROVALS

Approval by Company (Operations) (if applicable):

Approval
 Rejected

APPROVED BY:	TITLE	NAME	SIGNATURE	DATE

4. CLOSE OUT Inspection Required Yes No

Comments:

	TITLE	NAME	SIGNATURE	DATE
Reviewed by:				
Approved by:				

LCP-PT-MD-0000-EN-FR-0002-01, Rev. B6

APPENDIX H

PAYMENT CERTIFICATE

PAYMENT CERTIFICATE

Date: _____

Agreement #: _____

Agreement Title: _____

Contractor: _____

Milestone / Monthly Progress
 Payment Description: _____

Milestone / Monthly Progress
 Payment Amount: _____

Work Executed for Monthly Progress / Milestone Completion criteria and status (list below):

Contractor:

Contractor hereby notifies Company that it considers that it has executed the associated Work or met the criteria for achieving the above-noted Milestone(s) and requests Company Approval.

By: _____
 Contractor Representative

Date: _____

Company Approval:

Company hereby Approves this Payment Certificate.

Company Approval of this Payment Certificate does not relieve Contractor of any of its obligations under the Agreement.

By: _____
 Company Representative

Date: _____

LCP-SN-CD-0000-SC-FR-0052-01

APPENDIX I

SUBSTANTIAL COMPLETION CERTIFICATE

SUBSTANTIAL COMPLETION CERTIFICATE

Project: Lower Churchill Project

Agreement No.: _____

Agreement Title: _____

Contractor: _____

1. Engineer confirms that, pursuant to the Articles of the Agreement, Contractor has met all requirements of Substantial Completion effective as of **[insert date]**.
2. Attached hereto is a Punch List, which includes items with respect to which Company and/or Engineer has notified Contractor are incomplete, defective or deficient. If Contractor fails to rectify any such items:
 - (i) by the date specified on the Punch List for such item; or
 - (ii) as soon as practicable, if no such date is specified on the Punch list for such item;
 Company reserves its right to invoke any of its rights or remedies pursuant to the Agreement.
3. Nothing expressed or implied herein shall be construed to prejudice Contractor's obligation to complete or rectify all nonconforming Work items in accordance with the Agreement, and to achieve Final Completion.

Attachments:

1. _____
2. _____
3. _____

Engineer:

Acknowledgement of Contractor Receipt:

By: _____
Engineer Representative

By: _____
Contractor Representative

Name: _____

Name: _____

Date: _____

Date: _____

APPENDIX J

REQUEST FOR FINAL COMPLETION CERTIFICATE

REQUEST FOR FINAL COMPLETION CERTIFICATE

Agreement No.: _____
Agreement Title: _____
Contractor: _____

To Engineer:

In accordance with the Agreement, Contractor hereby confirms that it has completed the Work and all the requirements of Final Completion (as described in the Agreement) have been met, all in accordance with the Agreement, excluding its Warranty obligations.

Contractor agrees that, as of the date of its confirmation below, the Contractor waives, remises, releases and discharges the Company of any and all Claims that are known, ought to have been known or discoverable by reasonable means by the Contractor, which Contractor has or may have relating to or arising out of this Agreement and the subject matter of this Agreement, and all facts and circumstances related to the Work, save and except:

- a) Only those Claims previously submitted by Contractor in writing and remaining unresolved prior to the date of Contractor's below confirmation, as listed below:

_____ ;

and

- b) The balance of the Contract Price payable, if any, upon the issuance of the Final Completion Certificate.

Contractor Confirmation:
Contractor confirms it has completed the Work in accordance with the above-noted Agreement.
By: _____
Contractor Representative

Acknowledgement of Engineer Receipt:
By: _____
Engineer

Date: _____

APPENDIX K

FINAL COMPLETION CERTIFICATE

FINAL COMPLETION CERTIFICATE

Agreement No.: _____

Agreement Title: _____

To Contractor:

Company hereby confirms that the Date of Final Completion of the Work is **[date]**.

By: _____
Company Representative

Date: _____

EXHIBIT 9

SCHEDULE

Schedule

Item:	Interface	Description	Date
GENERAL			
M1		Contract Award	30-Jun-15
M2		Substantial Completion of the work	31-Nov-2017
M3		Completion of the construction road to Laydown Area C1	31-Dec-2015
DIVERSION AND RIVER CLOSURE (UPSTREAM COFFERDAM)			
	I1	Spillway Ready for River Diversion, which includes: - Completion of the North Transition Dam	15-Jul-2016
M4		Completion of upstream cofferdam (to El. 26m) and downstream cofferdam. <i>Note: Final planning for the formation of the winter headpond (to water elevation 25.0m) will be based on the completion of Milestone M4. The raising of the headpond may inundate areas in use.</i>	31-Oct-2016
SOUTH DAM			
	I2	South Dam area available for Foundation Work (Limited)	Contract Award
	I3	South Transition Dam Completed (for construction of South Dam Fill)	30-Sep-16
M5		South Dam Completed	31-Oct-17
IMPOUNDMENT			
	I4	Other Structures Ready for Site Impoundment, which includes: - Intake completed; - South Transition Dam Completed; - Centre Transition Dam Completed	31-Oct-17
M6		Temporary Spillway Bridge and Intake Cofferdam Removed	I4 + 2 weeks
M7		North Dam Completed	31-Oct-2017
TAILRACE			
	I5	Powerhouse Ready for Tailrace Impoundment	15-Oct-17
M8		Tailrace Rock Plug Removed	I5 + 2 weeks

EXHIBIT 9

SCHEDULE

NOT FOR ISSUE

Schedule
SCENARIO 2

Item:	Interface	Description	Date
GENERAL			
M1		Contract Award	31 30-Jun-15
<u>M2</u>		<u>Substantial Completion of the work</u>	<u>31-Nov-18</u>
M3		Completion of the construction road to Laydown Area C1	31-Dec-2015
DIVERSION AND RIVER CLOSURE (UPSTREAM COFFERDAM)			
	I1	Spillway Ready for River Diversion, which includes: - Completion of the North Transition Dam	01-Jun-17
<u>M4</u>		<u>Completion of upstream cofferdam (to El. 26m) and downstream cofferdam</u> <u>Note: Final planning for the formation of the winter headpond (to water elevation 25.0m) will be based on the completion of Milestone M4. The raising of the headpond may inundate areas in use.</u> <u>Note: Final planning for the formation of the winter headpond for ice control (water elevation 25.0m) will be planned based upon the completion of Milestone M4. The raising of the headpond may inundate areas in use.</u>	<u>31-Oct-17</u>
SOUTH DAM			
	I2	South Dam area available for Foundation Work (Limited)	Contract Award
	<u>I3</u>	<u>South Transition Dam Completed (for construction of South Dam Fill)</u>	<u>01-Jun-17</u>
<u>M5</u>		<u>South Dam Completed</u>	<u>30-Sep-18</u>
IMPOUNDMENT			
	<u>I4</u>	<u>Other Structures Ready for Site Impoundment, which includes:</u> <u>- Intake completed;</u> <u>- South Transition Dam Completed;</u> <u>- Centre Transition Dam Completed</u>	<u>30-Sep-18</u>
M6		Temporary Spillway Bridge and Intake Cofferdam Removed	14 + 2 weeks
<u>M7</u>		<u>North Dam Completed</u>	<u>31-Oct-18</u>
TAILRACE			
	<u>I5</u>	<u>Powerhouse Ready for Tailrace Impoundment</u>	<u>15-Oct-18</u>
M8		Tailrace Rock Plug Removed	15 + 2 weeks

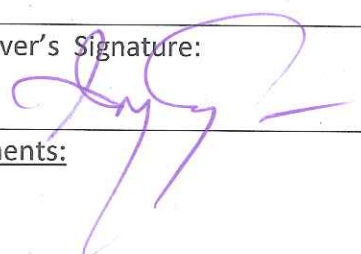
NOT FOR ISSUE

This scenario reflects a situation whereby the CH007 contractor has slipped the construction dates, with a knock on impact of approximately one year. At the time of preparation, a rough analysis of the impacts indicates that the magnitude of slippage, and consequential impact, may be in excess of one year. The above table assumes that the CH007 Contractor has a continued improvement in

Document Front Sheet



NE-LCP Contractor/Supplier

Contract or Purchase Number and Description:		Contractor/Supplier Name:	
Document Title: CH0009- NORTH AND SOUTH DAMS SCOPE OF WORK SPECIFICATION		Total Number of Pages Incl. Front Sheet 17	
Contractor Document Number: 505573-3231-4GEW-0001		Revision Number: 00	
Supplier Document Number:		Revision Number:	
NE-LCP Document Number: MFA-SN-CD-2000-CV-SP-0002-01		NE-LCP Issue Number: B1	
Approver's Signature: 		Date (dd-mmm-yyyy): 20 June 2014	Review Class:
Comments:		Equipment Tag or Model Number:	

NE-LCP

REVIEW DOES NOT CONSTITUTE APPROVAL OF DESIGN DETAILS, CALCULATIONS, TEST METHODS OR MATERIAL DEVELOPED AND/OR SELECTED BY THE CONTRACTOR, NOR DOES IT RELIEVE THE CONTRACTOR FROM FULL COMPLIANCE WITH CONTRACTUAL OR OTHER OBLIGATIONS.


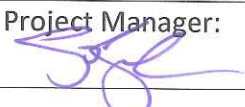
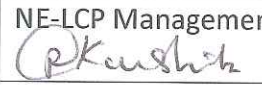
01 - REVIEWED AND ACCEPTED - NO COMMENTS

02 - REVIEWED - INCORPORATE COMMENTS, REVISE AND RESUBMIT

03 - REVIEWED - NOT ACCEPTED

04 - INFORMATION ONLY

05 - NOT REVIEWED

Lead Reviewer: 	Date (dd-mmm-yyyy): 24 June 2014	Project Manager: 	Date (dd-mmm-yyyy): 15 Jul 2014
NE-LCP Management: 	Date (dd-mmm-yyyy): 15 Jul 2014		

General Comments:

LOWER CHURCHILL PROJECT	Scope of Work	Rev	Date
	Nalcor Doc. No.: MFA-SN-CD-2000-CV-SP-0002-01	B1	15-May-2014
	SLI Doc. No.: 505573-3231-4GEW-0001	00	

LOWER CHURCHILL PROJECT

CH0009

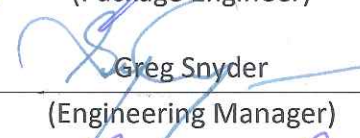
NORTH AND SOUTH DAMS

SCOPE OF WORK SPECIFICATION

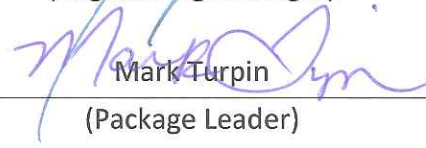
Prepared by:


 Abdellah El Bensi
 (Package Engineer)

Approved by:


 Greg Snyder
 (Engineering Manager)

Approved by:


 Mark Turpin
 (Package Leader)

LOWER CHURCHILL PROJECT	Scope of Work	Rev	Date
	Nalcor Doc. No.: MFA-SN-CD-2000-CV-SP-0002-01	B1	15-May-2014
	SLI Doc. No.: 505573-3231-4GEW-0001	00	

REVISION LIST

Revision						Remarks
N°	By	Verif.	Appr.	Appr.	Date DD-MMM-YYYY	
B1	AEB	GS	MT		15-MAY-2014	Issued for Bid
A1	AEB	GS	MT		09-JAN-2014	Issued for internal coordination

LOWER CHURCHILL PROJECT	Scope of Work	Rev	Date
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1 GENERAL

1.1 PROJECT DESCRIPTION

Nalcor is developing Phase I of the LCP, which includes an 824 MW hydroelectric generating facility at Muskrat Falls and associated transmission links to Churchill Falls and the Island of Newfoundland.

The scope of the physical facilities to be constructed during Phase I of the Project includes the following:

- Muskrat Falls Generation (MFG)
- Labrador Transmission Assets (LTA)
- Labrador – Island Transmission Link (LIL)

1.1.1 Muskrat Falls Generation (MFG)

Muskrat Falls Generation includes the following:

- 22 km of permanent access roads on the south side of the river, including upgrading and new construction, and temporary bridges;
- A 1,500 person accommodations complex;
- A north Roller Compacted Concrete (RCC) overflow dam;
- A south rock fill dam;
- River diversion during construction via the spillway;
- 5 vertical gate spillway;
- Reservoir preparation and reservoir clearing;
- Replacement of fish and terrestrial habitat;
- North spur stabilization works; and,
- A close coupled intake and powerhouse, including:
 - 4 intakes with gates and trash racks
 - 4 turbine/generator units at approximately 206 MW each with associated ancillary electrical/mechanical and protection/control equipment
 - 5 power transformers (includes 1 spare), located on the draft tube deck of the powerhouse
 - 2 Overhead cranes each rated at 450 Tonnes

LOWER CHURCHILL PROJECT	Scope of Work	Rev	Date
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1.1.2 Labrador Island Transmission Link (LIL)

The LIL consists of the overland high voltage direct current (HVdc – 350kV) Transmission system and associated HVdc converter station systems, the Strait of Belle Isle (SOBI) Crossing and a new synchronous condenser facility. Specifically it includes:

- AC Switchyard at Soldier’s Pond on the Avalon Peninsula;
- Muskrat Falls HVdc converter stations: HVdc bipolar converter station; 315 kV ac, converted to ±350 kV dc; Pole capacity of 450 MW;
- Shoreline pond electrode located on the Labrador side of the Strait of Belle Isle. The L’Anse-au-Diable shoreline pond electrode will be connected to the converter station at Muskrat Falls with dual overhead conductors supported on a wood pole line from the pond electrode site to the HVdc transmission line Right of Way and from there on will be supported on the HVdc line structures;
- Soldiers Pond HVdc converter station: HVdc bipolar converter station; 230 kV ac, converted from ±350 kV dc; pole capacity of 450 MW; and Shoreline pond electrode located on the east shore of Conception Bay;
- The Dowden’s Point shoreline pond electrode will be connected to the converter station at Soldiers Pond with dual overhead conductors supported on a wood pole line;
- HVdc Transition Compounds for the Strait of Belle Isle submarine cable terminations;
- Three Mass Impregnated 450MW capacity each submarine cables crossing the SOBI protected using HDD boreholes and seabed rocking dumping;
- One transition compound for each side of the Strait of Belle Isle submarine cable crossing, with associated switch works to manage the junction of multiple submarine cables and the overhead transmission line;
- Overhead transmission line from the Muskrat Falls converter station to Soldiers Pond converter station: 900 MW, ±350 kV dc, bipolar line, single conductor per pole; galvanized lattice steel guyed suspension and rigid angle towers; 1100 km long; and,
- New synchronous condenser at Soldiers Pond – 3 x 175 MVar units.

1.1.3 Labrador Transmission Asset (LTA)

LTA consists of the AC transmission line system from Churchill Falls to Muskrat Falls, specifically:

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- A new 315/735 kV switchyard at Churchill Falls connected to the existing 735 kV switchyard with two overhead lines of 735 kV of approximately 0.6 km and switchyard extension;
- Muskrat Falls switchyard 315 kV; and,
- Transmission lines from Muskrat Falls to Churchill Falls: double-circuit 315 kV ac, 3 phase lines, double bundle conductor, single circuit galvanized lattice steel guyed suspension and rigid angle towers; 247 km long.

1.2 General Description Of Work

The Construction of the North and South Dams (CH0009) consists of the construction of the South Dam and the North Dam, construction and removal of Cofferdams, construction and removal of a temporary access bridge over spillway approach channel as well as excavation of Tailrace Rock Plug. The package also includes foundation preparation, exploitation of sources of materials (borrow pits and stockpile areas), production of aggregates, Conventional Vibrated Concrete (CVC) and Roller Compacted Concrete (RCC) as well as the construction of permanent access roads including the powerhouse parking area as described herein, in the Technical Specification and as shown on the drawings.

1.3 Language And Units

The language to be used for all nameplates and documentation is English.

All designs and drawings shall be prepared in accordance with the International System of Units (SI units) and the units of measurement will be the SI Metric System.

1.4 Climatic Data

1.4.1 The Climatological Data is included in Exhibit 11 - Company Supplied Documents.

1.5 Hydrometeorological Data

1.5.1 Hydrometeorological data is summarized on Drawing MFA-SN-CD-2340-CV-DD-0002-01, Exhibit 1.

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2 SCOPE OF WORK

2.1 Work Included

2.1.1 The work listed in this Scope of Work Specification includes the supply of all labour, materials and equipment and the execution of all work required to construct all structures and related works for package CH0009 as shown on the Drawings, as indicated in the Technical Specification, and as specified herein or as directed by the Engineer.

2.1.2 The term Technical Specification refers to the document MFA-SN-CD-2000-CV-TS-0020-01 and all its related sections, Exhibit 1.

2.1.3 The Work includes but is not limited to:

.1 General

- .1 Design, construction, maintenance, displacement and dismantlement of all temporary construction roads, access ramps and work areas necessary for the execution of the work;
- .2 Construction of the permanent access and service road to the South Dam and completion of the final grading of the permanent access road to the powerhouse including the placement of the fill in the parking area;
- .3 Design, construction, maintenance, displacement and removal of all temporary construction roads to borrow pits, quarries, stockpiles and spoil disposal areas;
- .4 Preparation and restoration of the designated spoil disposal area;
- .5 Clearing, grubbing and stripping of the structure areas and borrow areas and their access roads;
- .6 Exploiting borrow areas, quarry and rockfill stockpile areas, preparing the spoil disposal areas, drainage, excavation, selection, processing of materials and final restoration of these areas at the end of the works.
- .7 Design, supply, installation, operation, maintenance, relocation and removal if required, of dewatering systems required to perform the works in dry conditions in structure areas, borrow areas, quarry and stockpile areas;
- .8 Decommissioning and backfilling of the Sedimentation Ponds 1 and 2 in compliance with Environmental & Regulatory Compliance Requirements, Exhibit 6; and

LOWER CHURCHILL PROJECT	Scope of Work	Rev	Date
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.9 Design, supply, installation and subsequent removal of the Temporary Upstream Bridge over the approach channel of the spillway and its related access ramps including all elements from foundation preparation to substructures and superstructure. The temporary Upstream Bridge is to be handed over to the Company after removal. The storage place will designated within 5 km from the actual location of the bridge.

.2 Excavation

- .1 Overburden excavation in dry and underwater conditions at the Tailrace Rock Plug, Upstream Cofferdam, Downstream Cofferdam, Intake Channel Cofferdam, South Dam, and North Dam;
- .2 Open cut excavations of rock in dry and underwater conditions at the Tailrace Rock Plug, including the existing access ramp to powerhouse;
- .3 Open cut excavation of rock for foundation preparation at the footprint of North Dam, South Dam, Intake Channel Cofferdam, Upstream Cofferdam and Downstream Cofferdam;
- .4 Removal of the existing Cofferdam 1 and Cofferdam 2 to the bedrock foundation and Cofferdam 3 to the natural ground elevation or as directed by the Engineer;
- .5 Removal to the bedrock foundation of all existing rockfill access ramps and any new rockfill access ramps installed for Contractor’s own use ;
- .6 Removal of the downstream section of the Riverside RCC Cofferdam; and
- .7 Cleaning to bedrock asperities, in dry conditions, of tailrace channel and footprint of the existing ramps.

.3 Rock Stabilization and Surface Protection

- .1 Supply and installation of rock stabilization and surface protection on the excavated surfaces at the Tailrace Channel;
- .2 Removal of all existing chain link wire mesh on the walls of the Powerhouse channels and Spillway channels prior to watering up; and
- .3 Removal of all existing temporary fences around the top of Powerhouse and Spillway channels and supply and installation of the permanent chain link fences and gates.

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.4 Foundation Preparation, Grouting and Drainage

- .1 Foundation preparation including rock excavation, dental concrete, dry pack and slush grout at the North Dam, South Dam, Upstream Cofferdam, Intake Channel Cofferdam and Downstream Cofferdam;
- .2 Drilling for grouting, drainage, exploration and instrumentation, as indicated on the Drawings or as required by the Engineer; and
- .3 Curtain grouting, consolidation grouting and contact grouting in the North Dam, South Dam and Upstream Cofferdam foundations, if required, including supply, installation and removal of the temporary instrumentation for grouting.

.5 Jet Grouting

- .1 Supply material, equipment and labour to perform the jet grouting of the cut-off wall in the Upstream Cofferdam including drilling, grouting and cleaning.

.6 Embankment Construction

- .1 Construction of the starter groin of the Upstream Cofferdam separately in the year before the river closure;
- .2 Construction of Upstream Cofferdam and South Dam including the exploitation of sources of materials, processing, loading, transporting, unloading, placing and compacting as well as the control of moisture content of the material; and
- .3 Construction and removal at the end of the Work of the Intake Channel Cofferdam and Downstream Cofferdam, including the exploitation of sources of materials, processing, loading, transporting, unloading, placing and compacting as well as the control of moisture content of the material.

.7 RCC Concrete

- .1 Production of the concrete coarse and fine aggregates using the rockfill stockpiled in Stockpile Area A.
- .2 Production of concrete natural fine aggregates from GD11, if required.
- .3 Construction of the North Dam including concreting, reinforcement, waterstops, drains, contraction joints, guardrails, stairs and other aspects outlined on the drawings and specifications and as required by the Engineer.

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.8 CVC Concrete

- .1 Production of the concrete coarse aggregates using the rockfill stockpiled in Stockpile Area A.
- .2 Production of the concrete fine aggregate from borrow areas GD11.
- .3 Production of CVC concrete for the North Dam, Upstream Bridge foundations, dental concrete, slush grout and dry pack for foundation preparation.

2.1.4 Batch Plants

- .1 Provide, operate and maintain two batch plants for RCC production. One of the plants will act as a back-up in the event the other plant is not operational.
- .2 Provide, operate and maintain one batch plant for CVC production.

2.1.5 Geotechnical Instrumentation

- .1 Supply and installation of the geotechnical instrumentation in the North and South Dams as indicated in the Technical Specification, as shown on the drawings and as required by the Engineer.

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3 SPECIAL REQUIREMENTS

3.1 General

- 3.1.1** The overall project schedule requires that some of the Work be performed during the winter period. The Contractor shall take all necessary measures for carrying out work in winter conditions.
- 3.1.2** Contractor shall make provisions for winter concreting, including the use of heated shelters. The Contractor shall design, supply, install and remove temporary shelters.
- 3.1.3** Where an area is used by the Contractor as shelter for the execution of its work before the area is completed, it is the responsibility of the Contractor to supply, install and subsequently remove any temporary walls and enclosure as may be required.
- 3.1.4** All temporary works shall be designed by a qualified Professional Engineer registered in the Province of Newfoundland and Labrador. The Professional Engineer shall be approved by the Engineer prior to starting any Work. Drawings and specifications shall be sealed by the Professional Engineer. All engineering designs and drawings shall be submitted to the Engineer for review and Acceptance before starting any work.
- 3.1.5** The removal of the cofferdams, temporary upstream bridge and access ramps shall be coordinated with the Engineer and with Company's other Contractors. Contractor shall obtain a written authorization prior to start the work.
- 3.1.6** The Contractor shall submit the required documentation to the Engineer for review and Acceptance in accordance with the Technical Specification and with Exhibit 4 - Supplier Document Requirement List (SDRL)
- 3.1.7** Where there are conflicts between or within the Technical Specification and the Drawings, the Technical Specification takes precedence. Where there are conflicts between or within Codes, Standards or Acts, priority shall be given to the more stringent.

3.2 Site Conditions

- 3.2.1** This Scope of Work Specification shall be read in conjunction with Exhibit 12 – Site Conditions.

3.3 Company Supplied Documents

- 3.3.1** Company supplied documents are listed in Exhibit 11 - Company Supplied Documents. The Contractor shall observe all requirements of the Company Supplied Documents.

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3.4 Setting-Out Or Implementation Of Survey Points And Lines

3.4.1 The Contractor shall be responsible for:

- .1 Surveying required for setting-out the structures and for as-built profile of the excavation and structures;
- .2 Locate, confirm and protect control points prior to starting Site work. Preserve permanent reference points during construction;
- .3 Establish permanent benchmarks on Site, referenced to established bench marks by survey control points. Record locations, with horizontal and vertical data in Project Record documents;
- .4 The accurate setting-out of the Work in relation to reference points, lines and levels given by the Engineer in writing;
- .5 The correctness, subject as above mentioned, of the position, levels, dimensions and alignment of all parts of the Work;
- .6 The provision of all necessary instruments, appliances and labour in connection with the foregoing responsibilities;
- .7 If, at any time during the execution of the Work, any error appears in the position, levels, dimensions or alignment of any part of the Work, the Contractor, on being required to do so by the Engineer, shall, at its own cost, rectify such error to the satisfaction of the Engineer, unless such error is based on incorrect data supplied in writing by the Engineer, in which case the Engineer shall recommend a Change to the work in accordance with Article 14; and
- .8 The checking of any setting-out or of any line or level by the Engineer shall not in any way relieve the Contractor of its responsibility for the accuracy thereof and the Contractor shall carefully protect and preserve all bench-marks, sight-rails, pegs and other reference points used in setting-out the Work.

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3.5 Site Information

- 3.5.1** The Company has made available to the Contractor, Site information in Exhibit 11 – Company Supplied Documents. Field information has been obtained by or on behalf of the Company from investigations carried out in project area, the Contractor shall be responsible for its own interpretation thereof.
- 3.5.2** The Contractor shall be deemed to have inspected and examined the Site and its surroundings, be fully knowledgeable of the information available in connection therewith and to have satisfied itself before submitting its Proposal, as to:
- .1 The form and nature thereof, including the subsurface conditions;
 - .2 The hydrological and climatic conditions;
 - .3 The extent and nature of work and materials necessary for the execution and completion of the Work and the remedying of any defects therein; and
 - .4 The means of access to the Site and the accommodation it may require, when not provided for (Refer to Exhibit 12 – Site Conditions);
- 3.5.3** In addition, the Contractor, in general, shall be deemed to have obtained all necessary information, subject as above mentioned, as to risks, contingencies and all other circumstances which may influence or affect the Agreement.

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3.6 Specialist Subcontractor

3.6.1 The Contractor may subcontract specialized services, such as design engineering services, but it shall obtain the Approval of the Engineer prior to the award of any such Subcontract. Such Approval shall not relieve the Contractor from any liability or obligation under the Agreement and it shall be responsible for the acts, default and neglects of the Sub-Contractor, its agents, personnel as fully as if they were the acts, defaults and neglect of the Contractor. The Engineer reserves the right to refuse the services of a Sub-Contractor proposed by the Contractor.

3.6.2 The Contractor shall submit to the Engineer for Approval, details on the history of the Sub-Contractor (previous work done in similar conditions, etc), on the personnel the Sub-Contractor intends to use, inclusive of their detailed resumes, membership in professional organizations, their authority to sign and approve Drawings, registration and/or eligibility to register with the Professional Engineers and Geoscientists of Newfoundland and Labrador (PEGNL). All calculations and such like shall be in accordance with Newfoundland and Labrador Regulations. Such Approval by the Engineer does not change the full responsibility of the Contractor in the execution of the Work.

3.6.3 The Sub-Contractor may be requested to undertake its Work or part of its Work at the Site.

3.7 Environmental Requirements

3.7.1 Contractor shall comply with Exhibit 6 - Environmental & Regulatory Compliance Requirements.

3.7.2 Prior to the start of Work, the Contractor shall prepare a Contract Specific Environmental Protection Plan (C-SEPP) for review and Approval by the Engineer. The C-SEPP will detail the environmental protection measures that will be implemented by the Contractor for all components of the Work. The Contractor shall reference the General Environmental Requirements of the Specification, as well as Contract Drawings, as required. The template for preparation of the C-SEPP is attached in Exhibit 11 – Company Supplied Documents.

3.8 Documents

3.8.1 Drawings Provided to the Contractor

.1 Before the beginning of the Work, the Contractor shall submit for the Engineer's approval, the Documents required as per the Technical Specification and as required by the SDRL (Exhibit 4 - Supplier Document Requirement List). The Contractor shall submit for review by the Engineer all test certificates, purchase orders, Drawings and all details necessary for the execution of the Work as specified in the Technical Specification.

.2 The turnaround time for Engineer's review of drawings is 21 calendar days.

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.3 The Drawings are included in Exhibit 1 and are listed in the Technical Document List; document number MFA-SN-CD-2000-CV-LS-0003-01.

.4 Contractor shall only execute the Work based on stamped and signed IFC Drawings.

3.8.2 Technical Specification

.1 The Technical Specification's sections are included in Exhibit 1, attachment 1, and are listed in the Technical Document List; document number MFA-SN-CD-2000-CV-LS-0003-01.

3.9 Schedule Constraints

3.9.1 This Scope of Work Specification shall be read in conjunction with Exhibit 9 – Schedule.

3.9.2 The construction of the Upstream Cofferdam and the North Dam are on the critical path for the project. Contractor shall construct the starter groin, the upstream temporary bridge and the related access ramps and foundation during the year before the river closure in order to advance as much work as possible to help ensure early closure of the river in the following year.

3.9.3 Contractor shall produce all required aggregate gradations and carry out the RCC Trial Demonstration Section during the year before the river closure.

3.9.4 Contractor shall start clearing, excavation and foundation preparation in the areas of the Upstream Cofferdam and North Dam above the water limits as soon as there is access to any portion of the foundation.

3.9.5 The Contractor shall use appropriate methods, equipment and sequencing to achieve the river closure and work to obtain manageable water downstream of the cofferdam as soon as possible after closure. Manageable water means the volume of seepage through the upstream cofferdam can be pumped or efficiently directed outside the work area in order to allow the completion of foundation preparation work in the North Dam area during the year of river closure.

3.9.6 Contractor is to commence work on North Dam as soon as possible in the year of river closure, prior to winter shut down. Winter protection to allow early start Work in the next year will be required.

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3.10 Batch Plants

3.10.1 Laydown areas B and J could be available for CH0009 Contractor for the installation of batch plants and crushers. The surface of the laydown Area J as shown on the drawings is currently 1 ha. The Contractor can increase Area J surface by using excavated materials from the removal of Cofferdams No 2 and No 3 and/or importing other material as needed.

3.10.2 The Contractor shall be ready to place dental concrete and RCC during the year of the river closure prior to winter shut down. Batch plants and conveyors/trucks systems shall be installed tested and ready for operations.

3.11 Tailrace Rock Plug And Access Road To Laydown Area J

3.11.1 If the Contractor chooses to setup the RCC batch plants in laydown Area J, the excavation of the tailrace rock plug in dry conditions shall be completed while maintaining efficient access to Area J at all times. The minimum elevation of the watertight access road shall not be less than El. 9 m across the tailrace channel. During blasting works, the Contractor shall take all the necessary precautions not to damage directly (fly rocks) or indirectly (vibrations, air blasts), buildings, structures, equipment and transmission facilities located near excavation works.

3.11.2 Company's other contractor will commence the commissioning and will require flow through the Tailrace channel as indicated in Exhibit 9 –Schedule. The Contractor shall design, supply and install, and remove at the end of the work, temporary access across the tailrace channel to the Area J. The access shall allow the water flows through the Tailrace towards the river.

END OF SECTION