

**EXHIBIT 2**  
**COMPENSATION**

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## 1 GENERAL

- 1.1. Company shall compensate Contractor for the Work, in accordance with the provisions of this Agreement. The Contract Price, as calculated in Appendix A - Schedule of Price Breakdown, shall consist of:
- the total of the Reimbursable Cost of Labour, and the Labour Overhead and Profit applied on a sliding scale based on its relationship to the Adjusted Target Cost of Labour; all in accordance with Section 3 of this Exhibit 2;
  - the actual Travel Cost for Trades Labour as stipulated in the Project Labour Agreement between the Muskrat Falls Employer's Association Inc. and the Resource Development Trades Council of Newfoundland and Labrador (i.e. the "Project Labour Agreement"); all in accordance with Section 4.1 of this Exhibit 2 (these costs are flow through expenses without mark-up; travel time is not a reimbursable cost as per the Project Labour Agreement);
  - the fixed lump sum amounts and unit prices as listed in the Non Labour Component of Appendix A - Schedule of Price Breakdown; all in accordance with Section 5 of this Exhibit 2; and
  - any adjustment in compensation pursuant to Article 26 – Changes in the Work.
- 1.2. Contractor, in managing the Reimbursable Cost of Labour, shall:
- maintain timekeeping records on a daily basis for each member of the Contractor Group PLA Labour in a form satisfactory to Company which shall include number of hours paid, number of hours worked, type of work, work area, number of overtime hours, reason for the overtime, and such other information Company deems appropriate;
  - make efforts consistent with the Standard of a Prudent Contractor to ensure the Reimbursable Cost of Labour is less than the Target Cost of Labour;
  - manage the Work to the Standard of a Prudent Contractor managing a lump sum or fixed price contract;
  - utilize the sections in the Project Labour Agreement to support high levels of labour productivity, including but not limited to Section 7.10 (Contractor Group's right to evaluate all persons to determine their level of competency, qualifications and physical and mental fitness to perform the required work), Section 18 (productivity enhancement through the utilization of work teams), Section 19.08 (ensure breaks are limited to the prescribed period - ten (10) minutes for an eight (8) hour shift and fifteen (15) minutes for a ten (10) hour shift), 19.09 (ensure Contractor Group employees are in attendance at their work location and prepared to commence work at the scheduled starting time, ensure such employees are only paid when they start work at their designated work location and ensure the Contractor Group workers are not at the designated brass points until the quit time (end of shift)) and Section 36 (commissioning to fully utilize the flexibility in choosing the type of worker(s), selecting the worker(s) and performing the Work to maximize





- productivity);
- develop and fully implement a Labour Productivity Management Plan, as described in Section 3.2 of this Exhibit 2 and Section 2.4 of Exhibit 3 – Coordination Procedures;
  - actively participate in meetings or programs requested by Company to facilitate Contractor's efforts in maximizing productivity; and
  - maximize, where appropriate, Work that can be more cost effectively performed off Site.
- 1.3. All lump sum amounts, unit rates, reimbursable items and prices stated in this Exhibit 2 shall be fully inclusive of all amounts, rates and prices for Contractor's performance of the Work and all of its obligations under this Agreement.
- 1.4. Invoices shall be issued by Contractor in accordance with Article 12 – Compensation and Terms of Payment, this Exhibit 2 – Compensation, and Exhibit 3 – Coordination Procedures.
- 1.5. All lump sum amounts, unit rates, and prices stated in this Exhibit 2 shall be fully inclusive of all amounts for small tools, consumables and PPE as described in this Exhibit 2, Appendix C – Small Tools, Consumables and PPE.
- 1.6. The currency of payment of the Agreement is Canadian dollars (CAD).
- 1.7. The Contract Price is comprised of the Labour Component (Section 3), the Travel Cost for Trades Labour (Section 4) and the Non Labour Component (Section 5) as set out herein.
- 1.8. Unless otherwise noted, all lump sum amounts, unit rates, reimbursable items and prices stated in this Exhibit 2 are exclusive of HST.

## 2 DEFINITIONS

The definitions below shall apply to this Exhibit 2 including its Appendices.

**"Adjusted Target Cost of Labour"** or **"ATCL"** means the Target Cost of Labour adjusted for the effect of Change Orders issued to adjust the quantities of the unit Price Items in Appendix A - Schedule Of Price Breakdown or issued as a result of a Change Request Approved by Company after the Effective Date, and reconciled after the issuance of the Final Completion Certificate for the actual quantities installed of each unit Price Item in Appendix A - Schedule of Price Breakdown. The Adjusted Target Cost of Labour at any time after the Effective Date is the summation of the Target Cost of Labour and the estimated Reimbursable Cost of Labour related to each issued Change Order. For greater certainty, the Target Cost of Labour shall be adjusted for Change Orders once Approved by Company.





Notwithstanding the above, the Adjusted Target Cost of Labour shall not be adjusted for Less Than Threshold Changes. The ATCL adjustment mechanism outlined in Section 6.3(a) shall only be employed for a Change that is over the LTTC threshold. The Parties expect that the Work will experience a reasonable level of LTTC's and agree that these LTTC's shall be excluded from the ATCL adjustment mechanism outlined in Section 6.3(a). This exclusion shall not apply to: (a) Changes in quantities in accordance with Section 5.7, or (b) Changes in design made by Company.

**"Demobilization"** means all amounts for all activities associated with the removal and transportation of Contractor's Items and Contractor's Personnel from the Site to a location of Contractor's choosing. Contractor will be eligible to submit a Payment Certificate for Demobilization following issuance of the Substantial Completion Certificate.

**"Disallowed Items"** means:

- any PLA Labour amounts in excess of what would be expended by a Contractor performing to the Standard of a Prudent Contractor while managing a lump sum or fixed price contract;
- subject to a written notice from Company's Site representative to Contractor's Site representative followed by a five (5) day period, any PLA Labour amounts incurred by Contractor (after the expiration of such period) as a result of not utilizing the sections in the Project Labour Agreement included to maximize labour productivity; provided however that PLA Labour amounts incurred prior to the expiration of such period would not be disallowed;
- any PLA Labour amounts incurred to settle a grievance or potential grievance under the provisions of the PLA, except to the extent the grievance is caused by Company actions;
- For the installation of any permanent equipment, materials or products as part of the Work, any PLA Labour amounts incurred by Contractor in the performance of the elements of the Work that were agreed to be performed offsite as listed below:
  - Large bore piping (2" and above, butt welded) shop fabrication;
  - Shop fabrication of HVAC components and equipment (note that ductwork will be broken down and shipped flat ready for reassembly on site)
  - Shop assembly of Control panels;
  - Structural fabrication of landings for electrical and mechanical shafts;
- subject to a written notice from Company's Site representative to Contractor's Site representative followed by a five (5) day period, any PLA Labour amounts incurred by Contractor (after the expiration of such period) in the performance of activities associated with temporary facilities, site installation (Price Item number 2), construction aids, equipment maintenance or any other works which will not be included in the permanent Work, that can be more cost effectively performed off Site.
- any PLA Labour amounts incurred by Contractor to correct Work which has not been executed in accordance with the Technical Requirements prior to Final Completion;

- any PLA Labour amounts to satisfy Warranty obligations;
- any PLA Labour amounts incurred by Contractor in the preparation and resolution of a Claim, after a Company decision to proceed with a Change Order under Article 26.6, or after a Company decision under Article 26.8(b); or for anything related to Article 39 – Dispute Resolution;
- any PLA Labour amounts covered by insurance, or by an equipment service agreement;
- any PLA Labour amounts associated with the maintenance, repair and lubing of Contractor's Items used in Change Work; and
- PLA Labour amounts which cannot be reasonably justified from Contractor's records.

**"Equipment Cost"** means the total amount of Contractor's Items, excluding Materials Cost and those items included in the Price Item 'Site Installation', required to complete one unit of a Price Item and includes all amounts of overhead and profit for this price component. The Equipment Cost is included in the Non Labour Component of the Contract Price.

**"Labour Component"** means the Reimbursable Cost of Labour and Labour Overhead and Profit for all aspects of the Work for Contractor Group. For greater certainty, the Labour Component excludes travel costs and board associated with the Work.

**"Labour Overhead and Profit"** means the compensation for overhead and profit, which includes an allowance for head office personnel and profit, on the Reimbursable Cost of Labour, calculated in accordance with Section 3.4 of this Exhibit 2.

**"Less Than Threshold Change"** or **"LTTC"** means a Change which results in less than or equal to one hundred (100) PLA Labour Hours.

**"Manpower Cost"** is the total estimated cost of PLA Labour required to complete one unit of a Price Item.

**"Materials Cost"** means all amounts for Contractor supplied permanent materials to be incorporated into the Work, and all Contractor's Items and Contractor's Personnel required for the performance of the Work which are not included in the Labour Component or Equipment Cost, and includes all costs of overhead and profit for this price component. The Material Cost is included in the Non Labour Component of the Contract Price.

**"Mobilization"** means all amounts for all activities associated with the preparation and transportation of Contractor's Items and Contractor's Personnel to the Site ready to begin the performance of the Work at the Site, all to the satisfaction of Engineer. Mobilization shall include organizational and project management, equipment transportation, setting up and all preparation necessary for performing the Work, including all costs associated with Contractor's Personnel attending Engineer's safety orientation courses. Mobilization shall also include the submission and Acceptance for use (Code 1) of all documents in Exhibit 4 - Supplier Document



Requirement List ("SDRL") with Submission Requirement Date of ARO+8 or lower.

**"Non Labour Component"** means all amounts, including overhead and profit which are required to perform the Work, excluding the Labour Component. The Non Labour Component includes Materials Cost and Equipment Cost.

**"PLA Labour"** means all Contractor Group's Personnel on Site who perform Work and are covered under the Project Labour Agreement.

**"PLA Labour Hours"** means the estimated number of PLA Labour hours required to complete one unit of a Price Item.

**"PPE"** means personal protection equipment.

**"Price Item"** means the price item as numbered in Appendix A - Schedule of Price Breakdown and Appendix K - Rates for Changes. Each Price Item includes a Labour Component and a Non Labour Component.

**"Productivity Factor"** is determined by the calculation, "Earned/Actual", where "Earned" means the completion of units of a Price Item, weighted by PLA Labour Hours (as specified in Appendix A - Schedule of Price Breakdown), as Accepted by Engineer and "Actual" means the actual hours expended by PLA Labour in the completion of the units of a Price Item, as recorded on Engineer Approved timesheets.

**"Project Labour Agreement" or "PLA"** has the meaning ascribed thereto in Section 10 of this Exhibit 2.

**"Reimbursable Cost of Labour"** means the cost of Wages and Benefits, both direct and indirect, paid by Contractor Group to PLA Labour in the execution of the Work less the amounts for Disallowed Items.

**"Site Installation"** means all temporary buildings needed for the Work, but not involved directly in its execution, including Site offices, lunch trailers, wash cars, warehouses, enclosures, stores, garage, carpenter shop, workshops, laboratories and the like; it also includes the furniture needed for the offices (desks, chairs, bookcases, etc.) and the equipment normally needed to make each of the other buildings fully functional for its purpose.

**"Staff Labour"** mean's Contractor's Personnel, other than PLA Labour, involved in the performance of the Work at Site, and includes all other amounts associated with Staff Labour performing Work on Site. Staff Labour is included in the Materials Cost.

**"Target Cost of Labour"** means Contractor's estimate of the Reimbursable Cost of Labour for the performance of the Work, being the summation of the Manpower Cost for all lump sum and unit Price Items as listed in Appendix A - Schedule of Price Breakdown. The Target Cost of



Labour includes adjustment of the Wages and Benefits subject to Section 15 herein.

**“Travel Cost for Trades Labour”** means the actual cost, without any markups or burdens applied, of travel allowances and travel expenses of the PLA Labour working at Site, applied strictly in accordance with the Project Labour Agreement. Travel Cost for Trades Labour is included in the Materials Cost.

**“Wages and Benefits”** means compensation paid by Contractor to PLA Labour, at the rates set out in Appendix D – Personnel Rates Schedule, in accordance with the Project Labour Agreement and includes the government burdens associated with such Wages and Benefits which Contractor is required to pay for Canada Pension Plan (CPP), Canada Employment Insurance (EI), Newfoundland Health and Post-Secondary Education (HAPSET), and Newfoundland Workplace, Health, Safety and Compensation (WHSCC). Wages and Benefits do not include: 1) any mark-up or profit of any kind, bonuses, incentives or special allowances paid to the PLA Labour; 2) tax equalization payments for PLA Labour.

### 3 LABOUR COMPONENT

3.1 The provisions of this Section 3 define the total compensation for the Labour Component of Price Items, and the Labour Component includes the Reimbursable Cost of Labour and the Labour Overhead and Profit applied on a sliding scale based on its relationship to the Adjusted Target Cost of Labour.

#### 3.2 Reimbursable Cost of Labour

As full compensation for the Labour Component, and subject to Sections 3.3 to 3.4 of this Exhibit 2, Company will pay Contractor the total of the Reimbursable Cost of Labour, and the Labour Overhead and Profit.

A summary report of daily time sheets shall be prepared by Contractor showing breakdown of hours in accordance with Company's costing system and listing the names, category, hours worked (differentiating straight time and overtime), type of work, work area and reasons for overtime, for each member of PLA Labour. This summary report, including supporting Contractor representative signed timesheets, shall be submitted daily to Engineer for checking and Approval. Contractor shall also submit on a weekly basis a report which summarizes all Reimbursable Cost of Labour incurred during the week as reported via the daily summary reports. The content and format of this weekly summary shall be Accepted by Engineer and, at a minimum, shall contain a breakdown of hours in accordance with Company's costing system and listing the names for PLA Labour, category, hours worked (differentiating straight time and overtime), type of work, work area and reasons for overtime and the Reimbursable Cost of Labour. The weekly report shall also include supporting data collected from Contractor's brassing (time card) system for the week being reported.

Contractor shall submit a cost management plan, as required under Section 6 of Exhibit 3 – Coordination Procedures. The plan shall incorporate the requirements of this Section 3 and such other elements that may be required by Company to ensure that costs charged to Company are in accordance with this Agreement and have actually been paid by Contractor.

Contractor shall submit to Company a Labour Productivity Management Plan for the PLA Labour requirements for the Work as particularly set out in Appendix I – Estimated PLA Labour Hours by Trade, which plan shall incorporate the obligations of Contractor in Section 1.2 of this Exhibit 2 and Section 2.4 of Exhibit 3 – Coordination Procedures, and any other initiatives Contractor may utilize to ensure labour productivity opportunities are maximized. PLA Labour shall not be mobilized to Site until the Labour Productivity Management Plan is Accepted by Engineer.

3.3 Target Cost of Labour

3.3.1 As of the Effective Date, the Target Cost of Labour is \$63,920,703.06.

3.3.2 An Adjusted Target Cost of Labour shall be calculated with the issuance of each applicable Change Order and will be reconciled prior to the issuance of the Final Completion Certificate.

3.3.3 Contractor shall be compensated for the Reimbursable Cost of Labour at the rates set out in Appendix D – Personnel Rate Schedule – PLA Labour, as adjusted in accordance with Section 15.1 herein.

3.4 Labour Overhead and Profit

3.4.1 Labour Overhead and Profit shall be applied to the Reimbursable Cost of Labour on a sliding scale based on its relationship to the ATCL. The Labour Overhead and Profit multiplier shall be applied to the portions of the Reimbursable Cost of Labour falling within the bands as set out in Table 1 below. The Labour Overhead and Profit shall be calculated in accordance with Appendix F – PLA Labour Overhead and Profit Application.

**TABLE 1**

Reimbursable Cost of Labour Overhead and Application of Overhead and Profit Banding	Overhead and Profit Multiplier
0 to ATCL	0.13
Greater than ATCL less than or equal to ATCLx1.17	0.07
Greater than ATCLx1.17 less than or equal to ATCLx1.34	0.03



Reimbursable Cost of Labour Overhead and Application of Overhead and Profit Banding	Overhead and Profit Multiplier
Greater than ATCLx1.34 less than or equal to ATCLx1.51	0.00
Greater than ATCLx1.51 less than or equal to ATCLx1.68	-0.23
Greater than ATCLx1.68 less than or equal to ATCLx1.85	-0.56
Greater than ATCLx1.85 less than or equal to ATCLx2.02	-0.07
Greater than ATCLx2.02	-0.07

3.4.2 Labour Overhead and Profit shall be paid monthly based on the actual amount of PLA Labour incurred in the month being invoiced.

3.5 Billing Information

The Reimbursable Cost of Labour and associated Labour Overhead and Profit shall be paid monthly based on the actual amount of billable PLA Labour paid in the payment period being invoiced. Contractor will submit Billing Information to coincide with Contractor’s payroll cycle for Company review and Approval. The Approved Billing Information will form the basis of the supporting documentation required when submitting a Payment Certificate and include, without limitation:

- a) A summary of billable hours supported by the Company Approved daily timesheet summaries;
- b) Detailed payroll reports sourced from Contractor’s project management system and/or payroll and accounting system summarizing the billable PLA Labour and associated payroll burdens, in a form acceptable to Company;
- c) Any other information Engineer may require to confirm the accuracy and completeness of Reimbursable Cost of Labour and associated Labour Overhead and Profit.

**4 TRAVEL COSTS FOR TRADE LABOUR**

4.1 Company shall in accordance with Exhibit 12 – Site Conditions reimburse Contractor at cost for Travel Cost for Trades Labour. Company shall not pay any mark-up on any Travel Cost for Trade Labour. An estimate of Travel Cost for Trades Labour, which is included in the Materials Cost, is contained in Appendix A - Schedule of Price Breakdown Price Item 4 – Travel Costs for Trade Labour.

4.2 For Contractor’s Personnel not covered by the Project Labour Agreement working at Site or other Worksites, travel amounts are included in the Staff Labour value and as such are not subject to additional reimbursement under the Agreement.



## 5 NON LABOUR COMPONENT

- 5.1 This Section 5 covers the Non Labour Component of the Contract Price which is comprised of the lump sums and unit prices under the heading "Non Labour Component" as set out in Appendix A – Schedule of Price Breakdown.
- 5.2 For the purposes of progress payments, the total price of the Non Labour Component for each system, as identified in Appendix B – Milestone Payment Schedule and priced in Appendix A – Schedule of Price Breakdown, will be treated as a lump sum.
- 5.3 As a condition precedent of eligibility to submit applications for payment in accordance with Article 12 - Compensation and Terms of Payment, Contractor shall have a Company Approved schedule of values, which includes each system which is intended to act in conjunction with Appendix B – Milestone Payment Schedule, to provide for clear and straightforward criteria for progress payments of the Non Labour Component of each system. Subject to the Articles of Agreement and other provisions in this Exhibit 2, the schedule of values shall be used as the basis for Contractor's applications for payment. The schedule of values shall include the total price for the Non Labour Component of each system.
- 5.4 Measurement of progress of the Non Labour Component of the Work shall be undertaken on a monthly basis (or as otherwise required by Engineer) by Contractor in accordance with the schedule of values and Appendix B – Milestone Payment Schedule. Progress achieved, based on the Milestone Payment Schedule and schedule of values, and Accepted by Engineer shall form the basis of monthly progress payments which shall be documented on a Payment Certificate. Only Company Approved Payment Certificates shall form the basis of monthly invoices of Contractor.
- 5.5 Following Acceptance of completions certificates and the documents required by the SDRL for a system, Contractor will prepare a detailed take-off of the actual quantities of Work installed and revised values for each discipline within the system based on the as-built drawings and submit the detailed take-off and amended pricing to Company for Approval. Upon issuance of a Change Order, Contractor will invoice for any increase or credit in the system discipline value as set out in Appendix A – Schedule of Price Breakdown. For clarity the quantity adjustment shall only apply to the quantity of Price Items that are set out directly on Drawings or schedules provided in the Technical specifications, and like items or equivalent items installed as part of the Work are deemed to be included in other rates or prices unless added as a Change. For clarity, payment for Changes in quantities will be processed throughout the execution of the Work.

## 5.6 Lump Sum Price Items

- 5.6.1 The following provisions in this Section 5.6 apply only to Work priced on a lump sum basis. Lump sum Price Items are identified in Appendix A – Schedule of Price Breakdown under Unit of Measure as 'LS'.
- 5.6.2 The Non Labour Component of all of the lump sum Price Items stated in Appendix A – Schedule of Price Breakdown are fixed prices.
- 5.6.3 Each lump sum Price Item stated in Appendix A – Schedule of Price Breakdown shall include all elements necessary to achieve completion of the Price Item, including interconnection with other elements of the Work and to interface with materials provided by and work performed by Company Group as necessary to complete the Work, and to make all elements of the Work perform in accordance with the Technical Requirements, whether specifically identified or whether inherent in the Work. For greater certainty the lump sum Price Items listed in Appendix A – Schedule of Price Breakdown are intended only as a means of breaking down the Work for measurement and payment purposes and the fixed lump sum price includes all elements of Contractor's Items and Contractor's Personnel necessary to complete the fixed lump sum portion of the Work in accordance with the requirements of the Agreement.

## 5.7 Unit Price Items

- 5.7.1 The provisions in this Section 5.7 apply only to Work completed on a unit price basis. Unit Price Items are identified in Appendix A – Schedule of Price Breakdown under Unit of Measure as 'ea', 'each', 'Linear Meter', 'm', 'm2' or 'mm'.
- 5.7.2 All of the Price Items for Work completed on a unit price basis are stated in Appendix A – Schedule of Price Breakdown of this Exhibit.
- 5.7.3 The Non Labour Component of all of the unit Price Items stated in Appendix A – Schedule of Price Breakdown are fixed prices and include all amounts for overhead and profit; provided, however, quantities may be adjusted as stated in Section 5.7.5.
- 5.7.4 Each unit Price Item stated in Appendix A – Schedule of Price Breakdown shall include all elements necessary to achieve completion of the Price Item, including interconnection with other elements of the Work and to interface with materials provided by and work performed by Company Group as necessary to complete the Work, and to make all elements of the Work perform in accordance with the Technical Requirements, whether specifically identified or whether inherent in the Work. For greater certainty the unit Price Items listed in Appendix A – Schedule of



Price Breakdown are intended only as a means of breaking down the Work for measurement and payment purposes and the fixed unit price includes all elements of Contractor's Items and Contractor's Personnel necessary to complete the fixed unit price portion of the Work in accordance with the requirements of the Agreement.

- 5.7.5 Quantities of units estimated in Appendix A – Schedule of Price Breakdown are not fixed, as independent circumstances shall control actual quantities installed. Payment for unit Price Items shall only be for the actual quantities of Work completed in accordance with the Agreement and not estimated quantities. There will be no adjustment of any unit price due to variances from the estimated quantities (whether increases/decreases).

## 6 REIMBURSABLE CHANGE ORDERS

- 6.1 The following provisions in this Section 6 apply only to Work resulting from a Change Order which has been determined to be completed on a cost reimbursable basis.
- 6.2 This Section 6, with the exception of Section 6.3 (a), is to be interpreted in accordance with Articles 26.10 and 26.11 of this Agreement.
- 6.3 Full compensation to Contractor for complete performance of any Change Order performed on a reimbursable basis shall be the sum of the following costs and mark-ups:
- (a) The total Reimbursable Cost of Labour for PLA Labour working directly on the Work of the Change Order calculated using the applicable rates in Appendix D – Personnel Rate Schedule; the Reimbursable Cost of Labour for the Change Order shall be added to or subtracted from the Adjusted Target Cost of Labour. A mark-up of thirteen percent (13%) for Labour Overhead and Profit shall be applied to the Reimbursable Cost of Labour for the Change Order;
  - (b) For Contractor's equipment working directly on the Work of the Change Order, the sum of Contractor's equipment rates, as detailed in Appendix E – Equipment Rate Schedule, multiplied by Accepted hours of use as detailed on timesheets; these rates include for profit and overhead, and consequently they shall be treated as meeting the requirements of Article 26.10 (a); and
  - (c) Pre-Accepted Materials Cost, travel and mileage expenses, and third party expenses necessary to perform the Change Order.

Contractor shall advise Company in writing when it has expended seventy-five percent (75%) of the total estimated price for any item of Change Work to be compensated on a reimbursable basis, along with a forecast of the cost to complete the item of Change Work.

The Contractor shall not be compensated for any Contractor's Personnel not identified in



Appendix D – Personnel Rate Schedule or a Change Order issued by Company.

- 6.4 Subject to Company pre-Approval, when Contractor purchases materials on a reimbursable basis:
- (a) All actual costs to Contractor for materials supplied for incorporation into the permanent facility to which the Change 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 thirteen percent (13%) for Contractor overhead and profit.
  - (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 Change Work.
  - (d) This Section does not include consumables, personal protection equipment, and small tools which cost Contractor less than \$2,000 Canadian dollars; all as illustrated in Appendix C – Small Tools, Consumables and PPE. These are covered under Section 6.3 (a).
- 6.5 Subject to Company pre-Approval, when Contractor supplies equipment on a reimbursable basis:
- (a) All costs of Contractor for Contractor-owned equipment shall be at the rates set forth in Appendix E – Equipment Rate Schedule.
  - (b) When Contractor's equipment does not resemble the equipment having rental rates listed in Appendix E – 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 E – 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 thirteen percent (13%) for Contractor overhead and profit.
  - (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 Change Work, Company reserves the right to substitute and provide, at no cost to Contractor, equipment to perform the Change Work. Contractor shall not be allowed to claim for loss of profit and/or any other of its own costs resulting from such substitution by Company.
- 6.6 Subject to Company pre-Approval, when Contractor requires third party services to assist with Change Work being performed on a reimbursable basis:
- (a) Contractor shall secure pre-Acceptance of any third party services, materials, tools, supplies and consumables that are required for the performance of the Change Work and are additional to that which is included in Appendix A - Schedule of Price Breakdown, unit prices and lump sum amounts, rates and prices outlined herein. Company shall reimburse Contractor for the actual, documented and necessary costs (exclusive of HST), plus a mark-up of thirteen percent (13%) for Contractor overhead and profit, of such materials, tools, supplies, consumables, equipment and/or services.
- (b) In no instance shall the third party rates plus mark-up exceed Contractor's rates for similar work or equipment.
- (c) 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.
- 6.7 Travel Cost for Trades Labour will be treated in accordance with Section 4.
- 6.8 For all Change Work carried out on a reimbursable basis, Contractor shall prepare time sheets, using the rates listed in Appendix D – Personnel Rate Schedule and equipment rates listed in Appendix E – Equipment Rate Schedule, and identifying the material and third party services assigned to the performance of the Change Work, which will be provided daily to the Engineer for Acceptance.
- 6.9 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 Change Work, then 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 thirteen percent (13%).
- 6.10 Contractor shall include requests for compensation for Change Work performed on a reimbursable basis on a fully documented Payment Certificate applicable to the time period in which the reimbursable Change Work was performed.





- 6.11 For all Change 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 for all Change Work carried out on a reimbursable basis 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.

## 7 OPERATING SPARES

- 7.1 Appendix H - Operating Spares Price Schedule of this Exhibit 2, details Contractor's recommended two (2) year operational spares and the associated unit prices. For the Term of the Agreement, Company may, at its sole discretion, purchase any number and any type of operational spares listed in Appendix H – Operating Spares Price Schedule at the unit prices outlined therein.
- 7.2 The unit prices specified shall include all amounts associated with design, manufacture, testing, preservation, storage, transport and delivery of the spares and all associated documentation. Spares shall be delivered to the Site in accordance with Incoterms 2010, Delivered Duty Paid (DDP). Supply shall be deemed to be complete upon delivery of the operational spares and all associated documentation.
- 7.3 Company will issue a Change Order to Contractor covering all purchases of operating spares.

## 8 CHANGES

- 8.1 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 Appendix A - Schedule of Price Breakdown, Appendix K – Rates for Changes, Appendix D - Personnel Rate Schedule, the Project Labour Agreement and Appendix E - Equipment Rate Schedule will apply for both increases and decreases in the Work.
- 8.2 Each Price Item stated in Appendix K – Rates for Changes shall include all elements necessary to achieve completion of the Price Item including interconnection with other elements of the Work and to interface with materials provided by and work performed by Company Group as necessary to complete the Work and to make all elements of the Work perform in accordance with the Technical Requirements, whether specifically identified or whether inherent in the Work. For greater certainty the Price Items listed in Appendix K – Rates for Changes are intended only as a means of breaking down the Work for measurement and payment purposes, and the unit price includes all elements



of Contractor's Items and Contractor's Personnel necessary to complete the Work relating to such Price Item in accordance with the requirements of the Agreement. To the extent that some aspects of a Change Order may be performed off of the Site, the Labour Component and/or Equipment Cost components of a Price Item may not apply.

For example, where there is a unit price per meter of piping in Appendix K – Rates for Changes, the rate includes all costs of Contractor's Personnel for planning and execution of the Work, all of Contractor's Items including Materials Cost (including pipe, fittings, hangers, supports, fasteners, seals, and the like) as required, Equipment Cost (including fitting equipment, fabrication equipment, materials handling, inspection equipment, consumables and the like) and overhead and profit as necessary to fabricate and install the piping spool in accordance with the Technical Requirements. The same logic shall be applied to each Price Item in Appendix K – Rates for Changes.

- 8.3 To the extent rates and prices in Appendix A – Schedule of Price Breakdown, Appendix K – Rates for Changes or elsewhere in this Exhibit 2 do not apply to a Change, such Change shall be evaluated and agreed by the Parties on the basis of a reasonable estimate of the Reimbursable Cost of Labour for the Change, and a fixed price adjustment to the Non Labour Component.
- 8.4 Each Change Order issued shall record the estimate of the Reimbursable Cost of Labour for the Change, the fixed price for the Non Labour Component for the Change, and the Adjusted Target Cost of Labour as a result of that Change Order.

Where any Work relating to a Change that has been Approved by Company, but Company and Contractor have not agreed on a price for such Change 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 26.10(b)(i) of this Agreement, the allowance referenced therein shall be the total of:
- (i) the percentage amount stated in Section 6.4(a) for purchased materials;
  - (ii) the percentage amount stated in Section 6.5(c) for supplied equipment;
  - (iii) the percentage amount stated in Section 6.6(a) for third party services;
  - (iv) an amount in accordance with Section 6.3(a) for the Labour Component;
- 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.

## 9 STANDBY TIME

- 9.1 When Company directs Contractor to temporarily cease performance of any aspect of the Work for a reason that is not related to Contractor's performance of the Work or

weather, the following provisions will apply:

- (a) Company will pay Contractor for stand-by time of:
  - (i) equipment, other than rented equipment and operated rented equipment, at fifty percent (50%) of the applicable rate stated in Appendix E - Equipment Rate Schedule; and
  - (ii) rented equipment and operated rented equipment at one hundred percent (100%) of the lessor's invoice price;where it is necessary to retain the equipment in the Work area for extended periods as Approved by Company.
- (b) For all standby time Approved by Company, Contractor shall prepare daily time sheets for all labour (PLA Labour and Staff Labour) and equipment assigned to the performance of the Work, which will be reviewed, and if Accepted, signed by the Engineer. For greater certainty, Staff Labour time sheets are for records purposes only, and Contractor shall only be entitled to an adjustment to compensation for Staff Labour to the extent the Exhibit 9 - Milestone Date M-UN4-1 and/or the Final Completion date is adjusted. Copies of time sheets shall accompany all Contractor invoices.
- (c) Standby time for PLA Labour shall be in the minimum amount in accordance with section 21 (Reporting Time) of the Project Labour Agreement.
- (d) Pursuant to Section 9.1(a), payment for equipment standby will be limited to the applicable monthly, weekly or daily rate, the proration of which shall be applied once within a twenty-four hour period 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.

## 10 PROJECT LABOUR AGREEMENT

A Special Project Order ("SPO") has been enacted to bring into effect a Collective Agreement between the Muskrat Falls Employers' Association Inc. and the Resource Development Trades Council of Newfoundland and Labrador ("Project Labour Agreement" or "PLA"), which is included in Exhibit 11 - Company Supplied Documents, as well as a summary of its key provisions.

Contractor shall be bound to the terms of the PLA for the duration of its work under the PLA, become a member of the Muskrat Falls Employers' Association, designate in writing staff persons to be the Contractor's representative and his/her alternate for all Muskrat Falls Employers' Association meetings, ensure Contractor is represented at all Muskrat Falls Employers' Association meetings and designate in writing 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.

**11 COMPENSATION**

11.1 Pursuant to Article 12.3, Contractor shall invoice each month: for the Reimbursable Cost of Labour and the Travel Costs for Trades Labour incurred in that month; for the associated Labour Overhead and Profit for the month; and for the actual progress on the Non Labour Component for the month.

**12 MILESTONE PAYMENT SCHEDULE**

12.1 Company will pay Contractor monthly, in accordance with Appendix B – Milestone Payment Schedule, for actual costs incurred and progress achieved. Appendix J - Monthly Payment Forecast Schedule of this Exhibit 2 includes the Monthly Payment Forecast Schedule. This Schedule is meant as a forecast only. Contractor shall update the Monthly Payment Forecast Schedule as on a monthly basis, to keep it current.

**13 PERFORMANCE SECURITY**

13.1 Contractor will be compensated in accordance with Appendix B – Milestone Payment Schedule for the performance security required under Article 7 of this Agreement, at the rate specified in the table below 13.2.

13.2 Contractor will be compensated in accordance with Appendix B – Milestone Payment Schedule for performance security, provided in the value of an advance payment of up to 10% of the Materials Cost and Equipment Cost components of Contract Price and in the form set out in Exhibit 14 – Performance Security of this Agreement, at the rate specified below.

Performance Security Type	Rate
Letter Of Credit	Fixed rate of 3% of letter of credit value per year

**14 LIQUIDATED DAMAGES FOR DELAY**

14.1 If Contractor fails to deliver that part of the Work to achieve any of the following Milestones (as stated in this Section 14) 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, as

more particularly described below, subject to the liability limit referred to in Article 36.2 of this Agreement, unless the failure to achieve the Milestone is due to an event of Force Majeure or otherwise excused under the Agreement.

- (a) If Contractor achieves the below specified Milestone within 15 days of the applicable Milestone Date set out in Exhibit 9 – Schedule, no liquidated damages will apply regarding such Milestone.
- (b) If Contractor achieves the below specified Milestone between 16 and 45 days inclusive after the applicable Milestone Date set out in Exhibit 9 – Schedule, Contractor shall pay Company as liquidated damages the amount specified in Table 2 – Column (b) regarding such Milestone, for each day (or part thereof) of such failure during this time period.
- (c) If Contractor achieves the below specified Milestone between 46 and 60 days inclusive after the applicable Milestone Date set out in Exhibit 9 – Schedule, Contractor shall pay Company as liquidated damages the amount specified in Table 2 – Column (c) regarding such Milestone, for each day (or part thereof) of such failure during this time period.
- (d) If Contractor achieves the below specified Milestone 61 days after the applicable Milestone Date set out in Exhibit 9 – Schedule, or later, Contractor shall pay Company as liquidated damages the amount specified in Table 2 – Column (d) regarding such Milestone, for each day (or part thereof) of such failure during this time period.

**TABLE 2**

Milestone #	Milestone Description	(a) Liquidated Damages per day	(b) Liquidated Damages per day	(c) Liquidated Damages per day	(d) Liquidated Damages per day
M-UN1-1	Unit 1 CH0031 Work Required In All Areas To Commission (dry test) Unit 1 complete, and ready for integrated testing with Company's Other Contractors, in accordance with the Technical Requirements.	\$0.00	\$56,250.00	\$75,000.00	\$125,000



Milestone #	Milestone Description	(a) Liquidated Damages per day	(b) Liquidated Damages per day	(c) Liquidated Damages per day	(d) Liquidated Damages per day
M-GEN-1	CH0031 Work for Units 1-4 Intake gates complete and ready for integrated testing with Company's Other Contractors, in accordance with the Technical Requirements.	\$0.00	\$56,250.00	\$75,000.00	\$125,000
M-UN2-1	Unit 2 CH0031 Work Required To Commission (dry test) Unit 2 complete, and ready for integrated testing with Company's Other Contractors, in accordance with the Technical Requirements.	\$0.00	\$18,000.00	\$26,000.00	\$40,000
M-UN3-1	Unit 3 CH0031 Work Required To Commission (dry test) Unit 3 complete, and ready for integrated testing with Company's Other Contractors, in accordance with the Technical Requirements.	\$0.00	\$18,000.00	\$26,000.00	\$40,000
M-UN4-1	Unit 4 CH0031 Work Required To Commission (dry test) Unit 4 complete, and ready for integrated testing with Company's Other Contractors, in accordance with the Technical Requirements.	\$0.00	\$18,000.00	\$26,000.00	\$40,000

15 CONTRACT PRICE ADJUSTMENT

## 15.1 PLA Labour

PLA Labour shall be subject to adjustment in accordance with the Project Labour Agreement (PLA).

The Adjusted Target Cost of Labour is deemed to include adjustments associated with the PLA up to and including 1<sup>st</sup> day of May, 2018. In the event any portion of the Work subject to Adjusted Target Cost of Labour continues after the 1st day of May, 2018, the portion of the Adjusted Target Cost of Labour that will be performed after 1-May-2018 will be adjusted upwards or downwards in proportion to changes in PLA rates.

## 16 NEUTRAL FUNDING

16.1 Company and Contractor agree to establish cash forecasting and advance funding procedures that will result in a neutral funding arrangement for Reimbursable Cost of Labour and Labour Overhead and Profit (LOH&P).

16.2 No earlier than thirty (30) days prior to the 25th of each month, Contractor shall prepare and submit a neutral funding invoice covering the applicable payment period, in a format and detail acceptable to Company, supported by the following:

- (a) Company Approved cash forecast representing the forecasted amount of Contractor's cost related to Reimbursable Cost of Labour and the associated LOH&P for the applicable payment period.
- (b) Company Approved Productivity Factor (PF) calculated for the immediate preceding payment period. For purposes of calculating neutral funding amounts the Productivity Factor will not exceed 1.
- (c) In the event the PF falls below 1, at Company's sole discretion, the amount of neutral funding will be determined by the following calculation:

$$\text{Neutral Funding} = \text{Cash Forecast} \times \text{Productivity Factor}$$

16.3 Company shall process and pay Contractor's neutral funding invoice within thirty (30) days of receipt. Funding arrangements will be reviewed periodically to ensure that the desired results are achieved.

16.4 All neutral funding provided to Contractor shall be offset against the Contractor's invoice for the corresponding payment period. Where funding to Contractor by Company exceeds Contractor's invoiced amount associated with Reimbursable Cost of Labour and LOH&P, such excess shall be deducted from amounts owing to Contractor.



Where the funding to Contractor by Company is less than Contractor's invoiced amount associated with Reimbursable Cost of Labour and LOH&P, the difference shall be paid to Contractor within thirty (30) days of invoice receipt by Company, subject to Contractor's compliance with Article 12 – Compensation and Terms of Payment, Exhibit 2 – Compensation and Exhibit 3 – Coordination Procedures.

- 16.5 Contractor shall make best efforts to provide accurate estimates of the Reimbursable Cost of Labour. If neutral funding to Contractor by Company for Reimbursable Cost of Labour and LOH&P regularly exceeds Contractor's actual invoiced amounts associated with Reimbursable Cost of Labour and LOH&P, Company retains the right to modify or cease neutral funding arrangements.
- 16.6 Company reserves the right to reduce the neutral funding invoice amount should the forecasted amount of Contractor's Reimbursable Cost of Labour and LOH&P change subsequent to submission of the neutral funding invoice.
- 16.7 The aggregate amount of neutral funding shall not exceed the Target Cost of Labour unless otherwise Approved by Company; at its sole discretion.



**APPENDIX A**  
**SCHEDULE OF PRICE BREAKDOWN**





**APPENDIX A**  
**SCHEDULE OF PRICE BREAKDOWN**



SCHEDULE OF PRICE BREAKDOWN

CH0001-001  
Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	LABOUR COMPONENT								NON LABOUR COMPONENT				UNIT PRICE	TOTAL PRICE
					PLA HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR OH&P (per unit) D = C x 13%	LABOUR OH&P (Ext.) E = A x D	COST OF LABOUR (Ext.) F = A x C	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST				
															TOTAL PRICE	TOTAL PRICE		
<b>GENERAL</b>																		
1	0000.01	Mobilization	LS	1.0	8157.0	787,435.95	8,156.95	95,846.67	95,846.67	787,435.95	141,108.02	141,108.02	940,697.35	940,697.35	1,917,108.00	1,917,108.00		
2	0000.02	Site Installation	LS	1.0	0.0	0.00	0.00	0.00	0.00	465,787.59	465,787.59	8,675,777.29	8,675,777.29	4,091,564.88	4,091,564.88			
3	0000.03	Demobilization	LS	1.0	4943.3	447,080.84	4,943.27	58,120.51	58,120.51	447,080.84	86,294.24	86,294.24	298,523.63	298,523.63	890,019.74	890,019.74		
PM	Added	Staff Labour	LS	1.0	0.0	0.00	0.00	0.00	0.00	34,202,483.64	34,202,483.64	0.00	0.00	34,202,483.64	34,202,483.64			
4		Estimate of Travel Cost for Trades Labour	Estimate	1.0						54,975,871.23	54,975,871.23	0.00	0.00	54,975,871.23	54,975,871.23			
4c		Letter of Credit - Work - Agreement Article 7.1(a) (Calculated using Contract Price excluding Items 4c and 4d)	LS	1.0						\$2,697,437.90	\$2,697,437.90			2,697,437.90	2,697,437.90			
4d		Letter of Credit - Warranty Period - Agreement Article 7.1(b) (Calculated using Contract Price excluding Items 4c and 4d)	LS	1.0						\$851,822.49	\$851,822.49			851,822.49	851,822.49			
ST01		<b>SUB-TOTAL INDIRECT COSTS (GENERAL)</b>								<b>\$159,987.19</b>	<b>\$1,184,516.81</b>	<b>\$42,570,983.00</b>	<b>\$42,570,983.00</b>	<b>\$48,824,266.26</b>	<b>\$48,824,266.26</b>			
<b>PIPING/MECHANICAL SYSTEMS</b>																		
<b>PIPING/MECHANICAL - DESIGN AND ENGINEERING</b>																		
5	3343.010	WFS (Fire Protection Water)	LS	1.0	0.0	0.00	0.00	0.00	0.00	0.00	122,570.22	122,570.22	370.34	370.34	122,940.55	122,940.55		
6	3310.010	Mechanical Shaft Platform/Staging Design and Engineering	LS	1.0	0.0	0.00	0.00	0.00	0.00	109,437.69	109,437.69	330.64	330.64	109,768.35	109,768.35			
ST02		<b>SUB-TOTAL PIPING/MECHANICAL - DESIGN AND ENGINEERING</b>								<b>\$0.00</b>	<b>\$0.00</b>	<b>\$232,007.91</b>	<b>\$232,007.91</b>	<b>\$701.00</b>	<b>\$232,708.91</b>			
<b>PIPING/MECHANICAL - SUPPLY AND INSTALLATION</b>																		
7	3352.001	Water treatment plant: sand & Antracite Filter 3352-FR-6000	ea	1.0	114.8	10,376.75	114.8	1,348.98	1,348.98	10,376.75	206,799.93	206,799.93	44,072.85	44,072.85	262,598.51	262,598.51		
8	3352.002	Water treatment plant: Anoxic Exchanger 3352-FR-6001	ea	1.0	114.8	10,376.75	114.8	1,348.98	1,348.98	10,376.75	317.47	317.47	2,502.62	2,502.62	14,545.81	14,545.81		
9	3352.003	Water treatment plant: Anoxic control Panel 3352-CP-6001	ea	1.0	15.9	1,440.41	15.9	187.25	187.25	1,440.41	300.30	300.30	398.97	398.97	2,326.93	2,326.93		
10	3352.004	Water treatment plant: Activated Carbon Filter 3352-FR-6002	ea	1.0	114.8	10,376.75	114.8	1,348.98	1,348.98	10,376.75	317.47	317.47	2,502.62	2,502.62	14,545.81	14,545.81		
11	3352.005	Water treatment plant: Cartridge Filter 3352-FR-6003	ea	1.0	103.1	9,321.75	103.1	1,211.83	1,211.83	9,321.75	190.59	190.59	2,229.12	2,229.12	12,953.29	12,953.29		
12	3352.006	Water treatment plant: UV Sterilizer 3352-UV-6000	ea	1.0	103.1	9,321.75	103.1	1,211.83	1,211.83	9,321.75	190.59	190.59	2,229.12	2,229.12	12,953.29	12,953.29		
13	3352.007	Water treatment plant: Injection of Sodium Hypochlorite 3352-P-6002 / 6003	ea	2.0	35.9	3,241.96	71.7	421.45	842.91	3,241.96	0.00	0.00	781.91	1,563.82	4,425.32	8,850.63		
14	3352.008	Water treatment plant: Tank 3352-HK-6000 / 6001	ea	2.0	78.4	7,085.59	356.8	421.14	842.28	7,085.59	34,171.17	34,171.17	247.24	494.48	39,011.41	78,022.82		
15	3352.009	Water treatment plant: Static Mixer 3352-SM-6000	ea	1.0	35.9	3,249.58	35.9	422.45	844.90	3,249.58	0.00	0.00	763.71	763.71	4,435.73	4,435.73		
16	3352.010	Water treatment plant: Flow Meter 3352-FQI-6000	ea	1.0	12.8	1,151.43	12.8	149.95	299.90	1,151.43	360.36	360.36	343.63	343.63	2,007.36	2,007.36		
17	3352.011	Water treatment plant: Control Panel 3352-CP-6004	ea	1.0	15.9	1,440.41	15.9	187.25	187.25	1,440.41	300.30	300.30	398.97	398.97	2,326.93	2,326.93		
18	3352.012	Water treatment plant: Treated Water Tank 3352-TK-6000	ea	1.0	213.0	19,521.11	213.0	2,502.77	5,005.54	19,521.11	658.26	658.26	4,657.05	4,657.05	27,070.19	27,070.19		
19	3352.013	Water treatment plant: Distribution Pump 3352-P-6000 / 6001	ea	2.0	90.1	8,141.29	180.1	1,058.37	2,116.73	16,282.57	6,649.80	12,299.61	1,654.75	7,309.49	21,504.20	43,008.40		
20	3352.014	Water treatment plant: Hydro Pneumatic Tank 3352-TK-6001	ea	1.0	96.7	8,744.64	96.7	1,166.67	1,166.67	8,744.64	6,555.70	6,555.70	1,374.71	1,374.71	19,810.72	19,810.72		
21	3352.015	Main water heater 3352-WHFR-7002	ea	1.0	48.2	4,355.87	48.2	566.24	566.24	4,355.87	43,589.65	43,589.65	9,799.41	9,799.41	58,110.91	58,110.91		
22	3352.016	Control room water heater 3352-WHFR-7000	ea	1.0	48.2	4,355.87	48.2	566.24	566.24	4,355.87	1,136.09	1,136.09	1,290.64	1,290.64	7,538.89	7,538.89		
23	3352.017	Eyewash water heater 3352-WHFR-6000 / 7001 / 7003	ea	3.0	25.5	2,304.10	76.5	299.53	898.60	6,912.29	30,234.65	30,234.65	6,626.50	19,879.49	39,454.77	118,364.32		
24	3352.018	Emergency shower and eyewash 3352-ESV-6000	ea	1.0	48.1	4,350.33	48.1	565.54	565.54	4,350.33	2,359.83	2,359.83	1,497.49	1,497.49	8,773.19	8,773.19		
25	3352.019	Emergency shower and eyewash 3352-ESV-7000 to 7004	ea	5.0	48.1	4,347.29	240.4	565.15	2,825.74	21,736.43	12,565.29	62,817.96	1,551.05	17,755.25	110,727.08	105,135.38		
26	3352.020	Water closet 3352-WC-6000 / 6001 / 7000 to 7004 / 8000 to 8003	ea	11.0	28.9	2,609.60	289.2	339.25	2,737.22	28,705.56	553.92	6,093.09	7,972.92	4,227.57	46,501.30	46,501.30		
27	3352.021	Urinal 3352-UH-7000 / 7001	ea	2.0	28.8	2,606.32	57.7	388.82	777.64	5,212.64	1,077.47	2,154.94	829.44	1,658.88	4,851.05	9,702.10		
28	3352.022	Lavatory 3352-LAV-6001 / 7000 to 7004 / 8000 to 8003	ea	1.0	9.6	869.39	96.2	113.09	2,120.89	8,493.74	220.54	2,205.54	248.77	248.77	14,165.29	14,165.29		
29	3352.023	Lavatory 3352-LAV-6000 / 6002	ea	2.0	9.7	874.09	19.3	113.63	227.24	1,748.18	136.43	252.87	230.86	461.74	1,345.04	2,690.07		
30	3352.024	Kitchen sink 3352-KS-7000	ea	1.0	9.7	874.78	9.7	113.72	113.72	874.78	259.70	259.70	257.84	257.84	1,506.06	1,506.06		
31	3352.025	Mop sink 3352-MS-6000 / 7000 / 8000	ea	3.0	19.2	1,737.55	57.7	225.88	677.64	5,695.54	17,086.61	1,555.05	4,665.01	9,213.97	27,641.91	27,641.91		
32	3352.026	Service sink 3352-SS-8000	ea	1.0	9.7	874.78	9.7	113.72	113.72	874.78	5,683.45	5,683.45	1,349.81	1,349.81	8,021.77	8,021.77		
33	3352.027	Multi station sink 3352-SM-6000	ea	1.0	14.4	1,301.15	14.4	169.41	169.41	1,301.15	6,045.33	6,045.33	1,523.34	1,523.34	9,041.22	9,041.22		
34	3352.028	Shower fitting 3352-SH-7000 / 7001	ea	2.0	9.7	874.09	19.3	113.64	227.24	1,748.18	370.22	740.44	279.97	559.95	1,638.02	3,276.03		
35	3352.029	Air vent 3352-AV-8000 / 8001	ea	1.0	11.0	989.85	21.9	138.48	257.36	1,979.70	260.46	520.92	280.07	1,644.06	3,328.12	3,328.12		
36	3352.030	Pressure safety valve 3352-PSV-6000 / 6001	ea	2.0	7.3	659.90	14.6	85.79	171.57	1,319.80	104.77	209.54	176.18	352.34	1,026.64	2,053.27		
37	3352.031	Pressure indicator 3352-PI-6000 to 6010	ea	11.0	3.7	329.85	40.2	42.89	471.88	3,629.44	84.95	934.41	94.64	1,041.09	5,524.43	6,076.76		
38	3352.032	Pressure switch 3352-PSI-6000, 3352-PSII-6000, 3352-PSIII-6000, 3352-PSIV-6000	ea	4.0	7.3	659.90	29.2	85.79	343.15	2,639.59	419.73	1,678.91	289.59	958.35	1,405.00	5,619.99		
39	3352.033	Pressure control valve 3352-PCV-6000	ea	1.0	6.4	575.32	6.4	74.70	74.70	575.32	1,704.41	1,704.41	478.35	478.35	2,832.88	2,832.88		
40	3352.034	Temperature indicator 3352-TI-7000 / 3352-TI-7000, 3352-TI-6000 / 3352-TI-6000	ea	2.0	3.7	329.85	7.3	42.89	85.79	659.89	246.21	492.83	127.15	254.30	746.40	1,492.81		
41	3352.035	Control Panel 3352-CP-6005	ea	1.0	18.6	1,678.85	18.6	218.25	218.25	1,678.85	55,347.27	55,347.27	11,545.45	11,545.45	68,829.82	68,829.82		
42	3352.036	Pipe NPS 1/2 Type K, Piping Specification NB11	m	251.0	0.8	71.88	204.4	9.65	2,449.29	32,940.36	1,157	3,459.83	20.19	5,124.31	117.15	39,773.29		
43	3352.037	Pipe NPS 1/2 Sch.10s, Piping Specification SB11	m	49.0	0.9	351.85	190.7	45.74	2,393.22	17,240.52	10.73	525.84	84.85	4,157.04	24,105.27	24,105.27		
44	3352.038	Elbow 45 degrees NPS 1/2 Type K, Piping Specification NB11	ea	0.0	0.2	18.64	0.0	2.16	0.00	0.00	1.00	0.00	4.11	0.00	23.97	0.00		
45	3352.039	Elbow 90 degrees NPS 1/2 Type K, Piping Specification NB11	ea	168.0	0.2	22.16	40.7	2.88	478.32	3,679.35	0.51	85.11	5.31	881.84	30.87	5,124.62		
46	3352.040	Tee NPS 1/2 Type K, Piping Specification NB11	ea	57.0	0.5	44.29	27.9	5.76	338.39	2,524.52	1.04	59.01	10.62	605.18	61.70	3,516.90		
47	3352.041	Coupling SW/FNPT NPS 1/2, Piping Specification NB11	ea	58.0	0.2	12.10	13.0	2.87	152.29	1,210.14	1.65	87.71	5.53	292.97	32.16	1,704.43		
48	3352.042	Weld NPS 1/2, Piping Specification NB11	ea	925.0	1.3	118.00	1,203.0	35.34	34,189.05	109,146.57	0.00	0.00	27.78	25,501.04	161.07	148,886.66		
49	3352.043	Ball Valve NPS 1/2, Valve Specification VBA08	ea	63.0	1.3	171.8												



SCHEDULE OF PRICE BREAKDOWN

Appendix A - Schedules of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	LABOUR COMPONENT										NON LABOUR COMPONENT				UNIT PRICE	TOTAL PRICE
					PLA HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR OHP# (per unit)	LABOUR OHP# (Ext.)	COST OF LABOUR (Ext.)	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST	F=A+G	F+C+D+G+H	F+A+I			
																		A		
71	3352.065	Pipe NPS 1 Type K, Piping Specification NB11	m	90.0	0.9	80.28	79.9	10.44	939.81	7,225.43	18.38	1,654.32	22.57	2,011.19	131.67	11,850.45				
72	3352.066	Pipe NPS 1 Sch.105, Piping Specification SB11	m	0.0	0.6	49.91	0.0	6.49	0.00	0.00	4.61	0.00	12.65	0.00	73.66	0.00				
73	3352.067	Elbow 90 degrees NPS 1 Type K, Piping Specification NB11	ea	53.0	0.2	22.21	12.8	2.89	150.31	1,154.82	2.52	130.94	5.78	297.74	33.84	1,733.66				
74	3352.068	Elbow 90 degrees SW Class 3000 NPS 1, Piping Specification SB11	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	9.64	0.00	17.58	0.00	102.41	0.00				
75	3352.069	Tee SW Class 3000 NPS 1, Piping Specification SB11	ea	0.0	1.5	131.71	0.0	17.12	0.00	0.00	9.64	0.00	32.90	0.00	191.37	0.00				
76	3352.070	Tee Reducing NPS 1 x 1/2 Type K, Piping Specification NB11	ea	9.0	0.5	44.06	4.4	5.73	51.55	396.50	5.15	46.33	11.39	102.52	66.32	596.89				
77	3352.071	Tee Reducing NPS 1 x 3/4 Type K, Piping Specification NB11	ea	2.0	0.5	41.59	0.9	5.41	10.81	83.18	5.15	10.30	10.81	21.62	62.95	125.91				
78	3352.072	Tee Reducing SW Class 3000 NPS 1 x 1/2, Piping Specification SB11	ea	0.0	1.5	131.71	0.0	17.12	0.00	0.00	9.64	0.00	32.90	0.00	191.37	0.00				
79	3352.073	Union SW Class 3000 NPS 1, Piping Specification SB11	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	16.64	0.00	19.39	0.00	113.22	0.00				
80	3352.074	Concentric Reducer NPS 1 1/2 x 1/2 Type K, Piping Specification NB11	ea	0.0	0.4	33.27	0.0	4.33	0.00	0.00	5.73	0.00	8.97	0.00	57.29	0.00				
81	3352.075	Concentric Reducer NPS 1 1/4 x 3/4 Type K, Piping Specification NB11	ea	8.0	0.3	24.78	2.2	3.22	25.77	198.25	2.17	17.39	6.74	50.09	36.44	291.51				
82	3352.076	Concentric Reducer SW Class 3000 NPS 1 x 3/4, Piping Specification SB11	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	21.57	0.00	19.98	0.00	116.75	0.00				
83	3352.077	Cap NPS 1 Type K, Piping Specification NB11	ea	3.0	0.2	22.18	0.7	2.88	8.65	66.54	1.87	5.61	5.59	16.76	32.52	97.57				
84	3352.078	Cap SW Class 3000 NPS 1, Piping Specification SB11	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	8.68	0.00	101.26	0.00	101.26	0.00				
85	3352.079	Flange Slip-on 15DRF NPS 1 c/w hardware, Piping Specification SB11	ea	3.0	1.3	115.53	3.8	15.02	45.04	346.59	0.81	2.42	27.32	81.96	158.67	476.01				
86	3352.080	Flange SW 15DRF NPS 1 c/w hardware, Piping Specification SB11	ea	19.0	0.7	62.53	13.1	8.13	33.45	1,188.10	21.97	417.52	19.12	363.27	111.76	2,126.35				
87	3352.081	Weld NPS 1, Piping Specification NB11	ea	220.0	1.8	118.03	287.2	15.34	3,337.38	25,897.54	0.00	180.94	27.74	6,102.75	161.12	35,446.06				
88	3352.082	Ball Valve NPS 1, Valve Specification VBA11	ea	0.0	2.6	231.52	0.0	30.19	0.00	0.00	127.75	0.00	80.13	0.00	489.50	0.00				
89	3352.083	Pipe insulation NPS 1	Linear meter	89.9	3.3	302.18	305.5	39.28	3,532.27	27,170.89	185.55	16,683.74	90.89	8,172.64	617.90	55,559.53				
90	3352.084	Pipe identification NPS 1	Linear meter	30.4	0.6	50.49	17.0	6.54	199.51	1,534.67	12.06	166.70	14.79	434.49	83.41	2,535.37				
91	3352.085	Pipe Type K NPS 1-1/4, Piping Specification NB11	m	4.0	0.8	70.68	3.1	9.19	36.41	280.05	23.28	92.23	21.30	84.39	124.44	493.07				
92	3352.086	Concentric Reducer Type K 1-1/4 x 1/2, Piping Specification NB11	ea	0.0	0.4	33.27	0.0	4.33	0.00	0.00	5.73	0.00	8.97	0.00	52.29	0.00				
93	3352.087	Weld NPS 1-1/4, Piping Specification NB11	ea	199.0	2.0	117.00	389.6	23.01	4,578.94	35,222.34	0.00	0.00	41.60	8,277.87	241.61	48,079.56				
94	3352.088	Pipe insulation NPS 1-1/2	Linear meter	4.0	2.4	80.74	13.4	39.22	158.94	1,077.50	191.62	759.25	92.57	366.79	628.55	2,490.54				
95	3352.089	Pipe identification NPS 1-1/4	Linear meter	0.0	0.6	49.68	0.7	0.6	8.65	66.54	1.87	15.65	14.20	18.85	110.29	0.00				
96	3352.090	Pipe NPS 1-1/2 Type K, Piping Specification NB11	m	134.8	0.8	73.57	109.7	9.54	1,288.94	9,915.30	30.31	4,084.54	23.89	3,152.52	136.84	18,441.15				
97	3352.091	Elbow 90 degrees NPS 1-1/2 Type K, Piping Specification NB11	ea	77.0	0.2	22.07	18.8	2.87	220.95	1,609.65	4.09	315.27	6.01	462.92	35.05	2,698.80				
98	3352.092	Tee NPS 1-1/2 Type K, Piping Specification NB11	ea	8.0	0.5	43.32	3.8	5.63	45.06	346.59	6.08	54.41	11.53	92.21	67.16	537.26				
99	3352.093	Tee Reducing NPS 1-1/2 x 1-1/2 x 1/2 Type K, Piping Specification NB11	ea	12.0	0.5	44.02	5.8	5.72	48.67	528.20	8.44	101.80	12.04	144.54	70.23	842.71				
100	3352.094	Tee Reducing NPS 1-1/2 x 1-1/2 x 3/4 Type K, Piping Specification NB11	ea	9.0	0.5	44.06	4.4	5.73	51.55	396.50	8.44	75.97	12.05	108.48	70.28	632.50				
101	3352.095	Tee Reducing NPS 1-1/2 x 1-1/2 x 1/2 Type K, Piping Specification NB11	ea	5.0	0.5	44.08	2.4	3.22	27.94	213.80	8.44	42.21	11.80	59.00	68.80	344.02				
102	3352.096	Concentric Reducer NPS 1-1/2 x 1-1/2 x 1/2 Type K, Piping Specification NB11	ea	1.0	0.2	16.64	0.7	2.14	5.73	16.64	5.73	5.05	5.05	11.46	6.00	39.00				
103	3352.097	Concentric Reducer NPS 1-1/2 x 1-1/2 x 3/4 Type K, Piping Specification NB11	ea	2.0	0.3	24.96	0.6	3.24	6.49	49.91	5.73	11.46	7.02	14.04	40.95	81.90				
104	3352.098	Concentric Reducer NPS 1-1/2 x 1-1/2 x 1/2 Type K, Piping Specification NB11	ea	1.0	0.2	16.64	0.7	2.14	5.73	16.64	5.73	5.73	5.05	5.05	29.59	29.59				
105	3352.099	Cap NPS 1-1/2 Type K, Piping Specification NB11	ea	4.0	0.2	20.80	0.9	2.70	10.81	83.18	3.30	13.20	5.55	22.20	32.35	129.40				
106	3352.100	Weld NPS 1-1/2, Piping Specification NB11	ea	133.0	2.0	117.00	260.4	23.01	3,060.39	23,841.45	0.00	0.00	41.60	5,532.57	241.61	82,134.41				
107	3352.101	Pipe insulation NPS 1-1/2	Linear meter	134.7	3.3	303.53	450.8	39.28	3,598.41	40,757.01	210.39	28,344.47	95.96	12,927.85	648.20	87,327.24				
108	3352.102	Pipe identification NPS 1-1/2	Linear meter	45.5	0.6	50.49	25.4	6.54	199.51	1,534.67	12.06	166.70	14.79	434.49	83.41	2,535.37				
109	3352.103	Pipe NPS 2 Type K, Piping Specification NB11	m	122.0	0.7	82.28	147.5	127.76	15,578.54	119,838.03	645.99	7,891.43	242.18	29,752.49	1,414.26	173,428.20				
110	3352.104	Pipe NPS 2 Sch.105, Piping Specification SB11	m	0.0	0.6	66.54	0.0	8.65	0.00	0.00	9.99	0.00	17.45	0.00	101.63	0.00				
111	3352.105	Elbow 45 degrees NPS 2 Type K, Piping Specification NB11	ea	5.0	0.1	9.88	0.6	1.30	6.49	49.91	5.49	27.46	3.45	17.24	20.22	101.12				
112	3352.106	Elbow 90 degrees NPS 2 Type K, Piping Specification NB11	ea	89.0	0.2	22.00	9.5	2.84	113.54	858.14	10.81	421.65	7.35	286.57	44.02	1,677.92				
113	3352.107	Elbow 90 degrees SW Class 3000 NPS 2, Piping Specification SB11	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	9.64	0.00	17.58	0.00	102.41	0.00				
114	3352.108	Tee SW Class 3000 NPS 2, Piping Specification SB11	ea	0.0	1.5	131.71	0.0	17.12	0.00	0.00	9.64	0.00	32.90	0.00	191.37	0.00				
115	3352.109	Tee Reducing NPS 2 x 3/4 Type K, Piping Specification NB11	ea	0.0	0.5	43.90	2.8	3.22	28.24	263.40	13.95	87.12	13.07	76.27	458.21					
116	3352.110	Tee Reducing NPS 2 x 1/2 Type K, Piping Specification NB11	ea	25.0	0.5	209.84	58.0	17.12	681.19	5,245.91	12.06	612.88	1,360.30	1,360.30	7,957.06					
117	3352.111	Tee Reducing SW Class 3000 NPS 2 x 3/4, Piping Specification SB11	ea	0.0	1.5	131.71	0.0	17.12	0.00	0.00	9.64	0.00	32.90	0.00	191.37	0.00				
118	3352.112	Tee Reducing SW Class 3000 NPS 2 x 1, Piping Specification SB11	ea	0.0	1.5	131.71	0.0	17.12	0.00	0.00	9.64	0.00	32.90	0.00	191.37	0.00				
119	3352.113	Concentric Reducer NPS 2 x 3/4 Type K, Piping Specification NB11	ea	0.0	0.4	33.27	0.0	4.33	0.00	0.00	5.73	0.00	8.97	0.00	52.29	0.00				
120	3352.114	Concentric Reducer NPS 2 x 1/2 Type K, Piping Specification NB11	ea	4.0	1.3	119.57	5.3	15.54	62.18	478.28	13.42	53.66	30.80	123.21	179.33	717.33				
121	3352.115	Concentric Reducer SW Class 3000 NPS 2 x 1, Piping Specification SB11	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	21.57	0.00	19.98	0.00	116.75	0.00				
122	3352.116	Coupling NPS 2, Rohm model 1500	ea	0.0	0.4	33.27	0.0	4.33	0.00	0.00	70.04	0.00	21.92	0.00	129.54	0.00				
123	3352.117	Union NPS 2 Type K, Piping Specification NB11	ea	54.0	1.6	140.84	84.1	18.31	888.71	7,605.47	101.39	5,475.14	54.51	2,889.69	334.06	16,959.04				
124	3352.118	Flange Slip-On 55 15DRF NPS 2 c/w hardware, Piping Specification SB11	ea	18.0	1.1	99.89	39.9	12.99	232.75	1,798.08	47.59	856.54	33.04	595.03	139.52	3,483.41				
125	3352.119	Weld NPS 2, Piping Specification NB11	ea	229.0	2.6	236.00	597.8	30.68	7,025.86	54,045.09	0.00	0.00	55.46	12,701.38	322.15	78,772.33				
126	3352.120	Ball Valve NPS 2, Valve Specification VBA08	ea	13.0	3.5	313.42	45.1	40.74	529.68	4,074.45	107.00	3,390.96	95.20	1,237.60	556.36	7,232.69				
127	3352.121	Ball Valve NPS 2, Valve Specification VBA11	ea	1.0	2.0	181.61	2.0	23.61	73.61	181.61	58.40	58.40	54.44	54.44	318.07	318.07				
128	3352.122	Check valve NPS 2, Valve Specification VC112	ea	3.0	1.9	176.07	5.8	22.89	68.67	528.20	191.64	574.92	79.96	239.88	470.56	1,411.67				
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SCHEDULE OF PRICE BREAKDOWN

Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	LABOUR COMPONENT										NON LABOUR COMPONENT				UNIT PRICE	TOTAL PRICE
					PLA HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR CHGP (per unit) D=C x 13%	LABOUR CHGP (Ext.) E=A x D	COST OF LABOUR (Ext.) F=A x C	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST	I=C+D+G+H	J=AXI				
																	A	B		
156	3352.150	Weld NPS 3, Piping Specification NB11	ea	4.0	5.4	490.77	21.7	63.80	255.20	1,363.00	0.00	0.00	115.34	461.34	669.90	2,679.60				
157	3352.151	Pipe insulation NPS 3	Linear meter	1.0	5.2	467.32	5.2	60.75	467.20	467.20	284.27	284.20	140.05	140.05	952.39	952.15				
158	3352.152	SIS (Wastewater)	ea	1.0	0.2	16.41	0.2	2.13	2.16	16.64	4.07	4.07	4.68	4.73	27.23	27.60				
159	3353.010	Septic pumping station 3353-SPS-5004	ea	1.0	304.8	9,455,146	304.8	1,238.95	1,238.95	9,453,446	19,640.91	39,640.91	6,175.93	36,499.25	36,499.25	36,499.25				
160	3353.020	Pump 3353-P-5000 / 5001	ea	2.0	71.7	6,482,222	143.4	842.82	1,685.64	32,966.43	8,192.49	16,384.98	3,173.02	6,346.03	18,691.54	37,383.07				
161	3353.030	Level switch 3353-LSL-5000 / 5001 / 3353-LSH-5000 / 5001 / 3353-LSH-5000	ea	5.0	25.3	2,289,133	126.6	297.59	1,487.95	12,445.63	664.42	3,322.11	671.74	1,358.72	3,922.88	19,634.39				
162	3353.040	Control Panel 3353-CP-5000	ea	1.0	18.6	1,678,855	18.6	218.25	1,678.85	59,957.89	59,957.89	12,465.62	74,320.62	74,320.62	74,320.62					
163	3353.050	Pipe NPS 1-1/2 Sch.DWV, Piping Specification PA01	m	77.0	5.8	527.28	449.1	68.55	5,278.05	40,600.36	7.36	566.50	125.40	9,665.72	728.58	56,100.63				
164	3353.060	Elbow 45 degrees SW Sch.DWV NPS 1-1/2, Piping Specification PA01	ea	10.0	0.2	34.83	1.6	1.93	19.26	148.34	2.10	215.77	3.92	39.20	22.80	228.40				
165	3353.070	Elbow 90 degrees SW Sch.DWV NPS 1-1/2, Piping Specification PA01	ea	23.0	0.3	29.05	6.8	3.78	79.26	609.99	2.54	53.28	7.34	154.08	42.70	896.54				
166	3353.080	T" Drain Trap SW NPS 1-1/2, Piping Specification PA01	ea	15.0	0.3	29.67	4.9	1.86	57.85	445.01	9.29	139.37	8.84	132.64	51.66	774.87				
167	3353.090	Tee wye SW Sch.DWV NPS 1-1/2, Piping Specification PA01	ea	1.0	0.7	68.54	0.7	8.65	8.65	66.54	4.39	4.39	36.52	36.52	96.10	96.10				
168	3353.100	Pipe identification NPS 1-1/2	Linear meter	27.6	0.6	50.81	15.5	6.60	189.39	1,402.98	12.06	333.13	14.37	396.79	83.84	2,315.29				
169	3353.110	Pipe NPS 2 Sch.DWV, Piping Specification PA01	m	156.0	10.9	988.79	1,706.2	128.54	20,052.65	154,251.14	16.98	2,649.26	235.80	36,784.65	1,370.11	213,737.70				
170	3353.120	Pipe NPS 2 Sch.40, Piping Specification PA02	m	75.0	1.2	106.34	87.0	13.87	1,022.95	7,868.87	9.94	795.49	26.99	1,997.44	157.20	115,117.17				
171	3353.130	Elbow 45 degrees Sch.DWV NPS 2, Piping Specification PA02	ea	29.0	0.2	34.77	4.7	1.92	55.09	428.27	3.31	95.98	4.14	120.00	24.34	700.04				
172	3353.140	Elbow 45 degrees SW Sch.40 NPS 2, Piping Specification PA02	ea	47.0	0.3	29.28	13.3	4.29	134.85	1,148.30	6.99	328.50	7.85	485.34	20,016.41					
173	3353.150	Elbow 90 degrees SW Sch.DWV NPS 2, Piping Specification PA02	ea	18.0	0.3	29.34	5.8	3.83	68.67	532.30	3.80	68.19	7.64	137.96	44.62	803.16				
174	3353.160	Elbow 90 degrees SW Sch.40 NPS 2, Piping Specification PA02	ea	18.0	0.4	33.27	0.0	4.33	0.00	0.00	8.17	0.00	9.48	0.00	55.25	0.00				
175	3353.170	Sanitary Tee SW Sch.DWV NPS 2, Piping Specification PA02	ea	13.0	0.6	58.33	8.4	7.58	98.50	798.35	6.67	86.71	15.05	195.68	87.64	1,139.30				
176	3353.180	Sanitary Tee Reducing SW Sch.DWV NPS 2 x 2 x 1 1/2, Piping Specification PA02	ea	23.0	0.7	58.83	15.0	7.65	179.90	1,353.07	5.75	132.21	14.98	344.62	87.21	2,005.80				
177	3353.190	Drain Trap SW Sch.DWV NPS 2, Piping Specification PA02	ea	0.0	0.4	33.27	0.0	4.33	0.00	0.00	17.51	0.00	0.00	0.00	66.44	0.00				
178	3353.200	Tee Reducing SW Sch.DWV NPS 2 x 2 x 1 1/2, Piping Specification PA02	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	8.17	0.00	0.00	0.00	100.65	0.00				
179	3353.210	Tee Wye SW Sch.DWV NPS 2, Piping Specification PA02	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	8.17	0.00	0.00	0.00	100.65	0.00				
180	3353.220	Tee Wye Reducer SW Sch.DWV NPS 2 x 2 x 1 1/2 Sch.DWV, Piping Specification PA02	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	8.17	0.00	0.00	0.00	100.65	0.00				
181	3353.230	Concentric Reducer SW Sch.DWV NPS 2 x 1 1/2, Piping Specification PA02	ea	14.0	0.4	32.98	5.1	4.29	60.03	461.65	3.65	51.14	8.48	118.79	49.40	691.59				
182	3353.240	Coupling SW Sch.DWV NPS 2, Piping Specification PA02	ea	0.0	0.4	33.27	0.0	4.33	0.00	0.00	8.17	0.00	9.48	0.00	55.25	0.00				
183	3353.250	Union SW Sch.DWV NPS 2, Piping Specification SB11	ea	5.0	0.3	29.67	1.6	3.86	35.28	148.34	4.89	24.46	7.96	39.76	46.37	231.86				
184	3353.260	Ball Valve NPS 2, Valve Specification VB001	ea	3.0	2.3	208.87	6.9	27.15	81.44	676.62	82.15	186.44	61.60	188.21	359.78	1,079.33				
185	3353.270	Ball Valve NPS 2, Valve Specification VB020	ea	4.0	2.9	263.40	8.7	32.50	104.80	862.40	104.80	242.40	77.78	242.40	457.96	1,360.21				
186	3353.280	Check Valve NPS 2, Valve Specification VC101	ea	4.0	2.4	214.54	9.9	37.80	133.54	898.14	150.53	402.12	80.72	372.96	472.68	1,894.72				
187	3353.290	Pipe identification NPS 2	Linear meter	76.1	0.6	50.49	42.5	6.58	499.74	3,844.32	12.06	198.61	14.29	1,088.41	83.41	6,351.10				
188	3353.300	Pipe NPS 3 Sch.DWV, Piping Specification PA01	m	130.0	8.5	768.41	1,104.9	99.89	12,986.06	99,892.75	20.00	2,599.75	184.61	23,999.72	1,072.91	139,478.47				
189	3353.310	Elbow 45 degrees SW Sch.DWV NPS 3, Piping Specification PA01	ea	48.0	0.1	10.66	5.7	1.39	86.50	533.55	8.62	413.60	4.24	203.49	24.90	1,195.14				
190	3353.320	Elbow 60 degrees SW Sch.DWV NPS 3, Piping Specification PA01	ea	0.0	0.2	16.64	0.0	2.16	0.00	0.00	11.64	0.00	6.26	0.00	36.70	0.00				
191	3353.330	Elbow 90 degrees SW Sch.DWV NPS 3, Piping Specification PA01	ea	21.0	0.2	21.98	5.1	2.86	60.07	461.05	10.14	213.38	7.21	151.45	42.21	886.49				
192	3353.340	Elbow 90 degrees SW Sch.40 NPS 3, Piping Specification PA01	ea	0.0	0.4	42.37	0.0	4.27	0.00	0.00	11.64	0.00	12.77	0.00	50.73	0.00				
193	3353.350	Sanitary Tee SW Sch.DWV NPS 3, Piping Specification PA01	ea	4.0	0.5	41.25	1.8	5.38	21.45	164.98	24.50	98.01	14.63	58.53	85.74	342.94				
194	3353.360	Sanitary Tee Reducing SW Sch.DWV NPS 3 x 3 x 2, Piping Specification PA01	ea	3.0	0.5	43.90	1.5	5.71	17.13	131.71	12.22	36.67	12.78	38.34	74.61	223.83				
195	3353.370	Drain Trap SW Sch.DWV NPS 3, Piping Specification PA01	ea	2.0	0.3	24.96	0.6	3.24	6.49	49.91	7.83	15.67	7.44	14.86	43.47	86.95				
196	3353.380	Tee Wye PVC SW Sch.DWV NPS 3, Piping Specification PA01	ea	9.0	0.5	44.06	4.4	5.73	51.55	396.50	15.85	142.64	13.54	121.90	79.18	712.59				
197	3353.390	Tee Wye Reducer SW Sch.DWV NPS 3 x 3 x 2, Piping Specification PA01	ea	4.0	0.5	41.25	1.8	5.36	21.45	164.98	13.08	52.31	12.33	49.31	127.01	288.04				
198	3353.400	Concentric Reducer SW Sch.DWV NPS 3 x 2, Piping Specification PA01	ea	3.0	0.2	36.64	0.6	2.16	6.49	49.91	8.52	25.55	3.62	16.87	32.90	98.82				
199	3353.410	Concentric Reducer Male/Female SW Sch.DWV NPS 3 x 2, Piping Specification PA01	ea	0.0	0.2	16.64	0.0	2.16	0.00	0.00	11.64	0.00	6.26	0.00	36.70	0.00				
200	3353.420	Coupling Sch.DWV NPS 3, Piping Specification PA01	ea	24.0	0.2	21.31	5.7	46.50	66.50	513.55	9.03	216.21	6.82	163.75	39.92	958.02				
201	3353.430	Pipe identification NPS 3	Linear meter	43.9	0.6	50.38	24.5	6.55	227.44	2,231.22	12.06	529.54	34.27	676.28	83.26	3,654.49				
202	3353.440	Pipe NPS 4 Sch.DWV, Piping Specification PA01	m	126.0	6.9	625.59	871.9	81.33	10,247.19	78,824.54	28.98	3,651.52	152.86	19,260.07	888.76	111,983.31				
203	3353.450	Elbow 45 degrees SW Sch.DWV NPS 4, Piping Specification PA01	ea	32.0	0.2	14.43	5.1	1.82	60.03	461.65	16.99	543.63	6.81	212.94	40.10	1,283.23				
204	3353.460	Elbow 90 degrees SW Sch.DWV NPS 4, Piping Specification PA01	ea	3.0	0.3	27.74	0.0	3.60	10.81	83.18	17.10	51.29	9.96	29.87	58.39	178.16				
205	3353.470	Sanitary Tee Reducing SW Sch.DWV 4 x 4 x 2, Piping Specification PA01	ea	2.0	0.6	57.54	1.3	3.48	14.94	115.07	28.10	56.21	19.18	36.39	112.30	224.59				
206	3353.480	Tee Wye SW Sch.DWV NPS 4, Piping Specification PA01	ea	9.0	0.6	58.84	5.7	7.99	65.54	511.56	25.15	226.38	18.42	165.78	107.89	970.18				
207	3353.490	Tee Wye Reducer SW Sch.DWV NPS 4 x 4 x 2, Piping Specification PA01	ea	4.0	0.6	57.88	2.6	7.52	30.34	231.52	23.10	92.38	18.25	73.01	106.75	427.01				
208	3353.500	Tee Wye Reducer SW Sch.DWV NPS 4 x 4 x 3, Piping Specification PA01	ea	14.0	0.6	57.78	8.9	7.51	105.07	808.24	22.83	319.69	18.14	254.30	106.24	1,487.30				
209	3353.510	Coupling SW Sch.DWV NPS 4, Piping Specification PA01	ea	14.0	0.3	28.32	4.4	3.68	51.55	396.50	10.25	143.45	8.72	122.06	50.97	713.56				
210	3353.520	Flexible Coupling NPS 4 x 4, Fernco series 1056	ea	0.0	0.4	33.27	0.0	4.33	0.00	0.00	10.51	0.00	9.92	0.00	58.02	0.00				
211	3353.530	Cap SW Sch.DWV NPS 4, Piping Specification PA01	ea	0.0	0.4	33.27	0.0	4.33	0.00	0.00	5.84	0.00	9.00	0.00	52.43	0.00				
212	3353.540	Pipe identification NPS 4	Linear meter	42.8	0.6	50.54	23.9	6.57	280.97	2,161.91	12.06	515.87	34.31	611.80	83.49	3,569.95				
213	3353.550	Pipe NPS 5 Sch.DWV, Piping Specification PA01	m	6.0	4.4	398.81</														







SCHEDULE OF BREAKDOWN

CH0031-001  
Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	PLA LABOUR HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR COMPONENT				NON LABOUR COMPONENT				UNIT PRICE	TOTAL PRICE
								LABOUR CH5P (per unit) D = C x 13%	LABOUR OH&P (Ext.) E = A x D	COST OF LABOUR (Ext.) F = A x C	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST	I = C + D + G + H		
321	3442-410	Pipe identification NPS 1	Linear meter	66.2	0.6	50.36	36.9	6.55	433.26	3,322.76	12.06	798.04	14.27	943.91	83.76	5,507.96	
322	3442-420	Pipe NPS 2 Sch.40, Piping Specification SB11	m	155.0	2.5	221.78	385.0	6.55	4,529.56	34,842.90	11.31	4,853.03	59.10	9,161.34	53,396.65		
323	3442-430	Elbow 45 degrees SW Class 3000 NPS 2, Piping Specification SB11	ea	4.0	0.3	28.77	1.3	3.24	18.96	115.07	17.45	149.78	24.36	174.25	37.01		
324	3442-440	Elbow 90 degrees SW Class 3000 NPS 2, Piping Specification SB11	ea	22.0	0.6	54.00	13.1	7.02	154.45	1,198.10	31.34	865.49	18.94	417.23	311.15	2,445.28	
325	3442-450	Union SW Class 3000 NPS 2, Piping Specification SB11	ea	10.0	0.6	54.00	6.0	7.08	70.83	544.84	56.71	542.15	24.22	242.22	142.50	1,425.04	
326	3442-460	Union SW / FRPT Class 3000 NPS 2, Piping Specification SB11	ea	4.0	0.6	53.72	2.4	6.98	27.93	214.88	57.40	229.59	24.38	96.74	142.28	569.13	
327	3442-470	Tee SW Class 3000 NPS 2, Piping Specification SB11	ea	1.0	1.3	115.07	1.3	14.96	135.07	1,150.70	44.57	36.01	36.01	210.61	210.61		
328	3442-480	Tee Reducing SW Class 3000 NPS 2 x 2 x 3/4, Piping Specification SB11	ea	2.0	1.2	107.44	2.4	13.97	277.93	214.88	95.47	191.35	44.51	89.02	261.59	528.19	
329	3442-490	Tee Reducing SW Class 3000 NPS 2 x 2 x 1, Piping Specification SB11	ea	5.0	1.2	109.97	6.0	14.17	70.83	544.84	95.08	478.99	44.87	224.35	253.68	1,318.41	
330	3442-500	Half Coupling SW Class 3000 NPS 2, Piping Specification SB11	ea	29.0	0.6	54.07	17.3	7.03	203.93	1,567.96	10.54	806.34	14.83	430.14	86.49	2,528.30	
331	3442-510	Cap SW Class 3000 NPS 2, Piping Specification SB11	ea	1.0	0.6	49.91	0.6	6.49	49.91	409.91	10.62	13.87	13.87	80.89	80.89		
332	3442-520	Flexible Connector Penflex 80SS MNPT NPS 2	ea	2.0	7.3	659.90	14.6	85.79	171.57	1,319.80	204.89	409.78	196.34	392.68	1,146.92	2,293.84	
333	3442-530	Expansion Joint U type Connectal NPS 2	ea	3.0	7.3	659.90	21.9	85.79	257.34	1,979.70	2,419.18	7,257.55	642.13	1,926.38	3,807.00	11,420.99	
334	3442-540	Concentric Reducer Sch. 10s NPS 2 x 1, Piping Specification SB11	ea	1.0	0.7	66.54	0.7	8.65	66.54	537.85	35.78	22.83	22.83	133.80	133.80		
335	3442-550	Weld NPS 2, Piping Specification SB11	ea	135.0	2.1	191.61	286.1	24.91	3,362.80	25,867.77	1.00	135.60	45.03	6,079.70	262.54	35,445.83	
336	3442-560	Ball Valve NPS 2, Valve Specification VBA12	ea	2.0	4.7	429.07	9.5	55.79	113.54	858.38	310.28	620.54	183.30	956.43	1,916.86		
337	3442-570	Pipe identification NPS 2	Linear meter	57.4	1.1	102.53	65.1	13.83	705.39	5,482.17	18.45	939.13	27.88	157.83	95.67	1,617.01	
338	3442-580	Flange SW 150RF NPS 6 c/w Hardware, Piping Specification SB11	ea	38.0	3.3	302.45	60.2	39.37	707.74	5,444.14	3.94	71.01	71.88	1,293.74	417.58	7,516.67	
339	3442-590	Blind Flange 150RF NPS 6 c/w Hardware, Piping Specification SB11	ea	6.0	6.1	449.91	36.5	71.49	428.93	3,299.48	72.48	434.60	143.82	837.66	5,025.94		
340	3443-020	WFS (Fire Protection Valve) WCD (Clear Water Drainage)	LS	3.0	2844.3	2,391,081.99	26,448.3	310,840.64	310,840.64	2,391,081.99	5,244,861.68	5,244,861.68	590,230.93	590,230.93	8,537,015.24	8,537,015.24	
341	3444-001	Drainage pump 3444-P-5000 to 5002	ea	3.0	343.0	12,928.55	429.0	1,680.71	5,092.13	38,785.64	145,572.04	436,581.18	42,336.75	97,010.24	192,473.05	577,419.10	
342	3444-002	Submersible pump 3444-P-0001	ea	0.0	124.1	11,218.27	0.0	1,458.38	0.00	51,712.21	0.00	13,047.43	0.00	7,743.63	0.00	4.00	
343	3444-003	Drummer 3444-01-0001	ea	0.0	0.0	0.00	0.0	729.46	0.00	18,343.66	0.00	5,017.00	0.00	29,371.66	0.00	0.00	
344	3444-004	Air vent 3444-AV-0001 to 0003	ea	3.0	3.7	329.95	11.0	42.89	128.68	989.85	6,530.07	19,590.22	1,912.21	4,176.64	8,295.13	24,885.40	
345	3444-005	Air vent 3444-AV-5000 to 0002	ea	3.0	3.7	329.95	11.0	42.89	128.68	989.85	6,530.07	9,900.17	741.53	2,225.79	4,414.83	13,244.50	
346	3444-006	Air vent 3444-AV-5003	ea	2.0	3.7	329.95	7.3	42.89	85.79	659.89	8,175.50	16,274.99	1,715.83	3,431.64	10,226.16	20,452.33	
347	3444-007	Pressure Indicator 3444-PI-0001 to 0003	ea	3.0	3.7	329.95	11.0	42.89	128.68	989.85	8,175.50	16,274.99	1,715.83	3,431.64	10,226.16	20,452.33	
348	3444-008	Level Switch 3444-LSL-0001 / 3444-LSH-0001	ea	2.0	16.4	1,497.25	33.1	194.64	389.28	2,994.49	1,096.12	2,192.24	572.55	1,145.10	3,860.56	6,721.17	
349	3444-009	Level Transmitter 3444-LT-0001	ea	1.0	24.6	2,277.85	24.6	289.42	289.42	5,652.55	5,652.55	1,861.60	1,861.60	9,831.62	9,831.62		
350	3444-010	Oil steam detector 3444-LSW-0001	ea	3.0	28.1	2,537.79	28.1	332.51	193.21	3,851.78	28,792.13	5,992.44	85,617.97	85,617.97	1,518,921.92		
351	3444-011	Current transmitter 3444-IT-5000 to 5002	ea	3.0	6.4	576.24	19.3	74.91	224.74	1,728.77	128.19	984.57	361.24	483.71	940.66	2,821.79	
352	3444-012	Control Panel 3444-CP-5000	ea	1.0	18.6	1,678.85	18.6	218.25	218.25	1,678.85	60,135.84	60,135.84	12,501.45	12,501.45	74,534.39	74,534.39	
353	3444-013	Pipe NPS 3/4 Sch.10s, Piping Specification SB11	m	9.7	1.8	159.97	17.2	20.80	201.47	1,551.32	7.62	73.92	39.13	379.47	227.52	2,206.37	
354	3444-014	Elbow 90 degrees SW Class 3000 NPS 3/4, Piping Specification SB11	ea	9.0	0.6	53.14	5.3	6.91	62.18	478.28	5.37	48.30	13.57	122.13	72.99	710.89	
355	3444-015	Weld NPS 3/4, Piping Specification SB11	ea	27.0	1.1	98.99	29.6	12.87	347.47	2,672.85	117.39	3,709.45	50.68	1,368.25	299.93	8,098.03	
356	3444-016	Pipe identification NPS 3/4	Linear meter	5.3	0.6	50.04	1.8	6.50	21.45	164.98	12.07	99.78	14.19	46.79	80.20	273.00	
357	3444-017	Pipe NPS 1 Sch. 10s, Piping Specification SB11	m	18.0	0.8	154.90	18.0	21.65	180.55	1,395.18	60.87	654.67	108.52	1,043.92	1,252.42		
358	3444-018	Elbow 90 degrees SW Class 3000 NPS 1, Piping Specification SB11	ea	34.0	0.6	56.54	8.8	7.35	102.91	791.60	203.25	2,845.54	54.21	758.92	321.34	4,498.97	
359	3444-019	Olet SW Class 3000 NPS 1, Piping Specification SB11	ea	30.0	0.4	37.99	4.2	4.94	49.30	379.86	6.29	62.90	101.93	594.07	594.07		
360	3444-020	Ball valve NPS 1, Valve Specification VBA11	ea	10.0	3.7	329.95	36.5	42.89	428.93	3,299.48	182.52	1,825.18	114.29	1,142.86	669.65	6,696.47	
361	3444-021	Weld NPS 1, Piping Specification SB11	ea	70.0	0.5	42.18	32.7	5.48	383.88	2,952.91	170.65	11,945.30	44.13	3,088.78	262.44	18,370.87	
362	3444-022	Pipe identification NPS 1	Linear meter	6.4	0.6	51.65	3.7	6.71	42.89	329.95	12.06	77.07	14.57	93.06	84.99	542.97	
363	3444-023	Pipe NPS 1-1/2 Sch.DWV, Piping Specification PA01	m	452.0	3.6	326.43	1,611.9	42.45	18,179.42	147,517.18	7.34	6,424.76	78.19	85,342.74	454.39	205,384.36	
364	3444-024	3" Drain Trap SW Sch.DWV NPS 3, Piping Specification PA01	ea	3.0	0.8	37.99	0.8	9.77	37.99	311.92	8.29	278.72	0.00	82.98	1,518.93		
365	3444-025	Elbow 90 degrees SW Sch.DWV NPS 3-1/2, Piping Specification PA01	ea	56.0	0.3	29.14	18.1	3.79	212.30	1,633.11	2.54	142.09	7.56	412.41	42.86	7,999.91	
366	3444-026	Elbow 45 degrees SW Sch.DWV NPS 1-1/2, Piping Specification PA01	ea	73.0	0.2	14.70	11.9	1.91	139.49	1,073.03	2.16	157.47	3.89	263.88	22.64	1,653.88	
367	3444-027	Elbow 22.5 degrees SW Sch.DWV NPS 1-1/2, Piping Specification PA01	ea	0.0	0.2	16.64	0.0	2.16	0.00	0.00	9.81	0.00	5.88	0.00	34.49	0.00	
368	3444-028	Tee wye SW Sch.DWV NPS 1-1/2, Piping Specification PA01	ea	19.0	0.7	59.03	12.4	7.67	145.30	1,121.55	4.39	83.37	14.74	280.37	85.85	1,631.09	
369	3444-029	Coupling Sch.DWV NPS 1-1/2, Piping Specification PA01	ea	70.0	0.3	20.23	22.6	3.80	266.01	2,040.24	1.72	120.74	7.22	505.20	41.97	2,938.19	
370	3444-030	Pipe insulation NPS 1-1/2	Linear meter	0.0	3.3	302.22	0.0	99.29	0.00	201.84	0.00	94.19	0.00	637.54	0.00	0.00	
371	3444-031	Pipe identification NPS 1-1/2	Linear meter	152.7	0.8	50.45	85.2	6.54	1,003.51	7,703.89	12.06	1,842.20	14.29	2,181.41	83.46	12,729.06	
372	3444-032	Pipe NPS 2 Sch.40, Piping Specification PA02	m	35.0	6.3	548.14	109.6	73.84	1,181.74	9,090.23	10.11	161.86	135.54	2,168.92	787.67	12,602.69	
373	3444-033	Elbow 90 degrees SW Sch.40 NPS 2, Piping Specification PA02	ea	11.0	0.3	30.00	3.7	3.90	42.89	329.95	8.47	93.14	8.75	96.29	51.17	562.28	
374	3444-034	Pipe identification NPS 2	Linear meter	5.5	0.6	51.28	3.1	6.67	36.41	280.05	12.06	65.88	14.48	78.08	84.49	461.42	
375	3444-035	Pipe NPS 3 Sch.STD, Piping Specification CB11	m	13.0	3.6	327.39	47.1	42.54	553.29	4,254.06	19.81	257.47	80.93	1,052.07	470.48	6,118.89	
376	3444-036	Elbow 90 degrees BW Sch.STD NPS 3, Piping Specification CB11	ea	3.0	1.3	121.08	4.0	15.74	47.22	363.23	6.13	18.39	29.69	89.06	172.63	517.89	
377	3444-037	Elbow 45 degrees BW Sch.STD NPS 3, Piping Specification CB11	ea	0.0													



SCHEDULE OF PRICE BREAKDOWN

CH0031-001  
Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	LABOUR COMPONENT										NON LABOUR COMPONENT				UNIT PRICE	TOTAL PRICE
					PLA HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR OHS&P (per unit)	LABOUR OHS&P (Ext.)	COST OF LABOUR (Ext.)	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST	T=C+D+G+H	T=A+K				
																	A	B		
405	3444.065	Elbow 22.5 degrees SW Sch DWV NPS 4, Piping Specification PA01	ea	6.0	0.2	13.86	0.9	1.80	10.83	83.18	24.81	148.85	8.25	49.51	48.72	292.35				
406	3444.066	Concentric reducer Sch DWV NPS 4, Piping Specification PA01	ea	3.0	0.2	16.64	0.2	2.16	7.14	16.64	12.42	64.2	6.42	37.64	37.64	96.35				
407	3444.067	Tee wye SW Sch DWV NPS 4, Piping Specification PA01	ea	1.0	0.6	49.93	0.6	6.49	64.49	49.93	25.14	166.80	16.80	98.35	98.35	254.95				
408	3444.068	Coupling Sch DWV NPS 4, Piping Specification PA01	ea	18.0	0.8	28.85	5.3	3.75	60.03	463.65	17.08	272.04	10.28	163.24	58.81	964.95				
409	3444.069	Flexible coupling NPS 4, Ferrus Series 1056	ea	0.0	0.4	43.27	0.0	0.00	0.00	0.00	10.53	0.00	9.52	0.00	0.00	52.00				
410	3444.070	Pipe identification NPS 4	Linear meter	0.0	0.0	0.00	0.00	0.00	0.00	0.00	11.67	0.00	2.35	0.00	0.00	14.02				
411	3444.071	Pipe NPS 6 Sch STD, Piping Specification CB11	m	7.0	10.8	978.16	75.7	127.39	890.13	6,847.34	50.99	352.76	240.09	1,680.19	1,395.75	9,770.27				
412	3444.072	Flange Welding Neck 150RF Sch STD NPS 6 c/w hardware, Piping Specification CB11	ea	5.0	43.6	3,899.70	217.9	532.16	2,560.81	19,690.50	79.22	396.11	941.84	4,709.18	5,472.92	27,464.60				
413	3444.073	Flange Slip-on 150RF NPS 6 c/w hardware, Piping Specification CB11	ea	2.0	2.6	239.14	5.3	31.09	62.18	476.28	256.48	512.96	107.84	645.55	1,269.10	1,269.10				
414	3444.074	Orlet BW Sch STD NPS 6, Piping Specification CB11	ea	1.0	2.7	248.15	2.7	32.26	32.26	248.15	169.19	169.19	92.38	92.38	541.99	541.99				
415	3444.075	Cap NPT Sch STD NPS 6, Piping Specification CB11	ea	0.0	3.1	280.05	0.00	0.00	0.00	0.00	8.58	0.00	67.54	0.00	197.53	245.07				
416	3444.076	Weld NPS 6, Piping Specification CB11	ea	8.0	0.0	0.00	0.00	0.00	0.00	0.00	466.32	8,705.52	93.88	751.04	560.20	4,481.54				
417	3444.077	Butterfly valve NPS 6, Valve Specification VB001	ea	1.0	7.5	676.53	7.5	87.95	87.95	676.53	501.92	501.92	260.04	260.04	1,526.43	1,526.43				
418	3444.078	Check valve NPS 6, Valve Specification VC002	ea	1.0	7.5	676.53	7.5	87.95	87.95	676.53	6,570.62	6,570.62	1,481.83	1,481.83	8,816.92	8,816.92				
419	3444.079	Pipe identification NPS 6	Linear meter	2.4	0.5	48.54	1.3	6.31	14.50	135.07	12.06	28.59	33.84	32.80	80.77	191.42				
420	3444.080	Pipe NPS 10 Sch STD, Piping Specification CB11	m	28.0	3.0	270.92	77.9	35.22	925.77	7,043.99	105.76	2,789.71	84.96	2,209.03	496.86	12,938.84				
421	3444.081	Flange Welding Neck 150RF Sch STD NPS 10 c/w hardware, Piping Specification CB11	ea	21.0	11.2	1,815.78	236.0	132.05	2,773.11	21,331.62	173.99	3,653.66	273.75	5,748.82	1,595.58	33,507.24				
422	3444.082	Flange Welding Neck 150RF Sch STD NPS 10 c/w hardware, Piping Specification CB11	ea	0.0	2.9	263.40	0.00	0.00	0.00	0.00	91.95	0.00	80.42	0.00	470.01	470.01				
423	3444.083	Orlet BW Sch STD NPS 10, Piping Specification CB11	ea	3.0	0.8	73.63	2.4	9.31	27.93	234.89	436.46	1,809.89	104.71	314.12	622.11	1,884.32				
424	3444.084	Victaulic Coupling NPS 10, Style 77	ea	3.0	0.8	73.63	2.4	9.31	27.93	234.89	297.43	892.80	76.71	230.14	455.08	1,365.25				
425	3444.085	Weld NPS 10, Piping Specification CB11	ea	36.0	4.6	411.97	164.1	53.54	1,928.04	14,831.08	472.64	17,014.92	391.66	6,900.98	1,129.84	40,675.02				
426	3444.086	Butterfly valve NPS 10, Valve Specification VB001	ea	9.0	10.6	955.04	95.1	124.35	1,127.39	8,995.32	1,110.31	9,992.82	447.98	4,031.84	2,617.49	23,737.37				
427	3444.087	Check valve NPS 10, Valve Specification VC002	ea	3.0	9.9	896.50	29.8	116.55	349.64	2,889.50	14,843.11	43,749.40	1,146.65	9,439.95	18,742.83	56,128.48				
428	3444.088	Pipe identification NPS 10	Linear meter	8.7	0.5	49.47	4.7	64.8	55.89	438.37	13.06	104.47	14.06	121.69	82.05	710.17				
429	3444.089	Orlet BW Sch STD NPS 12, Piping Specification CB11	ea	3.0	1.0	87.80	1.9	11.41	34.24	263.40	724.54	2,173.74	166.52	499.59	690.30	2,970.80				
430	3444.090	Flange Welding Neck 150RF Sch STD NPS 10 c/w hardware, Piping Specification CB11	ea	3.0	4.3	390.49	13.0	50.76	152.29	1,171.96	138.24	354.71	135.57	346.72	675.06	2,025.38				
431	3444.091	Weld NPS 12, Piping Specification CB11	ea	6.0	0.0	0.00	0.00	0.00	0.00	0.00	1,571.66	9,129.94	306.35	1,838.09	1,828.01	10,968.05				
432	3444.092	Pipe identification NPS 12	Linear meter	0.0	0.0	0.00	0.00	0.00	0.00	0.00	11.67	0.00	2.35	0.00	14.02	0.00				
433	3444.093	Pipe NPS 24 Sch STD, Piping Specification CB11	m	42.0	24.6	2,277.14	1,044.7	289.53	12,160.27	93,540.53	328.80	13,788.69	589.51	24,759.41	1,844.50	144,246.90				
434	3444.094	Elbow 90 degrees BW Sch STD NPS 24, Piping Specification SB11	ea	2.0	1.9	173.30	3.8	22.58	45.06	346.59	626.09	1,252.19	166.78	333.57	988.70	1,977.40				
435	3444.095	Elbow 45 degrees BW Sch STD NPS 24, Piping Specification SB11	ea	2.0	0.9	82.49	1.8	10.72	21.45	164.66	194.85	208.78	40.99	80.78	217.95	476.95				
436	3444.096	Tee BW Sch STD NPS 24, Piping Specification SB11	ea	1.0	3.8	346.59	3.8	45.06	45.06	346.59	986.90	986.90	280.34	280.34	1,608.64	1,608.64				
437	3444.097	Victaulic Coupling NPS 24, Style 77	ea	2.0	1.9	173.30	3.8	22.58	45.06	346.59	1,060.51	2,121.01	254.29	508.47	1,510.54	3,021.13				
438	3444.098	Victaulic Coupling NPS 24, Style W77	ea	0.0	2.2	198.20	0.00	0.00	0.00	1,060.54	0.00	260.11	0.00	1,544.63	0.00	1,544.63				
439	3444.099	Weld NPS 24, Piping Specification CB11	ea	19.0	13.6	1,226.91	257.9	159.50	3,030.47	23,311.31	704.64	14,072.45	437.20	8,304.94	2,564.17	48,719.17				
440	3444.100	Pipe identification NPS 24	Linear meter	14.1	0.6	50.28	7.9	65.4	92.27	709.80	12.06	170.81	34.25	201.11	83.11	1,173.49				
441	3445.010	WGS (Dewaring)	ea	3.0	189.5	17,130.00	568.4	2,234.81	6,680.73	51,390.24	178,108.27	534,314.87	89,884.62	139,848.47	237,948.87	732,046.60				
442	3445.020	Submersible pump 3445-P-0001	ea	1.0	71.7	6,483.91	71.7	862.93	862.93	6,483.91	37,164.75	37,164.75	9,006.03	9,006.03	53,497.55	53,497.55				
443	3445.030	Air vent 3445-AV-0001 / 1000 / 1001 / 2000 / 2001 / 3000 / 3001 / 4000 / 4001 / 5000 to 5000	ea	12.0	7.3	659.90	87.6	85.79	1,029.44	7,918.77	3,330.12	39,961.39	825.52	9,906.29	4,901.32	88,815.89				
444	3445.040	Air vent 3445-AV-0002 to 0004	ea	3.0	7.3	659.90	21.9	85.79	257.46	1,979.70	6,540.11	19,680.40	4,472.82	14,755.61	26,344.88	26,344.88				
445	3445.050	Pressure indicator 3445-PI-0001 to 0004 / 1000 / 2000 / 3000 / 4000	ea	8.0	3.7	329.95	29.2	42.89	343.13	2,699.99	84.95	679.54	94.64	757.16	552.43	4,419.46				
446	3445.060	Differential pressure indicator 3445-DPI-0001	ea	1.0	34.8	1,219.80	16.6	17.57	175.57	1,319.80	2,997.04	2,997.04	933.57	5,401.98	5,401.98					
447	3445.070	Pressure switch 3445-PS11-0001 / 0002	ea	2.0	6.8	639.90	13.6	18.89	175.17	1,410.80	890.13	1,780.39	188.19	648.39	3,060.37					
448	3445.080	Level switch 3445-LS11-0001 / 3445-LSH1-0001	ea	2.0	16.6	1,497.25	33.1	194.64	389.28	2,994.49	695.38	1,390.76	497.87	981.74	2,797.14	5,758.29				
449	3445.090	Level transmitter 3445-LT-0001	ea	1.0	24.6	2,227.85	24.6	289.62	389.42	2,227.85	5,652.55	1,661.60	1,661.60	8,816.62	9,816.62					
450	3445.100	Current transmitter 3445-IT-5000 to 5002	ea	3.0	6.4	576.26	19.1	34.91	234.74	1,728.37	128.19	384.57	161.24	483.71	940.60	2,821.79				
451	3445.110	Control Panel 3445-CP-5000	ea	1.0	18.6	1,678.85	18.6	218.25	218.25	1,678.85	64,323.65	64,323.65	13,344.56	79,565.31	79,565.31	79,565.31				
452	3445.120	Monorail Hoist 3445-HO-0001	ea	1.0	191.6	17,322.32	191.6	2,251.90	2,251.90	17,322.32	9,600.59	9,600.59	6,003.85	6,003.85	35,178.66					
453	3445.130	Pipe NPS 1/2 Sch 10S, Piping Specification SB11	m	14.0	0.7	63.30	9.5	79.7	113.54	868.14	162.04	2,248.67	47.03	658.41	278.34	886.74				
454	3445.140	Elbow 90 degrees SW Class 3000 NPS 1/2, Piping Specification CB11	ea	3.0	0.5	49.63	2.7	5.45	32.26	144.06	48.06	230.29	29.98	131.03	135.27					
455	3445.150	Ball valve NPS 1/2, Valve Specification VBA14	ea	2.0	3.2	289.06	6.4	37.58	76.16	578.12	91.34	182.52	86.33	172.61	504.20	1,008.40				
456	3445.160	Ball valve NPS 1/2, Valve Specification VBA14	ea	13.0	4.2	287.98	35.0	37.44	433.81	3,167.79	107.60	1,183.61	89.34	982.77	522.34	5,746.00				
457	3445.170	Pipe identification NPS 1/2	Linear meter	3.8	0.6	52.00	2.2	6.74	35.77	198.25	12.06	45.99	14.65	55.86	85.48	325.87				
458	3445.180	Pipe NPS 3/4 Sch 10S, Piping Specification SB11	m	9.7	1.8	160.09	17.2	20.81	203.67	1,551.37	7.62	73.87	39.16	379.45	227.68	2,064.81				
459	3445.190	Elbow 90 degrees SW Class 3000 NPS 3/4, Piping Specification SB11	ea	3.0	0.6	54.99	1.8	7.15	21.45	168.98	5.37	18.11	14.02	81.52	244.56					
460	3445.200	Weld NPS 3/4, Piping Specification SB11	ea	37.0	1.1	98.99	29.6	12.87	347.47	2,672.86	138.75	3,746.21	50.95	1,375.65	8,					



SCHEDULE OF PRICE BREAKDOWN

CH001-001  
Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	LABOUR COMPONENT										NON LABOUR COMPONENT				UNIT PRICE	TOTAL PRICE
					PLA HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR O&P (per unit)	LABOUR O&P (Ext.)	COST OF LABOUR (Ext.)	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST	F=C+D+G+H	I=A+J				
																	A	B		
486	3445.460	Elbow 90 degrees SW Sch.40 NPS 2, Piping Specification PA02	ea	9.0	0.3	29.27	2.9	3.80	34.24	264.40	9.47	85.24	8.78	79.00	51.33	461.94				
487	3445.470	Pipe identification NPS 2	Linear meter	0.0	0.0	0.00	0.00	0.00	0.00	0.00	11.67	0.00	2.35	0.00	14.02	0.00				
488	3445.480	Clot BW Sch. STD NPS 6, Piping Specification CB11	ea	1.0	2.7	246.15	2.7	37.24	37.24	246.15	169.19	169.19	97.38	97.38	541.99	541.99				
489	3445.490	Elbow 45 degrees BW Sch. STD NPS 6, Piping Specification CB11	ea	1.0	1.3	115.07	1.3	14.94	14.94	115.07	19.31	19.31	30.95	30.95	180.34	180.34				
490	3445.500	Flange Welding Neck 150RF Sch. STD NPS 6 c/w hardware, Piping Specification CB11	ea	1.0	68.4	8,187.23	68.4	894.34	894.34	8,187.23	293.15	293.15	1,513.11	1,513.11	8,797.83	8,797.83				
491	3445.510	Weld NPS 6, Piping Specification CB11	ea	3.0	0.0	0.00	0.00	0.00	0.00	0.00	719.93	2,159.78	144.94	434.82	864.87	2,594.60				
492	3445.520	Ball valve NPS 6, Valve Specification VBA01	ea	1.0	7.5	676.53	7.5	87.95	87.95	676.53	2,867.35	736.27	736.27	4,368.10	4,368.10					
493	3445.530	Pipe painting NPS 6	Linear meter	6.0	0.0	0.00	0.00	0.00	0.00	0.00	37.48	224.82	7.54	45.26	45.02	270.07				
494	3445.540	Pipe identification NPS 6	Linear meter	0.0	0.0	0.00	0.00	0.00	0.00	0.00	11.67	0.00	2.35	0.00	14.02	0.00				
495	3445.550	Pipe NPS 8 Sch. STD, Piping Specification CB11	m	13.0	18.9	1,709.36	18.9	272.27	272.27	1,709.36	96.22	1,278.67	421.50	5,479.46	2,451.29	31,866.75				
496	3445.560	Elbow 90 degrees BW Sch. STD NPS 8, Piping Specification CB11	ea	4.0	0.6	57.88	2.6	75.2	75.2	57.88	2,149	205.98	219.97	95.88	140.87	543.46				
497	3445.570	Elbow 45 degrees BW Sch. STD NPS 8, Piping Specification CB11	ea	4.0	0.3	28.77	1.3	3.74	3.74	14.94	115.07	40.44	161.84	14.91	87.87	351.50				
498	3445.580	Flange Welding Neck 150RF Sch. STD NPS 8 c/w hardware, Piping Specification CB11	ea	8.0	21.7	1,965.31	173.9	255.49	255.49	1,965.31	15,724.99	342.97	2,743.74	530.92	4,247.40	3,094.69				
499	3445.590	Concentric Reducer BW Sch. STD NPS 8 x 6, Piping Specification CSB11	ea	0.0	0.4	33.27	0.0	4.33	0.00	0.00	0.00	0.00	12.56	0.00	73.69	0.00				
500	3445.600	Weld NPS 8, Piping Specification CB11	ea	24.0	3.8	346.47	9.2	45.04	1,080.99	8,315.27	310.88	7,461.05	144.01	3,456.32	846.40	20,313.62				
501	3445.610	Butterfly valve NPS 8, Valve Specification VBA01	ea	4.0	7.9	93.31	31.8	41.78	373.24	2,871.11	775.70	3,102.79	334.86	1,299.43	1,911.64	7,644.57				
502	3445.620	Pipe painting NPS 8	Linear meter	11.7	0.0	0.00	0.00	0.00	0.00	0.00	130.44	1,461.54	26.24	294.25	156.71	1,755.81				
503	3445.630	Pipe identification NPS 8	Linear meter	0.0	0.0	0.00	0.00	0.00	0.00	0.00	11.67	0.00	2.35	0.00	14.02	0.00				
504	3445.640	Pipe NPS 12 Sch. STD, Piping Specification CB11	m	28.0	3.3	301.42	86.7	39.18	1,018.81	7,816.99	129.52	3,867.62	96.91	2,519.75	567.05	34,743.21				
505	3445.650	Flange Welding Neck 150RF Sch. STD NPS 12 c/w hardware, Piping Specification CB11	ea	15.0	5.9	530.14	88.0	68.97	1,033.77	7,952.04	171.37	2,570.51	359.09	2,386.37	929.51	33,942.68				
506	3445.660	Flange Welding Neck 150RF Sch. STD NPS 12 c/w hardware, Piping Specification CB11	ea	3.0	39.4	3,563.36	118.3	463.24	3,889.71	30,690.07	883.78	2,651.35	1,015.84	3,046.09	5,925.74	17,777.22				
507	3445.670	Weld NPS 12, Piping Specification CB11	ea	30.0	6.6	592.80	196.97	6.6	2,311.92	17,783.97	345.30	10,358.88	208.50	6,254.92	1,223.66	36,709.68				
508	3445.680	Victualic Coupling NPS 12, Style 77	ea	5.0	1.2	112.29	6.2	14.60	92.99	561.47	539.88	2,699.42	135.08	675.41	801.84	4,009.29				
509	3445.690	Butterfly valve NPS 12, Valve Specification VBA01	ea	5.0	15.1	175.59	53.1	175.59	872.17	6,289.52	2,414.99	82,395.55	22,392.55	4,330.81	4,824.78	24,247.78				
510	3445.700	Check valve NPS 12, Valve Specification VCH02	ea	3.0	11.9	1,072.57	35.6	139.43	418.86	2,127.79	20,259.42	60,778.25	4,330.81	12,994.43	25,022.23	77,406.66				
511	3445.710	Pipe painting NPS 12	Linear meter	25.6	0.0	0.00	0.00	0.00	0.00	0.00	154.60	0.00	3,958.28	31.13	796.90	185.74	4,755.19			
512	3445.720	Pipe identification NPS 12	Linear meter	6.42	0.5	49.49	4.7	55.69	428.37	12.06	104.42	14.06	121.69	82.05	710.17	0.00				
513	3445.730	Pipe NPS 16 Sch. STD, Piping Specification CB11	m	13.0	2.6	237.28	34.1	30.85	403.60	3,084.66	174.53	2,268.84	90.90	1,811.71	533.55	6,936.15				
514	3445.740	Elbow 90 degrees Long Radius Sch. STD NPS 16, Piping Specification SB11	ea	6.0	1.2	104.44	6.9	13.58	61.46	626.82	211.81	1,270.84	67.19	403.13	397.01	2,382.05				
515	3445.750	Flange Welding Neck 150RF Sch. STD NPS 16 c/w hardware, Piping Specification CB11	ea	6.0	3.0	266.64	17.7	34.66	207.98	1,599.84	137.28	823.67	90.80	541.81	528.88	3,173.30				
516	3445.760	Victualic Coupling NPS 16, Style 331	ea	4.0	1.4	123.73	5.5	18.08	64.34	494.92	5,134.99	20,539.94	1,062.88	4,251.53	6,337.68	25,350.73				
517	3445.770	Weld NPS 16, Piping Specification CB11	ea	21.0	39.1	1,728.30	401.5	224.68	4,718.27	36,294.99	278.32	5,844.74	461.25	9,686.25	2,692.55	56,543.05				
518	3445.780	Pipe painting NPS 16	Linear meter	12.6	0.0	0.00	0.00	0.00	0.00	0.00	280.21	1,529.80	56.41	710.64	336.63	4,240.44				
519	3445.790	Pipe identification NPS 16	Linear meter	4.3	0.5	49.65	2.4	6.45	279.9	234.88	12.06	52.20	14.10	61.00	82.27	356.02				
520	3445.800	Pipe NPS 20 Sch. STD, Piping Specification CB11	m	4.0	12.5	1,134.37	50.2	147.47	589.87	4,537.49	354.37	1,417.46	337.93	1,351.74	1,974.14	7,896.56				
521	3445.810	Flange Welding Neck 150RF Sch. STD NPS 20 c/w hardware, Piping Specification CB11	ea	11.0	3.3	298.44	36.3	38.80	436.77	3,282.85	261.83	2,880.12	122.85	1,351.37	721.92	7,941.11				
522	3445.820	Weld NPS 20, Piping Specification CB11	ea	11.0	12.7	1,147.39	139.6	149.14	1,640.74	12,671.24	559.09	6,150.00	381.60	4,173.63	2,217.24	24,609.63				
523	3445.830	Check valve NPS 20, Valve Specification VCH01	ea	11.0	20.1	1,814.72	20.1	295.91	2,159.91	1,833.72	14,592.25	34,942.25	3,864.27	3,864.27	30,007.14	20,007.14				
524	3445.840	Pipe painting NPS 20	Linear meter	2.2	0.0	0.00	0.00	0.00	0.00	0.00	259.70	576.24	52.29	116.02	311.98	692.28				
525	3445.850	Pipe identification NPS 20	Linear meter	1.3	0.6	49.68	0.7	6.46	8.65	66.54	12.06	16.16	14.10	18.89	82.30	110.23				
526	3445.860	Pipe NPS 24 Sch. STD, Piping Specification CB11	m	5.5	10.0	267.59	16.2	34.78	190.86	1,468.13	292.83	1,606.57	121.84	668.47	717.05	3,934.03				
527	3445.870	Tee Sch. STD NPS 24, Piping Specification CB11	ea	1.0	3.8	346.59	3.8	45.06	45.06	346.59	977.13	977.13	278.18	278.18	1,644.99	1,644.99				
528	3445.880	Reducing tee Sch. STD NPS 24 x 26, Piping Specification CB11	ea	3.0	2.8	346.58	11.5	135.04	135.04	1,020.99	1,020.99	3,060.18	808.59	1,608.99	5,095.46					
529	3445.890	Cap BW Sch. STD NPS 24, Piping Specification CB11	ea	1.0	2.0	181.61	2.0	13.61	13.61	171.64	171.64	77.24	454.11	454.11	454.11					
530	3445.900	Concentric Reducer BW Sch. STD NPS 24 x 20, Piping Specification CB11	ea	1.0	1.5	131.71	1.5	17.12	17.12	131.71	311.41	311.41	93.64	93.64	553.89					
531	3445.910	Eccentric Reducer BW Sch. STD NPS 24 x 20, Piping Specification CB11	ea	2.0	1.6	140.03	1.1	18.20	36.41	280.05	740.51	107.45	214.89	635.93	1,271.86					
532	3445.920	Weld NPS 24, Piping Specification CB11	ea	10.0	0.0	0.00	0.00	0.00	0.00	0.00	10,798.89	217.41	2,174.10	1,297.30	12,973.00					
533	3445.930	Pipe painting NPS 24	Linear meter	5.5	0.0	0.00	0.00	0.00	0.00	0.00	432.88	2,874.97	87.15	478.14	5,203.03					
534	3445.940	Pipe identification NPS 24	Linear meter	1.9	0.6	51.08	0.0	6.90	12.80	98.44	12.07	22.38	14.90	27.64	86.95	161.26				
535	3446.010	Oil storage tank 3446-TK-6000 / 6001	ea	2.0	305.9	27,658.18	613.9	1,595.54	7,713.13	55,316.36	61,687.27	123,374.55	18,919.32	37,838.64	111,860.94	223,720.67				
536	3446.020	Level transmitter 3446-LT-6000 / 6001	ea	2.0	36.5	3,299.45	73.0	428.51	857.87	6,598.98	24,455.27	48,990.73	5,706.98	11,413.96	33,930.77	67,861.54				
537	3446.030	Mobile pumping-filtering unit 3446-OMP-5000	ea	1.0	0.0	0.00	0.00	0.00	0.00	0.00	74,351.42	14,968.84	14,968.84	89,320.28	89,320.28					
538	3446.040	Pipe NPS 1/2 Sch. XS, Piping Specification CB11	m	0.0	0.4	33.27	0.0	4.33	0.00	0.00	106.17	0.00	29.20	0.00	172.94					
539	3446.050	Clot SW Class 3000 NPS 1/2, Piping Specification CB11	ea	2.0	0.5	41.59	0.9	5.41	10.81	83.18	4.90	9.81	10.76	21.53	62.66	125.32				
540	3446.060	Weld NPS 1/2, Piping Specification CB11	ea	6.0	0.0	0.00	0.00	0.00	0.00	0.00	176.71	1,060.26	35.58	213.46	212.29	1,273.71				
541	3446.070	Ball valve NPS 1/2, Valve Specification VBA02	ea	2.0	2.2	192.25	4.4	25.77	115.75	496.50	127.75	594.83	87.35	404.69	694.69					
542	3446.080	Pipe painting NPS 1/2	Linear meter	0.0	0.0	0.00	0.00	0.00	0.00	0.00	105.00	0.00	21.10	0.00	126.10					
543</																				



SCHEDULE OF PRICE BREAKDOWN

CH0091-001  
Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	LABOUR COMPONENT										NON LABOUR COMPONENT					UNIT PRICE	TOTAL PRICE
					PLA HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR OH&P (per unit)	LABOUR OH&P (Ext.)	COST OF LABOUR (Ext.)	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST	I = C + D + G + H	J = A x I					
																	A	B	C		
566	3447.080	Pipe identification NPS 4	Linear meter	13.5	0.6	50.17	7.5	6.52	87.95	6.76	6.76	12.06	162.84	14.21	191.77	82.91	1,119.09				
567	3447.090	Pipe NPS 6 Sch. STD, Piping Specification CB11	m	36.9	3.2	293.01	139.5	28.09	1,405.52	10,806.52	50.32	1,855.85	78.99	2,913.32	440.41	16,980.52					
568	3447.100	Elbow 90 degrees BW Sch. STD NPS 4, Piping Specification CB11	ea	8.0	1.8	340.95	30.1	44.25	353.06	2,722.77	19.64	157.25	83.94	671.94	488.19	1,809.54					
569	3447.110	Weld NPS 6, Piping Specification CB11	ea	13.0	6.6	589.01	86.1	77.87	1,012.52	7,287.07	199.84	2,557.94	179.72	2,336.31	1,056.43	13,733.63					
570	3447.120	Pipe painting NPS 6	Linear meter	36.9	0.0	0.00	0.0	0.00	0.00	0.00	69.54	2,565.42	14.00	516.49	83.54	3,081.91					
571	3447.130	Pipe identification NPS 6 WCS (Raw/Cooling Water)	Linear meter	12.5	0.6	50.26	6.9	6.53	81.46	6.26	6.26	12.06	150.41	14.24	177.55	83.10	1,036.04				
572	3448.001	Self cleaning strainer 3448-STM-1000 / 2000 / 3000 / 4000	ea	4.0	83.1	7,510.50	332.3	976.37	3,905.44	30,042.00	70,020.13	280,080.53	15,861.94	63,447.75	94,368.94	377,475.74					
573	3448.002	Strainer 3448-STN-1000 / 2000 / 3000 / 4000	ea	4.0	4.8	433.23	19.2	56.32	225.28	1,732.92	0.00	0.00	101.82	407.27	591.37	2,365.47					
574	3448.003	Air vent 3448-AV-1001 / 2001 / 3001 / 4001 / 6000 to 6003	ea	18.0	10.9	989.85	175.2	118.68	2,058.89	15,837.54	3,860.17	53,782.89	909.12	15,455.89	5,387.87	86,205.11					
575	3448.004	Pressure indicator 3448-PI-1000 to 1002 / 2000 to 2002 / 3000 to 3002 / 4000 to 4002	ea	12.0	3.7	329.95	43.8	42.99	514.72	3,958.39	84.10	1,009.25	94.48	1,133.70	551.62	6,617.07					
576	3448.005	Differential pressure indicator 3448-PDI-1000 / 2000 / 3000 / 4000	ea	4.0	14.6	1,319.80	58.4	171.57	686.29	5,279.18	2,967.37	11,869.47	907.58	3,630.32	5,366.31	21,465.26					
577	3448.006	Differential pressure switch 3448-PDS-1000 / 2000 / 3000 / 4000	ea	4.0	7.3	659.90	29.2	85.79	343.15	2,639.59	1,263.04	5,052.23	409.87	1,637.48	2,418.11	9,672.44					
578	3448.007	Temperature transmitter 3448-TT-1001 / 1003 / 2001 / 2003 / 3001 / 3003 / 4001 / 4003	ea	8.0	29.2	2,639.59	233.6	343.15	2,745.38	21,116.74	5,077.91	40,623.27	1,642.66	13,141.25	9,703.31	77,628.44					
579	3448.008	Control Panel 3448-CP-1001 / 2001 / 3001 / 4001	ea	4.0	18.6	1,678.86	74.3	218.25	873.03	6,715.43	7,457.52	29,830.09	1,895.95	7,583.79	11,250.58	45,002.32					
580	3448.009	Pipe NPS 3/4 Sch. 10S, Piping Specification SB11	m	8.0	0.6	160.88	14.2	20.91	167.29	1,286.57	7.67	60.97	39.34	314.67	1,279.36						
581	3448.010	Elbow 90 degrees SW Class 3000 NPS 3/4, Piping Specification SB11	ea	6.0	0.6	54.95	3.7	7.15	42.89	329.95	5.37	32.20	14.00	84.03	1,189.05						
582	3448.011	Outlet SW Class 3000 NPS 3/4, Piping Specification SB11	ea	9.0	0.6	51.29	5.1	6.67	60.01	461.65	10.09	90.84	14.09	126.78	739.29						
583	3448.012	Weld NPS 3/4, Piping Specification SB11	ea	16.0	0.4	36.13	6.4	4.70	75.15	578.11	188.11	3,009.69	46.22	739.55	275.16	4,402.51					
584	3448.013	Ball valve NPS 3/4, Valve Specification VBA11	ea	1.0	3.1	280.05	3.1	36.41	36.41	280.05	100.39	86.02	502.87	502.87	502.87						
585	3448.014	Pipe identification NPS 3/4	Linear meter	2.7	0.5	49.16	1.5	6.39	37.12	131.73	12.07	32.32	13.98	37.46	81.60	218.62					
586	3448.015	Pipe NPS 1 Sch. 10S, Piping Specification SB11	m	11.0	1.9	168.00	20.4	21.84	240.24	1,847.99	13.37	147.10	42.17	463.92	245.39	2,699.25					
587	3448.016	Pipe NPS 1 1/2 Sch. 10S, Piping Specification SB11	m	0.0	7.7	693.10	0.0	90.11	0.00	6,831.00	0.00	5,536.66	839.25	5,215.28	0.00						
588	3448.017	Elbow 90 degrees SW Class 3000 NPS 1, Piping Specification SB11	ea	12.0	0.6	53.63	1.1	6.37	63.41	464.26	0.84	97.34	14.21	130.20	996.01						
589	3448.018	Outlet SW Class 3000 NPS 1, Piping Specification SB11	ea	20.0	0.6	53.65	11.9	6.97	139.49	1,073.03	0.17	176.64	16.14	372.37	1,888.46						
590	3448.019	Union SW Class 3000 NPS 1, Piping Specification SB11	ea	20.0	0.5	43.74	9.7	5.69	113.72	874.78	16.23	324.52	13.55	270.92	79.20	1,583.94					
591	3448.020	Victaulic coupling NPS 1, Style 77	ea	0.0	0.6	49.91	0.0	6.49	0.00	0.00	23.70	0.00	16.49	0.00	96.59	0.00					
592	3448.021	Weld NPS 1, Piping Specification SB11	ea	132.0	0.5	45.25	66.1	5.88	776.41	5,972.36	224.70	29,660.67	55.77	7,361.60	331.60	43,771.04					
593	3448.022	Ball valve NPS 1, Valve Specification VBA11	ea	12.0	3.2	287.32	38.1	37.35	448.22	3,447.83	127.76	1,533.14	93.25	1,118.95	545.68	6,548.14					
594	3448.023	Pipe insulation NPS 1	Linear meter	68.3	3.3	360.68	227.1	39.09	2,640.78	20,750.23	183.53	12,605.49	99.34	6,174.87	614.83	41,978.05					
595	3448.024	Pipe identification NPS 1	Linear meter	23.1	0.6	50.76	11.0	6.60	152.29	1,171.45	12.06	218.44	14.36	131.17	1,814.57						
596	3448.025	Pipe NPS 1 Sch. 40, Piping Specification PA02	m	57.0	2.5	317.50	200.2	41.27	2,852.65	18,079.29	4.32	246.06	75.49	4,802.67	438.57	29,958.67					
597	3448.026	Elbow 90 degrees SW Sch. 40 NPS 1, Piping Specification PA02	ea	20.0	0.3	29.67	6.6	3.86	77.34	593.35	0.99	19.86	7.17	143.44	41.69	833.78					
598	3448.027	Elbow 45 degrees SW Sch. 40 NPS 1, Piping Specification PA02	ea	12.0	0.3	24.72	3.3	3.21	38.57	296.68	1.04	12.50	6.02	72.23	35.00	419.99					
599	3448.028	Pipe identification NPS 1	Linear meter	21.4	0.6	50.78	12.0	6.60	141.48	1,088.28	12.06	258.55	14.36	307.81	83.81	1,796.12					
600	3448.029	Pipe NPS 1 1/2 Sch. 10S, Piping Specification SB11	m	12.0	2.0	178.77	23.7	23.24	278.83	2,144.67	16.96	203.43	45.43	544.88	264.39	3,171.89					
601	3448.030	Pipe NPS 1 1/2 Sch. 10S, Piping Specification SB11	m	0.0	0.7	80.68	0.0	8.65	0.00	6,548.58	0.00	114.02	0.00	104.92	0.00						
602	3448.031	Elbow 90 degrees SW Class 3000 NPS 1 1/2, Piping Specification SB11	ea	16.0	0.6	53.63	9.5	6.97	111.56	858.14	19.98	319.64	16.64	266.04	97.74	1,555.37					
603	3448.032	Union SW Class 3000 NPS 1 1/2, Piping Specification SB11	ea	4.0	0.6	53.72	2.4	6.98	27.93	234.88	40.35	161.41	20.75	83.00	121.80	487.22					
604	3448.033	Weld NPS 1 1/2, Piping Specification SB11	ea	48.0	0.6	57.39	30.5	7.44	358.11	2,754.66	238.91	11,487.67	61.40	2,947.16	365.16	17,527.60					
605	3448.034	Ball valve NPS 1 1/2, Valve Specification VBA11	ea	4.0	3.2	288.73	12.8	37.53	150.13	1,154.83	209.90	839.58	110.11	440.44	646.24	2,584.98					
606	3448.035	Pipe identification NPS 1 1/2	Linear meter	4.1	0.6	52.14	2.1	6.78	27.93	234.88	12.06	49.72	14.68	60.51	85.66	353.05					
607	3448.036	Pipe NPS 2 Sch. 10S, Piping Specification SB11	m	67.0	2.6	190.59	141.3	24.78	1,660.05	12,769.58	23.79	1,594.05	49.58	3,321.96	288.74	19,345.64					
608	3448.037	Pipe NPS 2 Sch. 40S, Piping Specification SB11	m	4.0	0.6	53.72	2.4	6.98	27.93	234.88	41.99	167.89	21.07	84.28	123.78	494.94					
609	3448.038	Elbow 90 degrees SW Class 3000 NPS 2, Piping Specification SB11	ea	37.0	0.6	53.95	22.1	7.01	259.52	1,996.33	31.54	1,167.65	19.24	314.24	1,113.26	4,719.75					
610	3448.039	Elbow 45 degrees SW Class 3000 NPS 2, Piping Specification SB11	ea	7.0	0.3	25.94	2.0	3.37	23.61	181.63	0.87	243.07	13.09	107.33	771.33	539.92					
611	3448.040	Union SW Class 3000 NPS 2, Piping Specification SB11	ea	9.0	0.6	53.14	5.3	6.91	62.18	478.28	56.37	507.29	23.84	234.53	140.25	1,262.28					
612	3448.041	Tee SW Class 3000 NPS 2, Piping Specification SB11	ea	4.0	1.2	107.09	4.7	13.92	55.49	428.37	47.03	188.10	34.63	158.54	202.68	810.70					
613	3448.042	Concentric Reducer SW Class 3000 NPS 2 x 1, Piping Specification SB11	ea	4.0	0.7	62.04	2.7	8.06	32.26	248.15	21.58	86.32	18.93	75.70	110.61	442.44					
614	3448.043	Outlet SW Class 3000 NPS 2, Piping Specification SB11	ea	13.0	0.6	52.04	7.5	6.77	87.95	676.58	32.30	419.93	18.73	243.54	109.84	1,427.95					
615	3448.044	Victaulic coupling NPS 2, Style 77	ea	4.0	0.6	53.72	2.4	6.98	27.93	234.88	41.99	167.89	21.07	84.28	123.78	494.94					
616	3448.045	Weld NPS 2, Piping Specification SB11	ea	242.0	0.9	80.79	216.3	10.50	2,541.52	19,550.18	259.61	62,236.33	71.15	12,717.37	422.05	102,135.40					
617	3448.046	Ball valve NPS 2, Valve Specification VBA11	ea	25.0	21.7	1,957.90	541.4	254.53	3,683.18	48,947.52	269.98	6,749.50	514.49	16,222.24	2,996.90	74,922.43					
618	3448.047	Pipe insulation NPS 2	Linear meter	67.4	3.6	323.26	240.9	42.02	2,830.78	21,775.24	210.87	14,204.24	99.73	6,717.58	575.88	45,527.85					
619	3448.048	Pipe identification NPS 2	Linear meter	22.8	0.6	50.71	12.8	6.59	150.13	1,154.83	12.06	274.71	14.35	326.70	83.72	1,906.37					
620	3448.049	Pipe NPS 4 Sch. 10S, Piping Specification SB11	m	64.0	2.0	178.38	176.3	23.19	1,484.15	11,416.50	49.92	3,195.01	51.97	3,326.29	303.47	19,421.94					
621	3448.050	Elbow 45 degrees BW Sch. 10S NPS 4, Piping Specification SB11	ea	4.0	0.5	41.25	1.8	5.36	21.45	164.98	13.95	55.80	12.50								



SCHEDULE OF PRICE BREAKDOWN

CH0021-001  
Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	LABOUR COMPONENT										NON LABOUR COMPONENT				UNIT PRICE	TOTAL PRICE
					PLA HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR OHSF (per unit) D = C x 13%	LABOUR CHGP (Ext.) E = A x D	COST OF LABOUR (Ext.) F = A x C	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST	F = C + D + G + H	I = A x I				
																	A	B		
649	3448.078	Elbow 45 degrees Sch. STD NPS 12, Piping Specification CR11	ea	3.0	0.7	60.54	2.0	7.87	3.841	181.61	122.19	366.58	38.83	116.49	229.47	688.27				
650	3448.079	Tee WW Sch. STD NPS 12, Piping Specification CR11	ea	3.0	1.9	176.07	2.0	22.89	116.27	196.18	588.49	80.87	263.62	479.89	1,477.97					
651	3448.080	Cap WW Sch. STD NPS 12, Piping Specification CR11	ea	2.0	1.0	90.81	2.0	11.86	31.61	50.27	100.53	31.47	184.34	36.88	368.88					
652	3448.081	Weld NPS 12, Piping Specification CR11	ea	18.0	5.7	519.65	303.5	67.55	1,715.97	9,933.64	411.87	7,411.72	204.49	1,680.74	12,033.54	21,646.06				
653	3448.082	Pipe insulation NPS 12	Linear meter	19.8	30.9	982.58	215.3	127.74	2,530.71	19,466.98	891.69	17,668.18	7,005.60	353.63	46,669.45					
654	3448.083	Pipe identification NPS 12	Linear meter	6.7	0.5	49.26	3.7	6.40	42.89	629.95	12.06	80.80	14.01	93.81	81.74	547.45				
655	3448.084	Pipe painting NPS 12	Linear meter	24.5	0.0	0.00	0.00	0.00	0.00	180.37	4,411.89	36.31	889.64	216.68	5,307.33					
656	3448.085	Pipe NPS 14 Sch. 10S, Piping Specification SB11	m	136.0	30.6	961.46	1,446.4	124.99	16,979.57	136,758.22	406.53	55,786.30	307.80	41,861.07	1,800.79	244,906.15				
657	3448.086	Elbow 90 degrees Long Radius Sch. 10S NPS 14, Piping Specification SB11	ea	24.0	1.6	347.82	39.2	19.22	481.29	3,547.64	512.25	12,296.40	137.89	1,809.34	81,727	39,524.55				
658	3448.087	Elbow 45 degrees Sch. 10S NPS 14, Piping Specification SB11	ea	4.0	0.8	76.17	7.3	9.64	36.57	276.98	307.41	1,279.62	79.32	117.29	470.54	1,882.17				
659	3448.088	Flange Welding Neck 150RF Sch. 10S NPS 14 c/w hardware, Piping Specification SB11	ea	72.0	6.0	541.67	431.4	70.42	5,970.67	99,000.52	460.87	33,182.65	220.09	15,846.22	1,29,035	93,999.46				
660	3448.089	Flange Welding Neck 150RF Sch. 10S NPS 14 c/w hardware, Piping Specification SB11	ea	0.0	6.4	578.11	0.0	75.35	0.00	0.00	9.64	0.00	137.80	0.00	800.71	0.00				
661	3448.090	Flange Slip-On 150RF NPS 14 c/w hardware, Piping Specification SB11	ea	8.0	34.0	1,264.25	112.1	164.61	1,136.90	10,129.99	373.06	2,984.50	372.69	2,984.50	2,176.62	17,412.94				
662	3448.091	Tee WW Sch. 10S NPS 14, Piping Specification SB11	ea	12.0	11.0	295.64	39.2	38.43	461.29	3,547.64	774.20	9,290.39	225.35	2,704.14	1,338.61	16,003.37				
663	3448.092	Excentric Reducer WW Sch. 10S NPS 14 x 6, Piping Specification SB11	ea	8.0	1.0	90.81	8.0	11.80	94.44	726.44	694.32	5,554.59	161.13	1,289.01	958.06	7,664.47				
664	3448.093	Vertical coupling NPS 14, Style W77	ea	28.0	1.6	347.89	45.9	19.22	538.39	4,140.99	421.56	11,893.01	120.27	1,817.54	712.14	29,398.89				
665	3448.094	Vertical coupling NPS 14, Style W77	ea	28.0	1.6	347.89	45.9	19.22	538.39	4,140.99	421.56	11,893.01	120.27	1,817.54	712.14	29,398.89				
666	3448.095	Vertical Elbow 90 degrees NPS 14, Style W300S	ea	8.0	1.6	148.51	13.1	19.33	154.45	1,188.10	4,202.43	33,619.44	880.96	7,047.68	5,251.21	42,009.09				
667	3448.096	Vertical Elbow 90 degrees NPS 14 x 10, Style W515S	ea	4.0	1.0	90.81	4.0	11.80	47.22	361.23	2,974.44	11,913.78	620.98	2,483.91	1,702.04	14,808.14				
668	3448.097	Weld NPS 14, Piping Specification SB11	ea	246.0	14.7	1,330.39	1,620.1	172.95	42,545.96	827,276.12	500.09	123,023.18	413.09	101,619.71	2,416.52	594,464.90				
669	3448.098	Butterfly Valve NPS 14, Valve Specification VBU01	ea	28.0	13.7	1,237.31	381.2	160.85	4,503.80	34,444.65	1,633.55	45,738.84	619.66	17,502.42	1,651.35	107,237.71				
670	3448.099	Check Valve FF NPS 14, Valve Specification VCH01	ea	4.0	13.7	1,237.31	54.7	106.85	643.69	4,949.24	7,756.98	13,077.94	7,409.87	11,007.61	44,030.45					
671	3448.100	Pipe insulation NPS 14	Linear meter	136.6	12.4	1,117.24	1,608.5	145.24	19,872.77	152,550.88	725.87	99,118.00	344.08	46,938.84	2,132.47	218,494.57				
672	3448.101	Pipe identification NPS 14	Linear meter	44.5	0.6	39.24	3.7	6.55	42.89	629.95	12.06	80.80	14.01	93.81	81.74	547.45				
673	3448.102	Pipe NPS 16 Sch. 10S, Piping Specification SB11	m	131.0	2.7	240.15	348.0	31.22	4,089.84	31,440.22	554.71	72,929.17	168.52	22,076.14	996.61	130,555.37				
674	3448.103	Flange Welding Neck 150RF Sch. 10S NPS 16 c/w hardware, Piping Specification SB11	ea	1,038.0	1.0	88.42	1,015.2	11.49	11,930.84	91,725.73	12.48	12,954.57	23.29	24,177.14	13.29	140,840.28				
675	3448.104	Blind Flange 150RF NPS 16 c/w hardware, Piping Specification SB11	ea	1.0	1.8	164.98	1.8	21.45	71.45	164.98	647.57	647.57	169.15	169.15	1,003.14	1,003.14				
676	3448.105	Reducing Tee WW Sch. 10S NPS 16 x 16 x 14, Piping Specification SB11	ea	4.0	3.7	338.27	15.0	43.97	1,069.68	1,069.68	4,278.70	294.85	1,798.91	1,798.91	6,987.08					
677	3448.106	Excentric Reducer WW Sch. 10S NPS 16 x 12, Piping Specification SB11	ea	1.0	1.1	98.44	1.1	12.80	128.00	98.44	757.71	175.68	1,044.63	1,044.63	1,044.63					
678	3448.107	Vertical Reducing Tee NPS 16 x 16 x 14, Style W77	ea	4.0	1.7	338.27	15.0	43.97	1,069.68	629.599	25,175.95	1,346.64	5,385.55	8,022.87	32,091.47					
679	3448.108	Vertical coupling NPS 16, Style W77	ea	28.0	1.9	348.94	54.3	21.96	636.13	4,899.18	545.63	15,813.76	149.54	1,911.14	898.11	25,921.19				
680	3448.109	Weld NPS 16, Piping Specification SB11	ea	91.0	21.4	1,933.82	1,946.5	251.40	22,872.72	175,977.64	212.27	19,316.90	496.84	45,212.77	2,894.84	263,384.66				
681	3448.110	Butterfly Valve NPS 16, Valve Specification VBU01	ea	3.0	35.6	1,813.14	146.5	183.71	5,511.18	42,239.43	2,327.09	6,981.28	800.63	2,041.84	4,734.54	54,173.68				
682	3448.111	Pipe insulation NPS 16	Linear meter	131.7	10.0	907.95	1,322.4	118.03	15,542.00	119,553.82	809.44	106,582.13	323.82	42,638.96	2,159.25	284,316.91				
683	3448.112	Pipe identification NPS 16	Linear meter	44.5	0.6	39.24	3.7	6.55	42.89	629.95	12.06	80.80	14.01	93.81	81.74	547.45				
		WSS (Service Water)						50.00			50.00			50.00						
684	3449.001	Service water pump 3449-P-6000 to 6002	ea	3.0	171.4	15,496.51	514.7	2,012.55	6,094.64	46,469.53	81,251.41	93,754.23	9,933.62	29,800.86	58,676.09	1,76,086.25				
685	3449.002	Pressure transmitter 3449-P1-6000 / 8004	ea	7.0	4.8	131.4	18.4	21.96	491.45	3,518.45	191.45	750.44	151.85	1,518.51	5,023.12					
686	3449.003	Pressure transmitter 3449-P1-6000 / 8004	ea	2.0	4.3	565.11	0.0	73.44	587.73	4,570.00	94.59	754.75	121.82	1,218.42	895.02	7,280.13				
687	3449.004	Pump suction diffuser 3449-PD-6000 to 6002	ea	3.0	4.9	439.84	14.6	173.17	1,319.60	4.00	0.00	103.39	103.39	1,801.56						
688	3449.005	Air vent 3449-AV-1000 / 1001 / 2000 / 3000 / 4000 / 5000 / 5001 / 5002 / 8000 to 8004	ea	16.0	8.6	329.95	58.4	42.89	685.25	5,279.10	84.18	1,346.64	94.40	1,511.80	551.48	8,823.82				
689	3449.006	Air vent 3449-AV-6000 / 8005	ea	2.0	11.0	989.85	21.9	128.68	257.36	1,979.70	1,330.12	6,660.23	903.07	1,806.14	10,703.43					
690	3449.007	Pressure indicator 3449-P1-6000 to 8005	ea	6.0	3.7	329.95	21.9	42.89	271.97	3,578.70	84.18	568.88	151.42	568.88	3,942.55					
691	3449.008	Pressure transmitter 3449-P1-6000 / 8005	ea	2.0	7.8	649.90	14.6	85.29	1,715.17	1,319.88	7,961.54	15,917.12	1,758.26	1,516.71	20,447.81					
691.1	691.100	HVAC Temperature transmitter (supply by HVAC and installed by Piping)	ea	1.0	309.5	9,896.47	309.5	1,286.83	1,386.86	9,896.47	0.00	0.00	2,326.25	2,326.25	11,515.54					
691.2	691.200	HVAC Pressure transmitter (supply by HVAC and installed by Piping)	ea	1.0	120.4	10,888.32	120.4	1,455.48	1,455.48	10,888.32	0.00	0.00	2,558.92	2,558.92	13,862.72					
692	3449.009	Variable frequency drive 3449-VFD-6000 to 6002	ea	0.0	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
693	3449.010	Control panel 3449-CP-6000 to 6003	ea	4.0	18.6	1,678.86	74.3	87.03	6,715.43	20,854.52	81,438.09	4,594.12	18,376.46	27,350.75	109,420.00					
694	3449.011	Pipe NPS 1/2 Sch. 10S, Piping Specification SB11	m	5.8	1.7	150.17	9.7	9.72	113.72	874.18	6.24	36.33	212.90	212.90	1,237.78					
695	3449.012	Pipe NPS 1/2 Sch. 40S, Piping Specification SB11	m	2.0	48.4	4,372.51	48.4	548.24	968.44	4,372.51	556.87	556.87	1,139.72	6,437.52	6,437.52					
696	3449.013	Pipe NPS 1/2 Sch. 80S, Piping Specification SB11	m	0.0	0.0	49.91	0.0	0.49	0.00	0.00	1.72	0.00	12.47	0.00	72.99					
697	3449.014	Elbow 90 degrees SW Class 3000 NPS 1/2, Piping Specification SB11	ea	14.0	0.6	54.17	8.4	7.04	98.58	758.19	4.28	59.66	13.59	190.23	79.04	1,106.80				
698	3449.015	Ort FNPT Sch. 40S NPS 1/2, Piping Specification SB11	ea	33.0	0.6	53.75	18.4	6.99	716.63	1,866.38	10.68	331.04	14.78	458.27	86.20	2,672.33				
699	3449.016	Ort SW Class 3000 NPS 1/2, Piping Specification SB11	ea	1.0	0.6	49.91	0.6	6.49	64.9	49.92	10.54	13.84	13.84	80.78	80.78					
700	3449.017	Union PL/NPT Sch. 40S NPS 1/2, Piping Specification SB11	ea	24.0	0.8	53.61	14.2	6.57	387.25	1,286.52	9.74	234.35	14.56	349.54	84.90	2,037.66				
701	3449.018	Weld NPS 1/2, Piping Specification SB11	ea	149.0	0.8	75.40	124.3	9.80	1,440.54											



SCHEDULE OF PRICE BREAKDOWN

CH0031-001  
Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	LABOUR COMPONENT										NON LABOUR COMPONENT				UNIT PRICE	TOTAL PRICE
					PLA HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR OHP&P (per unit)	LABOUR OHP&P (Ext.)	COST OF LABOUR (Ext.)	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST	J=C+D+E+H	K=A+J				
																	A	B		
730	3449.047	Elbow 90 degrees SW Class 3000 NPS 1, Piping Specification SB11	ea	4.0	0.6	53.77	2.4	6.98	27.93	724.88	8.11	32.45	14.26	5.04	83.08	832.30				
731	3449.048	Weld NPS 1 Piping Specification SB11	ea	15.0	0.7	63.84	106.0	8.30	1,269.66	9,746.76	220.51	33,737.73	59.34	9,078.65	35,198	53,852.82				
732	3449.049	Victaulic coupling NPS 1, Style 77	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
733	3449.050	Ball Valve NPS 1, Valve Specification VBA11	ea	20.0	3.1	278.79	6.7	26.24	724.84	5,575.87	158.73	3,174.53	97.48	1,949.53	571.24	11,424.80				
734	3449.051	Pipe insulation NPS 1	Linear meter	31.4	3.3	298.17	105.5	38.76	1,216.69	9,359.19	183.09	5,746.62	89.67	2,815.11	609.58	19,137.61				
735	3449.052	Pipe identification NPS 1	Linear meter	10.6	0.6	49.77	5.8	6.47	68.67	528.20	12.06	128.03	14.13	149.92	82.43	874.82				
736	3449.053	Pipe NPS 1-1/4 Sch.105, Piping Specification SB11	m	5.0	0.7	603.89	33.4	78.51	392.53	3,015.45	1,656.33	18,281.67	878.04	4,390.18	5,216.77	26,083.84				
737	3449.054	Pipe NPS 1-1/4 Sch.405, Piping Specification SB11	m	18.0	0.5	49.57	9.9	6.44	115.88	891.41	13.15	236.63	14.29	257.14	83.39	1,501.06				
738	3449.055	Coupling Stainless Steel Compression MMP1 1.25in x 1.25in	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
739	3449.056	Victaulic coupling NPS 1-1/4, Style 77	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
740	3449.057	Victaulic coupling NPS 1-1/4, Style 77DX	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
741	3449.058	Pipe insulation NPS 1-1/4	Linear meter	4.6	3.7	330.23	16.7	42.93	196.76	1,509.73	207.59	949.11	100.30	498.54	681.03	3,113.67				
742	3449.059	Pipe identification NPS 1-1/4	Linear meter	1.5	0.6	53.82	0.9	7.00	10.81	83.18	12.06	18.64	15.08	23.81	87.96	135.95				
743	3449.060	Pipe NPS 1-1/2 Sch.105, Piping Specification SB11	m	17.0	2.1	191.13	36.7	24.84	4,297.99	33,061.45	28.06	4,854.41	50.56	8,747.24	294.57	50,961.09				
744	3449.061	Pipe NPS 1-1/2 Sch.405, Piping Specification SB11	m	0.0	0.7	66.54	0.0	8.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
745	3449.062	Elbow 90 degrees SW Class 3000 NPS 1-1/2, Piping Specification SB11	ea	91.0	0.6	53.84	54.2	7.00	636.91	4,899.32	19.98	1,817.97	16.68	1,517.43	97.49	8,871.64				
746	3449.063	Elbow 45 degrees SW Class 3000 NPS 1-1/2, Piping Specification SB11	ea	77.0	0.3	27.75	5.1	2.53	60.01	461.95	19.08	134.41	10.22	178.82	59.99	1,019.89				
747	3449.064	Union SW Class 3000 NPS 1-1/2, Piping Specification SB11	ea	17.0	0.8	54.00	46.0	7.02	540.69	4,157.54	4.78	6,082.51	128.59	2,201.64	108.62	12,982.30				
748	3449.065	TEE SW Class 3000 NPS 1-1/2, Piping Specification SB11	ea	24.0	1.2	107.90	28.7	14.03	866.67	2,589.88	26.19	628.55	30.83	735.15	178.75	4,290.04				
749	3449.066	Reducing Tee SW Class 3000 NPS 1-1/2 x 1-1/2 x 1/2, Piping Specification SB11	ea	1.0	1.3	115.07	1.3	14.90	14.90	115.07	63.08	63.08	39.75	39.75	232.84	232.84				
750	3449.067	Reducing Tee SW Class 3000 NPS 1-1/2 x 1-1/2 x 3/4, Piping Specification SB11	ea	11.0	1.2	108.03	13.1	14.04	194.45	1,188.30	654.67	411.02	178.82	31.07	2,189.3	2,408.24				
751	3449.068	Reducing Tee SW Class 3000 NPS 1-1/2 x 1-1/2 x 1, Piping Specification SB11	ea	14.0	1.2	107.24	16.6	13.94	195.18	1,501.40	63.08	883.07	37.00	530.64	222.16	3,110.28				
752	3449.069	Concentric Reducer SW Class 3000 NPS 1-1/2 x 1, Piping Specification SB11	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
753	3449.070	Concentric Reducer SW Class 3000 NPS 1-1/2 x 1-1/4, Piping Specification SB11	ea	5.0	0.8	51.68	2.9	6.25	34.24	269.40	10.25	51.25	24.84	72.27	84.27	431.11				
754	3449.071	Concentric Reducer SW Class 3000 NPS 1-1/2 x 1-1/4, Piping Specification SB11	ea	1.0	0.7	66.54	0.0	8.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
755	3449.072	Concentric Reducer SW Class 3000 NPS 2 x 1-1/2, Piping Specification SB11	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
756	3449.073	olet SW Class 3000 NPS 1-1/2, Piping Specification SB11	ea	9.0	0.4	36.64	3.7	4.77	42.89	329.95	31.51	283.57	34.96	134.64	87.89	791.05				
757	3449.074	Weld NPS 1-1/2 Piping Specification SB11	ea	543.0	0.6	51.38	308.6	6.68	8,626.65	27,897.37	244.71	132,879.21	61.19	33,253.39	363.94	197,628.57				
758	3449.075	Victaulic coupling NPS 1-1/2, Style 77	ea	0.0	0.6	49.91	0.0	6.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
759	3449.076	Victaulic coupling NPS 1-1/2, Style 77DX	ea	0.0	0.6	49.91	0.0	6.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
760	3449.077	Victaulic coupling NPS 1-1/2, Style 488	ea	0.0	0.6	49.91	0.0	6.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
761	3449.078	Victaulic concentric reducer NPS 1-1/2 x 1-1/4, Style 50	ea	0.0	0.6	49.91	0.0	6.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
762	3449.079	Victaulic Tee NPS 1-1/2, Style 42055	ea	0.0	0.9	83.18	0.0	10.81	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
763	3449.080	Ball Valve NPS 1-1/2, Valve Specification VBA11	ea	29.0	3.2	287.33	9.2	37.30	1,081.15	8,331.90	236.58	6,840.83	115.13	3,339.38	676.39	19,615.26				
764	3449.081	Pipe insulation NPS 1-1/2	Linear meter	302.22	3.3	307.23	577.7	39.29	6,789.77	52,728.98	202.04	34,917.34	94.22	16,283.10	637.76	110,219.19				
765	3449.082	Pipe identification NPS 1-1/2	Linear meter	58.4	0.6	50.54	32.7	6.57	383.88	2,952.91	12.06	704.80	14.31	85.87	83.49	4,877.46				
766	3449.083	Pipe NPS 2 Sch.105, Piping Specification SB11	m	480.0	7.0	633.92	395.1	82.15	39,431.80	303,321.54	35.47	17,026.46	155.65	74,712.69	905.19	434,492.69				
767	3449.084	Elbow 90 degrees SW Class 3000 NPS 2, Piping Specification SB11	ea	45.0	0.6	53.88	28.8	7.00	471.71	2,434.72	55.11	2,479.98	23.76	1,069.19	139.76	6,289.03				
768	3449.085	Elbow 45 degrees SW Class 3000 NPS 2, Piping Specification SB11	ea	5.0	0.3	24.34	1.5	3.42	17.32	131.5	11.72	113.17	6.04	70.96	104.96					
769	3449.086	Elbow 90 degrees BW Sch.105 NPS 2, Piping Specification SB11	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
770	3449.087	Elbow 45 degrees BW Sch.105 NPS 2, Piping Specification SB11	ea	1.0	0.4	33.27	0.4	4.33	4.33	33.27	3.61	3.61	8.54	8.54	49.75	49.75				
771	3449.088	Olet SW Class 3000 NPS 2, Piping Specification SB11	ea	2.0	0.5	41.59	0.9	5.41	10.81	83.18	23.81	47.63	29.14	85.38	170.76					
772	3449.089	Union SW Class 3000 NPS 2, Piping Specification SB11	ea	28.0	0.6	51.62	16.6	6.97	195.18	1,501.40	17.34	486.20	16.30	450.73	94.05	2,633.51				
773	3449.090	Eccentric Reducer SW Class 3000 NPS 2 x 3/4, Piping Specification SB11	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
774	3449.091	Reducing Tee SW Class 3000 NPS 2 x 2 x 3/4, Piping Specification SB11	ea	9.0	1.2	108.13	10.8	14.06	126.52	974.21	95.68	861.08	44.68	407.98	262.89	2,462.89				
775	3449.092	Reducing Tee SW Class 3000 NPS 2 x 2 x 1-1/2, Piping Specification SB11	ea	4.0	1.2	107.09	1.2	13.59	55.69	443.7	95.68	482.71	484.13	177.72	1,044.50					
776	3449.093	Cap SW Class 3000 NPS 2, Piping Specification SB11	ea	6.0	0.7	60.54	4.0	7.87	47.22	366.23	6.48	38.86	15.53	91.18	90.41	542.49				
777	3449.094	Weld NPS 2 Piping Specification SB11	ea	414.0	2.4	219.13	1,003.5	28.49	11,793.51	90,719.32	103.52	42,858.52	71.92	29,776.37	473.06	135,147.72				
778	3449.095	Victaulic elbow 90 degrees NPS 2, Style 41055	ea	3.0	7.2	648.81	21.5	84.35	2,553.04	1,946.43	61.90	185.70	164.94	494.82	960.00	2,879.99				
779	3449.096	Victaulic elbow 45 degrees NPS 2, Style 41155	ea	2.0	0.3	24.96	0.6	3.24	6.49	49.91	98.65	193.30	25.73	51.46	152.58	305.16				
780	3449.097	Victaulic coupling NPS 2, Style 89	ea	39.0	0.6	53.71	23.2	6.98	272.47	2,094.77	56.74	2,213.82	24.05	938.00	141.51	5,518.91				
781	3449.098	Victaulic coupling NPS 2, Style 77DX	ea	0.0	0.6	49.91	0.0	6.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
782	3449.099	Victaulic coupling NPS 2, Style 77	ea	61.0	0.6	53.82	36.3	7.00	426.77	3,282.85	44.81	25,914.57	98.28	5,988.79	583.87	35,822.96				
783	3449.100	Victaulic coupling NPS 2, Style 07	ea	0.0	0.6	49.91	0.0	6.49	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
784	3449.101	Victaulic tee NPS 2, Style 42055	ea	3.0	1.2	109.98	3.7	14.30	42.89	329.95	262.32	786.97	78.64	235.98	465.26	1,395.79				
785	3449.102	Victaulic concentric reducer NPS 2 x 3/4, Style 50	ea	7.0	0.7	65.95	5.1	8.57	20.93	161.65	65.75	2,293.14	81.43	570.16	483.57	3,384.96				
786	3449.103	Pipe insulation NPS 2	Linear meter	479.1	3.6	324.90	1,722.0	42.24	20,237.70	155,674.92	211.94	101,549.72	100.23	48,025.33	679.31	325,487.71				
787	3449.104	Pipe identification NPS 2	Linear meter	162.0																



SCHEDULE OF PRICE BREAKDOWN

Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	LABOUR COMPONENT										NON LABOUR COMPONENT				UNIT PRICE	TOTAL PRICE
					0.13															
					PLA LABOUR HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR CHIEF (per unit) D=C x 13%	LABOUR CHIEF (Ext.) E=AxD	COST OF LABOUR (Ext.) F=A+C	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST	F+C+D+G+H	F+AXI				
814	3449.131	Weld NPS 3 Piping Specification CB1	ea	33.0	5.1	457.45	167.0	59.47	1,962.44	15,095.87	85.13	2,809.26	123.42	4,072.98	773.47	23,940.58				
815	3449.132	Victaulic coupling NPS 3, Style 77	ea	2.0	1.4	124.08	2.7	15.75	124.08	248.35	48.13	96.25	38.85	27.70	244.35	454.35				
816	3449.133	Victaulic coupling NPS 3, Style 07	ea	6.0	1.3	123.07	6.0	15.74	123.07	276.44	59.49	358.14	40.47	242.83	236.71	1,421.84				
817	3449.134	Victaulic expansion joint IT NPS 3, Style 155	ea	3.0	1.3	115.07	1.3	34.94	115.07	315.07	4,262.15	4,262.15	885.12	885.12	5,277.84	5,277.84				
818	3449.135	Victaulic Elbow 90 degrees NPS 3, Style 100	ea	2.0	1.4	124.08	2.7	16.13	124.08	248.15	66.14	132.33	42.49	84.77	248.85	497.71				
819	3449.136	Victaulic Elbow 90 degrees NPS 3, Style 100	ea	0.0	1.5	131.71	0.0	17.12	0.00	0.00	78.05	0.00	46.67	0.00	273.55	0.00				
820	3449.137	Ball Valve NPS 3, Valve Specification VB01	ea	1.0	5.1	461.65	5.1	60.01	461.65	1,158.99	1,158.99	341.83	341.83	2,022.48	2,022.48					
821	3449.138	Pipe insulation NPS 3	Linear meter	47.5	5.2	471.31	247.9	61.27	2,913.37	22,410.19	386.90	11,644.95	141.26	6,716.86	960.74	45,682.31				
822	3449.139	Pipe identification NPS 3	Linear meter	16.1	0.4	50.28	8.9	5.54	50.28	106.24	12.06	193.97	14.25	229.09	1,136.23					
823	3449.140	Pipe painting NPS 3	Linear meter	96.0	0.0	0.00	0.00	0.00	0.00	47.07	0.00	4,516.96	9.48	909.30	6,655.54					
824	3449.141	Pipe NPS 4 Sch. STD, Piping Specification CB1	m	434.0	3.0	274.26	1,316.6	35.63	15,473.87	139,029.78	28.85	12,520.94	70.26	30,494.54	409.03	177,519.14				
825	3449.142	Elbow 90 degrees Sch. STD NPS 4, Piping Specification CB1	ea	7.0	1.8	160.22	12.4	20.81	145.80	1,121.55	10.67	74.64	39.80	278.61	231.52	1,620.62				
826	3449.143	Flange Welding Neck 150RF Sch. STD NPS 4 c/w hardware, Piping Specification CB1	ea	9.0	57.1	5,161.81	513.9	670.33	6,039.11	46,456.26	74.20	667.79	1,228.04	11,052.35	7,135.08	64,215.71				
827	3449.144	Tee BW Sch. STD NPS 4, Piping Specification CB1	ea	2.0	3.6	321.64	7.1	42.81	321.64	649.24	18.39	36.78	79.29	158.58	461.12	922.25				
828	3449.145	Reducing Tee BW Sch. STD NPS 4 x 4 x 2-1/2, Piping Specification CB1	ea	1.0	3.5	313.22	3.5	40.73	313.22	613.13	19.98	39.98	77.66	77.66	451.70					
829	3449.146	Reducing lateral BW Sch. STD NPS 4 x 2, Piping Specification CB1	ea	0.0	4.0	363.23	0.0	47.22	0.00	0.00	16.31	0.00	88.65	0.00	515.41					
830	3449.147	Concentric reducer BW Sch. STD NPS 4 x 2, Piping Specification CB1	ea	0.0	1.1	115.07	0.0	14.94	0.00	0.00	8.93	0.00	28.83	0.00	187.83					
831	3449.148	Concentric reducer BW Sch. STD NPS 4 x 2, Piping Specification CB1	ea	1.0	1.1	98.44	1.1	12.88	98.44	198.44	8.95	8.95	34.92	34.92	145.11					
832	3449.149	Concentric reducer BW Sch. STD NPS 6 x 4, Piping Specification CB1	ea	5.0	1.6	145.29	8.0	38.89	98.44	726.44	15.20	76.03	37.21	186.03	216.58	1,082.92				
833	3449.150	Cap BW Sch. STD NPS 4, Piping Specification CB1	ea	6.0	1.8	159.43	10.6	20.78	134.36	956.58	4.54	27.22	38.38	230.29	223.07	1,338.45				
834	3449.151	Orlet BW Sch. STD NPS 4, Piping Specification CB1	ea	1.0	1.8	164.98	1.8	21.45	164.98	343.33	34.33	45.69	264.45	45.69	264.45					
835	3449.152	Weld NPS 4 Piping Specification CB1	ea	265.0	6.7	608.60	1,789.9	79.12	10,986.21	161,729.50	74.22	19,640.60	156.91	41,510.00	918.84	283,492.13				
836	3449.153	Victaulic coupling NPS 4, Style 07	ea	8.0	1.8	206.74	14.1	20.64	165.09	1,389.88	78.77	430.14	53.16	425.31	311.80	2,490.45				
837	3449.154	Victaulic coupling NPS 4, Style 77	ea	6.0	1.7	156.54	3.0	18.51	156.54	316.54	1.8	148.11	6,431.90	6,431.90	21,117.56					
838	3449.155	Victaulic coupling NPS 4, Style 177	ea	2.0	1.7	156.66	1.5	20.37	156.66	313.12	81.07	162.14	53.14	106.29	313.24	612.48				
839	3449.156	Victaulic transition coupling NPS 4, Style 997	ea	0.0	2.0	183.61	0.0	23.61	0.00	260.14	0.00	95.06	0.00	560.42	0.00					
840	3449.157	Victaulic reducing tee NPS 4 x 4 x 2, Style 25	ea	1.0	3.5	313.32	3.5	40.73	313.32	613.32	15.98	35.98	92.95	92.95	542.88					
841	3449.158	Victaulic reducing tee NPS 4 x 4 x 2-1/2, Style 25	ea	1.0	3.5	313.32	3.5	40.73	313.32	613.32	15.98	35.98	92.95	92.95	542.88					
842	3449.159	Victaulic reducing tee NPS 4 x 4 x 2, Style 25	ea	1.0	3.5	313.32	3.5	40.73	313.32	613.32	15.98	35.98	92.95	92.95	542.88					
843	3449.160	Victaulic eccentric reducer NPS 4 x 2, Style 51	ea	1.0	1.1	86.44	1.1	12.88	86.44	176.44	8.95	8.95	34.92	34.92	145.11					
844	3449.161	Victaulic elbow 90 degrees NPS 4, Style 100	ea	2.0	1.7	146.64	1.5	40.73	146.64	286.64	17.42	84.69	40.18	236.11	236.11					
845	3449.162	Butterfly valve NPS 4, Valve Specification VB01	ea	3.0	6.3	566.55	18.8	73.65	209.95	1,699.65	410.60	1,231.99	647.47	1,264.69	3,860.07					
846	3449.163	Pipe insulation NPS 4	Linear meter	434.0	6.2	564.16	2,706.5	73.34	31,832.83	244,867.88	348.57	151,292.75	170.13	71,842.68	1,156.71	501,855.53				
847	3449.164	Pipe identification NPS 4	Linear meter	437.6	0.6	50.48	81.9	6.54	962.94	7,407.22	12.06	1,770.09	34.29	2,097.14	83.49	12,237.41				
848	3449.165	Pipe painting NPS 4	Linear meter	432.6	0.0	0.00	0.00	0.00	0.00	51.53	0.00	22,292.93	10.38	4,488.14	61.91	26,781.07				
849	3449.166	Pipe NPS 6 Sch. STD, Piping Specification CB1	m	364.0	3.9	356.92	1,437.3	46.40	16,899.95	129,919.09	50.92	18,536.52	94.13	34,744.55	548.38	199,608.51				
850	3449.167	Elbow 90 degrees BW Sch. STD NPS 6, Piping Specification CB1	ea	12.0	2.9	239.26	31.8	31.19	473.24	2,811.11	25.75	806.94	61.41	746.96	351.57	4,290.28				
851	3449.168	Elbow 45 degrees BW Sch. STD NPS 6, Piping Specification CB1	ea	1.0	2.4	124.08	2.7	16.13	124.08	248.15	66.14	132.33	42.49	84.77	248.85					
852	3449.169	Tee BW Sch. STD NPS 6, Piping Specification CB1	ea	1.0	5.3	478.28	5.3	62.18	478.28	978.28	44.14	44.14	121.30	121.30	705.89					
853	3449.170	Eccentric reducer BW Sch. STD NPS 6 x 4, Piping Specification CB1	ea	0.0	1.8	164.98	0.0	21.45	0.00	15.20	0.00	41.83	0.00	243.45						
854	3449.171	Eccentric reducer BW Sch. STD NPS 6 x 4, Piping Specification CB1	ea	1.0	0.4	33.27	0.4	4.33	33.27	66.54	23.30	33.27	12.50	73.45	73.45					
855	3449.172	Flange Welding Neck 150RF Sch. STD NPS 6 c/w hardware, Piping Specification CB1	ea	26.0	28.8	2,402.16	248.4	338.28	8,795.30	67,856.17	56.17	1,460.44	622.85	16,194.22	3,619.47	94,106.14				
856	3449.173	Reducing lateral BW Sch. STD NPS 6 x 1-1/2, Piping Specification CB1	ea	0.0	6.0	544.84	0.0	70.83	0.00	24.53	0.00	132.98	0.00	771.18						
857	3449.174	Orlet BW Sch. STD NPS 6, Piping Specification CB1	ea	1.0	2.7	248.15	2.7	32.26	248.15	488.15	109.19	92.38	452.88	541.99	641.99					
858	3449.175	Victaulic NPS 6 Piping Specification CB1	ea	289.0	8.0	812.37	3,127.3	392.11	30,515.37	234,276.14	93.57	76,402.71	208.43	60,151.21	1,624,679.69	351,922.62				
859	3449.176	Victaulic elbow 90 degrees NPS 6, Style 100	ea	0.0	2.6	239.15	2.1	31.09	248.11	1,933.16	254.98	2,039.83	107.54	860.29	637.75	3,661.19				
860	3449.177	Victaulic elbow 45 degrees NPS 6, Style 110	ea	1.0	1.3	115.07	1.3	34.94	115.07	215.07	171.55	61.59	361.17	361.17	506.19					
861	3449.178	Victaulic elbow 45 degrees NPS 6, Style 11	ea	0.0	1.5	131.71	0.0	17.12	0.00	0.00	171.55	0.00	85.88	0.00	511.91					
862	3449.179	Victaulic coupling NPS 6, Style 07	ea	11.0	2.7	239.96	29.2	31.20	341.35	2,639.59	420.22	4,622.41	141.00	1,550.95	832.37	9,156.10				
863	3449.180	Victaulic coupling NPS 6, Style 77	ea	83.0	2.6	239.37	219.7	31.11	2,582.25	19,863.48	140.19	11,636.79	84.47	7,010.79	495.09	41,092.32				
864	3449.181	Victaulic reducing tee NPS 6 x 6 x 4, Style 25	ea	2.0	5.3	478.28	10.6	62.18	478.28	978.28	51.74	507.49	163.49	326.97	957.70	1,915.39				
865	3449.182	Victaulic reducing tee NPS 6 x 6 x 2, Style 25	ea	3.0	5.3	478.28	15.9	62.18	478.28	978.28	76.90	163.67	491.00	958.77	2,876.30					
866	3449.183	Victaulic eccentric reducer NPS 6 x 4, Style 51	ea	3.0	1.6	146.34	4.9	19.28	146.34	286.34	12.77	38.11	60.79	182.34	357.18	1,071.53				
867	3449.184	Butterfly valve NPS 6, Valve Specification VB01	ea	13.0	7.5	681.44	98.0	88.59	1,251.43	8,858.71	659.87	8,578.12	293.00	1,808.97	1,721.89	22,927.63				
868	3449.185	Pipe insulation NPS 6	Linear meter	364.2	7.5	680.90	2,743.3	88.52	32,243.23	248,009.34	382.52	139,127.70	197.65	71,989.80	1,349.58	491,568.05				
869	3449.186	Pipe identification NPS 6	Linear meter	128.1	0.6	50.51	68.8	6.57	808.89	6,219.12	12.06	1,485.43	34.80	1,740.65	83.44	10,273.69				
870	3449.187	Pipe painting NPS 6	Linear meter	364.2	0.0	0.00	0.00	0.00	0.00	69.54	0.00	25,127.38	14.00	5,099.06	83.54	30,426.45				
871	3449.188	Pipe NPS 8 Sch. STD, Piping Specification CB1	m	9.3	0.7	65.62	6.8	8.54	79.30	609.99	78.84	732.91	31.29	290.90	184.28	1,713.10				
872	3449.189	Eccentric reducer BW Sch. STD NPS 8 x 4, Piping Specification CB1	ea	1.0	0.4	33.27	0.4	4.33	33.27	66.54	23									



SCHEDULE OF PRICE BREAKDOWN

CH0001-001  
Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	LABOUR COMPONENT										NON LABOUR COMPONENT				UNIT PRICE	TOTAL PRICE
					PLA LABOUR HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR ONSP (per unit)	LABOUR ONSP (Est)	COST OF LABOUR (Est)	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST	F	G	H	I		
898	3444.20	Tee SW Class 3000 NPS 3/4, Piping Specification SB11	ea	6.0	3.7	107.21	7.1	13.94	83.67	643.26	7.11	42.64	26.62	159.75	354.89	929.26				
899	3444.21	Concentric Reducer SW Class 3000 NPS 3/4 x 1/2, Piping Specification SB11	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	21.57	0.00	19.98	0.00	102.41	0.00				
900	3444.22	Eccentric Reducer SW Class 3000 NPS 3/4 x 1/2, Piping Specification SB11	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	9.64	0.00	17.58	0.00	102.41	0.00				
901	3444.23	Weld NPS 3/4, Piping Specification SB11	ea	43.0	0.4	33.37	15.9	4.34	186.54	1,434.84	120.54	5,184.23	31.98	1,375.53	190.25	8,180.95				
902	3444.24	Ball Valve NPS 3/4, Valve Specification VBA02	ea	0.0	3.7	329.95	0.0	42.89	0.00	0.00	310.28	0.00	140.01	0.00	823.18	0.00				
903	3444.25	Ball Valve NPS 3/4, Valve Specification VBA11	ea	3.0	3.2	286.05	9.5	37.39	111.56	858.14	100.38	301.15	87.43	262.80	511.05	1,533.15				
904	3444.26	Pipe identification NPS 3/4	Linear meter	1.0	0.2	16.41	0.2	2.13	2.16	36.64	4.02	4.66	4.73	27.23	27.60					
905	3444.27	Pipe NPS 1 Sch.105, Piping Specification SB11	m	5.0	1.9	171.83	9.5	22.31	113.34	858.14	15.19	75.96	43.99	216.97	755.57	1,262.63				
906	3444.28	Elbow 90 degrees SW Class 3000 NPS 1, Piping Specification SB11	ea	40.0	0.6	54.03	23.9	7.02	200.97	2,181.11	8.11	324.51	14.39	573.28	1,340.07					
907	3444.29	Union SW Class 3000 NPS 1, Piping Specification SB11	ea	23.0	0.6	51.83	13.7	7.00	160.94	1,238.09	13.43	308.85	15.35	351.13	89.61	2,060.97				
908	3444.30	Weld NPS 1, Piping Specification SB11	ea	148.0	0.8	75.85	12.4	9.80	1,449.72	11,351.71	107.94	15,075.04	39.17	5,797.79	232.24	34,374.27				
909	3444.31	Ball Valve NPS 1, Valve Specification VBA11	ea	37.53	4.0	288.71	12.8	37.53	150.13	1,154.83	127.74	511.05	93.57	374.28	547.57	2,190.29				
910	3444.32	Ball Valve NPS 1, Valve Specification VBA14	ea	4.0	3.2	288.71	12.8	37.53	150.13	1,154.83	91.76	365.04	86.22	344.89	503.72	2,014.88				
911	3444.33	Check Valve NPS 1, Valve Specification VCH14	ea	0.0	3.7	329.95	0.0	42.89	0.00	0.00	912.59	0.00	261.26	0.00	1,546.69	0.00				
912	3444.34	Pipe identification NPS 1	Linear meter	1.0	0.2	16.41	0.2	2.14	2.14	36.64	4.02	4.66	4.73	27.23	27.60					
913	3444.35	Pipe NPS 1 Sch.105, Piping Specification SB11	m	143.1	0.2	291.06	54.9	37.84	8,882.71	52,990.09	23.85	4,342.75	75.22	13,327.51	425.96	77,548.15				
914	3444.36	Elbow 90 degrees SW Class 3000 NPS 2, Piping Specification SB11	ea	11.0	0.6	53.94	6.8	7.01	77.34	579.15	8.83	381.84	19.68	415.62	1,170.46					
915	3444.37	Union SW/FWP Class 3000 NPS 2, Piping Specification SB11	ea	4.0	0.6	53.72	2.4	6.98	27.53	214.89	25.26	101.03	17.71	70.84	103.67	414.68				
916	3444.38	Tee SW Class 3000 NPS 2, Piping Specification SB11	ea	2.0	1.2	107.44	2.4	15.97	37.93	214.88	44.57	89.14	34.22	68.44	200.20	400.39				
917	3444.39	Tee Reducing SW Class 3000 NPS 2 x 2 x 3/4, Piping Specification SB11	ea	1.0	1.3	115.07	1.3	14.96	34.96	135.07	95.67	95.67	46.31	46.31	272.01	272.01				
918	3444.40	Tee Reducing SW Class 3000 NPS 2 x 2 x 1/2, Piping Specification SB11	ea	5.0	1.2	108.97	6.0	14.17	70.89	548.84	95.68	478.39	44.87	224.35	263.68	1,318.41				
919	3444.41	Cap SW Class 3000 NPS 2, Piping Specification SB11	ea	0.0	0.6	49.91	0.6	6.49	6.49	49.91	10.62	13.87	13.87	80.89	80.89					
920	3444.42	Eccentric Reducer SW Class 3000 NPS 2 x 1, Piping Specification SB11	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	9.64	0.00	17.58	0.00	102.41	0.00				
921	3444.43	Elbow 90 degrees SW 150RF NPS 2 c/w hardware, Piping Specification SB11	ea	12.0	0.7	271.18	36.1	35.14	454.41	3,268.21	61.11	65.08	377.68	61.11	4,332.44					
922	3444.44	Weld Neck Flange 150RF Sch.105 NPS 2 c/w hardware, Piping Specification SB11	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	31.05	0.00	21.90	0.00	128.14	0.00				
923	3444.45	Victaulic coupling NPS 2, Style 77	ea	27.0	0.6	53.76	16.1	6.99	188.49	1,451.49	39.41	10,780.14	92.64	2,501.38	550.80	14,871.70				
924	3444.46	Victaulic Expansion joint NPS 2, Style 155	ea	4.0	0.6	53.72	2.4	6.98	27.53	214.89	2,508.49	10,013.97	517.65	2,070.58	3,086.84	12,347.37				
925	3444.47	Weld NPS 2, Piping Specification SB11	ea	131.0	1.5	135.13	395.8	175.77	2,303.28	17,702.19	189.44	18,269.67	59.55	7,801.45	351.71	46,074.60				
926	3444.48	Ball Valve NPS 2, Valve Specification VBA11	ea	7.0	3.4	308.76	23.9	40.14	280.97	2,161.31	132.98	930.84	99.34	695.35	581.21	4,088.47				
927	3444.49	NPS (Shaft seal Water)	Linear meter	61.5	0.6	50.42	36.3	6.55	465.24	3,103.24	12.08	947.10	34.28	876.23	83.31	5,124.78				
928	3448.01	Sand filter 3448-FR-6000 to 6003	ea	4.0	127.5	11,074.09	490.0	1,439.63	5,758.52	44,296.34	220,142.26	880,549.04	46,922.89	187,691.55	279,578.84	1,138,315.45				
929	3448.02	V-strainer 3448-STR-6000 / 6001	ea	2.0	4.7	429.07	9.5	55.78	111.54	849.47	0.00	100.84	9.69	100.84	57.69	1,171.88				
930	3448.03	Lubrication water pump 3448-P-5000 / 5001	ea	2.0	91.8	8,251.05	182.7	1,073.42	2,346.89	16,534.99	5,920.52	11,841.04	3,132.45	6,249.97	18,834.47	36,766.94				
931	3448.04	Sight flow indicator 3448-FG-6000	ea	1.0	9.4	851.21	9.4	110.86	110.86	851.21	245.14	245.14	249.39	1,456.40	1,456.40					
932	3448.05	Air vent 3448-AV-5000 / 6000 to 6004	ea	6.0	7.3	659.90	44.8	85.79	534.27	3,959.39	80.35	182.10	161.20	967.17	5,623.39					
933	3448.06	Pressure indicator 3448-PI-6000 to 6006 / 5000 to 5006 / 5010 to 5013	ea	18.0	3.4	228.96	62.7	42.89	772.89	5,939.01	543.81	5,770.68	186.82	1,323.89	10,484.58					
934	3448.07	Pressure transmitter 3448-PT-5000 / 5001	ea	2.0	7.3	659.90	14.8	85.79	171.51	1,319.09	7,944.54	15,977.12	1,754.85	10,484.58	3,001.32					
935	3448.08	Differential pressure switch 3448-PDSH-6000 to 6004	ea	2.0	7.3	659.90	36.5	85.79	438.93	3,399.44	1,261.06	6,315.28	409.37	2,046.86	2,418.11	12,090.54				
936	3448.09	Differential pressure indicator 3448-PDI-6000	ea	1.0	14.6	1,319.80	14.6	171.57	1,715.77	1,319.80	2,967.37	907.59	907.59	5,366.33	5,366.33					
937	3448.10	Flow switch 3448-FS-5000 to 5005	ea	6.0	3.7	329.95	21.9	42.89	257.36	1,979.70	623.36	3,740.14	203.04	1,218.24	1,199.24	7,195.45				
938	3448.11	Variable frequency drive 3448-VFD-5000 / 5001	ea	0.0	0.0	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00					
939	3448.12	Control Panel 3448-CP-5000 to 5002	ea	3.0	18.6	1,678.86	55.7	216.25	694.75	5,036.57	34,784.70	74,354.09	5,384.35	16,151.06	37,046.14	96,198.48				
940	3448.13	Flare NPS 1/2, Helical 1.05, Piping Specification SB13	m	6.0	253.3	22,898.19	0.0	0.00	2,976.00	0.00	889.58	0.00	5,565.51	32,325.04	6,000.00					
941	3448.14	Elbow 90 degrees Swagelok NPS 1/2, Piping Specification SB13	ea	0.0	0.7	66.54	0.0	8.65	0.00	0.00	39.48	0.00	23.58	0.00	102.41					
942	3448.15	Needle valve NPS 1/2, Valve Specification VNE02	ea	6.0	3.2	288.82	19.2	37.55	225.26	1,732.92	279.59	1,677.54	124.17	744.99	730.12	4,380.74				
943	3448.16	Pipe insulation NPS 1/2	Linear meter	120.3	3.3	300.90	400.7	89.12	4,070.67	36,227.85	165.87	19,070.09	86.70	10,419.91	592.60	71,346.46				
944	3448.17	Pipe identification NPS 1/2	Linear meter	40.7	0.6	50.68	22.8	6.59	268.17	2,062.87	12.06	491.00	14.34	583.66	83.68	3,405.70				
945	3448.18	Pipe NPS 3/4 Sch.105, Piping Specification SB11	m	0.0	0.6	49.91	0.0	6.49	0.00	0.00	3.74	0.00	12.48	0.00	72.61					
946	3448.19	Elbow 90 degrees SW Class 3000 NPS 3/4, Piping Specification SB11	ea	60.0	0.6	53.88	35.8	7.09	420.29	3,232.94	6.20	371.89	13.91	834.67	81.00	4,859.78				
947	3448.20	Weld NPS 3/4 Piping Specification SB11	ea	14.0	1.4	121.78	18.2	18.09	225.39	1,710.92	145.48	2,041.97	58.43	818.38	341.19	4,818.53				
948	3448.21	Ball Valve NPS 3/4, Valve Specification VBA11	ea	6.0	3.7	329.95	0.0	42.89	125.36	1,732.92	88.27	85.64	529.30	513.81	1,001.21	3,001.32				
949	3448.22	Pipe insulation NPS 3/4	Linear meter	1.0	3.3	302.80	3.3	39.83	39.26	302.22	171.37	171.33	88.05	601.04	600.89					
950	3448.23	Pipe identification NPS 3/4	Linear meter	1.0	0.2	16.41	0.2	2.13	2.16	36.64	4.02	4.66	4.73	27.23	27.60					
951	3448.24	Pipe NPS 1 Sch.105, Piping Specification SB11	m	11.0	0.6	55.45	6.8	7.21	79.88	609.99	0.43	7.72	13.12	144.81	76.22	838.88				
952	3448.25	Weld NPS 1 Piping Specification SB11	ea	22.0	0.3	26.28	6.4	3.42	75.35	578.13	256.46	5,647.13	57.83	1,777.77	343.94	7,567.14				
953	3448.26	Ball Valve NPS 1, Valve Specification VBA11	ea	2.0	3.2	289.06	6.4	37.58	75.35	578.13	127.76	255.53	53.66	187.31	548.05	1,096.10				
954	3448.27	Pipe insulation NPS 1	Linear meter	11.6	3.5	312.76	40.1	40.68	470.93	4,027.53	192.06	2,212.58	96.07	1,089.63	6,897.55					
955	3448.28	Pipe identification NPS 1	Linear meter	3.9	0.6	50.64	2.0	6.58	25.77	198.25	12.06	47.72								



SCHEDULE OF PRICE BREAKDOWN

CH0001-001  
Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	LABOUR COMPONENT										NON LABOUR COMPONENT				UNIT PRICE	TOTAL PRICE
					PLA HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR CH&P (per unit) D = C x 13%	LABOUR CH&P (Ext.) E = A x D	COST OF LABOUR (Ext.) F = A x C	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST	J = C + D + G + H	K = A x I				
																	A	B		
981	3448.54	Reducing tee SW Class 3000 NPS 2 x 2 x 3/4, Piping Specification SB11	ea	2.0	1.2	107.44	2.4	13.97	27.93	234.88	95.67	191.35	44.51	89.02	261.59	523.19				
982	3448.55	Cap SW Class 3000 NPS 2, Piping Specification SB11	ea	6.0	0.6	54.99	3.7	7.15	42.89	329.95	15.25	30.91	15.97	95.85	93.27	559.61				
983	3448.56	Weld NPS 2 Piping Specification SB11	ea	166.0	2.2	399.44	366.2	25.93	8,804.29	33,029.94	150.94	28,079.49	75.94	13,776.04	453.31	75,249.78				
984	3448.57	Victaulic coupling NPS 2, Style 07	ea	4.0	0.6	53.72	2.4	6.94	27.81	214.88	41.99	167.80	23.07	84.28	123.74	494.90				
985	3448.58	Victaulic coupling NPS 2, Style 77	ea	6.0	0.6	54.99	3.7	7.15	42.89	329.95	54.71	328.24	23.94	143.64	140.79	844.72				
986	3448.59	Victaulic coupling NPS 2, Style 89	ea	18.0	0.6	54.07	10.8	7.03	136.52	973.23	56.76	1,021.76	24.13	434.42	141.99	2,555.91				
987	3448.60	Victaulic tee degrees NPS 2, Style 42055	ea	2.0	1.2	107.44	2.4	13.97	27.93	234.88	26.32	524.65	78.07	156.13	461.80	923.59				
988	3448.61	Victaulic concentric reducer NPS 2 x 1-1/2, Style 50	ea	2.0	0.6	57.54	1.3	7.48	14.96	115.07	100.72	201.45	33.80	67.60	199.54	399.08				
989	3448.62	Victaulic expansion joint RT NPS 2, Style 155	ea	0.0	0.6	49.91	0.0	6.49	0.00	0.00	2,497.36	0.00	514.50	0.00	1,068.26	0.00				
990	3448.63	Ball Valve NPS2, Valve Specification VB11	ea	5.0	4.8	432.24	23.19	56.35	280.97	2,151.31	330.29	1,551.40	164.05	802.27	982.29	4,813.96				
991	3448.64	Check Valve NPS2, Valve Specification VC112	ea	2.0	4.7	429.07	9.5	55.79	111.54	858.34	1,249.71	2,499.43	352.44	704.87	2,087.00	4,174.00				
992	3448.65	Pipe insulation NPS 2	Linear meter	202.4	3.6	324.38	726.2	42.17	8,534.52	65,650.14	231.60	47,824.73	100.07	20,252.90	678.21	137,262.28				
993	3448.66	Pipe identification NPS 2	Linear meter	68.4	0.6	50.39	38.1	6.55	448.22	3,447.83	12.06	875.38	34.27	976.46	83.28	5,697.89				
994	3448.67	Pipe NPS 2-1/2 Sch. 10S, Piping Specification SB11	m	9.0	2.5	225.51	22.5	29.32	263.85	2,029.60	3,192.03	28,728.18	695.63	6,260.71	4,142.48	37,282.34				
995	3448.68	Elbow 90 degrees BW Sch. 10S NPS 2-1/2, Piping Specification SB11	ea	4.0	0.5	49.56	2.2	6.44	25.77	198.25	9.60	38.42	13.58	54.33	79.19	316.77				
996	3448.69	Tee BW Sch. 10S NPS 2-1/2, Piping Specification SB11	ea	1.0	1.1	98.44	1.1	12.80	12.80	98.44	17.83	17.83	26.72	26.72	155.78	155.78				
997	3448.70	Reducing tee BW Sch. 10S NPS 2-1/2 x 2-1/2 x 1, Piping Specification SB11	ea	3.0	1.0	91.35	3.0	12.34	36.41	280.05	25.10	75.29	26.99	80.98	157.58	472.73				
998	3448.71	Eccentric reducer BW Sch. 10S NPS 2-1/2 x 2, Piping Specification SB11	m	0.0	0.6	49.91	0.0	6.49	0.00	0.00	0.00	0.00	13.85	0.00	77.75	0.00				
999	3448.72	Flange Welding Neck 150RF Sch. 10S NPS 2-1/2 c/w hardware, Piping Specification SB11	m	3.0	7.8	703.80	23.4	91.49	274.48	2,111.40	42.25	126.76	173.91	521.73	1,011.46	3,034.37				
1000	3448.73	Weld NPS 2-1/2 Piping Specification SB11	ea	14.0	0.5	41.29	6.4	5.37	75.25	578.12	277.53	3,885.39	65.50	916.98	389.69	5,455.64				
1001	3448.74	Butterfly valve NPS 2-1/2, Valve Specification VB001	ea	1.0	4.2	379.84	4.2	49.38	49.38	379.84	234.80	124.18	124.18	726.82	726.82					
1002	3448.75	Pipe insulation NPS 2-1/2	Linear meter	7.0	4.1	475.97	28.6	47.97	336.80	2,586.93	233.81	1,634.13	112.45	788.34	763.25	5,850.67				
1003	3448.76	Pipe identification NPS 2-1/2	Linear meter	2.0	0.5	46.01	1.3	6.31	25.24	197.50	12.06	285.59	30.77	191.42	80.77	191.42				
1004	3448.77	Flange Welding Neck 150RF Sch. 10S NPS 4 c/w hardware, Piping Specification SB11	m	3.0	20.1	2,716.76	90.2	351.29	1,054.59	8,350.29	340.31	654.31	1,964.31	3,860.51	11,418.64					
1005	3448.78	Elbow 90 degrees BW Sch. 10S NPS 4, Piping Specification SB11	ea	2.0	0.9	82.49	1.8	10.72	21.45	166.98	46.46	46.46	24.06	48.13	140.51	281.02				
1006	3448.79	Weld NPS 2 Piping Specification SB11	ea	33.0	3.5	318.94	116.4	41.44	1,368.74	10,525.09	5.65	186.45	74.97	2,474.11	441.03	14,553.91				
1007	3448.80	Victaulic coupling NPS 4, Style 07	ea	1.0	0.9	83.18	0.9	10.81	10.81	83.18	79.39	79.39	35.53	208.92	208.92					
1008	3448.81	Butterfly valve NPS 4, Valve Specification VB001	ea	1.0	6.2	561.47	6.2	72.99	72.99	561.47	410.67	410.67	214.63	1,146.63	1,146.63					
1009	3448.82	Pipe insulation NPS 4	Linear meter	1.8	6.8	617.06	12.2	80.27	146.70	1,128.49	381.23	697.20	186.08	340.30	1,249.59	2,312.70				
1010	3448.83	Pipe identification NPS 4	Linear meter	0.6	0.6	51.82	0.4	50.00	4.34	34.27	12.07	7.46	15.07	7.46	80.04					
1011	344C.01	W/S (Pneumatic and Water Level)	ea	3.0	21.1	1,804.37	63.2	247.57	742.78	5,713.13	5,463.66	16,390.84	1,547.52	4,842.54	9,143.08	27,489.24				
1012	344C.02	Pressure transmitter 344C-PT-1000 / 2000 / 3000 / 4000	ea	4.0	7.3	659.90	29.2	85.79	341.15	2,639.59	1,843.97	7,375.88	526.33	2,105.30	3,115.98	12,463.92				
1013	344C.03	Pressure indicator 344C-PI-1000 / 1001 / 2000 / 2001 / 3000 / 3001 / 4000 / 4001	ea	8.0	3.7	329.95	29.2	344.15	329.95	2,639.59	548.24	4,185.91	187.92	1,503.33	1,109.00	8,871.98				
1014	344C.04	Instrumentation cabinet 344C-IC-1000 / 1001 / 2000 / 2001 / 3000 / 3001 / 4000 / 4001 (Detail PD14 and PD15)	ea	8.0	111.3	10,066.56	890.8	1,308.65	10,469.23	80,532.50	14,559.03	116,472.24	5,296.90	42,375.19	31,231.14	249,849.15				
Mechanical Shop Equipment																				
1015	3440.001	Welding machine 3440-W-6000	ea	1.0	15.0	1,351.68	15.0	175.72	175.72	1,351.68	23,936.47	23,936.47	5,136.70	5,136.70	30,600.54	30,600.54				
1016	3440.002	Welding fume extractor 3440-WFE-6000	ea	1.0	15.0	1,351.68	15.0	175.72	175.72	1,351.68	8,976.81	8,976.81	2,124.94	2,124.94	12,299.14	12,299.14				
1017	3440.003	Victaulic pipe prep machine 3440-PPT-6000	ea	1.0	15.0	1,351.68	15.0	175.72	175.72	1,351.68	17,860.23	17,860.23	3,913.39	3,913.39	23,301.02	23,301.02				
1018	3440.004	Milling Machine 3440-VM-6000	ea	1.0	48.6	4,393.11	48.6	571.13	571.13	4,393.11	23,229.97	23,229.97	5,709.29	5,709.29	33,903.70	33,903.70				
1019	3440.005	Radial drilling machine 3440-RAD-6000	ea	1.0	67.3	6,082.25	67.3	790.82	790.82	6,082.25	30,350.72	30,350.72	7,540.03	7,540.03	44,764.82	44,764.82				
1020	3440.006	Hydraulic press 3440-HYP-6000	ea	1.0	41.1	3,716.78	41.1	483.18	483.18	3,716.78	16,284.33	16,284.33	4,151.94	4,151.94	24,636.25	24,636.25				
1021	3440.007	Belt grinding machine 3440-BG-6000	ea	1.0	28.9	2,703.36	28.9	351.84	351.84	2,703.36	5,014.87	5,014.87	1,644.95	1,644.95	9,714.67	9,714.67				
1022	3440.008	Iron worker 3440-IW-6000	ea	1.0	41.1	3,716.78	41.1	483.18	483.18	3,716.78	17,859.99	17,859.99	4,393.94	4,393.94	49,248.65	49,248.65				
1023	3440.009	Engine lathe 3440-L-6000	ea	1.0	41.1	3,716.78	41.1	483.18	483.18	3,716.78	30,292.35	30,292.35	6,972.13	6,972.13	41,444.45	41,444.45				
1024	3440.010	Band saw 3440-BANDS-6000	ea	1.0	37.4	3,378.51	37.4	439.21	439.21	3,378.51	7,470.95	7,470.95	2,298.10	2,298.10	13,866.76	13,866.76				
1025	3440.011	Drilling machine 3440-DP-6000	ea	1.0	22.4	2,028.21	22.4	263.67	263.67	2,028.21	17,475.01	17,475.01	3,994.82	3,994.82	23,761.71	23,761.71				
1026	3440.012	Bench grinder 3440-BGR-6000	ea	1.0	15.0	1,351.68	15.0	175.72	175.72	1,351.68	21,171.24	21,171.24	754.79	754.79	4,453.43	4,453.43				
1027	3440.013	Threading machine 3440-PTHR-6000	ea	1.0	15.0	1,351.68	15.0	175.72	175.72	1,351.68	23,811.64	23,811.64	5,111.97	5,111.97	30,453.01	30,453.01				
1028	3440.014	Job crane 3440-JBC-6000 / 6001	ea	2.0	48.6	4,393.12	97.2	571.13	1,142.26	8,786.64	5,019.54	10,039.08	2,043.06	4,086.12	12,072.05	24,954.09				
1029	3440.015	Floor handling crane 3440-COM-6000	ea	1.0	67.3	6,082.25	67.3	790.82	790.82	6,082.25	20,428.37	20,428.37	5,542.40	5,542.40	32,844.85	32,844.85				
1030	3440.016	Plasma cutter 3440-PLAC-6000	ea	1.0	11.2	1,013.42	11.2	131.24	131.24	1,013.42	5,014.42	5,014.42	1,475.37	1,475.37	5,558.38	5,558.38				
1031	3440.017	Small cutting 3440-WT-6000	ea	1.0	11.2	1,013.42	11.2	131.24	131.24	1,013.42	1,094.86	1,094.86	458.60	458.60	2,698.62	2,698.62				
1032	3440.018	Working table 3440-WT-6001 / 6002	ea	2.0	22.4	2,027.52	44.8	263.58	527.16	4,095.04	2,796.94	5,593.87	1,039.59	2,079.19	6,177.63	12,255.25				
1033	3440.019	Work cart 3440-WT-6003	ea	1.0	7.5	676.53	7.5	87.95	87.95	676.53	5,241.34	5,241.34	1,214.22	1,214.22	7,220.03	7,220.03				
Instrumentation																				
1034	3440.020	Detail AT1	ea	52.0	3.7	386.29	391.4	43.72	2,773.85	17,487.96	517.89	26,930.43	183.30	9,513.56	1,081.20	56,272.64				
1035	3440.021	Detail AT2	ea	13.0	4.2	380.71														



SCHEDULE OF PRICE BREAKDOWN

CH0001-001  
Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	LABOUR COMPONENT										NON LABOUR COMPONENT				UNIT PRICE	TOTAL PRICE
					PLA HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR CH&P (per unit)	LABOUR CH&P (Ext.)	COST OF LABOUR (Ext.)	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST	F	G	H	I		
1058	3440.044	S-D60-01	ea	1.0	32.3	2,919.64	32.3	379.55	379.55	2,919.64	131.08	131.08	712.55	712.55	4,142.83	4,142.83				
1059	3440.045	S-E50-04	ea	3.0	34.5	1,308.71	43.4	170.13	510.40	3,926.12	495.91	2,087.73	447.67	3,484.02	7,262.47	7,262.47				
1060	3440.046	S-E50-06	ea	3.0	33.3	1,743.09	57.8	228.62	679.81	5,229.27	758.59	2,275.51	582.34	1,487.08	3,290.54	9,871.87				
1061	3440.047	S-E50-07	ea	3.0	33.3	1,743.09	57.8	228.62	679.81	5,229.27	758.59	2,275.51	582.34	1,487.08	3,290.54	9,871.87				
1062	3440.048	S-E50-08	ea	12.0	25.7	3,227.55	309.0	302.58	3,630.98	27,330.59	1,079.21	12,950.55	764.28	9,171.37	4,473.62	53,683.48				
1063	3440.049	S-E50-13	ea	1.0	32.3	2,919.64	32.3	379.55	379.55	2,919.64	1,300.51	1,300.51	947.98	947.98	5,547.68	5,547.68				
1064	3440.050	S-E51-04	ea	1.0	14.4	1,803.15	14.4	169.41	169.41	1,303.15	564.83	564.83	419.98	419.98	2,457.37	2,457.37				
1065	3440.051	S-E51-06	ea	6.0	19.3	1,746.10	115.9	226.99	1,863.96	10,476.58	3,764.54	3,764.54	3,220.05	3,220.05	13,127.19	18,223.12				
1066	3440.052	S-E51-07	ea	6.0	19.3	1,746.10	115.9	226.99	1,863.96	10,476.58	3,764.54	3,764.54	3,220.05	3,220.05	13,127.19	18,223.12				
1067	3440.053	S-E51-08	ea	12.0	25.7	3,227.55	309.0	302.58	3,630.98	27,330.59	1,079.21	11,173.77	727.89	8,894.71	4,316.15	51,793.85				
1068	3440.054	S-E51-11	ea	2.0	29.6	2,072.86	59.1	347.47	694.94	5,345.72	895.81	1,791.63	808.51	1,617.03	4,724.64	9,449.32				
1069	3440.055	S-E51-13	ea	1.0	32.3	2,919.64	32.3	379.55	379.55	2,919.64	1,169.42	1,169.42	921.60	921.60	5,390.22	5,390.22				
1070	3440.056	S-E52-04	ea	3.0	34.5	1,308.71	43.4	170.13	510.40	3,926.12	447.23	2,526.69	477.13	1,431.39	2,798.20	8,394.59				
1071	3440.057	S-E52-10	ea	3.0	25.7	2,326.28	77.2	302.42	907.25	6,978.83	1,661.70	4,805.09	869.17	2,667.51	5,099.56	15,298.68				
1072	3440.058	S-E53-08	ea	4.0	25.7	2,326.28	102.9	302.42	1,209.67	9,305.12	1,123.03	4,492.12	772.80	3,092.11	4,524.53	18,098.11				
1073	3440.059	S-E54-08	ea	8.0	25.8	2,326.19	206.0	302.64	2,421.31	18,625.48	1,079.21	8,633.69	764.43	6,115.46	4,474.49	35,795.95				
1074	3440.060	S-E55-01	ea	0.0	18.8	1,501.40	0.0	195.18	0.00	0.00	91.81	0.00	377.34	0.00	709.73	0.00				
1075	3440.061	S-E56-01	ea	0.0	5.1	461.65	0.0	60.01	0.00	0.00	61.64	0.00	120.90	0.00	204.26	0.00				
1076	3440.062	S-E57-05	ea	1.0	34.4	1,303.15	14.4	169.41	169.41	1,303.15	52.79	52.79	324.94	324.94	1,890.29	1,890.29				
1077	3440.063	S-H50-01	ea	2.0	4.5	404.12	8.9	52.54	105.07	808.24	104.03	208.05	115.92	231.83	676.60	1,353.20				
1078	3440.064	S-H51-10	ea	6.0	2.2	200.79	13.3	26.10	156.61	1,204.73	140.65	843.93	75.51	453.04	443.05	2,658.31				
1079	3440.065	S-H51-11	ea	6.0	9.6	871.55	57.8	113.80	679.81	5,229.27	91.68	550.10	223.28	1,339.70	1,299.81	7,988.87				
1080	3440.066	S-H51-12	ea	1.0	7.3	659.89	7.3	85.79	85.79	659.89	68.67	68.67	168.91	168.91	938.26	938.26				
1081	3440.067	S-H51-13	ea	38.0	3.5	1,301.40	133.4	41.24	1,567.77	32,059.78	1,319.15	3,709.75	879.39	3,179.75	19,716.06	19,716.06				
1082	3440.068	S-H51-14	ea	1.0	7.3	659.89	7.3	85.79	85.79	659.89	93.53	93.53	173.91	173.91	1,013.12	1,013.12				
1083	3440.069	S-H51-20	ea	1.0	4.4	396.50	4.4	51.55	396.50	448.75	148.75	123.13	123.13	179.93	719.93	719.93				
1084	3440.070	S-H52-20	ea	6.0	7.3	662.67	44.0	86.15	516.89	3,976.03	128.50	777.03	181.61	1,089.64	1,058.93	6,353.80				
1085	3440.071	S-H52-21	ea	2.0	6.4	577.42	12.8	75.04	550.13	1,354.83	172.15	344.29	170.36	340.72	994.99	1,989.97				
1086	3440.072	S-H52-22	ea	0.0	5.1	461.65	0.0	60.01	0.00	0.00	0.00	139.37	0.00	695.04	0.00					
1087	3440.073	S-H53	ea	2.0	5.4	488.61	10.8	63.24	426.57	978.21	504.81	1,009.62	215.99	431.98	1,270.66	2,541.33				
1088	3440.074	S-F50-01	ea	23.0	6.4	389.28	146.2	78.99	1,717.87	13,365.69	890.17	215.50	4,912.61	1,257.55	28,808.56	28,808.56				
1089	3440.075	S-F50-02	ea	0.0	2.6	231.52	0.0	30.18	0.00	0.00	109.47	0.00	487.55	0.00	487.55	0.00				
1090	3440.076	S-F50-03	ea	0.0	2.6	231.52	0.0	30.18	0.00	0.00	109.47	0.00	487.55	0.00	487.55	0.00				
1091	3440.077	S-F50-04	ea	3.0	3.7	286.05	9.5	37.19	111.56	858.14	385.44	1,156.37	144.83	494.48	853.52	2,560.55				
1092	3440.078	S-F50-05	ea	6.0	6.4	574.64	38.1	74.70	448.23	3,647.83	389.80	2,338.81	213.58	1,281.16	1,252.67	7,516.02				
1093	3440.079	S-F50-06	ea	9.0	4.9	439.93	43.8	57.19	514.72	3,959.38	289.61	2,561.53	160.69	1,446.22	942.43	8,841.86				
1094	3440.080	S-F50-08	ea	0.0	2.6	231.52	0.0	30.18	0.00	0.00	109.47	0.00	76.44	0.00	447.55	0.00				
1095	3440.081	S-F50-09	ea	0.0	5.1	461.65	0.00	60.01	0.00	0.00	130.29	0.00	702.60	0.00	702.60	0.00				
1096	3440.082	S-F50-10	ea	0.0	5.1	461.65	0.00	60.01	0.00	0.00	130.29	0.00	702.60	0.00	702.60	0.00				
1097	3440.083	S-F50-11	ea	12.0	6.4	574.64	78.3	74.70	896.43	6,985.95	312.28	8,855.32	199.73	2,996.75	1,370.35	14,044.19				
1098	3440.084	S-F50-12	ea	0.0	2.6	231.52	0.00	30.18	0.00	0.00	109.64	0.00	76.50	0.00	447.77	0.00				
1099	3440.085	S-F50-20	ea	1.0	4.4	396.50	4.4	51.55	396.50	448.75	263.08	263.08	146.15	146.15	857.28	857.28				
1100	3440.086	S-F51-10	ea	27.0	5.2	474.22	309.5	61.65	1,637.29	12,842.12	84.02	4,956.98	128.36	7,574.47	748.25	44,146.86				
1101	3440.087	S-F51-11	ea	149.0	2.7	242.93	400.4	31.58	4,205.47	36,195.95	77.89	11,604.90	72.77	10,842.95	425.16	63,349.27				
1102	3440.088	S-F51-12	ea	93.0	2.8	249.98	257.1	32.89	5,011.82	23,246.76	75.49	7,158.09	62.20	6,903.97	433.94	40,328.64				
1103	3440.089	S-F51-13	ea	66.0	2.8	249.98	257.1	32.89	5,011.82	23,246.76	75.49	7,158.09	62.20	6,903.97	433.94	40,328.64				
1104	3440.090	S-F51-14	ea	3.0	9.7	874.32	29.0	113.64	360.98	2,822.90	107.89	323.66	227.20	681.60	1,323.07	3,969.20				
1105	3440.091	S-F51-15	ea	27.0	2.2	200.40	59.9	26.05	703.42	5,410.89	82.85	2,286.84	63.78	1,721.98	373.08	10,073.13				
1106	3440.092	S-F51-17	ea	13.0	9.7	873.07	125.5	113.50	1,475.49	11,349.96	120.23	1,562.98	229.39	2,987.07	1,346.19	17,370.51				
1107	3440.093	S-F51-18	ea	0.0	5.1	461.65	0.00	60.01	0.00	0.00	29.53	0.00	134.43	0.00	665.63	0.00				
1108	3440.094	S-F51-19	ea	0.0	2.6	231.52	0.00	30.18	0.00	0.00	27.04	0.00	58.85	0.00	348.50	0.00				
1109	3440.095	S-F51-20	ea	24.0	4.4	400.07	106.2	52.01	1,248.23	9,401.79	117.83	2,827.82	117.74	2,825.87	687.05	16,503.71				
1110	3440.096	S-F51-200	ea	4.0	9.7	874.43	36.7	113.48	454.73	3,497.74	181.10	644.40	237.94	951.75	1,887.55	5,548.59				
1111	3440.097	S-F51-201	ea	3.0	7.4	665.44	22.1	86.51	259.52	1,994.33	446.84	386.38	186.38	1,108.78	2,161.83	2,161.83				
1112	3440.098	S-F51-202	ea	0.0	2.6	231.52	0.00	30.18	0.00	0.00	89.68	0.00	62.41	0.00	363.70	0.00				
1113	3440.099	S-F51-205	ea	6.0	2.2	200.79	13.3	26.10	156.61	1,204.73	114.14	684.84	70.17	421.01	411.30	2,467.22				
1114	3440.100	S-F51-21	ea	18.0	4.4	400.50	79.7	52.06	937.17	7,208.97	115.62	2,081.10	117.40	2,113.19	685.58	12,340.43				
1115	3440.101	S-F51-22	ea	12.0	4.4	400.08	53.1	52.01	634.12	4,800.90	125.75	1,509.03	119.3							



SCHEDULE OF PRICE BREAKDOWN

CH0031-001  
Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	LABOUR COMPONENT							NON LABOUR COMPONENT				UNIT PRICE	TOTAL PRICE	
					PLA LABOUR HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR ONSP (per unit)	LABOUR ONSP (Ext.)	COST OF LABOUR (Ext.)	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST	I = C + D + G + H			J = A x I
1143	3440.129	5-254-90	ea	6.0	4.4	401.35	26.6	52.17	311.05	2,408.07	1,357.40	8,144.41	367.66	2,705.61	2,179.52	13,071.13		
1144	3440.130	5-255-01	ea	0.0	2.4	231.52	0.0	0.00	0.00	0.00	44.43	0.00	63.35	0.00	369.40	0.00		
1145	3440.131	5-256-40	ea	1.0	8.4	401.58	13.4	52.25	158.43	1,209.73	331.79	1,001.36	484.72	161.57	2,847.42	0.00		
1146	3440.132	5-257-30	ea	1.0	34.4	1,303.15	14.4	169.41	169.41	1,303.15	564.29	564.29	419.88	419.88	2,456.73	2,456.73		
1147	3440.133	5-257-40	ea	2.0	14.5	1,311.48	29.0	170.49	340.98	2,622.96	771.95	1,543.91	463.63	927.26	2,717.54	5,435.11		
1148	3440.134	5-258-05	ea	2.0	14.5	1,311.48	29.0	170.49	340.98	2,622.96	489.17	978.34	406.69	811.39	2,177.84	4,395.68		
1149	3440.135	5-259-04	ea	2.0	14.5	1,311.48	29.0	170.49	340.98	2,622.96	172.32	344.64	149.21	298.42	1,991.21	3,982.41		
1150	3440.136	5-259-05	ea	1.0	14.4	1,301.15	14.4	169.41	169.41	1,301.15	194.15	194.15	345.34	345.34	2,012.06	2,012.06		
1151	3440.137	5-260-10	ea	2.0	9.7	874.09	19.3	112.63	112.63	1,746.19	705.88	1,411.76	276.48	552.96	1,617.74	3,234.27		
1152	3440.138	5-260-11	ea	1.0	7.3	659.89	7.3	85.79	85.79	1,029.49	589.49	589.49	273.76	273.76	1,608.93	1,608.93		
1153	3440.139	5-260-21	ea	0.0	5.1	461.65	0.0	60.01	0.00	0.00	181.44	0.00	145.43	0.00	850.53	0.00		
1154	3440.140	5-260-22	ea	3.0	7.4	665.44	22.1	86.51	259.52	1,996.33	610.85	1,832.56	279.37	888.11	1,642.18	4,926.53		
1155	3440.141	5-260-40	ea	3.0	7.4	665.44	22.1	86.51	259.52	1,996.33	990.48	2,971.43	355.80	1,067.39	2,098.22	6,294.67		
1156	3440.142	5-261-01	ea	1.0	4.4	396.50	4.4	51.55	51.55	396.50	521.94	521.94	198.26	198.26	1,168.24	1,168.24		
1157	3440.143	5-262-20	ea	6.0	4.4	401.35	26.6	52.17	311.05	2,408.07	145.07	870.44	123.53	721.18	4,332.73	0.00		
1158	3440.144	5-263-20	ea	8.0	14.5	1,308.73	43.4	170.15	510.99	4,926.32	345.01	1,035.04	377.03	1,113.08	2,200.87	6,602.62		
1159	3440.145	5-263-40	ea	0.0	5.1	461.65	0.0	60.01	0.00	0.00	440.63	0.00	197.23	0.00	1,153.93	0.00		
1160	3440.146	5-263-40	ea	0.0	5.1	461.65	0.0	60.01	0.00	0.00	187.75	0.00	112.26	0.00	652.67	0.00		
1161	3440.147	5-263-50	ea	0.0	5.1	461.65	0.0	60.01	0.00	0.00	202.75	0.00	149.33	0.00	873.73	0.00		
1162	3440.148	5-263-60	ea	3.0	5.7	517.13	17.2	67.22	201.67	1,551.32	418.96	1,307.87	209.30	627.90	1,229.59	3,688.76		
1163	3440.149	5-264-10	ea	0.0	5.1	461.65	0.0	60.01	0.00	0.00	126.61	0.00	133.99	0.00	787.26	0.00		
1164	3440.150	5-264-20	ea	8.0	4.4	401.18	35.4	52.02	416.14	3,303.06	74.01	592.22	108.94	872.52	635.12	5,080.94		
1165	3440.151	5-265-10	ea	1.0	8.3	2,019.64	32.3	379.55	379.55	2,019.64	1,075.09	1,005.26	1,305.26	1,305.26	7,679.54	7,679.54		
1166	3440.152	5-265-20	ea	1.0	8.4	400.38	14.0	51.55	180.19	1,400.54	360.05	360.05	849.13	849.13	17,189.67	0.00		
1167	3440.153	5-265-21	ea	1.0	4.4	396.50	4.4	51.55	51.55	396.50	221.58	221.58	137.79	137.79	807.42	807.42		
1168	3440.154	5-265-30	ea	25.0	4.4	400.54	110.8	52.07	1,802.76	10,013.54	254.54	6,361.51	345.38	1,634.44	852.53	22,113.27		
1169	3440.155	5-265-40	ea	0.0	5.1	461.65	0.0	60.01	0.00	0.00	130.66	0.00	134.80	0.00	787.18	0.00		
1170	3440.156	5-265-01	ea	0.0	11.5	1,039.75	0.0	135.17	0.00	0.00	291.88	0.00	303.11	0.00	1,769.86	0.00		
1171	3440.157	5-265-20	ea	4.0	4.4	399.96	17.7	51.99	207.98	1,599.84	1,355.60	366.92	1,462.60	1,462.60	8,697.88	0.00		
1172	3440.158	5-265-21	ea	5.0	4.4	399.27	22.1	51.99	258.22	1,996.33	1,008.68	4,026.39	256.04	1,280.19	1,512.89	7,564.44		
1173	3440.159	5-265-40	ea	9.0	4.4	399.57	39.8	51.94	467.57	4,556.17	1,176.49	10,548.39	330.73	1,375.71	17,428.93	0.00		
1174	3440.160	5-262-41	ea	9.0	4.4	399.57	39.8	51.94	467.57	4,556.17	1,270.50	11,844.54	349.69	1,347.22	2,071.71	18,645.43		
1175	3440.161	5-263-01	ea	4.0	25.7	2,826.28	101.9	302.42	1,209.67	9,305.12	1,341.65	5,370.59	817.02	1,248.07	4,788.36	19,153.45		
1176	3440.162	5-263-02	ea	0.0	16.6	1,501.40	0.0	195.18	0.00	0.00	291.83	0.00	411.60	0.00	2,400.02	0.00		
1177	3440.163	5-263-40	ea	0.0	16.6	1,501.40	0.0	195.18	0.00	0.00	486.93	0.00	466.86	0.00	2,610.37	0.00		
1178	3440.164	5-264-51	ea	1.0	4.4	396.50	4.4	51.55	51.55	396.50	1,124.14	1,124.14	319.50	319.50	1,891.69	1,891.69		
1179	3440.165	5-264-61	ea	2.0	4.5	404.12	8.9	52.54	105.07	808.24	1,146.91	2,291.04	255.88	651.76	1,929.44	3,858.88		
1180	3440.166	5-264-62	ea	1.0	4.4	396.50	4.4	51.55	51.55	396.50	1,164.04	1,164.04	321.94	321.94	1,816.98	1,816.98		
1181	3440.167	5-264-70	ea	3.0	4.4	401.58	13.3	52.25	158.43	1,209.73	1,406.72	4,220.17	377.58	1,132.75	2,236.09	6,714.27		
1182	3440.168	5-264-71	ea	2.0	4.5	404.12	8.9	52.54	105.07	808.24	1,295.21	2,590.41	355.73	711.47	2,107.59	4,215.19		
1183	3440.169	5-264-80	ea	8.0	4.4	400.18	35.4	52.02	416.14	3,201.86	1,408.17	11,266.99	377.58	3,028.62	2,238.10	17,904.82		
1184	3440.170	5-264-90	ea	2.0	4.5	404.12	8.9	52.54	105.07	808.24	1,342.84	2,685.68	365.32	731.65	2,164.82	4,329.63		
1185	3440.171	5-265-01	ea	15.0	4.4	400.38	66.4	52.05	780.73	6,005.43	664.58	9,948.67	1,418.17	2,274.89	20,173.41	0.00		
1186	3440.172	5-265-10	ea	4.0	25.7	2,826.28	101.9	302.42	1,209.67	9,305.12	1,341.65	5,370.59	817.02	1,248.07	4,788.36	19,153.45		
1187	3440.173	5-265-20	ea	4.0	25.7	2,826.28	101.9	302.42	1,209.67	9,305.12	1,312.08	5,421.88	843.77	1,263.85	4,797.07	19,153.45		
1188	3440.174	5-265-30	ea	5.0	7.3	663.22	36.7	86.22	431.10	3,316.12	390.74	1,957.30	234.53	1,177.67	1,874.72	8,673.50		
1189	3440.175	5-265-40	ea	2.0	4.5	404.12	8.9	52.54	105.07	808.24	381.50	767.00	344.35	1,012.33	2,024.66	2,024.66		
1190	3440.176	5-265-50	ea	6.0	4.4	401.35	26.6	52.17	311.05	2,408.07	889.26	2,835.58	172.69	1,036.14	1,015.47	6,092.94		
1191	3440.177	5-266	ea	4.0	19.3	1,744.71	77.2	226.81	907.25	6,978.83	3,227.82	12,911.28	1,059.88	4,219.51	6,259.22	25,036.84		
1192	3440.178	5-266	ea	4.0	19.3	1,744.71	77.2	226.81	907.25	6,978.83	4,008.65	16,034.59	1,217.04	4,864.29	17,179.24	28,786.76		
1193	3440.179	5-266	ea	4.0	19.3	1,744.71	77.2	226.81	907.25	6,978.83	6,814.44	27,297.78	1,781.97	7,135.87	10,579.93	42,419.78		
1194	3440.180	5-266-10	ea	2.0	14.5	1,311.48	29.0	170.49	340.98	2,622.96	1,010.85	2,021.71	521.79	1,021.44	1,004.54	6,009.31		
1195	3440.181	5-266-01	ea	5.0	14.5	1,309.82	72.4	170.28	851.38	6,549.69	1,005.26	5,026.30	510.21	2,551.06	2,995.54	14,972.82		
1196	3440.182	5-266-02	ea	0.0	16.6	1,501.40	0.0	195.18	0.00	0.00	486.93	0.00	486.86	0.00	2,610.37	0.00		
1197	3440.183	5-266-01	ea	2.0	4.5	404.12	8.9	52.54	105.07	808.24	724.50	1,448.99	240.84	481.68	1,421.99	2,843.98		
1198	3440.184	5-266-10	ea	0.0	11.5	1,039.75	0.0	135.17	0.00	0.00	291.83	0.00	303.11	0.00	1,769.86	0.00		
1199	3440.185	5-267-20	ea	2.0	6.4	577.42	12.8	75.06	350.13	1,154.83	529.81	1,059.63	242.36	484.72	1,424.65	2,849.31		
1200	3440.186	5-267-21	ea	1.0	7.4	665.44												



SCHEDULE OF PRICE BREAKDOWN

Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	LABOUR COMPONENT							NON LABOUR COMPONENT				TOTAL PRICE
					PLA LABOUR HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR CH1P (per unit) D=C x 13%	LABOUR CH1P (Est.) E=A x D	COST OF LABOUR (Est.) F=A+C	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST	UNIT PRICE	
1228	3440.214	S-M55-08	na	13.0	9.7	871.07	125.5	113.56	1,475.49	11,949.99	198.04	2,574.53	245.06	1,185.72	1,429.67	18,585.71
1229	3440.215	S-M55-09	na	7.0	34.5	1,308.13	101.1	170.25	1,556.77	280.74	1,827.58	2,519.84	1,208.81	3,481.74	24,811.74	
1230	3440.218	S-M54-01	na	8.0	7.3	646.04	58.8	86.33	690.47	5,932.45	198.15	1,585.24	195.96	1,545.64	1,144.49	9,355.94
1231	3440.217	S-M54-04	na	2.0	34.5	1,311.48	29.0	370.49	340.94	2,822.96	301.07	602.15	368.83	731.64	2,151.88	4,303.75
1232	3440.218	S-M57-05	na	1.0	4.4	396.50	4.4	51.55	396.50	117.64	111.64	115.66	115.66	115.66	675.85	675.85
1233	3440.219	S-M58-01	na	0.0	2.6	231.52	0.0	30.30	0.00	0.00	193.00	0.00	547.88	0.00	547.88	0.00
1234	3440.220	S-M58-02	na	0.0	2.6	231.52	0.0	30.30	0.00	0.00	193.00	0.00	547.88	0.00	547.88	0.00
1235	3440.221	S-M58-05	na	0.0	5.1	461.65	0.0	60.01	0.00	0.00	15.35	0.00	111.59	0.00	648.60	0.00
1236	3440.222	S-M58-06	na	6.0	4.4	401.35	70.4	521.27	811.09	2,408.07	401.05	2,418.11	175.47	1,071.89	1,051.04	6,192.23
1237	3440.223	S-M58-07	na	43.0	9.7	872.85	116.6	113.47	3,743.57	28,803.99	532.45	17,570.80	312.33	10,306.82	1,811.10	60,426.14
1238	3440.224	S-M58-08	na	42.0	9.7	872.80	405.5	113.44	4,765.49	36,657.62	183.38	7,702.06	242.04	10,165.60	1,411.69	59,390.60
1239	3440.225	S-M59-01	na	3.0	34.5	1,308.71	4.4	170.13	510.40	3,926.12	348.52	1,045.55	377.73	1,133.19	2,705.08	6,615.25
1240	3440.226	S-M60-01	na	0.0	22.1	1,996.33	0.0	259.52	0.00	0.00	13.17	0.00	471.83	0.00	2,740.85	0.00
1241	3440.227	S-M61-20	na	1.0	14.4	1,303.15	14.4	169.41	1,693.15	1,303.15	2,325.41	2,325.41	774.42	4,572.40	4,572.40	4,572.40
1242	3440.228	S-M61-21	na	1.0	9.7	874.78	9.7	113.72	113.72	874.78	1,202.02	1,202.02	447.58	2,638.10	2,638.10	2,638.10
1243	3440.229	S-M61-30	na	2.0	9.7	874.78	19.3	113.63	227.24	1,746.18	2,199.88	4,399.73	648.31	1,296.67	1,855.89	7,671.77
1244	3440.230	S-M61-31	na	14.0	31.8	3,064.10	188.3	149.43	17,025.64	12,775.64	2,275.10	20,403.57	506.79	8,109.64	1,984.32	37,749.18
1245	3440.231	S-M61-40	na	14.0	34.5	1,309.49	213.4	170.24	2,723.33	20,951.76	2,211.45	35,381.14	752.97	12,043.51	4,444.13	71,106.14
1246	3440.232	S-M61-41	na	15.0	9.6	871.17	48.2	113.25	1,455.34	4,395.87	2,311.45	11,057.23	649.96	1,249.80	3,845.83	19,229.17
1247	3440.233	S-M61-42	na	5.0	9.6	871.17	48.2	113.25	546.74	1,431.04	1,431.04	7,355.22	492.84	2,444.22	2,908.31	14,541.57
1248	3440.234	S-M62-30	na	1.0	9.7	874.78	9.7	113.72	113.72	874.78	2,337.01	2,337.01	676.09	4,001.59	4,001.59	4,001.59
1249	3440.235	S-M62-31	na	2.0	9.7	874.78	19.3	113.63	227.24	1,746.18	2,179.52	2,549.85	482.10	924.25	2,724.75	5,449.49
1250	3440.236	S-M62-32	na	1.0	14.4	1,303.15	14.4	169.41	1,693.15	1,303.15	2,179.52	2,179.52	746.68	3,646.74	4,406.74	4,406.74
1251	3440.237	S-M62-40	na	1.0	34.4	1,301.15	14.4	169.41	1,480.56	1,480.56	1,211.41	751.48	4,445.49	4,445.49	4,445.49	
1252	3440.238	S-M62-41	na	1.0	9.7	874.78	9.7	113.72	113.72	874.78	1,246.94	1,246.94	456.63	2,652.05	2,652.05	2,652.05
1253	3440.239	S-M63-05	na	0.0	5.1	461.65	0.0	60.01	0.00	0.00	13.42	0.00	111.20	0.00	646.29	0.00
1254	3440.240	S-M66-01	na	12.0	9.7	873.05	115.9	113.50	1,361.94	10,476.58	843.00	10,115.97	374.90	4,494.75	2,204.44	26,454.25
1255	3440.241	S-M66-02	na	12.0	9.7	873.05	115.9	113.50	1,361.94	10,476.58	887.17	10,645.99	383.79	4,605.48	2,250.00	27,090.01
1256	3440.242	S-M67-20	na	2.0	9.7	874.78	19.3	113.63	227.24	1,746.18	2,806.44	4,612.89	669.77	1,339.54	3,969.94	7,927.87
1257	3440.243	S-M67-40	na	3.0	9.7	874.32	29.0	113.66	340.98	2,622.96	2,954.85	4,864.56	800.36	4,743.20	14,229.60	
1258	3110.020	Mechanical Shaft Platform/Staging	IS	1.0	117.4	106,078.60	117.4	11,790.22	108,078.60	43,599.98	43,599.98	43,599.98	13,707.62	19,716.62	19,716.62	19,716.62
1258a	Added	House Keeping pads for MECH equipment	na	1.0	3527.4	318,895.48	3,527.38	41,456.44	41,456.44	118,895.68	6,111.00	6,111.00	76,175.49	442,638.61	442,638.61	442,638.61
1258b	Added	Pipe Supports With no Pay Item	na	2,144.0	4.4	401.65	9,527.38	52.21	119,988.24	801,340.48	63.61	136,385.14	107.20	229,838.54	624.68	1,339,312.43
ST03		<b>SUB-TOTAL PIPING/MECHANICAL - SUPPLY AND INSTALLATION</b>					<b>168,451.4</b>		<b>\$1,978,776.14</b>	<b>\$15,228,047.24</b>		<b>\$15,993,807.20</b>		<b>\$5,656,508.98</b>		<b>\$38,859,239.97</b>
<b>HVAC SYSTEMS</b>																
<b>HVAC SYSTEMS - SUPPLY AND INSTALLATION</b>																
1259	3351.010	EDG (Dewatering gallery supply and Exhaust)	IS	1.0	889.6	333,924.99	8,693.8	43,410.25	43,410.25	333,924.99	209,124.55	209,124.55	111,424.10	111,424.10	891,883.89	891,883.89
1260	3351.020	EGR (Exhaust for Trams, Storage and Garbage rooms)	IS	1.0	1083.4	97,961.57	1,093.8	12,735.09	12,735.09	97,961.57	54,605.09	54,605.09	11,559.38	11,559.38	196,861.02	196,861.02
1261	3351.030	EGH (Exhaust range exhaust)	IS	1.0	203.3	18,378.71	203.3	2,389.22	2,389.22	18,378.71	11,812.27	11,812.27	4,637.54	4,637.54	41,270.78	41,270.78
1262	3351.040	END (Exhaust North RCC Doms)	IS	1.0	317.2	28,672.29	317.2	3,267.40	3,267.40	28,672.29	12,378.04	12,378.04	8,507.94	8,507.94	53,285.64	53,285.64
1263	3351.050	EGR (Exhaust oil Storage Room)	IS	1.0	92.2	8,331.90	92.2	1,083.15	1,083.15	8,331.90	8,808.65	8,808.65	3,514.79	3,514.79	21,738.49	21,738.49
1264	3351.060	ESB (South service bay vent and exhaust)	IS	1.0	215.9	19,154.68	215.9	2,489.98	2,489.98	19,154.68	32,757.40	32,757.40	10,642.83	10,642.83	60,642.95	60,642.95
1265	3351.070	ESP (Exhaust for Waste Water Treatment Room)	IS	1.0	133.6	12,076.41	133.6	1,569.93	1,569.93	12,076.41	15,141.71	15,141.71	5,597.55	5,597.55	34,385.60	34,385.60
1266	3351.080	ESR (Ventilate and exhaust Oil/water Interceptor Room)	IS	1.0	705.8	63,811.85	705.8	8,295.54	8,295.54	63,811.85	39,313.93	39,313.93	21,466.64	21,466.64	132,887.74	132,887.74
1267	3351.090	ESW (Exhaust Storage, Washrooms and Janitor rooms)	IS	1.0	984.0	88,954.53	984.0	11,546.09	11,546.09	88,954.53	57,515.11	57,515.11	30,317.43	30,317.43	188,351.15	188,351.15
1268	3351.100	EVG (Exhaust and Ventilate the Wastewater Treatment Room)	IS	1.0	153.7	13,891.13	153.7	1,895.81	1,895.81	13,891.13	23,441.95	23,441.95	5,614.81	5,614.81	34,770.74	34,770.74
1269	3351.110	PCS (Pressurize 4 Stairwells)	IS	1.0	3914.6	351,903.54	3,914.6	46,007.44	46,007.44	351,903.54	248,256.90	248,256.90	124,627.68	124,627.68	772,795.64	772,795.64
1270	3351.120	VCC (Control Room, Communication Room and Assoc. space)	IS	1.0	5320.8	481,032.33	5,320.8	62,534.20	62,534.20	481,032.33	404,624.44	404,624.44	182,951.16	182,951.16	1,131,142.15	1,131,142.15
1271	3351.130	VCR (Ventilation and Cooling for Compressor Room)	IS	1.0	313.9	28,375.62	313.9	3,688.83	3,688.83	28,375.62	82,255.67	82,255.67	22,506.39	22,506.39	138,826.51	138,826.51
1272	3351.140	VOA (Ventilate Dewatering, Drainage and Draft tube galleries)	IS	1.0	1013.0	91,577.48	1,013.0	11,905.07	11,905.07	91,577.48	38,298.74	38,298.74	27,065.11	27,065.11	168,846.42	168,846.42
1273	3351.150	VDT (Ventilate Draft Tube Gallery)	IS	1.0	292.3	26,429.19	292.3	3,435.79	3,435.79	26,429.19	38,527.90	38,527.90	18,444.29	18,444.29	101,837.17	101,837.17
1274	3351.160	VIG (Diesel Engine Generator)	IS	1.0	1892.4	152,997.96	1,892.4	21,889.73	21,889.73	152,997.96	101,633.12	101,633.12	52,805.68	52,805.68	327,326.43	327,326.43
1275	3351.170	VIL (Ventilate and Exhaust Elevator Machine Room)	IS	1.0	153.5	13,874.50	153.5	1,803.69	1,803.69	13,874.50	15,488.51	15,488.51	4,017.71	4,017.71	37,184.81	37,184.81
1276	3351.180	VIS (Ventilate Electrical Battery and Charger Rooms)	IS	1.0	5095.5	452,888.24	5,095.5	58,875.47	58,875.47	452,888.24	265,826.54	265,826.54	109,128.18	109,128.18	1,091,788.45	1,091,788.45
1277	3351.190	VIP (Ventilate the Fire Pump Room)	IS	1.0	86.3	7,803.72	86.3	1,014.48	1,014.48	7,803.72	12,156.81	12,156.81	4,099.61	4,099.61	20,048.62	20,048.62
1278	3351.200	VIG (Ventilation for Lower Inspection Galleries)	IS	1.0	357.1	32,285.09	357.1	4,197.06	4,197.06	32,285.09	8,811.76	8,811.76	8,566.77	8,5		



SCHEDULE OF PRICE BREAKDOWN

CH0031-001  
Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	LABOUR COMPONENT							NON LABOUR COMPONENT				UNIT PRICE	TOTAL PRICE
					PLA HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR OH&P (per unit) D = C x 13%	LABOUR OH&P (Ext.) E = A x D	COST OF LABOUR (Ext.) F = A x C	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST			
															A		
1291	3340.020	Spillway Feeder Transformer, 1250 kVA, dry type, 600 V primary, 25/14.4 kV solidly grounded secondary, 60 Hz, NEMA 2 enclosure, air natural cooled (ANN) - Alternate Design Option	ea	1.0	188.0	16,999.30	188.0	2,209.91	2,209.91	16,999.30	75.30	75.30	4,010.24	4,010.24	23,294.77	23,294.77	
1292	3340.030	Spillway Feeder Switchgear, 600 V, 3 phase, 3 wire, 1600 A, 42 kA IC, NEMA 1A enclosure	ea	1.0	164.0	14,828.29	164.0	1,927.68	1,927.68	14,828.29	257,961.49	257,961.49	55,419.17	55,419.17	330,136.62	330,136.62	
1293	3435.010	Station Service Transformer, 2500 kVA, dry type, 15 kV primary, 600/347 V solidly grounded secondary, 60 Hz, NEMA 2 enclosure, air natural cooled (ANN), off-load tap changer ± 2 x 2.5%	ea	4.0	259.0	23,411.13	1,035.8	3,043.45	12,173.70	93,644.50	133,889.20	535,556.78	32,457.31	129,829.22	192,801.07	771,204.29	
1294	3433.010	Station Service Switchgear, 600 V, 3 phase, 3 wire, 3200 A, 42 kA IC, NEMA 1A enclosure	ea	4.0	261.7	23,840.20	1,054.8	3,099.23	12,396.90	95,360.80	459,882.49	1,839,529.98	98,189.00	392,756.02	585,010.92	2,340,043.70	
1295	3433.020	Unit Motor Control Centre, 600 V, 3 phase, 3 wire, 800 A, 42 kA IC, NEMA 2 enclosure	ea	4.0	592.0	53,521.05	2,368.0	6,957.74	27,830.55	219,084.21	356,547.74	1,426,190.94	84,360.49	317,441.94	501,587.01	2,005,548.06	
1296	3290.010	Intake MCC, 600 V, 3 phase, 3 wire, 1200 A, 42 kA IC, NEMA 3R enclosure	ea	2.0	447.3	40,440.93	894.7	5,257.32	80,881.85	453,509.25	907,018.64	100,807.82	201,614.64	600,014.82	1,200,029.64		
1297	3340.040	Essential Service MCC, 600 V, 3 phase, 3 wire, 1200 A, 42 kA IC, NEMA 2 enclosure	ea	1.0	982.4	88,818.66	982.4	11,546.43	88,818.66	831,432.45	831,432.45	188,262.48	1,120,060.02	1,120,060.02			
1298	3340.050	Common Station Service MCC, 600 V, 3 phase, 3 wire, 1200 A, 42 kA IC, NEMA 2 enclosure	ea	4.0	844.1	58,226.64	2,576.2	7,569.64	30,277.85	379,524.13	1,518,096.53	90,092.11	360,368.45	535,412.34	2,141,649.37		
1299	3000.001	Panelboard, 400 A, 600 V, 3 phase, 3 wire, 60 circuit, 35 kA IC, NEMA 12 enclosure, surface mounting trim, complete with breakers as indicated	ea	4.0	59.3	5,362.36	237.3	697.11	2,788.43	21,449.45	25,289.52	101,158.09	6,351.66	25,406.66	37,700.65	150,802.60	
1300	3000.002	Panelboard, 400 A, 600 V, 3 phase, 3 wire, 72 circuit, 35 kA IC, NEMA 12 enclosure, surface mounting trim, complete with breakers as indicated	ea	1.0	59.3	5,362.36	59.3	697.11	697.11	5,362.36	26,097.95	26,097.95	6,514.42	6,514.42	38,671.84	38,671.84	
1301	3000.003	Panelboard, 225 A, 600 V, 3 phase, 42 circuit, 35 kA IC, NEMA 12 enclosure, surface mounting trim, provided with breakers	ea	5.0	37.8	3,418.44	195.1	444.40	2,221.38	17,092.18	18,319.20	91,596.02	4,491.52	22,457.56	26,873.55	133,367.75	
1302	3000.004	Panelboard, 225 A, 600 V, 3 phase, 4 wire, 60 circuit, 35 kA IC, NEMA 12 enclosure, surface mounting trim, provided with breakers	ea	2.0	56.7	5,125.30	113.4	666.29	1,332.58	10,250.60	13,817.79	27,635.58	3,986.40	7,972.80	23,595.78	47,191.55	
1303	3000.005	Panelboard, 100 A, 600/347 V, 3 phase, 4 wire, 30 circuit, 35 kA IC, NEMA 12 enclosure, surface mounting trim, provided with breakers	ea	11.0	25.2	2,280.53	277.5	296.47	3,261.10	25,085.82	11,381.54	125,196.91	2,827.36	31,100.91	16,785.89	184,644.79	
1304	3000.006	Panelboard, 225 A, 208/120 V, 3 phase, 4 wire, 72 circuit, 10 kA IC, NEMA 12 enclosure, surface mounting trim, provided with breakers	ea	1.0	56.7	5,125.30	56.7	666.29	666.29	5,125.30	2,267.34	2,267.34	1,661.00	1,661.00	9,719.92	9,719.92	
1305	3000.007	Panelboard, 225 A, 208/120 V, 3 phase, 4 wire, 16 circuit, 10 kA IC, NEMA 12 enclosure, surface mounting trim, provided with breakers	ea	4.0	56.7	5,125.30	226.8	666.29	2,665.16	20,501.20	17,917.97	6,927.89	1,553.22	6,212.85	9,076.77	36,307.10	
1306	3000.008	Panelboard, 225 A, 208/120 V, 3 phase, 4 wire, 42 circuit, 10 kA IC, NEMA 12 enclosure, surface mounting trim, provided with breakers	ea	2.0	41.0	3,702.92	81.9	481.38	962.76	7,405.83	4,285.65	8,571.80	1,733.05	3,486.10	10,202.99	20,405.99	
1307	3000.009	Panelboard, 225 A, 208/120 V, 3 phase, 4 wire, 30 circuit, 10 kA IC, NEMA 12 enclosure, surface mounting trim, provided with breakers	ea	0.0	50.4	4,552.75	0.0	591.86	0.00	0.00	1,429.99	0.00	1,357.86	0.00	7,932.45	0.00	
1308	3000.010	Panelboard, 225 A, 208/120 V, 3 phase, 4 wire, 24 circuit, 10 kA IC, NEMA 12 enclosure, surface mounting trim, provided with breakers	ea	1.0	56.7	5,125.30	56.7	666.29	666.29	5,125.30	944.33	944.33	1,394.64	1,394.64	8,130.56	8,130.56	
1309	3000.011	Panelboard, 100 A, 208/120 V, 3 phase, 4 wire, 30 circuit, 10 kA IC, NEMA 12 enclosure, surface mounting trim, provided with breakers and installed in a NEMA 4X enclosure with Anti-condensation heater and thermostat	ea	7.0	25.2	2,280.53	176.6	296.47	2,075.29	15,964.71	1,755.14	12,185.99	889.31	6,225.19	5,221.45	36,550.18	
1310	3000.012	Panelboard, 100 A, rated 250 Vdc for operation on 125 Vdc 2 wire system, 60 circuit, 10 kA IC, NEMA 12 enclosure, surface mounting trim, provided with two-pole bolt-on distribution breakers	ea	2.0	25.2	2,280.53	50.5	296.47	592.94	4,561.06	10,938.35	21,876.71	2,738.14	5,476.27	16,253.49	32,506.98	
1311	3000.013	Panelboard, 100 A, rated 250 Vdc for operation on 125 Vdc 2 wire system, 40 circuit, 10 kA IC, NEMA 12 enclosure, surface mounting trim, provided with two-pole bolt-on distribution breakers	ea	2.0	25.2	2,280.53	50.5	296.47	592.94	4,561.06	10,108.84	20,217.69	2,571.13	5,142.25	15,256.97	30,513.94	
1312	3000.014	Panelboard, 100 A, rated 250 Vdc for operation on 125 Vdc 2 wire system, 24 circuit, 10 kA IC, NEMA 12 enclosure, surface mounting trim, provided with two-pole bolt-on distribution breakers	ea	4.0	25.2	2,280.53	100.9	296.47	1,185.87	9,122.11	5,071.91	20,287.64	1,557.06	6,228.25	9,205.97	36,823.87	
1313	3000.015	600 Volt, 3-Pole, 100A Electrically Held contactor complete with 120V Coil, Undervoltage Relay (with 125Vdc rated alarm contacts), 347/120V, 100VA control Power transformer and fusing mounted in a NEMA 12 Enclosure	ea	4.0	21.4	1,932.56	85.5	251.23	1,004.53	7,780.23	4,229.97	16,919.87	1,305.78	5,223.13	7,719.54	30,878.16	
1314	3000.016	1065 mm x 760 mm x 250 mm deep NEMA 4X stainless steel enclosure with hinged door to house parking area panelboard, complete with 150 W anticondensation heater and thermostat	ea	1.0	26.7	2,410.84	26.7	313.41	313.41	2,410.84	3,424.27	3,424.27	1,255.97	7,404.49	7,404.49		
1315	3000.017	Dry-type Isolation Transformer, 45 kVA, three phase, 600 V delta primary, 600/347 V wye secondary, NEMA 2 enclosure	ea	4.0	40.0	3,614.19	159.9	469.84	1,878.38	14,456.75	4,965.47	19,841.87	1,849.06	7,396.25	10,898.54	43,594.25	
1316	3000.018	Dry-type Isolation Transformer, 45 kVA, three phase, 600 V delta primary, 600/347 V wye secondary, NEMA 3R enclosure	ea	1.0	40.0	3,614.20	40.0	469.85	469.85	3,614.20	5,333.38	1,923.09	1,923.09	11,340.32	11,340.32		
1317	3000.019	Dry-type Distribution Transformer, 30 kVA, three phase, 600 V delta primary, 208/120 V wye secondary, NEMA 2 enclosure	ea	12.0	52.0	4,703.85	624.4	611.50	7,338.02	56,446.23	4,530.43	54,365.11	2,017.57	24,210.79	11,863.35	142,360.14	
1318	3000.020	Dry-type Distribution Transformer, 30 kVA, three phase, 600 V delta primary, 208/120 V wye secondary, NEMA 3R enclosure	ea	4.0	38.4	3,468.63	153.5	450.92	1,803.69	13,874.50	3,723.51	14,894.02	1,564.82	6,259.24	9,207.87	36,831.47	
1319	3340.060	Battery Charger, 125 Vdc, 37.5 kW (Station Control and Protection), 600 V, 3 phase input, complete with 400 A, 2-pole, fusable disconnect switch	ea	4.0	56.7	5,125.30	226.8	666.29	2,665.16	20,501.20	54,600.43	218,401.74	12,196.99	48,787.98	72,589.02	290,356.06	
1320	3340.070	125 Vdc Battery Bank (Station Control and Protection), 60 cell, lead acid batteries, 2320 Ah, complete with 400 A, 2-pole, fusable disconnect switch	ea	2.0	335.2	30,301.24	670.3	3,939.16	7,878.32	60,602.48	234,118.47	468,236.95	54,255.32	108,510.64	322,614.21	645,228.39	
1321	3340.080	125 Vdc Distribution Switchboard (Station Control and Protection), 400 A, 14 kA IC	ea	2.0	97.8	8,837.92	195.5	1,148.93	2,297.86	17,675.83	61,284.33	126,548.67	14,817.81	29,635.62	88,088.99	176,177.98	
1322	3340.090	Battery Charger, 125 Vdc, 55 kW (Field Flashing and Emerg. Utl), 600 V, 3 phase input, complete with 400 A, 2-pole, fusable disconnect switch	ea	2.0	56.7	5,125.30	113.4	666.29	1,332.58	10,250.60	63,424.43	126,848.85	17,946.99	37,946.99	83,189.51	166,379.02	
1323	3340.100	125 Vdc Battery Bank (Field Flashing and Emerg. Utl), 60 cell, lead acid batteries, 2350 Ah, complete with 400 A, 2-pole, fusable disconnect switch	ea	1.0	335.2	30,301.25	335.2	3,939.16	3,939.16	30,301.25	234,118.47	234,118.47	54,255.32	54,255.32	322,614.21	322,614.21	
1324	3340.110	125 Vdc Distribution Switchboard (Field Flashing and Emerg. Utl), 400 A, 14 kA IC	ea	1.0	97.8	8,837.92	97.8	1,148.93	8,837.92	70,076.77	70,076.77	16,185.30	16,185.30	96,248.92	96,248.92		
1325	3340.120	Battery Charger, 48 Vdc, 10 kW (Telecommunications), 600 V, 3 phase input, complete with 400 A, 2-pole, fusable disconnect switch	ea	4.0	52.5	4,742.67	209.8	616.55	2,466.19	18,970.67	28,826.96	115,307.85	6,918.21	27,672.84	41,104.39	164,417.55	
1326	3340.130	48 Vdc Battery Bank (Telecommunications), 24 cell, lead acid batteries, 1800 Ah, complete with 400 A, 2-pole, fusable disconnect switch	ea	2.0	335.2	30,301.24	670.3	3,939.16	7,878.32	60,602.48	81,757.34	167,514.68	23,983.75	47,967.49	141,981.49	283,962.98	
1327	3340.140	48 Vdc Distribution Switchboard (Telecommunications), 400 A, 14 kA IC	ea	2.0	97.8	8,837.92	195.5	1,148.93	2,297.86	17,675.83	37,964.36	75,928.72	9,720.24	19,440.49	57,671.45	115,342.90	
1328	3340.150	Uninterruptible Power Supply (UPS), 10 kVA, 125 Vdc input and 600 Vac single phase bypass input, 120 Vac, 60 Hz output	ea	2.0	57.9	5,233.44	115.8	680.35	1,360.69	10,466.88	58,167.26	116,334.52	12,940.50	25,881.00	77,021.55	154,043.10	
1328a	Added	UPS, 90 kVA, 125 Vdc input and 600 Vac 3 Ph bypass input, 120 Vac Output	ea	1.0	322.4	29,149.19	322.4	3,789.39	3,789.39	29,149.19	130,629.65	130,629.65	33,149.61	33,149.61	196,717.84	196,717.84	
1329	3340.160	Uninterruptible Power Supply (UPS) Distribution Switchboard, 225 A, 120 Vac, single phase, 60 Hz	ea	2.0	57.9	5,233.44	115.8	680.35	1,360.69	24,266.70	48,533.38	6,135.45	12,270.90	36,295.93	72,591.86		
1329a	Added	UPS Panelboard 100A 120 Vac for operation on 120 Vac 2 W system NEMA 12 Heavy Duty Safety Switch, 600 V, three phase, unfused, visible blade, NEMA 12 enclosure, size as follows:	ea	5.0	25.2	2,280.53	126.3	296.47	1,482.34	11,402.65	1,121.76	5,608.81	761.80	8,808.98	4,404.56	22,302.79	
1330	3000.021	30 Amp	ea	153.0	7.5	677.82	1,147.1	88.12	13,481.85	103,706.57	286.71	41,846.51	217.02	31,204.04	1,269.67	194,258.98	

Handwritten initials/signature.



SCHEDULE OF PRICE BREAKDOWN

CH0001-001  
Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY A	LABOUR COMPONENT							NON LABOUR COMPONENT				UNIT PRICE F=C+D+G+H	TOTAL PRICE J=KxI
					PLA HOURS (per unit) B	LABOUR COST (per unit) C	TOTAL LABOUR HOURS D = C x 13%	LABOUR O&P (Ext.) E = A x D	COST OF LABOUR (Ext.) F = A x C	MAT. COST (per unit) G	MAT. TOTAL COST H	EQUIP. COST (per unit) I	TOTAL EQUIP. COST J				
														0.13	0.13		
1331	3000.022	60 Amp	ea	4.0	8.2	737.53	32.6	95.88	383.52	2,950.12	334.43	1,257.73	236.64	946.55	3,884.48	5,557.92	
1332	3000.023	100 Amp	ea	14.0	8.8	795.56	123.2	103.42	1,047.92	11,137.88	438.64	6,140.93	275.28	3,853.89	16,711.90	22,580.60	
1333	3000.024	200 Amp	ea	10.0	10.2	926.25	301.8	119.44	1,196.24	9,202.53	709.44	7,094.60	89.11	2,591.05	21,084.52	21,084.52	
1334	3000.025	400 Amp	ea	4.0	26.4	2,385.20	105.5	310.08	1,340.80	9,540.80	1,784.79	7,147.17	920.28	3,681.13	5,402.35	21,609.41	
		Heavy Duty Safety Switch, 600 V, three phase, unfused, visible blade, NEMA 4X enclosure, size as follows:															
1335	3000.026	30 Amp	ea	65.0	8.4	761.44	547.5	98.99	6,434.35	49,493.74	613.82	41,198.07	306.55	19,925.99	1,800.80	117,051.99	
1336	3000.027	60 Amp	ea	1.0	8.4	762.49	8.4	99.12	99.12	762.49	668.19	313.72	1,843.53	1,843.53	1,843.53		
1337	3000.028	100 Amp	ea	1.0	9.5	856.76	9.5	111.38	111.38	856.76	655.39	512.47	3,026.00	3,026.00	3,026.00		
1338	3000.029	200 Amp	ea	2.0	11.3	1,044.51	22.7	133.19	266.37	2,041.01	2,243.65	4,517.89	696.51	1,893.03	4,117.86	8,235.70	
1339	3000.030	400 Amp	ea	2.0	26.4	2,388.67	52.8	310.53	621.05	4,777.33	2,771.56	5,543.12	1,119.36	2,238.72	6,590.11	13,180.21	
1340	3000.031	Combination magnetic motor starter and visible blade disconnect, NEMA size 1, with electronic overload, NEMA 12 enclosure.	ea	3.0	13.9	1,259.26	41.8	163.70	491.11	3,777.78	1,778.27	5,334.82	653.96	1,961.87	3,855.19	11,565.58	
1341	3000.032	Combination magnetic motor starter and visible blade disconnect, NEMA size 1, with electronic overload, NEMA 4X enclosure.	ea	12.0	16.8	1,520.47	201.8	197.64	2,371.93	18,245.61	2,472.85	29,674.18	855.18	10,262.16	5,046.14	60,554.90	
1342	3000.033	Splitter box, 400 Amp, 600 V, three phase, three wire, NEMA 4X enclosure. Industrial type electric Blower Unit Heater, 600 V, three phase, complete with built-in thermostat and controls, heating capacity as follows:	ea	2.0	14.7	1,130.89	29.4	173.02	346.03	2,661.77	2,972.16	5,944.33	911.15	1,822.30	5,387.23	10,744.43	
1343	3000.034	2.0 kW	ea	9.0	8.2	744.77	74.1	96.82	873.38	6,702.90	1,990.56	17,915.08	575.78	5,182.06	3,407.94	30,671.49	
1344	3000.035	2.5 kW	ea	4.0	8.4	762.49	33.7	99.12	396.49	3,049.85	2,365.15	9,460.60	655.36	2,621.45	3,882.12	15,528.49	
1345	3000.036	3.0 kW	ea	14.0	9.2	829.43	128.4	107.83	1,509.56	11,611.98	1,048.40	14,677.54	406.00	5,683.94	2,891.64	33,483.02	
1346	3000.037	5.0 kW	ea	7.0	8.6	781.10	60.5	101.54	710.80	5,467.73	734.38	5,140.68	331.47	2,319.94	1,948.45	13,639.15	
1347	3000.038	7.5 kW	ea	11.0	10.3	930.86	113.3	121.01	1,131.34	10,289.50	1,135.31	12,488.40	447.83	4,910.67	2,644.52	28,799.70	
1348	3000.039	10.0 kW	ea	27.0	11.3	1,017.73	304.0	137.86	3,572.72	27,498.05	2,783.45	33,281.50	446.86	12,076.52	2,670.89	70,284.23	
1349	3000.040	15 kW	ea	13.0	12.3	1,111.63	159.9	144.51	1,876.64	14,451.21	1,178.03	16,588.34	518.15	6,735.92	1,050.32	39,654.12	
1350	3000.041	Explosion-proof electric Blower Unit Heater, 3.5 kW, 600 V, three phase, complete with built-in thermostat and controls.	ea	8.0	16.8	1,520.64	134.6	197.68	1,581.47	12,165.13	4,139.50	33,116.00	1,190.76	9,576.10	7,048.59	56,389.69	
1351	3000.042	Architectural sloped top baseboard electric heater, 2.5 kW, 208 V, single phase, with low-voltage relay.	ea	9.0	1.7	149.88	14.9	18.48	175.36	1,348.91	236.45	2,128.05	82.83	745.45	488.64	4,397.77	
1352	3000.043	Convector heater, commercial type with sloped top, 5 kW, 600 V, three phase, with low-voltage relay.	ea	34.0	5.8	523.10	196.7	68.00	2,312.30	17,785.36	626.45	21,299.20	249.04	8,467.91	1,466.60	49,864.57	
1353	3000.044	Forced-air heater, commercial type, 2.5 kW, 208 V, single phase, with low-voltage relay.	ea	11.0	3.1	284.33	34.6	36.96	406.59	3,127.59	302.07	3,322.24	127.61	1,403.90	750.94	8,260.31	
1354	3000.045	Forced-air heater, commercial type, 5.0 kW, 600 V, three phase, with low-voltage relay.	ea	4.0	5.2	474.13	21.0	61.64	246.55	1,894.52	839.90	3,359.59	280.52	1,122.08	1,656.18	6,624.74	
1355	3000.046	Electric infrared radiant heater, industrial type, NEMA 4X construction, 10 kW, 600 V, three phase, without controls.	ea	28.0	14.4	1,299.20	402.4	168.90	4,729.08	36,377.57	2,345.79	65,682.24	777.60	21,772.79	4,591.49	128,561.88	
		Power outlet - interlocked receptacle and unfused switch, 600 V, three phase, three wire, NEMA 12 enclosure, size as follows:															
1356	3000.047	30 Amp	ea	1.0	9.5	855.98	9.5	111.02	313.62	853.98	1,167.34	485.71	485.71	2,568.04	2,568.04		
1357	3000.048	60 Amp	ea	34.0	10.0	904.06	340.0	117.53	3,995.99	30,737.93	1,243.34	42,273.58	462.78	15,734.63	2,727.71	92,742.07	
		Power outlet - interlocked receptacle and unfused switch, 600 V, three phase, three wire, NEMA 4X enclosure, size as follows:															
1358	3000.049	30 Amp	ea	8.0	10.0	904.07	80.0	117.53	940.28	7,322.54	2,069.81	16,558.51	629.18	5,033.42	3,702.59	29,744.70	
1359	3000.050	60 Amp	ea	18.0	10.0	903.59	178.9	117.47	2,114.26	16,344.54	2,095.58	37,718.93	634.23	11,416.20	3,750.38	67,518.05	
1360	3000.051	100 Amp	ea	4.0	11.0	997.82	44.2	179.72	518.87	3,991.27	4,389.31	11,557.24	1,118.16	4,727.73	6,635.03	26,540.10	
1361	3000.052	200 Amp	ea	1.0	12.6	1,140.96	12.6	148.32	348.32	1,340.98	7,641.51	7,641.51	1,806.58	1,806.58	10,737.37	10,737.37	
		Cable Tray, Ladder type, Hot Dipped Galvanized Steel, CSA Load Class D, 100 mm cable depth, straight lengths, widths as follows:															
1362	3000.053	150 mm	m	136.0	2.7	246.72	371.1	32.07	4,361.97	33,554.59	87.37	11,882.89	75.57	10,272.92	441.70	60,076.37	
1362a	Added	4" Channel Tray	m	4,572.0	1.2	104.29	5,273.96	13.56	61,983.62	476,797.04	42.67	195,068.75	33.10	151,326.69	193.61	885,176.12	
1363	3000.054	300 mm	m	1,324.0	3.7	334.92	4,904.9	43.54	57,445.80	443,429.25	105.55	139,744.50	99.94	137,346.58	589.94	773,166.13	
1364	3000.055	450 mm	m	949.0	3.5	315.83	3,315.2	41.08	38,893.94	299,722.66	108.00	102,490.73	95.97	91,073.25	360.85	532,260.51	
1365	3000.056	600 mm	m	1,714.0	3.4	307.36	22,826.7	39.94	146,397.84	1,141,522.24	107.07	397,657.62	93.79	348,334.25	548.17	2,025,911.00	
1366	3000.057	750 mm	m	1,967.0	3.4	305.86	6,654.1	39.76	78,110.45	601,618.98	107.50	211,450.75	93.52	383,959.80	546.64	1,075,240.00	
		Horizontal 90 degree turn, 600mm radius, Cable Tray Section, Ladder type, Hot Dipped Galvanized Steel, CSA Load Class D, 100 mm cable depth, horizontal 90 degree turns, 600mm radius, widths as follows:															
1367	3000.058	300 mm	ea	47.0	18.7	1,694.31	880.8	220.26	10,352.26	79,832.77	544.62	25,597.16	507.84	23,868.25	2,967.03	139,450.44	
1368	3000.059	450 mm	ea	21.0	19.2	1,713.06	402.0	225.30	4,793.25	36,394.20	552.15	11,575.14	538.48	10,887.57	3,028.94	61,608.16	
1369	3000.060	600 mm	ea	87.0	20.3	1,836.18	1,767.0	238.70	20,767.24	159,187.98	581.49	48,849.48	548.57	47,317.25	1,180.95	276,742.48	
1370	3000.061	750 mm	ea	36.0	21.4	1,931.79	769.3	251.13	9,040.77	69,544.37	587.17	21,138.11	572.21	20,599.59	1,341.36	120,322.84	
		Cable Tray, Ladder type, Hot Dipped Galvanized Steel, CSA Load Class D, 100 mm cable depth, horizontal 90 degree turns, 900mm radius, widths as follows:															
1371	3000.062	150 mm	ea	3.0	17.7	1,598.91	53.1	207.86	623.58	4,796.74	567.33	1,701.98	489.98	1,469.94	2,864.08	8,592.23	
		Cable Tray, Ladder type, Hot Dipped Galvanized Steel, CSA Load Class D, 100 mm cable depth, horizontal 45 degree turns, 600mm radius, widths as follows:															
1372	3000.063	300 mm	ea	17.0	17.8	1,608.56	302.5	209.11	3,554.92	27,345.57	525.30	8,930.12	483.79	8,234.47	2,826.77	48,055.08	
1373	3000.064	450 mm	ea	59.0	18.9	1,712.40	1,112.6	222.62	13,134.54	101,035.09	533.47	31,474.86	509.85	30,081.43	1,978.41	175,725.94	
1374	3000.065	750 mm	ea	14.0	18.9	1,712.63	265.2	222.64	3,116.98	23,976.75	545.15	7,632.04	512.24	7,171.42	2,992.66	41,897.19	
		Cable Tray, Ladder type, Hot Dipped Galvanized Steel, CSA Load Class D, 100 mm cable depth, horizontal 45 degree turns, 900mm radius, widths as follows:															
1375	3000.066	150 mm	ea	4.0	17.2	1,552.70	68.7	201.85	802.40	6,210.80	533.47	2,133.89	472.31	1,889.24	2,760.33	11,041.33	
		Cable Tray, Ladder type, Hot Dipped Galvanized Steel, CSA Load Class D, 100 mm cable depth, vertical inside 90 degree turns, 600mm radius, widths as follows:															
1376	3000.067	300 mm	ea	1.0	15.1	1,365.55	15.1	177.52	1,775.2	1,365.55	886.39	886.39	398.72	398.72	2,318.17	2,318.17	
1377	3000.068	450 mm	ea	6.0	16.7	1,507.88	100.1	167.52	1,378.34	9,047.20	954.54	2,367.34	433.81	2,362.27	5,532.27	15,193.00	
1378	3000.069	750 mm	ea	8.0	17.7	1,603.65	141.9	208.47	1,667								



SCHEDULE OF PRICE BREAKDOWN

CH0031 001  
Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	LABOUR COMPONENT										NON LABOUR COMPONENT				UNIT PRICE	TOTAL PRICE
					PLA HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR OH&P (per unit) D = C x 135%	LABOUR CH&P (Ext.) E = A x D	COST OF LABOUR (Ext.) F = A x C	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST	F = C + D + G + H	F = A x J				
																	A	B		
1382	3000.073	600 mm Cable Tray, Ladder type, Hot Dipped Galvanized Steel, CSA Load Class D, 100 mm cable depth, vertical exterior 90 degree turns, 900mm radius, widths as follows:	ea	7.0	16.7	1,507.94	116.8	196.01	3,372.23	10,555.59	394.56	2,761.92	433.82	3,036.74	2,532.36	17,226.50				
1383	3000.074	150 mm Cable Tray, Ladder type, Hot Dipped Galvanized Steel, CSA Load Class D, 100 mm cable depth, riser sections, widths as follows:	ea	1.0	34.1	1,271.27	34.1	365.27	365.27	3,273.27	435.42	435.42	386.43	866.85	2,258.99	2,258.99				
1384	3000.075	150mm	ea	2.0	9.7	874.76	19.4	113.72	227.44	1,249.55	315.03	630.06	269.01	538.01	1,572.53	3,145.06				
1385	3000.076	300mm	ea	94.0	9.7	874.36	909.1	113.67	10,884.95	82,191.56	21,261.85	42,523.71	16,811.51	1,569.37	147,521.24					
1386	3000.077	450mm	ea	54.0	9.7	874.36	527.3	113.64	6,137.96	47,214.59	312.85	16,893.68	268.47	14,497.24	1,569.37	88,743.41				
1387	3000.078	600mm	ea	254.0	9.7	874.36	2,458.6	113.67	22,087.55	172,851.55	312.85	79,442.85	268.47	48,191.74	1,569.37	398,813.55				
1388	3000.079	750mm	ea	46.0	9.7	874.36	444.9	113.67	5,226.67	40,220.50	312.85	14,390.91	268.47	12,349.67	1,569.37	72,189.75				
1389	3000.080	300 mm Cable Tray, Ladder type, Hot Dipped Galvanized Steel, CSA Load Class D, 100 mm cable depth, T-section, 600mm radius, 300mm main, tap off as follows:	ea	11.0	31.8	2,870.53	381.0	373.17	4,476.03	34,446.40	917.92	11,015.07	859.42	10,313.03	5,021.04	60,252.54				
1390	3000.081	600 mm	ea	1.0	31.7	2,869.77	31.7	373.04	2,869.72	2,869.72	975.89	975.89	870.90	870.90	5,089.58	5,089.58				
1391	3000.082	750 mm	ea	1.0	32.5	2,934.27	32.5	381.72	2,934.27	2,934.27	1,927.27	1,927.27	1,078.08	1,078.08	6,323.34	6,323.34				
1392	3000.083	300mm Cable Tray, Ladder type, Hot Dipped Galvanized Steel, CSA Load Class D, 100 mm cable depth, T-section, 600mm radius, 450mm main, tap off as follows:	ea	4.0	32.8	2,964.08	131.2	385.59	2,542.36	11,864.36	974.73	3,898.90	893.11	3,573.23	5,219.70	20,878.78				
1393	3000.084	450mm	ea	4.0	32.8	2,964.08	131.2	385.59	2,542.36	11,864.36	974.73	3,898.90	893.11	3,573.23	5,219.70	20,878.78				
1394	3000.085	600mm	ea	1.0	32.8	2,964.38	32.8	385.50	2,965.38	2,965.38	980.54	980.54	894.32	894.32	5,225.76	5,225.76				
1395	3000.086	300mm Cable Tray, Ladder type, Hot Dipped Galvanized Steel, CSA Load Class D, 100 mm cable depth, T-section, 600mm radius, 600mm main, tap off as follows:	ea	15.0	33.9	3,060.39	507.8	397.85	3,967.76	30,905.88	975.89	14,638.39	915.71	14,795.65	5,489.85	80,247.68				
1396	3000.087	450mm	ea	10.0	33.9	3,060.21	338.5	397.85	3,878.27	30,602.28	982.90	9,829.90	917.08	9,170.75	5,358.01	53,580.06				
1397	3000.088	600mm	ea	62.0	33.9	3,060.35	2,098.7	397.84	24,666.03	189,748.65	987.57	61,229.08	918.04	56,418.28	5,363.34	332,553.18				
1398	3000.089	750mm	ea	2.0	33.9	3,060.95	67.7	397.84	3,229.55	25,429.65	994.57	1,989.14	919.46	1,838.98	5,372.22	10,744.45				
1399	3000.090	300mm Cable Tray, Ladder type, Hot Dipped Galvanized Steel, CSA Load Class D, 100 mm cable depth, T-section, 600mm radius, 750mm main, tap off as follows:	ea	32.0	34.9	3,155.96	1,117.1	410.27	3,128.79	30,990.72	980.54	11,377.98	939.11	10,075.10	5,489.91	175,548.99				
1400	3000.091	450mm	ea	5.0	34.9	3,155.87	174.5	410.26	2,671.31	25,379.33	988.73	4,943.67	940.73	4,033.60	5,489.59	27,477.97				
1401	3000.092	600mm	ea	59.0	34.9	3,155.97	2,059.6	410.28	24,206.28	186,202.13	993.40	58,610.74	941.70	55,560.09	5,501.34	324,579.24				
1402	3000.093	750mm	ea	11.0	34.9	3,156.14	451.8	410.30	3,333.92	41,030.13	1,000.41	13,005.28	943.15	12,260.98	5,510.02	71,630.31				
Teck 90 1000 V Power Cable, Class B stranded copper conductors insulated with XLPE type RW90, complete with bare grounding conductor to CSA C22.2 No.131, interlocking aluminum armour, and low temperature (-40°C) flame retardant and sunlight resistant PVC outer jacket, number of conductors and conductor sizes as follows:																				
1403	3000.094	1C #4/D AWG	m	235.0	0.4	38.94	101.3	5.07	1,190.38	9,354.77	34.94	8,211.74	16.19	8,805.21	95.17	22,364.10				
1404	3000.095	1C #500 kcmil	m	315.0	0.5	47.96	157.3	6.23	1,963.90	15,196.95	61.72	19,440.64	23.70	7,644.24	139.61	43,975.75				
1405	3000.096	1C #750 kcmil	m	440.0	0.7	67.26	301.0	8.09	3,561.23	27,994.08	95.89	42,192.31	33.94	14,912.40	200.18	88,080.02				
1406	3000.097	2C #12 AWG	m	14,205.0	0.2	22.42	3,237.0	2.91	43,569.24	319,765.55	4.04	57,645.55	6.08	86,752.44	95.45	905,739.79				
1407	3000.098	2C #10 AWG	m	1,840.0	0.3	29.07	501.7	3.78	8,894.49	54,494.16	5.22	9,607.68	7.88	14,508.63	43.96	84,568.93				
1408	3000.099	2C #8 AWG	m	1,615.0	0.4	32.14	574.4	4.18	6,791.67	53,930.92	7.12	11,493.74	8.94	14,515.52	36.44	84,694.22				
1409	3000.100	2C #6 AWG	m	605.0	0.4	33.69	225.5	4.38	2,649.64	20,181.98	11.19	6,770.43	10.17	6,153.18	59.43	35,955.20				
1410	3000.101	2C #4 AWG	m	1.0	0.4	33.27	0.4	4.33	4.33	33.27	20.59	11.97	11.97	70.15	70.15	70.15				
1411	3000.102	2C #1 AWG	m	650.0	0.4	38.81	279.0	5.05	3,729.36	25,225.85	21.57	14,020.96	13.46	8,712.22	78.89	51,277.39				
1412	3000.103	2C #1/0 AWG	m	30.0	0.4	36.55	12.1	4.75	142.54	1,096.59	31.71	951.18	14.97	449.21	67.98	2,639.54				
1413	3000.104	2C #2/0 AWG	m	751.0	0.4	37.94	315.1	4.93	3,030.07	28,485.13	30.33	22,776.80	15.07	11,279.97	88.21	66,244.97				
1414	3000.105	2C #4/0 AWG	m	136.0	0.5	43.25	65.1	5.63	764.69	5,882.24	47.89	6,313.58	19.81	2,691.17	114.57	15,853.08				
1415	3000.106	3C #12 AWG	m	11,117.0	0.2	20.09	6,914.1	2.61	81,293.43	625,074.4	4.13	128,427.34	5.55	172,757.44	32.38	1,007,518.95				
1416	3000.107	3C #10 AWG	m	7,140.0	0.3	27.01	2,143.1	3.51	25,070.09	192,846.86	5.63	40,143.94	7.48	53,637.88	43.63	311,488.79				
1417	3000.108	3C #8 AWG	m	2,430.0	0.3	29.20	784.8	3.80	9,224.04	70,954.28	8.54	20,299.38	8.54	20,299.38	49.89	121,239.80				
1418	3000.109	3C #6 AWG	m	1,340.0	0.3	28.71	425.5	3.73	5,001.60	38,469.55	12.36	16,548.49	9.23	12,745.57	54.63	72,403.65				
1419	3000.110	3C #4 AWG	m	640.0	0.3	34.24	242.4	4.45	2,888.62	21,912.49	18.10	11,582.44	11.89	7,481.59	68.48	43,825.15				
1420	3000.111	3C #2 AWG	m	1,840.0	0.5	41.86	1,860.3	5.69	2,186.33	18,179.32	24.59	94,423.22	15.24	58,534.27	89.32	342,999.29				
1421	3000.112	3C #1 AWG	m	260.0	0.4	35.83	102.5	4.83	1,204.44	9,244.92	32.81	8,540.81	15.93	3,900.98	88.28	22,913.05				
1421a	Added	3C #1/0 AWG	m	245.0	0.4	38.43	104.84	5.02	1,229.95	9,440.29	37.17	8,107.77	16.56	4,054.94	97.37	23,854.97				
1422	3000.113	3C #2/0 AWG	m	2,095.0	0.5	48.34	1,210.3	6.28	3,136.64	30,182.84	39.18	42,089.64	19.25	40,129.49	113.04	236,267.63				
1423	3000.114	3C #4/0 AWG	m	2,205.0	0.5	49.08	1,297.2	6.38	3,409.07	30,223.26	59.89	52,052.64	23.59	52,018.68	138.54	306,364.62				
1424	3000.115	3C #250 kcmil	m	21.0	0.5	48.24	11.2	6.77	131.74	1,014.82	82.54	1,733.40	27.94	587.15	165.03	3,465.71				
1425	3000.116	3C #500 kcmil	m	1,630.0	0.9	83.88	3,867.9	10.90	89,587.29	894,473.13	156.25	567,134.64	51.17	189,313.97	302.20	1,096,980.04				
1425a	Added	3C #500 kcmil Tray Cable	m	740.0	1.0	87.62	678.42	11.38	7,973.80	63,333.07	148.11	103,675.57	50.41	95,296.75	297.53	208,268.69				
1426	3000.117	4C #12 AWG	m	1,000.0	0.4	32.99	521.9	4.29	6,133.21	47,178.54	6.22	8,898.11	9.01	12,879.12	52.51	75,089.17				
1427	3000.118	4C #10 AWG	m	890.0	0.3	25.63	252.4	3.33	2,995.77	22,813.62	7.04	6,279.35	7.44	6,625.74	43.47	38,684.48				
1428	3000.119	4C #8 AWG	m	172.0	0.3	29.94	50.5	2.89	625.27	5,151.76	5.59	1,640.88	8.97	1,513.84	52.80	3,905.55				
1429	3000.120	4C #6 AWG	m	245.0	0.3	51.92	140.7	6.75	1,853.34	12,721.06	29.24	4,712.64	18.08	9,184.88	31,025.89	51,818.77				
1430	3000.121	4C #4 AWG	m	30.0	0.4	35.58	11.8	4.63	138.77	1,067.49	26.21	786.45	13.64	409.20	80.04	2,401.91				
1430a	Added	4C #3 AWG	m	11.0	0.4	33.65	4.09	4.37	82.32	370.14	29.26	321.89	13.80	311.81	81.09	881.97				
1431	3000.122	4C #2 AWG	m	620.0	0.4	39.89	273.6	5.19	3,171.70	24,732.31	29.06	18,016.32	15.23	6,439.60	89.34	55,403.43				
1432	3000.123	4C #2/0 AWG	m	1,876.0	0.6	50.75	1,053.0	6.60	12,376.18	95,307.87	48.45	90,890.43	21.64	40,672.31	127.47	239,140.29				
1433	3000.124	4C #4/0 AWG	m	80.0	0.6															



SCHEDULE OF PRICE BREAKDOWN

CH0001-001

Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	LABOUR COMPONENT						NON LABOUR COMPONENT				UNIT PRICE	TOTAL PRICE
					PLA LABOUR HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR O&P (per unit)	LABOUR O&P (Ext.)	COST OF LABOUR (Ext.)	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST		
1444	3000.135	2C #1/0 AWG	ea	6.0	4.4	401.81	26.7	57.23	313.41	2,410.84	49.58	297.46	104.41	626.44	608.03	3,648.17
1445	3000.136	2C #2/0 AWG	ea	12.0	6.6	436.83	55.3	54.19	606.25	5,001.92	49.58	594.92	107.94	1,295.31	628.53	7,542.40
1446	3000.137	2C #4/0 AWG	ea	18.0	5.1	456.89	91.0	59.38	1,068.91	8,222.38	49.58	893.38	117.34	2,112.04	683.10	12,795.72
1447	3000.138	3C #1/0 AWG	ea	966.0	2.8	254.00	2,724.1	33.03	31,897.89	245,348.98	20.95	20,241.25	63.91	61,780.26	371.89	859,241.76
1448	3000.139	3C #1/0 AWG	ea	244.0	3.1	284.35	766.8	36.93	8,011.75	66,923.17	27.37	6,679.24	72.28	17,686.21	430.69	102,448.39
1449	3000.140	3C #8 AWG	ea	96.0	3.4	304.99	323.9	39.65	3,806.34	29,279.50	27.37	2,627.91	77.19	7,410.18	449.21	43,123.92
1450	3000.141	3C #6 AWG	ea	72.0	3.6	322.04	256.5	41.84	3,014.25	13,186.55	27.37	1,970.98	81.19	5,845.98	472.47	34,017.71
1451	3000.142	3C #4 AWG	ea	22.0	4.1	373.30	90.8	48.53	1,067.65	8,213.09	32.24	709.32	94.22	2,072.91	548.30	12,062.57
1452	3000.143	3C #2 AWG	ea	128.0	5.0	451.07	638.6	58.64	7,505.80	57,786.91	50.74	6,495.24	116.22	14,876.69	676.68	86,614.63
1453	3000.144	3C #1 AWG	ea	8.0	5.2	473.61	41.9	61.57	492.53	3,789.86	50.74	405.95	121.52	972.17	707.44	5,695.53
1453a	Added	3C #1/0 AWG	ea	18.0	6.1	555.53	80.01	72.22	1,011.88	7,777.36	47.37	463.19	140.09	1,961.31	815.21	11,421.91
1454	3000.145	3C #2/0 AWG	ea	42.0	5.9	537.64	289.8	69.87	2,835.49	22,580.71	76.64	1,218.69	141.78	5,954.80	825.95	34,689.70
1455	3000.146	3C #4/0 AWG	ea	46.0	6.6	592.66	301.6	77.05	3,544.31	27,262.37	76.64	3,525.24	154.71	7,116.79	901.05	41,448.50
1456	3000.147	3C #250 kcmil	ea	4.0	7.3	656.09	29.0	85.29	341.17	2,624.35	92.49	369.95	172.81	691.24	1,006.68	4,026.71
1457	3000.148	3C #500 kcmil	ea	118.0	10.1	912.62	1,191.2	118.64	13,999.64	107,689.52	151.42	17,867.80	244.96	39,905.84	1,427.65	168,462.82
1457a	Added	3C #500 kcmil - Tray Cable	ea	8.0	7.5	680.87	60.25	88.51	708.10	5,446.93	16.17	129.34	163.27	1,306.14	948.81	7,590.51
1458	3000.149	4C #1/2 AWG	ea	64.0	3.1	282.21	199.8	36.69	2,347.94	18,061.25	22.12	1,415.74	70.78	4,528.68	411.79	26,354.64
1459	3000.150	4C #1/0 AWG	ea	66.0	3.5	314.45	229.5	40.88	2,697.96	20,755.51	28.54	1,883.73	79.65	5,256.62	463.51	30,591.81
1460	3000.151	4C #8 AWG	ea	8.0	3.8	340.87	30.2	44.21	354.54	2,726.93	28.54	228.25	85.84	686.85	499.58	3,996.61
1461	3000.152	4C #6 AWG	ea	26.0	4.3	384.73	110.4	50.01	1,300.31	10,002.44	33.41	868.64	97.14	2,525.68	585.27	34,696.99
1462	3000.153	4C #4 AWG	ea	4.0	4.9	445.71	19.7	57.94	311.77	1,782.83	51.93	207.65	115.20	440.81	670.78	2,685.05
1462a	Added	4C #3 AWG	ea	4.0	5.3	483.49	23.9	62.85	351.41	1,933.94	51.91	207.65	124.08	496.30	722.83	2,889.30
1463	3000.154	4C #2 AWG	ea	32.0	5.7	517.45	183.2	67.27	2,152.60	16,558.45	51.91	1,661.14	132.06	4,225.91	768.69	24,588.12
1464	3000.155	4C #2/0 AWG	ea	36.0	7.4	670.45	267.0	87.34	3,137.70	24,136.18	91.78	3,303.93	176.04	6,375.52	1,025.43	36,915.94
1465	3000.156	4C #4/0 AWG	ea	2.0	8.0	720.90	36.0	93.72	1,874.8	14,417.29	187.31	188.28	376.56	1,096.55	2,193.09	
1466	3000.157	AC-90 cable, 2C #1/2 AWG, 600 V, XLPE insulation, copper conductors, interlocking aluminum armour	m	2,692.0	0.2	32.04	656.4	2.87	7,714.50	59,342.30	2.17	5,854.15	5.62	15,124.91	32.70	88,935.86
1467	3000.158	3/C # 1 AWG, 25 kV Shielded, Armoured Power Cable, Type HVTECK, 100% insulation.	m	231.0	0.7	58.91	150.5	7.66	1,769.08	13,608.31	80.50	18,954.43	30.05	6,941.89	177.12	40,914.71
1468	3000.159	3/C # 1 AWG, 25 kV Shielded, Armoured Power Cable, Type HVTECK, 100% insulation terminations including glands, and termination kits	ea	2.0	43.1	3,900.47	66.3	507.06	1,014.31	7,800.93	4,341.50	8,462.99	1,790.72	3,581.44	10,539.74	21,079.49
1469	3000.160	Mineral Insulated Power Cable, 2-hour fire rated, 1/2C # 250 kcmil solid copper conductor, 600 V magnesium oxide insulation, seamless copper sheath.	m	736.0	1.1	99.79	812.4	12.97	8,547.74	73,444.15	172.10	128,648.43	58.10	42,782.09	342.97	252,422.46
1470	3000.161	Mineral Insulated Power Cable, 2-hour fire rated, 1/2C # 250 kcmil Termination including glands and termination kit	ea	12.0	8.2	745.50	99.0	96.92	1,162.99	8,946.05	236.51	2,839.38	222.84	2,674.11	1,301.88	15,622.52
1470a	Added	Free Issue Connectors to CH0030 Contractor	ea	581.0	0.1	6.53	41.97	0.85	493.27	3,794.42	17.08	9,922.35	4.97	2,889.37	29.43	17,099.41
1471	3000.162	Teck 90 600 V Control Cable, Class B stranded copper conductors insulated with XLPE type RW90, overall shield with tinned copper drain wire, interlocking aluminum armour, and low temperature (-40°C) flame retardant and sunlight resistant PVC outer jacket (grey in colour), to CSA C22.2 No. 131 and CSA 22.2 No. 239, number of conductors and conductor sizes as follows:	m	12,076.0	0.2	22.22	2,867.6	2.89	34,677.17	268,285.95	6.84	82,615.99	6.60	79,683.88	38.54	465,462.95
1472	3000.163	4C # 12 AWG	m	1,605.0	0.3	29.51	573.8	1.84	6,156.28	47,355.99	8.64	13,905.43	8.64	11,918.88	50.68	81,346.58
1473	3000.164	4C # 8 AWG	m	1,915.0	0.4	37.53	794.9	4.88	9,942.64	71,886.46	15.70	30,062.46	11.98	22,942.04	70.09	134,213.63
1474	3000.165	5C # 16 AWG	m	181.0	0.2	17.36	34.8	2.24	408.39	3,143.44	7.96	1,440.47	5.68	1,028.28	33.25	6,018.58
1475	3000.166	8C # 14 AWG	m	11,825.0	0.3	28.89	3,779.3	3.74	44,414.87	341,652.44	11.35	131,888.12	9.04	106,485.85	52.84	624,801.25
1476	3000.167	12C # 14 AWG	m	4,800.0	0.4	33.11	1,575.8	4.30	20,059.40	158,918.96	14.03	67,348.85	10.61	50,007.32	62.05	297,834.99
1477	3000.168	20C # 14 AWG	m	4,140.0	0.4	43.92	1,733.4	4.92	20,772.47	156,710.51	18.11	74,956.80	12.54	51,920.01	74.42	303,959.68
1478	3000.169	30C # 14 AWG	m	495.0	0.6	57.79	316.4	7.51	3,718.57	28,604.35	28.82	14,759.52	19.58	9,691.91	114.70	56,776.35
1479	3000.170	40C # 14 AWG	m	470.0	0.7	59.65	310.1	7.76	3,644.85	29,037.34	37.95	17,838.66	21.66	10,180.57	127.02	59,701.44
1480	3000.171	Teck 90 600 V Control Cable Terminations for the number of conductors and conductor sizes as follows: (includes Cable Glands, and termination kits)	ea	348.0	3.3	300.99	1,158.6	39.13	13,616.64	104,743.56	22.12	7,698.11	75.19	26,166.10	437.43	152,224.44
1481	3000.172	4C # 12 AWG	ea	58.0	3.8	339.15	217.6	44.09	2,597.20	19,670.29	22.12	1,783.02	84.16	4,891.22	489.52	28,392.24
1482	3000.173	4C # 8 AWG	ea	54.0	4.4	395.88	236.5	51.46	2,779.06	21,377.37	28.54	1,541.23	98.78	5,334.28	574.67	31,031.94
1483	3000.174	5C # 16 AWG	ea	8.0	3.4	386.04	27.1	39.78	316.38	2,448.20	23.29	186.31	76.61	612.90	445.72	3,565.76
1484	3000.175	8C # 14 AWG	ea	236.0	5.1	460.15	1,301.1	59.82	14,117.31	108,598.80	83.21	7,817.77	114.83	27,099.91	648.08	157,649.15
1485	3000.176	12C # 14 AWG	ea	104.0	6.6	595.33	684.8	77.39	8,648.81	63,913.95	57.88	3,939.52	147.54	15,343.82	854.14	89,246.11
1486	3000.177	20C # 14 AWG	ea	79.0	10.2	924.27	807.7	120.15	9,492.23	73,017.15	52.09	4,114.83	227.70	17,988.52	1,324.21	104,612.74
1487	3000.178	30C # 14 AWG	ea	9.0	14.5	1,310.55	130.5	170.37	1,533.83	11,794.99	82.26	740.36	324.54	2,921.05	1,887.75	16,989.74
1488	3000.179	40C # 14 AWG	ea	14.0	19.5	1,765.90	273.5	229.57	3,213.90	24,722.83	93.94	1,315.10	433.92	6,074.94	2,523.13	85,326.59
1489	3000.180	Armoured Control and Instrumentation Cable (ACIC) 600 V, twisted pairs/triads of stranded tinned copper conductors with PVC insulation, individual and overall shield with tinned copper drain wire, interlocking aluminum armour, and low temperature (-40°C) flame retardant and sunlight resistant PVC outer jacket (grey in colour), to CSA C22.2 No. 131 and CSA 22.2 No. 239, number of pairs/triads and conductor sizes as follows:	m	19,545.0	0.2	39.51	4,216.9	2.54	49,560.58	381,235.24	8.40	164,269.20	6.28	122,667.51	96.72	717,732.53
1490	3000.181	4P # 16 AWG	m	915.0	0.2	21.03	212.8	2.73	2,501.51	19,242.40	12.26	11,714.14	7.41	6,779.94	43.43	89,737.99
1491	3000.182	2T # 16 AWG	m	880.0	0.2	21.03	204.7	2.78	2,405.45	18,504.99	10.27	9,047.03	7.01	6,197.99	41.04	36,113.97
1492	3000.183	4T # 16 AWG	m	140.0	0.3	25.19	39.0	3.27	458.43	3,576.86	16.42	2,798.78	9.23	1,291.67	54.11	7,575.80
1493	3000.184	3P # 22 AWG	m	1.0	0.9	24.96	0.3	3.24	24.96	24.96	7.23	7.23	7.23	42.75	42.75	
1493a	Added	4P # 20 AWG	m	150.0	0.2	16.65	27.63									



SCHEDULE OF PRICE BREAKDOWN

CH0081-001  
Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	PLA LABOUR HOURS (per unit)	LABOUR COMPONENT						NON LABOUR COMPONENT				UNIT PRICE	TOTAL PRICE
						LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR OH&P (per unit)	LABOUR OH&P (Ext.)	COST OF LABOUR (Ext.)	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST			
															6.33		
A	B	C	D = C x 13%	E = A x D	F = A x C	G	H	I = C + D + G + H	J = A x J								
1500	3000.191	3P # 22 AWG	ea	1.0	7.1	641.88	7.1	83.44	83.44	641.88	39.60	39.60	158.88	158.88	923.78		
1500a	Added	4P # 20 AWG	ea	14.0	4.5	404.71	62.67	52.61	736.58	5,665.98	27.96	391.41	100.74	1,410.39	8,204.35		
1501	3000.192	4P # 18 AWG	ea	3.0	8.8	792.99	8.8	102.09	103.99	792.99	46.40	46.40	195.69	195.69	1,138.17		
1502	3000.193	6P # 18 AWG	ea	1.0	12.1	1,096.59	12.1	142.56	142.56	1,096.59	59.36	59.36	269.67	269.67	1,568.17		
1502a	Added	8P # 18 AWG	ea	46.0	13.8	1,250.15	636.10	162.52	2,475.88	57,506.78	75.22	3,460.10	308.95	14,211.55	1,796.83		
1502b	Added	12P # 14 AWG	ea	40.0	21.3	1,922.68	850.69	249.95	9,997.94	76,907.22	117.75	4,709.96	475.56	19,022.57	2,765.94		
1503	3000.194	Armoured CAT6 ethernet cable, 4 twisted pairs of 23 AWG copper conductors with polyolefin insulation, overall shielded, PVC inner jacket, interlocking aluminum armour, and low temperature (-40°C) PVC outer jacket (yellow or blue in colour as applicable to indicate data or telephone cable).	m	8,410.0	0.2	16.67	1,551.0	2.37	18,228.96	340,222.76	66.82	561,986.69	17.37	146,096.83	103.04		
1504	3000.195	Armoured CAT6 ethernet cable, 4 twisted pairs of 23 AWG terminations	ea	506.0	3.1	283.16	1,584.8	36.81	18,626.17	143,278.25	27.83	14,083.55	70.09	35,466.18	417.89		
1505	3000.196	Low voltage control cable, CSA type LVT, 300 V, 4C 18 AWG copper conductors with PVC insulation, overall shield, unarmoured, PVC outer jacket (grey in colour), to CSA C22.2 No.35.	m	36.0	0.6	50.02	19.9	6.50	234.11	1,800.85	0.89	32.18	11.94	429.71	69.36		
1505a	Added	2C # 22 OS Shielded LVT PVC Outer Jacket 300 V	m	176.0	0.0	3.95	7.68	0.51	90.29	694.56	0.24	41.91	0.98	171.66	5.67		
1505b	Added	4C # 22 OS Shielded LVT PVC Outer Jacket 300 V	m	30.0	0.1	5.13	1.70	0.67	20.00	153.88	0.45	13.59	1.30	38.90	7.55		
1506	3000.197	Low voltage control cable, CSA type LVT, 300 V, 4C 18 AWG terminations	ea	14.0	0.7	60.70	9.4	7.89	130.48	849.83	0.00	0.00	14.27	199.72	82.86		
1506a	Added	2C # 22 OS Shielded LVT PVC Outer Jacket 300 V Terminations	ea	66.0	0.3	26.55	19.38	3.45	227.80	1,752.34	0.00	0.00	6.24	411.82	36.24		
1506b	Added	4C # 22 OS Shielded LVT PVC Outer Jacket 300 V	ea	12.0	0.6	53.14	7.05	6.91	82.90	637.72	0.00	0.00	12.49	149.87	72.54		
1507	3000.198	Fibre Optical OM3 multi-mode cable, 50/125 µm core/cladding, 12 x 900 µm tight buffered cables, interlocking steel armour, FT-4 PVC outer jacket (orange in colour).	m	3,020.0	0.2	17.61	588.2	2.29	6,913.22	53,178.62	11.00	33,221.23	6.35	19,186.04	37.25		
1507a	Added	Armored 12C 5M FO FT-4 PVC outer jacket Orange in colour	m	2,570.0	0.2	19.47	553.61	2.53	5,916.45	50,049.05	8.07	20,339.49	6.20	15,937.79	36.28		
1508	3000.199	Fibre Optical OM3 multi-mode cable Terminations	ea	42.0	13.8	1,228.50	530.7	159.70	6,707.99	51,596.83	978.84	43,111.18	293.98	12,346.96	2,861.02		
1508a	Added	Armored 12C 5M FO FT-4 PVC outer jacket Orange in colour - Terminations	ea	38.0	13.6	1,228.52	516.38	159.71	6,068.87	46,883.63	11.61	441.37	291.06	11,060.26	1,690.90		
1509	3290.020	Intake MCC Copper Busway assembly (between 3290-MCC-82-A001/8001), low impedance compact type, totally enclosed, sprinkler-proof, 1200 A, 600 V, 3 phase, 3 wire, dedicated internal ground bus	each	1.0	731.7	66,146.45	731.7	8,599.04	8,599.04	66,146.45	61,392.51	61,392.51	27,905.28	27,905.28	164,043.28		
1510	3000.200	Copper Busway assembly (between 3433-SWG-82-A002 and 3340-SWG-82-0001), low impedance compact type, totally enclosed, sprinkler-proof, 1600 A, 600 V, 3 phase, 3 wire, dedicated internal ground bus	each	1.0	216.5	19,576.51	216.5	2,544.95	2,544.95	19,576.51	10,757.00	10,757.00	6,766.42	6,766.42	39,644.88		
1511	3000.201	Copper Busway assembly (between 3433-SWG-82-8001 and 3340-SWG-82-0001), low impedance compact type, totally enclosed, sprinkler-proof, 1600 A, 600 V, 3 phase, 3 wire, dedicated internal ground bus	each	1.0	426.6	38,567.99	426.6	5,013.84	5,013.84	38,567.99	34,100.80	34,100.80	15,929.42	15,929.42	93,612.05		
1512	3000.202	Copper Busway assembly (between 3340-SWG-82-0001 and 3340-T-81-0001), low impedance compact type, totally enclosed, sprinkler-proof, 1600 A, 600 V, 3 phase, 3 wire, dedicated internal ground bus	each	1.0	130.4	11,792.20	130.4	1,532.99	1,532.99	11,792.20	7,112.92	7,112.92	4,203.35	4,203.35	24,641.46		
1513	3433.030	Copper Busway assembly (between 3433-SWG-82-A001/A002), low impedance compact type, totally enclosed, sprinkler-proof, 3200 A, 600 V, 3 phase, 3 wire, dedicated internal ground bus	each	1.0	701.9	63,454.18	701.9	8,249.04	8,249.04	63,454.18	67,820.09	67,820.09	28,566.60	28,566.60	168,089.91		
1514	3433.040	Copper Busway assembly (between 3433-SWG-82-8001/8002), low impedance compact type, totally enclosed, sprinkler-proof, 3200 A, 600 V, 3 phase, 3 wire, dedicated internal ground bus	each	1.0	716.9	64,810.02	716.9	8,425.30	8,425.30	64,810.02	71,067.13	71,067.13	29,538.96	29,538.96	173,841.41		
1515	3000.203	Fluorescent Light fixture, type F1, Suspended or Ceiling Mounted, fiberglass reinforced polyester housing, enclosed and gasketed polycarbonate lens, suitable for damp or wet locations, 2 x 32 W lamps, premium electronic ballast, 347 V.	ea	285.0	11.1	999.26	3,150.1	129.90	37,022.74	284,790.32	284.34	81,037.31	292.09	83,244.82	1,705.60		
1516	3000.204	Fluorescent Light fixture, type F2, Wall Mounted, fiberglass reinforced polyester housing, enclosed and gasketed polycarbonate lens, suitable for damp or wet locations, 2 x 32 W lamps, premium electronic ballast, 347 V.	ea	84.0	12.8	1,155.33	1,073.3	150.17	12,614.25	97,032.72	302.51	25,410.52	332.38	27,919.92	1,940.21		
1517	3000.205	Fluorescent Light fixture, type F3, Suspended or Ceiling Mounted, polyester enamel steel housing, one-piece prismatic wrap-around lens, for dry locations only, 2 x 32 W lamps, premium electronic ballast, 347 V.	ea	44.0	10.7	966.09	470.2	125.59	5,526.03	42,507.96	320.16	14,086.88	291.50	12,826.04	1,703.34		
1518	3000.206	Fluorescent Light fixture, type F4, Wall Mounted, polyester enamel steel housing, one-piece prismatic wrap-around lens, for dry locations only, 2 x 32 W lamps, premium electronic ballast, 347 V.	ea	102.0	12.8	1,155.07	1,303.2	150.16	15,316.18	117,816.74	343.50	35,037.31	340.61	34,742.59	1,989.34		
1519	3000.207	Fluorescent Light fixture, type F5, Suspended or Ceiling Mounted, industrial straightlight with reflector and wireguard, for dry locations only, 2 x 32 W lamps, premium electronic ballast, 347 V.	ea	227.0	15.5	1,403.09	3,523.0	182.40	41,409.08	318,500.58	420.03	95,346.95	414.31	94,048.13	2,419.83		
1520	3000.208	Fluorescent Light fixture, type F10, Wall Mounted, industrial straightlight with reflector and wireguard, for dry locations only, 2 x 32 W lamps, premium electronic ballast, 347 V.	ea	33.0	10.9	984.18	359.2	127.94	4,222.11	32,477.80	297.64	9,821.96	291.22	9,610.17	1,700.97		
1521	3000.209	Fluorescent Light fixture, type F6, fiberglass reinforced polyester housing, suitable for vapor, dust and wet locations, 2 x 32 W lamps, premium electronic ballast, 347 V.	ea	30.0	15.5	1,403.02	465.6	182.39	5,471.79	42,090.68	1,298.94	38,968.22	591.34	17,737.23	3,475.60		
1522	3000.210	Fluorescent Light fixture, type F7, 1220 mm x 610 mm steel housing with 100 mm deep parabolic louver, recessed in T-bar ceiling, 3 x 32 W lamps, premium electronic ballast, 347 V.	ea	34.0	9.5	856.19	322.0	111.30	3,784.35	29,110.38	270.81	9,207.54	255.74	8,695.08	1,494.04		
1523	3000.211	Fluorescent Light fixture, type F8, 1220 mm x 610 mm steel housing with 100 mm deep parabolic louver, recessed in T-bar ceiling, 2 x 32 W lamps, premium electronic ballast, 347 V.	ea	16.0	9.3	841.34	148.9	109.37	1,749.98	13,461.57	238.02	3,808.31	245.65	3,930.34	1,434.37		
1524	3000.212	Fluorescent Light fixture, type F9, 1220 mm x 610 mm steel housing with pattern 19 lens, recessed in T-bar ceiling, 3 x 32 W lamps, premium electronic ballast, 347 V.	ea	16.0	9.5	856.07	151.5	111.29	1,780.62	13,697.05	239.30	3,828.86	249.37	3,989.86	1,456.02		
1525	3000.213	Fluorescent Light fixture, type F11, decorative type with acrylic diffuser, wall-mounted, 2 x 13 W quad tube 4-pin lamps, electronic ballast, 120 V.	ea	2.0	11.1	1,003.02	22.2	130.39	260.79	2,006.04	376.97	753.95	311.62	623.24	1,822.01		
1526	3000.214	Fluorescent Light fixture, type F12, wall-mounted bedlight with pull-chain switch, 1220 mm x 168 mm x 130 mm steel housing with K12 prismatic lens, 3 x 32 W lamps, premium electronic ballast, 120 V.	ea	2.0	11.1	1,003.02	22.2	130.39	260.79	2,006.04	381.02	762.05	312.43	624.86	1,826.87		
1527	3000.215	Metal Halide Light fixture, type H2, cast aluminum housing, gasketed refractor, suitable for damp or wet locations, wall-mounted, 175 W metal halide lamp, HPF ballast, 347 V.	ea	142.0	16.8	1,523.04	2,392.2	198.00	28,115.34	216,271.84	409.03	58,082.87	440.29	62,520.65	2,570.34		
1528	3000.216	LED Low Bay Light fixture, type L1, cast aluminum housing, suspended from open ceiling, 220 W LED array and driver, 347 V.	ea	132.0	14.1	1,271.45	1,856.4	165.29	21,818.13	167,831.70	1,819.88	241,544.54	667.21	88,072.07	3,933.84		



SCHEDULE OF PRICE BREAKDOWN

CH0031-001  
Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	LABOUR COMPONENT							NON LABOUR COMPONENT				UNIT PRICE	TOTAL PRICE
					PLA HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR OH&P (per unit)	LABOUR CH&P (Ext.)	COST OF LABOUR (Ext.)	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST			
															A		
1529	3000.217	LED Low Bay Light fixture, type 12, cast aluminum housing, suspended from ceiling, 143 W LED array and driver, 347 V, Medium Optic	ea	137.0	34.1	1,271.53	1,926.9	165.30	22,645.89	174,199.19	1,628.46	223,098.90	626.68	85,854.94	3,691.96	505,798.92	
1530	3000.218	LED Low Bay Light fixture, type 13, cast aluminum housing, suspended from ceiling, 110 W LED array and driver, 347 V, Medium Optic	ea	24.0	34.1	1,271.45	337.5	165.29	8,966.92	80,514.74	1,628.46	39,083.02	626.66	15,039.83	3,691.85	88,604.51	
1531	3000.219	LED Low Bay Light fixture, type 14, cast aluminum housing, suspended from ceiling, 110 W LED array and driver, 347 V, Aisle Optic	ea	1.0	34.0	1,265.73	14.0	164.54	164.54	1,265.73	1,516.61	602.80	602.80	3,549.69	3,549.69		
1532	3000.220	LED Low Bay Light fixture, type 15, cast aluminum housing, suspended from ceiling, 143 W LED array and driver, 347 V, Wide Optic	ea	17.0	34.1	1,271.60	239.1	165.31	2,810.24	21,617.20	1,678.46	27,683.80	626.70	10,653.83	3,692.06	62,765.06	
1533	3000.221	LED Light fixture, type 16, 610 mm x 610 mm housing recessed in T-bar ceiling, opalescent lens, 40 W LED array and driver, 347 V.	ea	65.0	10.0	906.65	651.9	117.86	7,661.15	58,931.94	290.59	18,888.28	271.58	17,652.57	1,586.68	103,133.95	
1534	3000.222	LED Light fixture, type 17, mounting yoke for surface mounting and adjustable aiming, 44 W LED array and driver, 347 V, 40 degree beam angle	ea	57.0	13.4	1,209.33	762.5	157.21	8,961.11	68,931.61	521.94	29,750.50	389.29	22,189.49	2,277.77	129,832.71	
1535	3000.223	LED Light fixture, type 18, mounting yoke for surface mounting and adjustable aiming, 44 W LED array and driver, 347 V, 20 degree beam angle	ea	20.0	15.3	1,379.27	305.1	179.31	8,586.10	27,585.40	547.50	10,949.97	434.37	8,687.49	2,540.45	50,808.95	
1536	3000.224	LED Light fixture, type 19, square housing recessed in ceiling, 150 mm aperture with clear reflector, 30 W LED array and driver, 1500 lumen, 347 V.	ea	48.0	9.0	810.37	430.3	105.35	5,056.73	38,897.94	575.34	27,616.54	306.28	14,701.52	1,797.35	86,272.73	
1537	3000.225	LED Light fixture, type 130, wet location housing recessed in ceiling, fresnel lens, 19 W LED array and driver, 300 lumen, 120 V.	ea	2.0	9.0	811.70	18.0	105.52	211.04	1,623.40	301.76	603.51	251.51	503.03	1,470.49	2,940.98	
1538	3000.226	High Pressure Sodium Light fixture, type W2, cast aluminum housing, gasketed reflector, suitable for damp or wet locations, wall-mounted, 250 W high pressure sodium lamp, HPF ballast, 347 V.	ea	0.0	15.1	1,365.55	0.0	177.52	0.00	0.00	416.79	0.00	404.83	0.00	2,364.69	0.00	
1539	3000.227	High Pressure Sodium Light fixture, type W4, cast aluminum housing, gasketed reflector, suitable for damp or wet locations, wall-mounted, 150 W high pressure sodium lamp, HPF ballast, 347 V.	ea	5.0	14.3	1,292.35	71.5	168.01	840.03	6,461.74	348.91	1,744.54	373.96	1,869.81	2,183.22	10,916.12	
1540	3000.228	High Pressure Sodium Light fixture, type W5, cast aluminum housing, gasketed reflector, suitable for damp or wet locations, wall-mounted, 100 W high pressure sodium lamp, HPF ballast, 347 V.	ea	0.0	14.1	1,271.27	0.0	165.27	0.00	0.00	323.40	0.00	363.87	0.00	2,123.80	0.00	
1541	3000.229	High Pressure Sodium Light fixture, type W6, cast aluminum housing, gasketed reflector, suitable for damp or wet locations, wall-mounted, 70 W high pressure sodium lamp, HPF ballast, 347 V.	ea	0.0	14.1	1,271.27	0.0	165.27	0.00	0.00	300.05	0.00	359.18	0.00	2,095.74	0.00	
1542	3000.230	High Pressure Sodium Light fixture, type P3, cast aluminum housing, gasketed reflector, suitable for damp or wet locations, mounting yoke for pole-mounting, 400 W high pressure sodium lamp, HPF ballast, 347 V, complete with 7620 mm aluminum pole.	ea	4.0	18.5	1,672.97	74.0	217.49	869.94	6,691.84	1,358.41	5,433.65	666.66	2,666.63	3,915.52	15,662.08	
1543	3000.231	Exit Sign, fixture type X, LED with "Running-Man" pictogram, universal mounting, with charging system and self-powered Ni-Cad battery for minimum 90 minutes of operation, 347 V input.	ea	125.0	13.1	1,187.88	1,642.4	154.42	19,303.10	148,485.35	316.04	39,504.54	342.80	47,849.53	2,001.14	250,142.52	
1544	3000.232	Light Switch, single pole, 15 Amp, 347 Volt	ea	70.0	5.6	504.59	390.7	65.60	4,591.75	36,321.18	43.47	3,042.62	127.34	8,913.55	740.99	51,869.11	
1545	3000.233	Light Switch, three-way, 15 Amp, 347 Volt	ea	6.0	9.9	804.15	59.4	116.24	497.47	5,365.34	140.65	483.93	238.46	1,430.78	8,337.30		
1546	3000.234	Light switch, maintained contact pushbutton ON-OFF, 15 Amp, 347 Volt	ea	28.0	9.5	861.93	347.9	112.05	7,933.37	22,410.39	114.99	2,989.79	225.72	5,848.65	1,314.69	84,181.96	
1547	3000.235	Dimming Light Switch, for use with electronic fluorescent dimming ballasts, 15 Amp, 347 Volt	ea	7.0	3.3	294.50	22.8	38.28	367.97	2,061.48	168.92	117.73	72.60	508.19	422.20	2,955.39	
1548	3000.236	Lighting Control Panel, complete with control transformer, 12 pole mechanically held lighting contactor, ON/OFF pushbuttons and indicating lights, NEMA 12 enclosure.	ea	12.0	19.3	1,748.98	232.2	227.37	7,728.41	20,987.80	5,349.11	64,189.32	1,487.95	17,855.40	8,813.41	105,760.93	
1549	3000.237	Aluminum Light poles including luminaire and mounting brackets	ea	0.0	18.5	1,672.97	0.0	217.49	0.00	0.00	1,358.41	0.00	666.66	0.00	3,915.52	0.00	
1550	3000.238	Lighting Relay Panel, complete with control transformer, 24-pole electronic relay scanner, (Qty. 24) output control relays, NEMA 12 enclosure.	ea	4.0	21.9	1,977.62	87.5	257.09	1,028.36	7,910.46	4,551.37	18,205.48	1,381.08	5,243.31	8,167.15	32,668.61	
1551	3000.239	Lighting Contactor, 600 Volts, three-pole, 100 Amp, complete with control relay and undervoltage relay timer, NEMA 12 enclosure.	ea	4.0	20.7	1,870.87	82.8	243.21	972.85	7,483.46	4,011.48	16,045.91	1,247.29	4,989.18	7,372.85	29,491.40	
1552	3000.240	Occupancy Sensor, for use with electronic lighting control system.	ea	4.0	4.1	374.31	16.6	48.66	194.60	1,497.25	74.88	299.50	103.09	412.19	600.90	2,403.58	
1553	3000.241	Power Connection Junction Box for lighting and receptacle distribution, complete with terminal mounting rail, terminal blocks rated 600 Volts, conductor size range from 8 AWG to 14 AWG, jumpers, barriers, and blocks, etc. as required.	ea	225.0	6.5	587.85	1,463.0	76.42	17,194.65	132,366.54	167.08	37,592.17	171.79	38,652.86	1,003.14	225,706.24	
1554	3000.242	Convenience Receptacle, 20 A, 120 V, duplex, CSA type 5-20R, complete with surface mounted type FD cast outlet box and sheet steel cover.	ea	287.0	6.9	623.50	1,979.3	81.05	23,262.62	178,943.25	57.02	16,364.19	158.01	45,348.83	919.56	263,918.89	
1555	3000.243	GFI Receptacle, 20 A, 120 V, duplex, CSA type 5-20R, complete with surface mounted type FD cast outlet box and single-lift weatherproof cover.	ea	146.0	9.5	861.47	1,391.2	131.99	16,350.66	125,774.33	97.74	14,269.48	222.13	32,431.64	1,293.33	188,826.11	
1556	3000.244	Grounding conductor, Bare Soft Drawn Copper, size 2/0 AWG	m	1,002.0	0.5	47.55	527.0	6.18	6,193.41	47,641.58	9.10	9,119.31	13.01	13,032.44	75.84	75,986.73	
1557	3000.245	Grounding conductor, Bare Soft Drawn Copper, size 4/0 AWG	m	3,089.0	0.2	22.28	759.6	2.89	6,927.06	68,669.59	14.04	43,371.23	8.05	24,870.12	47.21	145,837.98	
1558	3000.246	Grounding conductor, Bare Soft Drawn Copper, size 500 kcmil	m	1,178.0	0.5	44.10	550.1	5.78	6,467.36	49,748.82	32.15	38,259.67	18.84	18,991.72	98.82	111,467.55	
1559	3000.247	Detail 36 - Ground Connection to small equipment ground bar (panelboard, control cabinet, etc.)	ea	78.0	4.8	432.40	371.1	56.21	4,384.49	33,726.88	75.54	5,892.39	116.83	5,116.37	111,166.37		
1560	3000.248	Detail 37 - Bonding to outside of equipment enclosure (switch, power outlet, etc.)	ea	1,768.0	0.7	64.65	1,264.3	8.40	14,859.49	114,303.74	11.09	19,611.56	17.43	30,811.37	101.58	139,586.16	
1561	3000.249	Detail 41 - System grounding for small distribution transformer	ea	20.0	4.1	366.62	81.1	47.64	953.21	7,332.35	73.23	1,464.12	100.90	2,017.97	588.38	11,767.65	
1562	3000.250	Detail 43 - Ground Connection to large equipment ground bar (switchgear MCC, etc. - similar to Detail 36)	ea	50.0	5.7	517.83	286.4	67.32	3,365.87	25,891.29	120.07	6,003.58	145.87	7,293.52	851.09	42,554.26	
1563	3000.251	Detail 45 - Connection for power transformer grounding (similar to Detail 46)	ea	13.0	2.7	243.25	35.0	31.62	431.09	3,162.34	111.24	1,472.10	79.97	1,070.55	468.08	6,084.98	
1564	3000.252	Detail 46 - 1/2" Bonding to metal surface (i.e. cable tray, etc.)	ea	105.0	0.3	30.37	35.0	3.55	434.57	3,186.54	39.69	4,167.39	15.13	1,588.17	89.13	9,358.85	
1565	3000.253	Detail 47 - 2" Bonding to metal surface (i.e. cable tray, etc.)	ea	197.0	0.3	30.37	66.7	3.95	777.67	5,982.06	57.20	12,248.29	18.61	1,674.47	110.34	21,702.48	
1566	3000.254	Detail 48 - Compression type cable splice connector	ea	468.0	0.3	27.75	34.7	3.63	1,688.34	12,987.23	15.45	7,232.11	9.63	4,508.20	56.44	26,125.89	
1567	3000.255	Detail 54 - Connection to small motor disconnect switch (similar to Detail 37)	ea	84.0	2.9	261.39	242.9	31.98	2,358.89	21,956.85	65.10	5,473.30	74.55	6,262.10	435.08	36,546.64	
1568	3000.256	Detail 55 - Connection to large motor disconnect switch and motor frame	ea	15.0	5.0	451.85	75.0	58.74	861.12	6,777.83	117.88	1,768.23	129.93	1,948.88	758.40	11,376.02	
1569a	Added	Grounding of Misc Mechanical Equipment & Fixed Steel Objects	ea	507.0	4.7	422.51	2,369.45	54.93	27,847.53	214,211.75	165.63	83,974.00	132.64	67,249.04	775.70	893,282.31	
1569	3000.257	Fire Detection System	ls	1.0	8940.4	808,265.47	8,940.4	105,074.51	105,074.51	808,265.47	296,761.15	200,797.78	200,797.78	1,410,898.86	1,410,898.86		
1570	3000.258	Shielded twisted pair cable, interlocking armour and overall PVC jacket, CSA type FAS 105, stranded copper conductors, 16 AWG, umc (1) pair	m	11,407.0	0.2	13.69	1,772.78	1.78	20,306.74	156,205.88	3.37	38,445.02	3.90	44,450.65	22.74	259,408.32	
1571	3000.259	Shielded twisted pair cable, interlocking armour and overall PVC jacket, CSA type FAS 105, stranded copper conductors, 14 AWG, umc, one (1) pair	m	5,054.0	0.2	18.67	1,043.8	2.43	12,267.68	94,366.79	3.37	17,031.89	5.07	25,606.54	29.54	149,272.90	
1572	3000.260	Teleson System	ls	1.0	1333.1	102,440.84	1,333.1	13,331.31	14,331.31	102,440.84	234,810.30	234,810.30	71,348.47	71,348.47	421,916.92	421,916.92	
1573	3000.261	Plant Security and Access Control System	ls	1.0	17.5	1,579.04	17.5	205.28	205.28	1,579.04	378.16	378.16	2,609.71	2,609.71	2,609.71		
1574	3000.262	Water Tight seal around cables running thru Roof Metal Sleeves	ls	1.0	77.6	6,830.50	77.6	887.97	887.97	6,830.50	2,626.50	2,626.50	2,134.05	2,134.05	12,479.02		
1575	3310.040	Electrical Shaft Platforms/Staging	ls	1.0	1105.8	99,974.53	1,105.8	12,996.69	12,996.69	99,974.53	38,743.86	38,743.86	31,295.63	31,295.63	183,010.71		
1575a	Added	House Keeping Pads for Electrical Equipment	ls	1.0	6423.4	580,710.19	6,423.37	75,492.32	75,492.32	580,710.19	24,864.24	24,864.24	141,481.75	141,481.75	822,548.01		



SCHEDULE OF PRICE BREAKDOWN

Appendix A - Schedule of Price Breakdown

LABOUR COMPONENT										NON LABOUR COMPONENT									
No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	PLA LABOUR HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR OH&P (per unit)	LABOUR OH&P (Ext.)	COST OF LABOUR (Ext.)	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST	UNIT PRICE	TOTAL PRICE			
																	A	B	C
1575b	Added	Removal of Temp Construction Power to OH Crane, Elevator & Elec Panels	LS	1.0	209.9	18,972.07	209.85	2,466.37	2,466.37	38,972.07	1,751.00	1,751.00	4,811.24	4,811.24	28,000.69	28,000.69			
1575c	Added	Removal of Temp Construction Power to Spillway E House	LS	1.0	251.8	22,766.48	251.83	2,959.64	2,959.64	22,766.48	0.00	0.00	5,350.46	5,350.46	31,076.58	31,076.58			
1575d	Added	Removal of Temp 125 V DC System in Spillway E House	LS	1.0	209.9	18,972.07	209.85	2,466.37	2,466.37	38,972.07	0.00	0.00	4,458.72	4,458.72	25,897.16	25,897.16			
1575e	Added	Trenching from Pit #3 to Control Building	LS	1.0	0.0	0.00	0.00	0.00	0.00	0.00	153,722.84	153,722.84	464.47	464.47	154,187.33	154,187.33			
1575f	Added	Design & Supply of ATS & Load Management System	LS	1.0	0.0	0.00	0.00	0.00	0.00	0.00	870,029.64	870,029.64	2,628.77	2,628.77	872,658.43	872,658.43			
ST06		<b>SUB-TOTAL ELECTRICAL - CONTRACTOR SUPPLIED - SUPPLY AND INSTALLATION</b>					<b>204104.0</b>			<b>\$2,398,785.40</b>				<b>\$18,674,166.51</b>		<b>\$47,360,261.83</b>			
<b>ELECTRICAL - FREE ISSUED MATERIALS - ASSEMBLY AND INSTALLATION</b>																			
1576	3460.010	Generator Step Up Transformer Unit 1 - Installation, Assembly	LS	1.0	797.5	72,093.85	797.5	9,372.20	9,372.20	72,093.85	115,799.67	115,799.67	17,293.00	17,293.00	234,558.72	234,558.72			
1577	3460.020	Generator Step Up Transformer Unit 2 - Installation, Assembly	LS	1.0	797.5	72,093.85	797.5	9,372.20	9,372.20	72,093.85	115,799.67	115,799.67	17,293.00	17,293.00	234,558.72	234,558.72			
1578	3460.030	Generator Step Up Transformer Unit 3 - Installation, Assembly	LS	1.0	797.5	72,093.85	797.5	9,372.20	9,372.20	72,093.85	115,799.67	115,799.67	17,293.00	17,293.00	234,558.72	234,558.72			
1579	3460.040	Generator Step Up Transformer Unit 4 - Installation, Assembly	LS	1.0	797.5	72,093.85	797.5	9,372.20	9,372.20	72,093.85	115,799.67	115,799.67	17,293.00	17,293.00	234,558.72	234,558.72			
1579a	Added	Spare Generator Step Up Transformer	LS	1.0	671.5	60,710.61	671.53	7,892.38	7,892.38	60,710.61	115,799.67	115,799.67	14,617.77	14,617.77	199,020.43	199,020.43			
1580	3436.010	Installation, Assembly of Unit 1 IPB	LS	1.0	106.20.5	960,151.52	106,205.5	12,419.76	12,419.76	960,151.52	14,299.86	14,299.86	228,528.68	228,528.68	1,327,799.75	1,327,799.75			
1581	3436.020	Installation, Assembly of Unit 2 IPB	LS	1.0	106.20.5	960,151.52	106,205.5	12,419.76	12,419.76	960,151.52	14,299.86	14,299.86	228,528.68	228,528.68	1,327,799.75	1,327,799.75			
1582	3436.030	Installation, Assembly of Unit 3 IPB	LS	1.0	106.20.5	960,151.52	106,205.5	12,419.76	12,419.76	960,151.52	14,299.86	14,299.86	228,528.68	228,528.68	1,327,799.75	1,327,799.75			
1583	3436.040	Installation, Assembly of Unit 4 IPB	LS	1.0	106.20.5	960,151.52	106,205.5	12,419.76	12,419.76	960,151.52	14,299.86	14,299.86	228,528.68	228,528.68	1,327,799.75	1,327,799.75			
1584	3438.010	Unit 1 Generator Circuit Breaker - Installation, Assembly	LS	1.0	629.6	56,916.20	629.6	7,399.11	7,399.11	56,916.20	0.00	0.00	13,376.13	13,376.13	77,691.44	77,691.44			
1585	3438.020	Unit 2 Generator Circuit Breaker - Installation, Assembly	LS	1.0	629.6	56,916.20	629.6	7,399.11	7,399.11	56,916.20	0.00	0.00	13,376.13	13,376.13	77,691.44	77,691.44			
1586	3438.030	Unit 3 Generator Circuit Breaker - Installation, Assembly	LS	1.0	629.6	56,916.20	629.6	7,399.11	7,399.11	56,916.20	0.00	0.00	13,376.13	13,376.13	77,691.44	77,691.44			
1587	3438.040	Unit 4 Generator Circuit Breaker - Installation, Assembly	LS	1.0	629.6	56,916.20	629.6	7,399.11	7,399.11	56,916.20	0.00	0.00	13,376.13	13,376.13	77,691.44	77,691.44			
1587a	Added	Generator Circuit Breaker House Keeping pads	LS	1.0	1278.1	111,027.83	1,278.10	14,433.62	14,433.62	111,027.83	5,267.00	5,267.00	27,153.56	27,153.56	157,882.03	157,882.03			
ST07		<b>SUB-TOTAL ELECTRICAL - FREE ISSUED MATERIALS - ASSEMBLY AND INSTALLATION</b>					<b>50089.5</b>			<b>\$588,690.01</b>				<b>\$641,464.81</b>		<b>\$6,837,102.12</b>			
<b>ARCHITECTURAL</b>																			
<b>POWERHOUSE ARCHITECTURAL - SUPPLY &amp; INSTALL</b>																			
1588	3320.010	Concrete Unit Masonry wall Type 82a Height = full height	m <sup>2</sup>	1,788.0	9.4	845.47	16,721.2	109.91	196,520.28	1,511,694.49	50.00	89,399.80	208.76	871,268.92	1,214.14	2,170,885.52			
1589	3320.020	Concrete Unit Masonry wall Type 82b height = 2.8m	m <sup>2</sup>	425.0	10.8	4,588.6	4,588.6	126.89	5,828.50	414,834.56	69.40	29,456.49	243.37	14,303.64	1,415.74	601,690.21			
1590	3320.030	Concrete Unit Masonry wall Type 82c height = 4.5m	m <sup>2</sup>	68.0	11.5	1,039.00	781.5	185.07	1,184.77	70,652.06	73.95	5,028.54	259.07	17,616.46	1,507.09	102,482.00			
1591	3320.040	Concrete Unit Masonry wall Type 82d height = 5.2m	m <sup>2</sup>	336.0	8.0	541.00	1,950.60	70.38	21,977.41	176,368.66	89.18	12,771.88	185.08	40,019.11	785.53	256,082.96			
1592	3320.050	Concrete Unit Masonry wall Type 82e height = 3.0m	m <sup>2</sup>	376.0	10.2	918.09	375.7	119.35	4,416.04	239,690.50	133.02	4,921.78	242.55	4,921.78	1,413.01	521,815.3			
1593	3320.060	Concrete Unit Masonry wall Type 82f height = 5.0m	m <sup>2</sup>	134.0	11.7	1,054.31	1,562.7	137.04	18,866.11	143,277.78	75.02	10,052.44	262.88	35,226.18	1,529.27	204,922.51			
1594	3320.070	Concrete Unit Masonry wall Type 83a Height = 3.0m	m <sup>2</sup>	14.0	25.9	2,138.36	362.1	303.99	4,255.83	32,737.05	164.48	2,305.48	582.70	8,578.4	3,389.73	47,456.16			
1595	3320.080	Concrete Unit Masonry wall Type 84a height = 2.8m	m <sup>2</sup>	63.0	9.9	898.99	626.5	116.87	7,862.79	56,836.15	64.17	4,042.81	224.39	14,124.24	1,304.22	82,165.92			
1596	3320.090	Concrete Unit Masonry wall Type 84b height = full height	m <sup>2</sup>	55.0	10.3	930.06	565.8	120.91	6,649.91	51,153.18	17.08	939.27	222.02	12,120.85	1,290.06	70,953.22			
1597	3320.100	Partition Wall W1a height = 4.5m	m <sup>2</sup>	933.0	10.7	9,683.03	9,990.22	125.84	117,412.84	909,175.71	60.24	56,202.19	239.63	223,574.54	1,893.75	1,800,365.27			
1598	3320.110	Partition Wall W1b height = 4.5m	m <sup>2</sup>	1,478.0	8.8	12,998.4	12,998.4	171.26	131,817.36	1,083,306.06	41.03	242,661.24	187.71	517,171.14	2,888,374.20	3,020,545.46			
1599	3320.120	Partition Wall W1c height = 4.5m	m <sup>2</sup>	16.0	18.4	1,683.54	298.3	218.86	3,951.74	26,936.60	107.25	6,677.57	417.35	6,677.57	2,427.49	38,839.88			
1600	3320.130	Partition Wall W2a height = 3.2m	m <sup>2</sup>	0.0	347.8	13,362.93	0.0	1,737.18	0.00	0.00	1,007.04	0.00	3,745.89	0.00	21,853.05	0.00			
1601	3320.140	Partition Wall W2b height = 4.5m	m <sup>2</sup>	990.0	10.7	10,623.0	10,589.8	125.72	124,459.43	957,380.22	67.71	67,032.04	240.90	238,493.71	1,401.38	1,387,365.40			
1602	3320.150	Partition Wall W2c height = 5.45m	m <sup>2</sup>	42.0	10.7	967.70	449.6	125.80	5,283.63	40,643.33	88.09	3,699.86	245.16	10,296.66	1,428.75	59,233.48			
1603	3320.160	Partition Wall W3a height = 4.5m	m <sup>2</sup>	265.0	8.0	719.17	2,108.0	93.49	28,775.26	190,578.80	61.32	16,250.04	181.36	48,060.38	1,055.34	279,664.47			
1604	3320.170	Partition Wall W4a height = 4.5m	m <sup>2</sup>	50.0	13.9	1,260.41	697.1	163.83	6,192.83	63,030.25	146.62	7,311.11	325.73	16,786.63	1,896.61	94,830.62			
1605	3320.180	Partition Wall W5a height = 4.5m	m <sup>2</sup>	22.0	8.2	742.07	180.4	66.47	2,122.38	16,235.54	62.76	3,181.05	187.04	4,114.18	1,088.35	23,443.69			
1606	3320.190	Partition Wall W6a height = 3.2m	m <sup>2</sup>	69.0	10.1	916.97	699.9	119.21	8,225.25	63,271.18	57.54	3,969.92	227.09	15,668.98	1,320.86	91,135.25			
1607	3320.200	Shaft Wall W7a height = 3.2m	m <sup>2</sup>	128.0	11.7	1,057.18	1,496.8	137.43	17,593.52	135,319.28	54.67	6,991.60	295.45	31,709.61	1,508.69	193,112.00			
1608	3320.210	Shaft Wall W8a = 1.520 mm	m <sup>2</sup>	336.0	6.9	621.20	2,315.6	80.76	27,314.94	209,345.69	17.01	5,730.85	149.42	50,353.08	868.38	292,644.56			
1609	3320.220	Shaft Wall W9a	m <sup>2</sup>	1,171.0	8.6	773.97	10,025.0	100.62	117,821.22	906,317.15	53.22	62,316.97	192.61	225,543.86	1,120.41	1,311,999.24			
1610	3320.230	Shaft Wall W9b	m <sup>2</sup>	0.0	98.5	8,908.62	0.0	1,158.12	0.00	0.00	745.96	0.00	2,243.83	0.00	13,056.53	0.00			
1611	3320.240	Shaft Partition Wall W10a height = 4.5m	m <sup>2</sup>	57.0	24.9	2,248.18	1,417.5	292.24	16,659.68	128,146.36	812.83	17,811.07	591.34	33,706.14	1,444.61	196,342.65			
1612	3320.250	Shaft Partition Wall W10b height = full height	m <sup>2</sup>	66.0	10.6	958.05	699.4	124.55	8,220.03	53,280.97	43.27	2,855.85	233.87	15,485.16	1,285.73	78,742.01			
1613	3320.260	Partition Wall W11	m <sup>2</sup>	0.0	98.5	8,908.62	0.0	1,158.12	0.00	0.00	745.96	0.00	2,243.83	0.00	12,689.09	0.00			
1614	3320.270	Pileam Partition Wall W12a	m <sup>2</sup>	63.0	13.6	1,228.00	446.3	159.64	5,268.18	40,524.11	138.05	6,205.75	326.44	10,773.14	1,902.16	62,771.14			
1615	3320.280	Partition Wall W13a height = 3.0m	m <sup>2</sup>	31.0	9.4	845.64	570.6	109.59	6,705.96	51,584.34	327.64	19,985.76	264.70	16,146.72	1,547.91	94,422.79			
1616	3320.290	Closure C1a height = 4.5m	m <sup>2</sup>	150.0	9.9	890.86	1,478.1	115.81	17,871.81	133,629.33	12.27	1,840.50	211.84	31,775.39	1,230.76	184,617.04			
1617	3320.300	Closure C2a height = 4.5m	m <sup>2</sup>	105.0	9.9	890.86	1,034.7	115.81	12,160.27	93,540.53	17.71	1,859.29	212.93	22,572.31	1,293.70	129,917.80			
1618	3320.310	Closure C3a height = 4.5m																	



SCHEDULE OF PRICE BREAKDOWN

CH0031-001  
Appendix A - Schedule of Price Breakdown

No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	LABOUR COMPONENT							NON LABOUR COMPONENT				UNIT PRICE	TOTAL PRICE	
					PLA LABOUR HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR OH&P (per unit) D = C x 13%	LABOUR OH&P (Ext.) E = A x D	COST OF LABOUR (Ext.) F = A x C	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST	J = C + D + G + H			K = A x J
1641	3320.540	Epoxy paint floor in warehouse	m2	1,000.0	4.3	388.42	4,296.4	50.49	50,494.34	388,416.48	7.41	7,409.25	92.78	92,775.25	539,095.13			
1642	3320.550	Cementitious Fireproofing on steel structural members	m2	1,150.0	4.5	409.82	5,212.7	53.27	471,765.57	74,668	85,385.89	111.33	118,025.27	648,891.25				
1643	3320.560	Cementitious Fireproofing on metal lath	m2	1,395.0	2.9	266.67	4,114.9	34.67	48,361.19	372,039.1	74.66	104,061.02	77.69	108,778.04	612,810.37			
1644	3320.570	Plenum roof type PC1	m2	20.0	14.8	1,336.29	295.6	173.72	8,474.36	26,725.84	104.21	2,084.29	335.03	6,700.59	38,985.10			
1645	3320.580	Mineral Acoustical Panels ceiling systems in offices, lobbies, communication room, lunch room and sleeping room	m2	1,100.0	3.0	270.25	3,288.3	35.13	38,646.02	297,277.10	28.05	30,852.76	69.16	76,075.94	442,851.82			
1646	3320.590	Ceramic and Mineral fibre composite acoustical panels in washrooms ceiling tiles	m2	124.0	3.1	281.51	386.1	36.60	4,537.87	34,906.67	13.14	1,629.87	68.80	8,531.70	49,606.11			
1647	3320.600	Gypsum board ceiling in battery rooms	m2	155.0	1.1	281.51	482.6	36.60	5,672.38	43,633.68	86.93	1,147.04	83.66	12,967.23	488.69			
1648	3320.610	Kitchen upper and lower cabinets	lower new	9.0	71.8	649.34	648.4	844.15	7,597.35	58,411.17	802.54	7,222.89	1,687.63	15,388.69	9,827.79			
1649	3320.620	Glazed ceramic wall finish tiles and baseboards in washrooms	m2	370.0	7.4	673.45	2,756.8	87.55	37,994.94	249,191.68	61.06	22,924.43	170.57	61,112.20	367,292.46			
1650	3320.630	Urethane in Storage Rooms	m2	2,429.0	1.1	96.21	2,585.0	12.51	30,381.12	233,700.91	7.44	18,126.21	24.11	58,572.48	340.30			
1651	3320.640	Painting on masonry walls	m2	4,190.0	1.1	96.21	4,459.2	12.51	52,407.40	403,133.88	2.53	10,604.09	23.12	96,877.88	134.87			
1652	3320.650	Painting on gypsum wall and ceilings	m2	8,220.0	1.1	96.21	8,748.0	12.51	102,813.24	790,871.05	3.63	29,806.19	23.34	191,867.09	135.69			
1653	3320.660	Washroom accessories	LS	1.0	615.0	55,596.40	615.0	7,227.53	7,227.53	55,596.40	27,105.53	18,528.01	18,528.01	108,452.47	108,452.47			
1654	3320.670	Lockers in Lockers Rooms	LS	1.0	0.0	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
1655	3320.680	Storage	LS	1.0	1071.2	96,840.03	1,071.2	12,589.20	11,589.20	96,840.03	68,989.52	68,989.52	36,648.20	215,066.94	215,066.94			
1656	3320.690	Appliances and furniture	LS	1.0	0.0	0.00	0.0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			
5708		SUB-TOTAL ARCHITECTURAL - SUPPLY & INSTALL				152680.8			\$1,794,437.92	\$13,803,230.12		\$1,450,869.84	\$3,536,055.01		\$26,584,552.30			
<b>POWERHOUSE DIESEL GENERATOR SYSTEM</b>																		
<b>DIESEL GENERATOR SYSTEM - SUPPLY AND INSTALLATION</b>																		
1657	3437.010	Emergency Diesel Generator Set	LS	1.0	291.8	26,379.29	291.8	3,429.31	8,429.31	26,379.29	238,400.84	238,400.84	54,195.75	54,195.75	322,405.19			
1658	3437.020	Diesel Fuel System	LS	1.0	1166.1	105,442.26	1,166.1	13,707.49	13,707.49	105,442.26	849,986.00	849,986.00	95,006.42	95,006.42	564,142.17			
5709		SUB-TOTAL DIESEL GENERATOR SYSTEM - SUPPLY AND INSTALLATION				1458.1			\$17,136.80	\$131,821.55		\$588,386.84	\$149,202.17		\$886,547.37			
<b>COMMISSIONING</b>																		
<b>PIPING/MECHANICAL SYSTEMS - SINGLE CONTRACTOR DYNAMIC COMMISSIONING</b>																		
1659	3352.153	WPS (Domestic Water)	LS	1.0	440.7	39,842.03	440.7	5,179.44	5,179.44	39,842.03	0.00	0.00	9,363.47	9,363.47	54,384.96			
1660	3353.580	SDS (Wastewater)	LS	1.0	440.7	39,842.03	440.7	5,179.44	5,179.44	39,842.03	0.00	0.00	9,363.47	9,363.47	54,384.96			
1661	3441.660	ASS (Low Pressure Compressed Air)	LS	1.0	440.7	39,842.03	440.7	5,179.44	5,179.44	39,842.03	0.00	0.00	9,363.47	9,363.47	54,384.96			
1662	3442.000	AHS (High Pressure Compressed Air)	LS	1.0	440.7	39,842.03	440.7	5,179.44	5,179.44	39,842.03	0.00	0.00	9,363.47	9,363.47	54,384.96			
1663	3443.030	WFS (Fire Protection Water)	LS	1.0	440.7	39,842.03	440.7	5,179.44	5,179.44	39,842.03	107,861.79	107,861.79	6,489.27	165,272.68	165,272.68			
1664	3444.101	WCD (Clear Water Drainage)	LS	1.0	440.7	39,842.03	440.7	5,179.44	5,179.44	39,842.03	0.00	0.00	9,363.47	9,363.47	54,384.96			
1665	3445.950	WDS (Dewatering)	LS	1.0	755.5	68,299.43	755.5	8,878.93	8,878.93	68,299.43	0.00	0.00	16,051.36	16,051.36	93,229.72			
1666	3446.250	ODS (Lubricating/Hydraulic Oil)	LS	1.0	881.4	79,682.68	881.4	10,358.75	10,358.75	79,682.68	0.00	0.00	18,726.60	18,726.60	108,768.03			
1667	3447.140	ODS (Dry Water Drainage)	LS	1.0	440.7	39,842.03	440.7	5,179.44	5,179.44	39,842.03	0.00	0.00	9,363.47	9,363.47	54,384.96			
1668	3448.113	WCS (Raw/Cooling Water)	LS	1.0	881.4	79,682.68	881.4	10,358.75	10,358.75	79,682.68	0.00	0.00	18,726.60	18,726.60	108,768.03			
1669	3449.136	WSS (Service Water)	LS	1.0	440.7	39,842.03	440.7	5,179.44	5,179.44	39,842.03	0.00	0.00	9,363.47	9,363.47	54,384.96			
1670	3449.250	WSS (Brake Air)	LS	1.0	440.7	39,842.03	440.7	5,179.44	5,179.44	39,842.03	0.00	0.00	9,363.47	9,363.47	54,384.96			
1671	3448.84	WTS (Shaft Seal Water)	LS	1.0	881.4	79,682.68	881.4	10,358.75	10,358.75	79,682.68	0.00	0.00	18,726.60	18,726.60	108,768.03			
1672	3446.05	WLS (Pneumometer and Water Level)	LS	1.0	839.4	75,888.26	839.4	9,865.47	9,865.47	75,888.26	0.00	0.00	17,834.85	17,834.85	103,588.59			
1673	3440.244	Mechanical Shop Equipment	LS	1.0	188.9	17,075.55	188.9	2,219.82	2,219.82	17,075.55	0.00	0.00	4,013.01	4,013.01	23,308.38			
5710		SUB-TOTAL PIPING/MECHANICAL - SINGLE CONTRACTOR DYNAMIC COMMISSIONING				8834.9			\$108,834.93	\$798,730.29		\$107,861.79	\$188,099.28		\$1,198,466.19			
<b>HVAC SYSTEMS - SINGLE CONTRACTOR DYNAMIC COMMISSIONING</b>																		
1674	3351.290	EOD (Dewatering gully supply and Exhaust)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1675	3351.300	EGR (Exhaust for Trans. Storage and Garbage rooms)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1676	3351.310	EKH (Kitchen range exhaust)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1677	3351.320	END (Exhaust North RCC Dome)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1678	3351.330	EOR (Exhaust Oil Storage Room)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1679	3351.340	ESB (South service bay vent and exhaust)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1680	3351.350	ESP (Exhaust for Waste Water treatment Room)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1681	3351.360	ESV (Ventilate and exhaust Oil/water Interceptor Room)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1682	3351.370	ESW (Exhaust Storage, Washrooms and lavator rooms)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1683	3351.380	EWT (Exhaust and Ventilate the Wastewater Treatment Room)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1684	3351.390	PSG (Pressure 4 Stairwells)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1685	3351.400	VCC (Control Room, Communication Room and assoc. space)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1686	3351.410	VCR (Ventilation and Cooling for Compressor Room)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1687	3351.420	VDA (Ventilate Dewatering, Drainage and Draft tube galleries)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1688	3351.430	VDT (Ventilate Draft Tube Galleries)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1689	3351.440	VIG (Diesel Emergency Generator)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1690	3351.450	VEL (Ventilate and Exhaust Elevator Machine Room)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1691	3351.460	VER (Ventilate Electrical Battery and Charger Rooms)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1692	3351.470	VFP (Ventilate the Fire Pump Room)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1693	3351.480	VIG (Ventilation for lower inspection galleries)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1694	3351.490	VEL (Ventilate and Exhaust Intake Gate Host Building)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1695	3351.500	VEM (Machine Hall Main Supply and Exhaust)	LS	1.0	42.0	3,794.42	42.0	493.27	493.27	3,794.42	0.00	0.00	891.74	891.74	5,179.43			
1696	3351.510	VMS (Warehouse and Workshop spaces)	LS	1.0	42.0	3,794.42	42.0											



SCHEDULE OF PRICE BREAKDOWN

CH0031-001  
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No	Subcode	PRICE ITEM DESCRIPTION	UNIT OF MEASURE	EST. QTY	LABOUR COMPONENT							NON LABOUR COMPONENT				UNIT PRICE	TOTAL PRICE
					PIA LABOUR HOURS (per unit)	LABOUR COST (per unit)	TOTAL LABOUR HOURS	LABOUR OH&P (per unit) D = C x 13%	LABOUR OH&P (Ext.) E = A x D	COST OF LABOUR (Ext.) F = A x C	MAT. COST (per unit)	MAT. TOTAL COST	EQUIP. COST (per unit)	TOTAL EQUIP. COST			
															I = C + D + G + H		
1702a	Added	ATS & Load Management System Commissioning	LS	1.0	314.8	28,458.80	314.79	3,699.64	3,699.64	28,458.80	72,958.46	72,958.46	6,908.66	6,908.66	112,025.58	112,025.58	
1703	3340.170	Common Station Service MCC, Essential MCC and Connected Equipment	LS	1.0	3777.4	341,497.19	3,777.4	44,394.63	44,394.63	341,497.19	198,447.02	198,447.02	80,856.47	80,856.47	665,195.31	665,195.31	
1704	3000.263	Intake Distribution Equipment and Building Systems	LS	1.0	1888.7	170,748.60	1,888.7	22,197.32	22,197.32	170,748.60	99,223.51	99,223.51	40,428.23	40,428.23	332,597.64	332,597.64	
1705	3435.020	Station Service Transformers	LS	1.0	440.7	39,842.03	440.7	5,179.46	5,179.46	39,842.03	0.00	0.00	9,363.47	9,363.47	54,384.96	54,384.96	
1706	3460.050	GSU Ancillary Systems	LS	1.0	440.7	39,842.03	440.7	5,179.46	5,179.46	39,842.03	0.00	0.00	9,363.47	9,363.47	54,384.96	54,384.96	
1707	3000.264	Powerhouse Gallery Electrical Distribution	LS	1.0	440.7	39,842.03	440.7	5,179.46	5,179.46	39,842.03	211,871.37	211,871.37	10,003.68	10,003.68	266,896.50	266,896.50	
1708	3000.265	Turbine Floor Electrical Distribution	LS	1.0	440.7	39,842.03	440.7	5,179.46	5,179.46	39,842.03	198,447.02	198,447.02	9,963.07	9,963.07	253,431.58	253,431.58	
1709	3000.266	Generator Floor Electrical Distribution	LS	1.0	440.7	39,842.03	440.7	5,179.46	5,179.46	39,842.03	49,611.75	49,611.75	9,513.36	9,513.36	104,146.61	104,146.61	
1710	3000.267	North Dam, North Transition Dam, Centre Transition Dam and South Transition Dam Electrical Distribution and Systems	LS	1.0	440.7	39,842.03	440.7	5,179.46	5,179.46	39,842.03	0.00	0.00	9,363.47	9,363.47	54,384.96	54,384.96	
1711	3000.268	Turbine Floor Lighting System	LS	1.0	314.8	28,458.80	314.8	3,699.64	3,699.64	28,458.80	0.00	0.00	6,688.24	6,688.24	38,846.68	38,846.68	
1712	3000.269	Generator Floor Lighting System	LS	1.0	314.8	28,458.80	314.8	3,699.64	3,699.64	28,458.80	0.00	0.00	6,688.24	6,688.24	38,846.68	38,846.68	
1713	3443.040	Fire Detection System - ELECTRICAL	LS	1.0	1322.1	119,524.71	1,322.1	15,538.21	15,538.21	119,524.71	30,733.61	30,733.61	28,182.98	28,182.98	193,979.44	193,979.44	
1714	3460.060	Generator Step Up Transformer Unit 1	LS	1.0	419.7	37,944.13	419.7	4,932.74	4,932.74	37,944.13	0.00	0.00	8,917.43	8,917.43	51,794.29	51,794.29	
1715	3460.070	Generator Step Up Transformer Unit 2	LS	1.0	419.7	37,944.13	419.7	4,932.74	4,932.74	37,944.13	0.00	0.00	8,917.43	8,917.43	51,794.29	51,794.29	
1716	3460.080	Generator Step Up Transformer Unit 3	LS	1.0	419.7	37,944.13	419.7	4,932.74	4,932.74	37,944.13	0.00	0.00	8,917.43	8,917.43	51,794.29	51,794.29	
1717	3460.090	Generator Step Up Transformer Unit 4	LS	1.0	419.7	37,944.13	419.7	4,932.74	4,932.74	37,944.13	0.00	0.00	8,917.43	8,917.43	51,794.29	51,794.29	
1718	3436.050	Unit 1 Isolated Phase Bus	LS	1.0	419.7	37,944.13	419.7	4,932.74	4,932.74	37,944.13	0.00	0.00	8,917.43	8,917.43	51,794.29	51,794.29	
1719	3436.060	Unit 2 Isolated Phase Bus	LS	1.0	419.7	37,944.13	419.7	4,932.74	4,932.74	37,944.13	0.00	0.00	8,917.43	8,917.43	51,794.29	51,794.29	
1720	3436.070	Unit 3 Isolated Phase Bus	LS	1.0	419.7	37,944.13	419.7	4,932.74	4,932.74	37,944.13	0.00	0.00	8,917.43	8,917.43	51,794.29	51,794.29	
1721	3436.080	Unit 4 Isolated Phase Bus	LS	1.0	419.7	37,944.13	419.7	4,932.74	4,932.74	37,944.13	0.00	0.00	8,917.43	8,917.43	51,794.29	51,794.29	
1722	3438.050	Unit 1 Generator Circuit Breaker	LS	1.0	419.7	37,944.13	419.7	4,932.74	4,932.74	37,944.13	0.00	0.00	8,917.43	8,917.43	51,794.29	51,794.29	
1723	3438.060	Unit 2 Generator Circuit Breaker	LS	1.0	419.7	37,944.13	419.7	4,932.74	4,932.74	37,944.13	0.00	0.00	8,917.43	8,917.43	51,794.29	51,794.29	
1724	3438.070	Unit 3 Generator Circuit Breaker	LS	1.0	419.7	37,944.13	419.7	4,932.74	4,932.74	37,944.13	0.00	0.00	8,917.43	8,917.43	51,794.29	51,794.29	
1725	3438.080	Unit 4 Generator Circuit Breaker	LS	1.0	419.7	37,944.13	419.7	4,932.74	4,932.74	37,944.13	0.00	0.00	8,917.43	8,917.43	51,794.29	51,794.29	
ST12		SUB-TOTAL ELECTRICAL SYSTEMS - SINGLE CONTRACTOR DYNAMIC COMMISSIONING					18054.0		\$188,878.19	\$1,451,370.87		\$1,158,963.26		\$344,595.24	\$3,143,607.36		
1726	3437.030	POWERHOUSE DIESEL GENERATOR SYSTEM - SINGLE CONTRACTOR DYNAMIC COMMISSIONING	LS	1.0	881.4	79,682.68	881.4	10,358.75	10,358.75	79,682.68	25,593.83	25,593.83	20,887.32	20,887.32	136,522.58	136,522.58	
ST13		SUB-TOTAL DIESEL GENERATOR SYSTEM - SINGLE CONTRACTOR DYNAMIC COMMISSIONING				881.4			\$10,358.75	\$79,682.68		\$25,593.83		\$20,887.32	\$136,522.58		
ST14		SUBTOTALS				707,042			\$8,309,691.40	\$63,920,703.06		\$93,182,476.71		\$27,430,276.90	\$192,843,148.06		
TOTAL ESTIMATED CONTRACT PRICE															\$192,843,148.06		



**APPENDIX B**  
**MILESTONE PAYMENT SCHEDULE**



**MILESTONE PAYMENT SCHEDULE**

**LABOUR COMPONENT**

Item #	Item Description	Payment Schedule	Criteria
All	Reimbursable Cost of Labour	Neutral Funded Monthly	Neutral Funded Monthly a) Support in accordance with Exhibit 2 Section 16.2.

**NON LABOUR COMPONENT**

Item #	Item Description	Payment Schedule	Criteria
1	Mobilization	a) 15% upon submittal of "A" series (General) documents per SDRL with Submission Requirement Date of ARO+8 or earlier. b) 10% on Acceptance (Code 2) of documents in SDRL with Submission Requirement Date of ARO+8 or earlier. c) 50% after Commencement of Mobilization. d) 25% after Completion of Mobilization.	a) Confirmation all documents have been submitted to Engineer for review and Acceptance. b) Confirmation all documents are returned to Contractor as Code 2). c) As Approved by Company where Commencement of Mobilization is defined as a Site office installed and ready for occupancy and Project Manager is on-Site. d) As Approved by Company where Completion of Mobilization is considered to be: 1) Approval (Code 1) of "A" series (General) documents per SDRL with Submission Requirement Date of ARO+8 or earlier; and 2) Begin installation of permanent Work on Site.
PM	Staff Labour	Monthly payments of: a) 3.214% for Month 1 – 28 inclusive (90% of total) b) 1.00% for Months 29-38 inclusive (10% of total)  Based on 38 month schedule	Approved Monthly Payment Certificate.
	Advance Payment (Optional at Contractor's discretion)	Advance payment of up to 10% of Materials Cost and Equipment Cost components of Contract Price.  Up-front payment to be paid back as % (equivalent to the percentage of the advance payment) of future	a) Schedule of values Approved By Company b) Control Schedule Submitted to Engineer c) Performance Security, strictly in accordance with Agreement requirements, received by Company



Item #	Item Description	Payment Schedule	Criteria
		invoices	
2	Site Installation	2.78% per month (1/36 of Price Item) beginning after Commencement of Site Installation for months 1-36.	a) Commencement of Site Installation is defined as a Site office installed and ready for occupancy and preliminary site team is on-Site. b) Approved Monthly Payment Certificate.
3	Demobilization	100% upon Completion of Demobilization.	As Approved by Company that Contractor has completed Demobilization
4	Travel Cost for Trades Labour	Monthly	Demonstrated by submittal of receipts or other supporting documentation as required by Company.
4(c) & (d)	Performance Security	100% upon Provision of Performance Security by Contractor.	Notification of Approval by Company.
5 – 6	Piping Mechanical - Design and Engineering	a) 50% upon Piping Mechanical - Design and Engineering Contract Award. b) 50% on Approval for use (Code 1) of all engineering deliverables in accordance with the SDRL.	a) Notification of Approval by Company. b) Confirmation all documents are returned to Contractor as Code 1.
7 – 1258b	Piping Mechanical - Supply And Installation	a) 10% upon issuance by Contractor of Purchase Order or Subcontract. b) 50% upon receipt of Materials at Site. c) 20% on installation based on monthly earned progress as Approved by Company. d) 10% on Acceptance of Mechanical Completion Certificates. e) 10% on Acceptance (Code 1) of all associated document deliverables in accordance with the SDRL.	a) Provision of Purchase Order or Agreement by Contractor. b) Confirmation by Contractor that Materials have been received. c) Approval by Company of earned progress. d) Provision of Accepted Mechanical Completion Certificate by Contractor. e) Confirmation all documents are returned to Contractor as Code 1.
1259 – 1286.5	HVAC Systems - Supply and Installation	a) 10% upon issuance by Contractor of Purchase Order or Subcontract. b) 50% upon receipt of Materials at Site. c) 20% on installation based on monthly earned progress as Approved by Company. d) 10% on Acceptance of Mechanical Completion Certificates. e) 10% on Acceptance (Code 1) of all associated	a) Provision of Purchase Order or Agreement by Contractor. b) Confirmation by Contractor that Materials have been received. c) Approval by Company of earned progress. d) Provision of Accepted Mechanical Completion Certificate by Contractor. e) Confirmation all documents are returned to

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 Milestone Payment Schedule  
 Agreement Number: CH0031-001

Item #	Item Description	Payment Schedule	Criteria
		document deliverables in accordance with the SDRL.	Contractor as Code 1.
1287 - 1289	Electrical Engineering	a) 50% upon issuance of Electrical Engineering Subcontract. b) 50% on Approval for use (Code 1) of all engineering deliverables in accordance with the SDRL.	a) Provision of Subcontract. b) Confirmation all documents are returned to Contractor as Code 1.
1290 – 1575f	Electrical - Contractor Supplied - Supply and Installation	a) 10% upon issuance of Purchase Order or Subcontract. b) 50% upon receipt of Materials at Site. c) 20% on installation based on monthly earned progress as Approved by Company. d) 10% on Acceptance of Mechanical Completion Certificates. e) 10% on Acceptance (Code 1) of all associated document deliverables in accordance with the SDRL.	a) Provision of Purchase Order or Agreement by Contractor. b) Confirmation by Contractor that Materials have been received. c) Approval by Company of earned progress. d) Provision of Accepted Mechanical Completion Certificate by Contractor e) Confirmation all documents are returned to Contractor as Code 1.
1576 – 1587a	Electrical - Free Issued Materials - Assembly and Installation	a) 85% on installation based on monthly earned progress as Approved by Company. b) 5% on Acceptance of Mechanical Completion Certificates. c) 10% on Acceptance (Code 1) of all associated document deliverables in accordance with the SDRL.	a) Approval by Company of earned progress. b) Provision of Accepted Mechanical Completion Certificate by Contractor. c) Confirmation all documents are returned to Contractor as Code 1.
1588 - 1656	Powerhouse Architectural - Supply and Installation	a) 10% upon issuance by Contractor of Purchase Order or Subcontract. b) 50% upon receipt of Materials at Site. c) 20% on installation based on monthly earned progress as Approved by Company. d) 10% on Acceptance of Mechanical Completion Certificates. e) 10% on Acceptance (Code 1) of all associated document deliverables in accordance with the SDRL.	a) Provision of Purchase Order or Agreement by Contractor. b) Confirmation by Contractor that Materials have been received. c) Approval by Company of earned progress. d) Provision of Accepted Mechanical Completion Certificate by Contractor. e) Confirmation all documents are returned to Contractor as Code 1.
1657 - 1658	Diesel Generator System - Supply and Installation	a) 10% upon issuance by Contractor of Purchase Order or Subcontract. b) 60% upon receipt of Materials at Site.	a) Provision of Purchase Order or Agreement by Contractor. b) Confirmation by Contractor that Materials

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 Milestone Payment Schedule  
 Agreement Number: CH0031-001

Item #	Item Description	Payment Schedule	Criteria
		c) 10% on installation based on monthly earned progress as Approved by Company. d) 10% on Acceptance of Mechanical Completion Certificates. e) 10% on Acceptance (Code 1) of all associated document deliverables in accordance with the SDRL.	have been received. c) Approval by Company of earned progress. d) Provision of Accepted Mechanical Completion Certificate by Contractor. e) Confirmation all documents are returned to Contractor as Code 1.
1659 – 1673	Piping/Mechanical Systems – Single Contractor Dynamic Commissioning	100% on completion of Single Contractor Dynamic Commissioning.	By system and Engineer’s Acceptance of handover documentation for RFO.
1674 – 1701.4	HVAC Systems – Single Contractor Dynamic Commissioning	100% on completion of Single Contractor Dynamic Commissioning.	By system and Engineer’s Acceptance of handover documentation for RFO.
1702 – 1725	Electrical Systems – Single Contractor Dynamic Commissioning	100% on completion of Single Contractor Dynamic Commissioning.	By system and Engineer’s Acceptance of handover documentation for RFO.
1726	Powerhouse Diesel Generator System – Single Contractor Dynamic Commissioning	100% on completion of Single Contractor Dynamic Commissioning	By system and Engineer’s Acceptance of handover documentation for RFO.

**APPENDIX C**

**SMALL TOOLS, CONSUMABLES AND PPE**

*[Handwritten signature]*  
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The following lists include, but are not limited to, items that Company classifies as "Personal Protective Equipment", "Consumables", and "Small Tools", whether recoverable or non-recoverable.

**1. PERSONAL PROTECTIVE EQUIPMENT**

All personal protective equipment shall meet the requirements of Occupational Health and Safety Regulations.

APRON, WELDERS  
 BELT, SAFETY  
 BLANKET, FIRE  
 BLOCK, WELDING HELMET  
 BOOT, SAFETY, ALL TYPES  
 BRACKET, FOR FACE SHIELD  
 BRACKET, FIBER BROW, SAFETY SHIELD  
 CAPS, PLASTIC SAFETY (FOR REBAR)  
 CURTAIN, WELDER  
 DUST MASK  
 DISPOSABLE MASK  
 EYESHIELD, FOR BENCH GRINDER  
 FIRST AID SUPPLIES  
 FLARE, ROAD, NON-ELECTRIC  
 GLASSES, SAFETY  
 GLOVES, WORK, ALL TYPES  
 GOGGLES, SAFETY  
 GUARDS, SHIN  
 GUARDS, TOE, METAL W/STRAP

HALF FACE or FULL FACE RESPIRATOR WITH CARTRIDGES – ALL TYPES  
 HARD HAT  
 HEARING PROTECTION  
 HOOD, WELDING  
 INSECTICIDE  
 LANYARD FOR SAFETY BELTS  
 LENS, WELDING  
 LIFE LINE  
 LOCKS  
 MOUNTING VISOR AND KWIK-KLIP  
 PULLER, FUSE SAFETY  
 RAIN WEAR, JACKET AND OVERALLS  
 SAFETY HARNESS  
 SIREN, ELECTRIC  
 STRAP, CHIN  
 SWEAT BANDS  
 TABLET, SALT  
 VISOR, SHIELD, CLEAR  
 WELDING SHIELDS

2. CONSUMABLES

<p>                 ABRASIVES                  ACID                  ADAPTORS, TOOL – all types                  ADHESIVE                  ALCOHOL                  ANTIFREEZE                  ANTI-SPLATTER SPRAY                  APRON, WELDERS                  ARBORS, HOLE SAW                  AUGER, HAND - post hole digger                  BADGES                  BAG, DUST – for belt sander                  BAG, BOLT                  BANDS, SAFETY HAT                  BARRELS, WATER or TRASH                  BATTERY – flashlight and lantern                  BELTING, BELT DRESSING                  BINS, TRASH                  BITS – small hand tool, all types                  BLADES – small hand tool, all types                  BLANKET – wool, rubber                  BOX, CARDBOARD                  BRACKET, FLOAT HANDLE                  BRICK, RUBBING                  BROOM – all types                  BRUSH – all types                  BUCKET – all types                  BULB – blow out, dust                  BULB – flashlight, lantern, light                  BURLAP                  CABLES, RIGGING                  CAN, OIL                  CAN, SAFETY                  CARBIDE                  CARBORUNDUM – Blocks, Stones                  Walk                  CHAIN, SAFETY                  CHAIN, LOADBINDER                  CHALK                  CHALK LINE BOX                  CHAMOIS                  CHARCOAL AND COKE                  CHISEL – all types                  CHOKER – all types                  CHUCKS, TOOL – all types                  CLAMP, CABLE                  CLAMP, HOSE                  CLEANER, DRAIN                  CLEANER, HAND                  CLEANER, TIP                  CLIPS, WIRE ROPE                  CLOTH, DROP, PAINTER'S                  CLOTH, EMERY                  CLOTH, STRAINING                  COAL and COKE                  COMPOUND - cleaning, pipe, thread                  grinding             </p>	<p>                 EXPANDER, TUBEROLLS                  MANDRELS                  FASTENERS                  FEELER STOCK                  FILE, METAL CUTTING                  FILE, WOOD CUTTING                  FILTER – for vacuum cleaner                  FILTERS                  FISHTAPE, HAND                  FITTINGS, ALEMITE &amp; HOSE                  FLAMBEAU, KEROSENE                  FLASHLIGHT                  FLINT                  FLUID CLEANING                  FLUX - brazing, welding                  FORK, SEED                  FORM TIES                  FRAME, HACKSAW                  FUELS (for construction equipment)                  FUNNELS, ALL TYPES                  FUSE (except for permanent plant                  use)                  GARBAGE BAGS                  GASKETS, HOSE                  GLOVES, WORK, all types                  GLUE                  GLYCERINE                  GOGGLES, WORK, all types                  GRAPHITE                  GREASE                  GRIPS, PLASTIC for pliers                  GROMMETS                  GUIDE, HINGE-BUTT for router                  GUN, CAULKING                  GUN, GREASE                  HASPS                  HATCHET                  HINGES                  HOE                  HOOK, SNAP                  HOOK, TIMBER                  HOSE, AIR, 3/4" /Dia. Max. (Air Tools                  Only)                  HOSE WATER to 3/4"                  HOSE, GREASE, GUN                  HOSE, TWIN WELDING                  ICE                  INK, LAYOUT – for Millwrights                  IRON, CAULKING                  IRON, PACKING                  IRON, YARNING                  JAW, BOLT CUTTER REPLACEMENT                  JITTERBUG – Concrete Hand                  JOINT RUNNER                  KEEL (lumber crayon)                  KEY, CHUCK                  KEY, EJECTOR for Roto Hammers             </p>	<p>                 AND                  PAD, POLISHING                  PADLOCKS                  PAINT (for erection marking)                  PAINT STICK                  PAN, DRAIN                  PAPER – sand, toilet                  PASTE – solder                  PATTERNS                  PENCIL, CARPENTER                  PENS, WRITING, MARKING                  PETROLEUM JELLY                  PICK, CLAY                  PLUG, PIPE TEST                  PLUNGER, BATHROOM                  POCKET, LINEMAN'S                  POUCH, CANVAS                  POUCH, ROD                  POWDER, SCOURING                  PULLER, WIRE                  PUMICE                  PUNCH AND CHISEL SETS                  PUNCH, CONDUIT                  PUNCH, PIN SET                  PUTTY                  RAGS                  RAKE, GARDEN                  RAKE, CONCRETE                  RAKE, ROAD                  REAMER, TAPER PIN (Hand Only)                  RIGGING HOOKS                  ROPE, MANILA                  ROPE, POLYPROPYLENE                  ROPE, WIRE                  RULE - Extension, Wood, Fiberglass, Folding                  RULE, TAPE                  RUST PREVENTIVE                  SANDBLAST NOZZLES                  SCISSORS, ELECTRICIAN                  SCRAPER, HAND                  SCRAPER, SIDEWALK                  SCRAPER, WALL                  SCREEN CLOTH – Wire                  SCREW RUNNER                  SCREW STARTER                  SCREWDRIIVER, All Types                  SHACKLES                  SHEATH, PLUMB BOB                  SHIMS                  SILICONE SPRAY                  SOAP                  SOAP STONE                  SOLDER                  SOLVENT                  SPONGE                  STAKE - survey                  STAPLES                  STRING, NYLON             </p>
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COMPOUND, SWEEPING  
 COMPOUND, WIRE PULLING  
 CONNECTORS – Cord, Cotter Pins  
 CORD, PLUMB BOB  
 CORD, SASH  
 CORK  
 CRAYON, LUMBER  
 CRAYON – Temperature Indicating  
 CREOSOTE  
 CUP – drinking  
 CUTTER WHEELS – tools, all types  
 DIE NUTS – Hexagon Rethread  
 DIES, BUTTON  
 DIES, KNOCKOUT  
 DIES, PIPE – for Hand Threaders Only  
 DIES, TMB – 8, Compression Tools  
 DIPPERS  
 DISC, GRINDING  
 DISINFECTANT  
 DISPENSER, PAPER CUP  
 DRESSING, BELT  
 DRILL BIT – Small Hand Tool, All  
 Types  
 EDGER, CONCRETE HAND  
 ELECTRODE HOLDERS

KEY, HEX  
 LASHING, WIRE ROPE  
 LATCHES  
 LATTERNS, 6 VOLT LENS - Welding  
 LIGHTER, SPARK  
 LIME, MARKING  
 LINE, FISH  
 LITHARGE  
 LUBRICANT – thread cutting, electric  
 wire pulling  
 LUGS  
 MARKER, METAL  
 MARKER, PIPE CONTOUR  
 MENDERS, HOSE  
 MIRROR, INSPECTION  
 MOP  
 NAILS  
 NIPPLES, HOSE  
 NOZZLE, WATER  
 NUT RUNNER  
 NUT SETTER  
 OFFICE SUPPLIES  
 OIL - all types  
 PACKING MATERIAL

TACKS  
 TAG, BLANK, WIRE TWIST  
 TARPAULIN  
 TAP, TAPER, HAND  
 TAPE - adhesive, masking, friction, rubber, plumbers,  
 etc.  
 TEMPIL STICKS  
 THIMBLES, WIRE ROPE  
 TIP, TORCH WELDING  
 TOOL BOXES, BINS  
 TOOL, BRUSHING for Vacuum cleaner  
 TOOL, CREVICE, 15" for Vacuum  
 TOOL, MAJOR FLOOR, 14"  
 TOOL STEEL  
 TOWEL – Paper  
 TORCH, HEATING  
 TORCH, CUTTING  
 TROWEL, HAND  
 TRUNBUCKLES  
 TURPENTINE  
 TWINE  
 VISQUEEN – Non-reinforced  
 WASHERS  
 WASHING POWDER  
 WASHROOM SUPPLIES  
 WASTE – Cotton  
 WATER CANS  
 WELD ROD  
 WELDING GASES  
 WHEEL, DEPRESSED CENTER  
 WHEELBARROW, All Types  
 WHEEL ABRASIVE  
 WHEEL, WIRE  
 WICKS, LANTERN  
 WIRE - tie & miscellaneous  
 WOOL – steel  
 WRAP AROUNDS

3. SMALL TOOLS

ADAPTER - hose, pipe thread	DOOR HANGING KIT	MOVER - freight car, hand	SOLDERING IRON
ADZE	DRESSER - grinding wheel	NAILER, AIR	SPADE
ANVIL	DRILL - all types: hand, electric,	NIBBLER, SHEET METAL	SPEED, PORTABLE
APRON	pneumatic	NIPPER	SPIKE- marlin
ARBOUR	DRILL PRESS	NOTCHER, PIPE	SPRAYER, ORCHARD
AUGER, GASOLINE (Post Hole Digger)	DRILL STAND - bench	NOZZLE - hose, weld	SPREADER, FLANGE
AWL	DYNAMOMETER	NUT - die, driver	SQUARE- combination, framing, etc.
AXE	ELCOMETER - paint thickness	OILER - can, hand	SQUEEGEE
BABBITT	gauge	OVEN - welding rod	STAND, DRILL
BANDING MACHINE - Hand Type	EMBOSSER, TAPE, HAND	PAIL	STAND, GRINDER
BAR- claw, crow, pinch, etc.	ETCHER, ELECTRIC	PEDESTAL, GRINDER	STAND, PIPE
BARREL- trash	EXPANDER- tube	PIN, BARREL	STAND, REEL, TELESCOPING SCREW
BASE, MAGNETIC/DAILY TEST INDICATOR	EXTENSION, SOCKET SET	PIN, BULL	STAPLE- tacker
BELT- safety w/strap	EXTENSION CORD	PIN, DRAFT	STAPLER, ELECTRIC OR HAND
BENDER - hydraulic, manual	EXTRACTOR - pipe & screw	PINCER	STAR DRILL
BENDER, CABLE	FAN - electric	PLANE - wood	STEAM HEATER
BENDER, PIPE	FILE - hand	PLANE, BENCH JACK	STENCIL- steel, brass, paper
BENDER, TUBING	FLARING TOOL	PLANE, BLOCK	STONE - OIL
BENDER, LOAD	FLASHLIGHT - c/w bulb & batteries	PLANE, ELECTRIC	STRAIGHT EDGE
BEVEL	FLATTER - blacksmith	PLANE, VERSI	STRAINER- air line
BEVELLER - load	FLOAT, CONCRETE - Hand Only	PLANNER, POWER BLOCK - Electric	STRAPPER
BINDER - load	FORGE - blacksmith	HD	STRIPPER- wire
BIT - auger, carpenter	FORK - barn	PLIERS - all types	SUPPORT, PIPE - Roller type
BLOCK - chain, rope, cable, etc.	FULLER - blacksmith	PLUMB BOB	SWEDGING TOOL KIT
BLOCKS, WOOD	FURNACE, PROPANE - Melting	POINT - trammel	SWIVEL
BLOCKS, METAL - Snatch	GAD	POLE - pike, range	TACHOMETER
BLOWER - Pneumatic Powered	GAUGE- drill, feeler, wire	POT - melting, fire, welding rod, lead	TAMPER- hand, pneumatic
BOB, PLUMB	thickness, tire, etc.	POUCH - tool	TANK, LP - 20# only
BOSUN CHAIRS	GRINDER- electric, pneumatic	PRESTOLITE OUTFIT	TAP- bolt, pipe, wrench
BOX - tool box or tool bag	GRAB, PIPE OF 20"	PROTRACTOR	TAPE- steel measuring
BOX, GANG (Craft Storage)	GRINDER, ELECTRIC	PULLER, FUSE SAFETY	TAPEWRITER, EMBOSSING -
BRACE - ratchet	GRIP- cable	PULLER, WHEEL GEAR	Hand type
BROOMS	GROOVING, TOOL	PULLER- nail, wire, spike road	TAPPER
BURNER, WEED	GUN- grease caulking, paint, heat	PULLEY, CABLE	TELEPHONE- hand set, electrician's
CABLE - welding, electrode, ground,	(115V), pop rivet, powder	PULLEY, WELL	testing
etc.	actuated, soldering	PUMP- hand, barrel, sump, test	TEMPLATE, HINGE-BUTT
CALLIPERS	HACKSAW, POWER	PUNCH- center, back out, arch,	TESTER- battery, hardness,
CANS	HAMMERS - all types: pneumatic,	knockout, hob, gasket, sheet metal,	antifreeze, circuit, insulation, motor
CART - concrete	hand	stud, etc.	rotation, etc.
CART, WELDING BOTTLE 2	HANDLES - all types	RADIO- portable, 2 way, intercom	THIMBLE- pipe
CASTERS	HATCHET & HANDLE - for hand	RASP	THREADER- pipe chain, etc.
CAULKING TOOL - yarning iron	threader sets	REAMER- pipe, bridge burring, etc.	TONGS, BRICK CARRIER
CENTER FINDER SET - Wiggler	HATCHET, WRENCH	REAMER, INNER, OUTER - for copper	TONGS, CHAIN
CHAIN - surveyor, measuring, steel	HEATER - portable: fuel, electric	tubing	TONGS, PIPE
loading	(115V), LP, Kerosene	REAMER, SPIRAL - Pipe only	TONGS, SHEET METAL
CHAIR, BOSUN'S	HOD - brick, mortar	REAMER, STRAIGHT - Pipe only	TONG- blacksmith, pipe,
CHARGER - battery	HOE	REEL, TIE WIRE	TOOL, FLARING
CHUCK - taper, drill	HOIST - portable, all types	REGULATOR- welding gas	TOOL, PICK UP, MAG
CLAMP - pipe, aligning, saw, carpenter,	HOOD - welding, sandblasting	RESPIRATOR- dusts c/w refill	TOOL, SOIL PIPE ASSEMBLY
etc.	HOOK - packing, eye, cant, lug,	RIGGERS ROPE- manila, wire	TOOL- clamping (hose)
CLIMBER - Adjustable w/Pad	etc.	RIVERTER, HAND	TOOLS- cement worker
and Straps	HORSES - mason, saw	ROLLER, PIPE	TORCH- blow, soldering
CLIPPER - bolt	INDICATOR - dial, test	ROLLER, paint	Cutting, propane, acetylene,
COOLER - drinking water	IRON - tire	ROUTER, ELECTRIC	prestolite
COMBINATION SETS - 6" to 18"	JACK - flange, hydraulic,	RULES- all types	TRANSFORMER- dry type
	mechanical, screw	RUSH DRILL	TROLLEY



CONNECTOR - welding, cable	JIG - weld coupon bending test	SANDER- disc, belt	TROWEL
CONVEYOR - gravity, roller	KEY - welding, gas tank	SAW - portable, all types: hand, power	TRUCK- hand
CORD - electric extension	KNIFE - draw, putty	SCALER, NEEDLE	TURNBUCKLE
COUPLING - hose	KNOCKOUT, HAND	SCRAPER- bearing, miscellaneous	TWISTER- wire
CREEPER, FLOOR	LADDER - steel, extension, etc.	SCREW STOP	UMBRELLA
CRIMPER, BAND	LADLE - melting, lead	SCRIBER SET- nail, rivet	UNIVERSAL - for socket sets
CRIMPER - electrician's	LANTERNS - all types	SHARPENER, DRILL BIT	VACUUM CLEANER, HD
CRIMPING TOOL - Wire	LEAD JOINT RUNNER	SHEAR- bar, tinners	VIBRATOR, CONCRETE- pneumatic, Electric
CUTTER - bar, wire, pipe-hand, pipe-geared, gasket, etc.	LEVEL - hand, line, etc.	SHEAR, ANGLE IRON	WISE, MACHINIST
CYLINDER, HYDRAULIC - for Porta Powers	LIGHT - portable, flood, drop	SHEARS, ELECTRIC, HAND	WISE, PIPE
DIE- pipe, bolt, c/w head, stock	LINE - mason, chalk	SHEARS, TRIMMING, ROTARY	WEDGE
DIGGER - hand, pneumatic	LUBRICATOR - air line	SHEAVES, CABLE, TRAY METAL	WELDING TOOLS
DIVIDER - wing	MALLET	SHEETING- plastic, paper	WELDING & CUTTING OUTFIT (Oxy/Acetelyne)
DIVIDER, SPRING TYPE	MANDREL - all types	SHIELD- face	WHEEL- grinding
DOLLY, BARREL	MARKER, LIME, ROLLING	SHOVEL	WHEELBARROW
DOLLY, BEAM	MATTOCK	SIREN, ELECTRIC	WINCH- hand
DOLLY, CATERPILLAR	MAUL	SLEEVE- morse, taper, shank	WRENCHES- all types
DOLLY, MACHINE	MEGGER METER	SLING- canvas, pipe, wire, rope, nylon	
DOLLY, PIPE	METER - vibration	SNIP- tinner	
DOLLY, PRY	METER, AMP - Clamp-on w/Case	SNIPS, AVIATION, HAND	
DOLLY, WAREHOUSE	METER, MILLIVOLT	SNIPS, METAL CUT, HAND	
DOLLY BAR - pivot	METER, MOISTURE	SNIPS, TRIM HAND	
	METER, VOLT	SOCKET for hand tools only	
	MICROMETER	SOCKET SET	
	MIRROR, INSEPTION		
	MITER BOX - Electric or hand		
	MORTISER, LOCK - Electric		

**APPENDIX D**  
**PERSONNEL RATE SCHEDULE**





PERSONNEL RATE SCHEDULE  
PLA LABOUR

Rates Effective from 01 May 2017 – 30 April 2018 - DAYSHIFT

Trade or Classification	Reference Formula	Base Rate (B)	Shift Premium per Hour (C) fixed	Vacation & Holiday Pay (D) =sum(B?:C?)*CS?	LCP Premium (E) fixed	Govt. Payroll Burdens (F) =sum(B?:E?)*FS?	Union Benefits and Funds (G) fixed	Small Tools (H) fixed	Consumables and PPE (I) fixed	Straight Time Rate per Hour (J) =sum(B?:I?)	Overtime Rate (1.5x) per Hour (K) =((SUM(\$B?:\$G?)-(\$C?*1+\$D\$?)))*1.5)+(\$C?*1+\$D\$?)+SUM(\$H?:\$I?:\$J?)	Overtime Rate (2.0x) per Hour (L) =((SUM(\$B?:\$G?)-(\$C?*1+\$D\$?)))*2)+(\$C?*1+\$D\$?)+SUM(\$H?:\$I?:\$J?)
<b>Boilermakers - Multiplier / Fixed Value</b>												
Boilermakers - General foreperson		45.83	-	5.50	3.50	5.98	11.68	3.00	5.00	73.99	110.23	146.47
Boilermakers - foreperson		44.73	-	5.37	3.50	5.84	11.68		1.50	72.62	108.18	143.74
Boilermakers - Assistant foreperson		43.38	-	5.21	3.50	5.68	11.68		1.50	70.94	105.67	140.39
Boilermakers - Journeyman		41.68	-	5.00	3.50	5.47	11.68	3.00	5.00	75.33	109.00	142.66
Boilermakers - Helper		31.26	-	3.75	3.50	4.20	11.68	3.00	5.00	62.39	89.58	116.78
Boilermakers - Apprentice - Level 3		37.51	-	4.50	3.50	4.96	11.68	3.00	5.00	70.15	101.23	132.31
Boilermakers - Apprentice - Level 2		31.26	-	3.75	3.50	4.20	11.68	3.00	5.00	62.39	89.58	116.78
Boilermakers - Apprentice - Level 1		25.01	-	3.00	3.50	3.44	11.68	3.00	5.00	54.63	77.94	101.25
<b>Bricklayers - Multiplier / Fixed Value</b>												
Bricklayers - General foreperson		51.19	-	5.12	3.50	6.52	8.95	2.00	3.75	76.78	114.42	152.06
Bricklayers - foreperson		49.06	-	4.91	3.50	6.26	8.95		1.50	74.18	110.52	146.85
Bricklayers - Journeyman - Group 1		42.66	-	4.27	3.50	5.50	8.95	2.00	3.75	70.62	103.06	135.49
Bricklayers - Journeyman - Group 2		39.25	-	3.92	3.50	5.09	8.95	2.00	3.75	66.46	96.82	127.17
Bricklayers - Journeyman - Group 3		41.02	-	4.10	3.50	5.30	8.95	2.00	3.75	68.62	100.06	131.49
Bricklayers - Apprentice - 1st 6 months		23.89	-	2.39	3.50	3.25	8.95	2.00	3.75	47.72	68.71	89.70
Bricklayers - Apprentice - 2nd 6 months		26.45	-	2.64	3.50	3.55	8.95	2.00	3.75	50.85	73.39	95.94
Bricklayers - Apprentice - 3rd 6 months		29.01	-	2.90	3.50	3.86	8.95	2.00	3.75	53.97	78.08	102.19
Bricklayers - Apprentice - 4th 6 months		31.57	-	3.16	3.50	4.17	8.95	2.00	3.75	57.09	82.76	108.43
Bricklayers - Apprentice - 5th 6 months		34.13	-	3.41	3.50	4.47	8.95	2.00	3.75	60.21	87.44	114.68
Bricklayers - Apprentice - 6th 6 months		36.26	-	3.63	3.50	4.73	8.95	2.00	3.75	62.82	91.35	119.88
Bricklayers - Apprentice - 7th 6 months		38.39	-	3.84	3.50	4.99	8.95	2.00	3.75	65.42	95.25	125.08
Bricklayers - Apprentice - 8th 6 months		40.53	-	4.05	3.50	5.24	8.95	2.00	3.75	68.02	99.15	130.29
<b>Carpenters - Multiplier / Fixed Value</b>												
Carpenters - General foreperson		45.07	-	5.86	3.50	5.93	11.75	2.00	3.75	73.61	109.67	145.73
Carpenters - Non-working foreperson		43.19	-	5.61	3.50	5.70	11.75		1.50	71.26	106.14	141.01
Carpenters - Working foreperson		41.32	-	5.37	3.50	5.47	11.75	2.00	3.75	73.16	106.87	140.58
Carpenters - Journeyman carpenter welder scaffolder		37.56	-	4.88	3.50	5.01	11.75	2.00	3.75	68.45	99.80	131.15
Carpenters - Helper		22.54	-	2.93	3.50	3.16	11.75	2.00	3.75	49.63	71.57	93.51
Carpenters - Apprentice - 1		24.41	-	3.17	3.50	3.39	11.75	2.00	3.75	51.97	75.08	98.19
Carpenters - Apprentice - 2		26.29	-	3.42	3.50	3.62	11.75	2.00	3.75	54.33	78.61	102.90
Carpenters - Apprentice - 3		30.05	-	3.91	3.50	4.08	11.75	2.00	3.75	59.04	85.69	112.33
Carpenters - Apprentice - 4		33.80	-	4.39	3.50	4.55	11.75	2.00	3.75	63.74	92.73	121.73
<b>Electricians - Multiplier / Fixed Value</b>												
Electricians - General foreperson		48.93	-	6.36	3.50	6.41	9.75	2.00	3.75	76.45	113.93	151.40
Electricians - Non-working foreperson		46.81	-	6.09	3.50	6.15	9.75		1.50	73.79	109.94	146.09
Electricians - Working foreperson		44.68	-	5.81	3.50	5.89	9.75	2.00	3.75	75.37	110.18	144.99
Electricians - Apprentice/Journeyman electrician welder/welder		44.68	-	5.81	3.50	5.89	9.75	2.00	3.75	75.37	110.18	144.99
Electricians - Journeyman		42.55	-	5.53	3.50	5.62	9.75	2.00	3.75	72.70	106.18	139.66
Electricians - Apprentice - 1st year		23.40	-	3.04	3.50	3.26	9.75	2.00	3.75	48.71	70.19	91.67



PERSONNEL RATE SCHEDULE

PLA LABOUR

Rates Effective from 01 May 2017 – 30 April 2018 - DAYSHIFT

Trade or Classification	Base Rate (B)	Shift Premium per Hour (C) fixed	Vacation & Holiday Pay (D) =sum{B?:C?}*CS?	LCP Premium (E) fixed	Govt. Payroll Burdens (F) =sum{B?:E?}* FS?	Union Benefits and Funds (G) fixed	Small Tools (H) fixed	Consumables and PPE (I) fixed	Straight Time Rate per Hour (J) =sum{B?:I?}	Overtime Rate (1.5x) per Hour (K) =((SUM(\$B?:\$G?)- (\$C?*(1+\$D\$?)))*1.5)+ (\$C?*(1+\$D\$?))+SUM( \$H?:\$I?)	Overtime Rate (2.0x) per Hour (L) =((SUM(\$B?:\$G?)- (\$C?*(1+\$D\$?)))*2)+(\$C ?*(1+\$D\$?))+SUM(\$H?: \$I?)
Electricians - Apprentice - 2nd year	27.66	-	3.60	3.50	3.79	9.75	2.00	3.75	54.04	78.19	102.33
Electricians - Apprentice - 3rd year	29.79	-	3.87	3.50	4.05	9.75	2.00	3.75	56.71	82.20	107.68
Electricians - Apprentice - 4th year	34.04	-	4.43	3.50	4.57	9.75	2.00	3.75	62.04	90.18	118.33
<b>Hotel and Restaurant - Multiplier / Fixed Value</b>			13.0%	1.00	10.90%	16.04	2.00	3.75			
Hotel and Restaurant - Group 1 - Security	40.45	-	5.26	1.00	5.09	16.04	2.00	3.75	73.59	107.51	141.43
Hotel and Restaurant - Group 2 - Security	38.91	-	5.06	1.00	4.90	16.04	2.00	3.75	71.66	104.61	137.57
Hotel and Restaurant - Group 3 - Security	37.43	-	4.87	1.00	4.72	16.04	2.00	3.75	69.81	101.83	133.86
Hotel and Restaurant - Group 1	41.39	-	5.38	1.00	5.21	16.04	2.00	3.75	74.77	109.27	143.78
Hotel and Restaurant - Group 2	38.42	-	4.99	1.00	4.84	16.04	2.00	3.75	71.05	103.70	136.34
Hotel and Restaurant - Group 3	37.43	-	4.87	1.00	4.72	16.04	2.00	3.75	69.81	101.83	133.86
Hotel and Restaurant - Group 4	36.40	-	4.73	1.00	4.59	16.04	2.00	3.75	68.51	99.89	131.28
Hotel and Restaurant - Group 5	35.92	-	4.67	1.00	4.53	16.04	2.00	3.75	67.91	98.99	130.07
Hotel and Restaurant - Group 6	35.42	-	4.60	1.00	4.47	16.04	2.00	3.75	67.29	98.06	128.82
Hotel and Restaurant - Group 7	34.40	-	4.47	1.00	4.35	16.04	2.00	3.75	66.01	96.13	126.26
<b>Insulators - Multiplier / Fixed Value</b>			13.0%	3.50	10.90%	10.65	2.00	3.75			
Insulators - General foreperson	44.58	-	5.80	3.50	5.87	10.65	2.00	1.50	71.90	107.09	142.29
Insulators - Non-working foreperson	42.08	-	5.47	3.50	5.57	10.65	2.00	1.50	68.76	102.39	136.02
Insulators - Working foreperson	41.33	-	5.37	3.50	5.47	10.65	2.00	3.75	72.07	105.23	138.39
Insulators - Journeyman mechanic	40.08	-	5.21	3.50	5.32	10.65	2.00	3.75	70.51	102.88	135.26
Insulators - Apprentice - 1st year	24.05	-	3.13	3.50	3.34	10.65	2.00	3.75	50.42	72.75	95.08
Insulators - Apprentice - 2nd year	26.05	-	3.39	3.50	3.59	10.65	2.00	3.75	52.93	76.52	100.10
Insulators - Apprentice - 3rd year	30.06	-	3.91	3.50	4.08	10.65	2.00	3.75	57.95	84.05	110.15
Insulators - Apprentice - 4th year	34.07	-	4.43	3.50	4.58	10.65	2.00	3.75	62.97	91.58	120.19
<b>Ironworkers - Multiplier / Fixed Value</b>			13.5%	3.50	10.90%	10.28	3.00	5.00			
Ironworkers - Structural General foreperson	49.39	-	6.67	3.50	6.49	10.28	3.00	1.50	77.84	116.01	154.17
Ironworkers - Structural foreperson	47.33	-	6.39	3.50	6.24	10.28	3.00	1.50	75.24	112.11	148.98
Ironworkers - Structural Connectors	42.07	-	5.68	3.50	5.59	10.28	3.00	5.00	75.12	108.68	142.24
Ironworkers - Structural Journeyman	41.16	-	5.56	3.50	5.47	10.28	3.00	5.00	73.97	106.96	139.95
Ironworkers - Structural Apprentice - 1st 1,000 hrs	28.81	-	3.89	3.50	3.95	10.28	3.00	5.00	58.43	83.65	108.86
Ironworkers - Structural Apprentice - 2nd 1,000 hrs	32.93	-	4.45	3.50	4.46	10.28	3.00	5.00	63.61	91.42	119.22
Ironworkers - Structural Apprentice - 3rd 1,000 hrs	37.04	-	5.00	3.50	4.96	10.28	3.00	5.00	68.79	99.18	129.57
Ironworkers - Structural Apprentice - 4th 1,000 hrs	39.10	-	5.28	3.50	5.22	10.28	3.00	5.00	71.38	103.08	134.77
Ironworkers - Rebar General foreperson	48.01	-	6.48	3.50	6.32	10.28	3.00	1.50	76.10	113.40	150.70
Ironworkers - Rebar foreperson	46.01	-	6.21	3.50	6.08	10.28	3.00	1.50	73.58	109.62	145.66
Ironworkers - Rebar Journeyman	40.01	-	5.40	3.50	5.33	10.28	3.00	5.00	72.53	104.79	137.05
Ironworkers - Rebar Apprentice - 1st 1,000 hrs	28.01	-	3.78	3.50	3.85	10.28	3.00	5.00	57.42	82.13	106.83
Ironworkers - Rebar Apprentice - 2nd 1,000 hrs	32.01	-	4.32	3.50	4.34	10.28	3.00	5.00	62.45	89.68	116.91
Ironworkers - Rebar Apprentice - 3rd 1,000 hrs	36.01	-	4.86	3.50	4.84	10.28	3.00	5.00	67.49	97.24	126.98
Ironworkers - Rebar Apprentice - 4th 1,000 hrs	38.01	-	5.13	3.50	5.09	10.28	3.00	5.00	70.01	101.01	132.02
<b>Labourers - Multiplier / Fixed Value</b>			13.0%	3.50	10.90%	11.59	2.00	3.75			



PERSONNEL RATE SCHEDULE

PLA LABOUR

Rates Effective from 01 May 2017 – 30 April 2018 - DAYSHIFT

Trade or Classification	Base Rate	Shift Premium per Hour (C)	Vacation & Holiday Pay (D)	LCP Premium (E)	Govt. Payroll Burdens (F)	Union Benefits and Funds (G)	Small Tools (H)	Consumables and PPE (I)	Straight Time Rate per Hour (J)	Overtime Rate (1.5x) per Hour (K)	Overtime Rate (2.0x) per Hour (L)
Reference Formula	(B)	(C) fixed	=sum(B?:C?)*C\$?	(E) fixed	=sum(B?:E?)*F\$?	(G) fixed	(H) fixed	(I) fixed	=sum(B?:J?)	=(SUM(\$B?:\$G?)-(\$C?*(1+\$D\$?)))*1.5)+(\$C?*(1+\$D\$?))+SUM(\$H?:\$I?)	=(SUM(\$B?:\$G?)-(\$C?*(1+\$D\$?)))*2)+(\$C?*(1+\$D\$?))+SUM(\$H?:\$I?)
Labourers - Class 1	36.80	-	4.78	3.50	4.92	11.59	2.00	3.75	67.34	98.13	128.93
Labourers - Class 2	36.84	-	4.79	3.50	4.92	11.59	2.00	3.75	67.39	98.21	129.03
Labourers - Class 3	36.90	-	4.80	3.50	4.93	11.59	2.00	3.75	67.46	98.32	129.18
Labourers - Class 4	36.95	-	4.80	3.50	4.93	11.59	2.00	3.75	67.53	98.42	129.30
Labourers - Class 5	37.00	-	4.81	3.50	4.94	11.59	2.00	3.75	67.59	98.51	129.43
Labourers - Class 6	37.05	-	4.82	3.50	4.95	11.59	2.00	3.75	67.65	98.60	129.55
Labourers - Class 7	37.23	-	4.84	3.50	4.97	11.59	2.00	3.75	67.88	98.94	130.01
Labourers - Class 8	37.30	-	4.85	3.50	4.98	11.59	2.00	3.75	67.97	99.07	130.18
Labourers - Class 9	37.75	-	4.91	3.50	5.03	11.59	2.00	3.75	68.53	99.92	131.31
Labourers - Class 10	37.85	-	4.92	3.50	5.04	11.59	2.00	3.75	68.65	100.11	131.56
Labourers - Class 11	42.85	-	5.57	3.50	5.66	11.59	2.00	3.75	74.92	109.51	144.09
Labourers - Class 1 - foreperson	38.55	-	5.01	3.50	5.13	11.59		1.50	65.28	97.17	129.06
Labourers - Class 2 - foreperson	38.59	-	5.02	3.50	5.14	11.59		1.50	65.33	97.25	129.16
Labourers - Class 3 - foreperson	38.65	-	5.02	3.50	5.14	11.59		1.50	65.41	97.36	129.31
Labourers - Class 4 - foreperson	38.70	-	5.03	3.50	5.15	11.59		1.50	65.47	97.46	129.44
Labourers - Class 5 - foreperson	38.75	-	5.04	3.50	5.16	11.59		1.50	65.53	97.55	129.57
Labourers - Class 6 - foreperson	38.80	-	5.04	3.50	5.16	11.59		1.50	65.60	97.64	129.69
Labourers - Class 7 - foreperson	38.98	-	5.07	3.50	5.18	11.59		1.50	65.82	97.98	130.14
Labourers - Class 8 - foreperson	39.05	-	5.08	3.50	5.19	11.59		1.50	65.91	98.11	130.32
Labourers - Class 9 - foreperson	39.50	-	5.14	3.50	5.25	11.59		1.50	66.47	98.96	131.45
Labourers - Class 10 - foreperson	39.60	-	5.15	3.50	5.26	11.59		1.50	66.60	99.15	131.70
Labourers - Class 11 - foreperson	44.60	-	5.80	3.50	5.88	11.59		1.50	72.86	108.55	144.23
Labourers - Class 1 - General foreperson	39.30	-	5.11	3.50	5.22	11.59		1.50	66.22	98.58	130.94
Labourers - Class 2 - General foreperson	39.34	-	5.11	3.50	5.23	11.59		1.50	66.27	98.66	131.04
Labourers - Class 3 - General foreperson	39.40	-	5.12	3.50	5.24	11.59		1.50	66.35	98.77	131.19
Labourers - Class 4 - General foreperson	39.45	-	5.13	3.50	5.24	11.59		1.50	66.41	98.87	131.32
Labourers - Class 5 - General foreperson	39.50	-	5.14	3.50	5.25	11.59		1.50	66.47	98.96	131.45
Labourers - Class 6 - General foreperson	39.55	-	5.14	3.50	5.25	11.59		1.50	66.54	99.05	131.57
Labourers - Class 7 - General foreperson	39.73	-	5.16	3.50	5.28	11.59		1.50	66.76	99.39	132.02
Labourers - Class 8 - General foreperson	39.80	-	5.17	3.50	5.28	11.59		1.50	66.85	99.52	132.20
Labourers - Class 9 - General foreperson	40.25	-	5.23	3.50	5.34	11.59		1.50	67.41	100.37	133.33
Labourers - Class 10 - General foreperson	40.35	-	5.25	3.50	5.35	11.59		1.50	67.54	100.56	133.58
Labourers - Class 11 - General foreperson	45.35	-	5.90	3.50	5.97	11.59		1.50	73.80	109.96	146.11
Linespersons - Multiplier / Fixed Value			13.0%	3.50	10.90%	8.15	2.00	3.75			
Linespersons - General foreperson	42.14	-	5.48	3.50	5.57	8.15		1.50	66.35	98.77	131.19
Linespersons - foreperson	40.14	-	5.22	3.50	5.33	8.15		1.50	63.84	95.01	126.18
Linespersons - Lead linesman	39.62	-	5.15	3.50	5.26	8.15	2.00	3.75	67.44	98.28	129.13
Linespersons - Utility worker	32.79	-	4.26	3.50	4.42	8.15	2.00	3.75	58.88	85.44	112.01
Linespersons - Mechanic	36.15	-	4.70	3.50	4.84	8.15	2.00	3.75	63.09	91.76	120.43
Linespersons - Operator + Driller/blaster	35.48	-	4.61	3.50	4.75	8.15	2.00	3.75	62.25	90.50	118.75
Linespersons - Full-time storekeeper	34.74	-	4.52	3.50	4.66	8.15	2.00	3.75	61.32	89.11	116.90
Linespersons - Instrument Person	33.38	-	4.34	3.50	4.49	8.15	2.00	3.75	59.62	86.55	113.49
Linespersons - Journeyman linesman or splicer	38.94	-	5.06	3.50	5.18	8.15	2.00	3.75	66.59	97.00	127.42



PERSONNEL RATE SCHEDULE

PLA LABOUR

Rates Effective from 01 May 2017 – 30 April 2018 - DAYSHIFT

Trade or Classification	Base Rate	Shift Premium per Hour (C) fixed	Vacation & Holiday Pay (D) =sum(B?:C?)*CS?	LCP Premium (E) fixed	Govt. Payroll Burdens (F) =sum(B?:E?)*FS?	Union Benefits and Funds (G) fixed	Small Tools (H) fixed	Consumables and PPE (I) fixed	Straight Time Rate per Hour (J) =sum(B?:I?)	Overtime Rate (1.5x) per Hour (K) =((SUM(\$B?:\$G?)-(\$C?*(1+\$D\$?)))*1.5)+(\$C?*(1+\$D\$?))+SUM(\$H?:\$I?)	Overtime Rate (2.0x) per Hour (L) =((SUM(\$B?:\$G?)-(\$C?*(1+\$D\$?)))*2)+(\$C?*(1+\$D\$?))+SUM(\$H?:\$I?)
Reference Formula	(B)	(C)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)
Linespersons - Apprentice - 1st year	21.42	-	2.78	3.50	3.02	8.15	2.00	3.75	44.62	64.06	83.50
Linespersons - Apprentice - 2nd year	25.31	-	3.29	3.50	3.50	8.15	2.00	3.75	49.50	71.38	93.26
Linespersons - Apprentice - 3rd year	27.26	-	3.54	3.50	3.74	8.15	2.00	3.75	51.95	75.04	98.14
Linespersons - Apprentice - 4th year	31.16	-	4.05	3.50	4.22	8.15	2.00	3.75	56.83	82.36	107.90
Millwrights - Multiplier / Fixed Value			13.0%	3.50	10.90%		2.50	5.00			
Millwrights - General foreperson	47.95	-	6.23	3.50	6.29	14.10		1.50	79.57	118.61	157.64
Millwrights - Non-working foreperson	45.95	-	5.97	3.50	6.04	13.70		1.50	76.67	114.25	151.83
Millwrights - Working foreperson	43.96	-	5.71	3.50	5.80	13.29	2.50	5.00	79.76	115.90	152.03
Millwrights - Journeymen millwright, welder, machinist	39.96	-	5.20	3.50	5.30	12.48	2.50	5.00	73.95	107.17	140.39
Millwrights - Apprentice 0-1000 hrs	23.98	-	3.12	3.50	3.34	9.23	2.50	5.00	50.66	72.24	93.82
Millwrights - Apprentice 1001-2000 hrs	25.97	-	3.38	3.50	3.58	9.63	2.50	5.00	53.56	76.59	99.61
Millwrights - Apprentice 2001-3000 hrs	27.97	-	3.64	3.50	3.83	10.04	2.50	5.00	56.47	80.96	105.45
Millwrights - Apprentice 3001-4000 hrs	29.97	-	3.90	3.50	4.07	10.45	2.50	5.00	59.39	85.34	111.29
Millwrights - Apprentice 4001-5000 hrs	31.97	-	4.16	3.50	4.32	10.85	2.50	5.00	62.30	89.70	117.10
Millwrights - Apprentice 5001-6000 hrs	33.97	-	4.42	3.50	4.57	11.26	2.50	5.00	65.21	94.07	122.93
Millwrights - Apprentice 6001-7000 hrs	35.96	-	4.67	3.50	4.81	11.67	2.50	5.00	68.12	98.42	128.73
Millwrights - Apprentice 7001-8000 hrs	37.96	-	4.93	3.50	5.06	12.07	2.50	5.00	71.02	102.78	134.55
Operating Engineers - Multiplier / Fixed Value			13.0%	3.50	10.90%	12.65	2.00	3.75			
Operating Engineers - Group 1 - JP	39.28	-	5.11	3.50	5.22	12.65	2.00	3.75	71.51	104.39	137.26
Operating Engineers - Group 1 - General foreperson	47.14	-	6.13	3.50	6.19	12.65		1.50	77.10	114.90	152.70
Operating Engineers - Group 1 - Non-Working foreperson	45.17	-	5.87	3.50	5.95	12.65		1.50	74.64	111.21	147.78
Operating Engineers - Group 1 - Working foreperson	45.17	-	5.87	3.50	5.95	12.65	2.00	3.75	78.89	115.46	152.03
Operating Engineers - Group 2 - JP	38.28	-	4.98	3.50	5.10	12.65	2.00	3.75	70.25	102.51	134.76
Operating Engineers - Group 2 - General foreperson	45.94	-	5.97	3.50	6.04	12.65		1.50	75.60	112.65	149.70
Operating Engineers - Group 2 - Non-Working foreperson	44.02	-	5.72	3.50	5.80	12.65		1.50	73.20	109.05	144.90
Operating Engineers - Group 2 - Working foreperson	44.02	-	5.72	3.50	5.80	12.65	2.00	3.75	77.45	113.30	149.15
Operating Engineers - Group 3 - JP	37.88	-	4.92	3.50	5.05	12.65	2.00	3.75	69.75	101.75	133.76
Operating Engineers - Group 3 - General foreperson	45.46	-	5.91	3.50	5.98	12.65		1.50	75.00	111.75	148.49
Operating Engineers - Group 3 - Non-Working foreperson	43.56	-	5.66	3.50	5.75	12.65		1.50	72.62	108.18	143.75
Operating Engineers - Group 3 - Working foreperson	43.56	-	5.66	3.50	5.75	12.65	2.00	3.75	76.87	112.43	148.00
Operating Engineers - Group 4 - JP	36.89	-	4.80	3.50	4.93	12.65	2.00	3.75	68.51	99.89	131.27
Operating Engineers - Group 4 - General foreperson	44.27	-	5.75	3.50	5.84	12.65		1.50	73.51	109.51	145.52
Operating Engineers - Group 4 - Non-Working foreperson	42.42	-	5.52	3.50	5.61	12.65		1.50	71.20	106.04	140.89
Operating Engineers - Group 4 - Working foreperson	42.42	-	5.52	3.50	5.61	12.65	2.00	3.75	75.45	110.29	145.14
Operating Engineers - Group 5 - JP	36.15	-	4.70	3.50	4.83	12.65	2.00	3.75	67.58	98.50	129.42
Operating Engineers - Group 5 - General foreperson	43.38	-	5.64	3.50	5.73	12.65		1.50	72.40	107.84	143.29
Operating Engineers - Group 5 - Non-Working foreperson	41.57	-	5.40	3.50	5.50	12.65		1.50	70.13	104.44	138.76
Operating Engineers - Group 5 - Working foreperson	41.57	-	5.40	3.50	5.50	12.65	2.00	3.75	74.38	108.69	143.01
Operating Engineers - 1st period	22.97	-	2.99	3.50	3.21	12.65	2.00	3.75	51.07	73.73	96.40
Operating Engineers - 2nd period	24.88	-	3.23	3.50	3.45	12.65	2.00	3.75	53.46	77.32	101.17
Operating Engineers - 3rd period	26.80	-	3.48	3.50	3.68	12.65	2.00	3.75	55.87	80.93	105.99
Operating Engineers - 4th period	28.71	-	3.73	3.50	3.92	12.65	2.00	3.75	58.26	84.52	110.77



PERSONNEL RATE SCHEDULE  
PLA LABOUR

Rates Effective from 01 May 2017 – 30 April 2018 - DAYSHIFT

Trade or Classification	Reference Formula	Base Rate (B)	Shift Premium per Hour (C) fixed	Vacation & Holiday Pay (D) =sum(B?:C?)*C\$?	LCP Premium (E) fixed	Govt. Payroll Burdens (F) =sum(B?:E?)*F\$?	Union Benefits and Funds (G) fixed	Small Tools (H) fixed	Consumables and PPE (I) fixed	Straight Time Rate per Hour (J) =sum(B?:I?)	Overtime Rate (1.5x) per Hour (K) =((SUM(\$B?:\$G?)-(\$C?*(1+\$D\$?)))*1.5)+(\$C?*(1+\$D\$?))+SUM(\$H?:\$I?)	Overtime Rate (2.0x) per Hour (L) =((SUM(\$B?:\$G?)-(\$C?*(1+\$D\$?)))*2)+(\$C?*(1+\$D\$?))+SUM(\$H?:\$I?)
Operating Engineers - 5th period		30.62	-	3.98	3.50	4.15	12.65	2.00	3.75	60.65	88.11	115.56
Operating Engineers - 6th period		34.45	-	4.48	3.50	4.63	12.65	2.00	3.75	65.45	95.31	125.16
Operating Engineers - Clerical Group 1		30.93	-	4.02	3.50	4.19	12.65	2.00	3.75	61.04	88.69	116.34
Operating Engineers - Clerical Group 2		33.15	-	4.31	3.50	4.47	12.65	2.00	3.75	63.83	92.86	121.90
Operating Engineers - Clerical Group 3		34.49	-	4.48	3.50	4.63	12.65	2.00	3.75	65.51	95.38	125.26
<b>Painters - Multiplier / Fixed Value</b>				13.0%	3.50	10.90%	10.25	2.00	4.00			
Painters - General foreperson - Group 1		40.75	-	5.30	3.50	5.40	10.25		1.50	66.70	99.30	131.90
Painters - Non-working foreperson - Group 1		40.25	-	5.23	3.50	5.34	10.25		1.50	66.07	98.36	130.65
Painters - Chargehands and working foremen - Group 1		39.75	-	5.17	3.50	5.28	10.25	2.00	4.00	69.95	101.92	133.89
Painters - Group 1		38.25	-	4.97	3.50	5.09	10.25	2.00	4.00	68.07	99.10	130.13
Painters - General foreperson - Group 2		43.75	-	5.69	3.50	5.77	10.25		1.50	70.46	104.94	139.42
Painters - Non-working foreperson - Group 2		43.25	-	5.62	3.50	5.71	10.25		1.50	69.83	104.00	138.16
Painters - Chargehands and working foremen - Group 2		42.75	-	5.56	3.50	5.65	10.25	2.00	4.00	73.71	107.56	141.41
Painters - Group 2		41.25	-	5.36	3.50	5.46	10.25	2.00	4.00	71.83	104.74	137.65
Painters - Apprentice - 1st year		22.95	-	2.98	3.50	3.21	10.25	2.00	4.00	48.89	70.34	91.78
Painters - Apprentice - 2nd year		28.69	-	3.73	3.50	3.92	10.25	2.00	4.00	56.09	81.13	106.17
Painters - Apprentice - 3rd year		34.43	-	4.48	3.50	4.62	10.25	2.00	4.00	63.28	91.92	120.56
<b>Plumbers and pipefitters - Multiplier / Fixed Value</b>				10.0%	3.50	10.90%	13.08	3.00	5.00			
Plumbers and pipefitters - General foreperson		50.68	-	5.07	3.50	6.46	13.08		1.50	80.29	119.68	159.07
Plumbers and pipefitters - foreperson		48.56	-	4.86	3.50	6.21	13.08		1.50	77.70	115.81	153.91
Plumbers and pipefitters - Journeyman		42.23	-	4.22	3.50	5.45	13.08	3.00	5.00	76.48	110.71	144.95
Plumbers and pipefitters - Apprentice - 2nd year		27.45	-	2.74	3.50	3.67	13.08	3.00	5.00	58.45	83.67	108.89
Plumbers and pipefitters - Apprentice - 3rd year		31.67	-	3.17	3.50	4.18	13.08	3.00	5.00	63.60	91.40	119.20
Plumbers and pipefitters - Apprentice - 4th year		35.90	-	3.59	3.50	4.69	13.08	3.00	5.00	68.76	99.14	129.51
<b>Sheet metal - Multiplier / Fixed Value</b>				13.0%	3.50	10.90%	9.26	2.00	3.75			
Sheet metal - General foreperson		46.72	-	6.07	3.50	6.14	9.26		1.50	73.19	109.03	144.88
Sheet metal - Non-working foreperson		45.72	-	5.94	3.50	6.01	9.26		1.50	71.93	107.15	142.37
Sheet metal - Working foreperson		44.72	-	5.81	3.50	5.89	9.26	2.00	3.75	74.93	109.52	144.11
Sheet metal - Journeyman		42.72	-	5.55	3.50	5.64	9.26	2.00	3.75	72.42	105.76	139.10
Sheet metal - Welder		43.72	-	5.68	3.50	5.77	9.26	2.00	3.75	73.68	107.64	141.61
Sheet metal - Apprentice - 2nd year		25.63	-	3.33	3.50	3.54	9.26	2.00	3.75	51.01	73.64	96.27
Sheet metal - Apprentice - 3rd year		32.04	-	4.16	3.50	4.33	9.26	2.00	3.75	59.04	85.69	112.33
Sheet metal - Apprentice - 4th year		36.31	-	4.72	3.50	4.85	9.26	2.00	3.75	64.39	93.72	123.04
<b>Teamsters - Multiplier / Fixed Value</b>				13.0%	3.50	10.90%	10.55	2.00	3.75			
Teamsters - Group 1 teamster		37.85	-	4.92	3.50	5.04	10.55	2.00	3.75	67.61	98.54	129.47
Teamsters - Working foreperson Group 1		39.35	-	5.11	3.50	5.23	10.55	2.00	3.75	69.49	101.36	133.23
Teamsters - Non-working foreperson Group 1		39.35	-	5.11	3.50	5.23	10.55		1.50	65.24	97.11	128.98
Teamsters - General foreperson Group 1		39.85	-	5.18	3.50	5.29	10.55		1.50	65.87	98.05	130.23
Teamsters - Group 2 teamster		37.63	-	4.89	3.50	5.02	10.55	2.00	3.75	67.34	98.13	128.93
Teamsters - Working foreperson Group 2		39.13	-	5.09	3.50	5.20	10.55	2.00	3.75	69.22	100.95	132.69

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PERSONNEL RATE SCHEDULE  
PLA LABOUR

Rates Effective from 01 May 2017 – 30 April 2018 - DAYSHIFT

Trade or Classification	Reference Formula	Base Rate (B)	Shift Premium per Hour (C) fixed	Vacation & Holiday Pay (D) =sum(B?:C?)*CS?	LCP Premium (E) fixed	Govt. Payroll Burdens (F) =sum(B?:E?)*FS?	Union Benefits and Funds (G) fixed	Small Tools (H) fixed	Consumables and PPE (I) fixed	Straight Time Rate per Hour (J) =sum(B?:I?)	Overtime Rate (1.5x) per Hour (K) =(SUM(\$B?:\$G?)-(\$C?*(1+\$D\$?)))*1.5+(\$C?*(1+\$D\$?))+SUM(\$H?:\$I?:\$J?)	Overtime Rate (2.0x) per Hour (L) =(SUM(\$B?:\$G?)-(\$C?*(1+\$D\$?)))*2)+(\$C?*(1+\$D\$?))+SUM(\$H?:\$I?:\$J?)
Teamsters - Non-working foreperson Group 2		39.13	-	5.09	3.50	5.20	10.55		1.50	64.97	96.70	128.44
Teamsters - General foreperson Group 2		39.63	-	5.15	3.50	5.26	10.55		1.50	65.60	97.64	129.69
Teamsters - Group 3 teamster		37.42	-	4.86	3.50	4.99	10.55	2.00	3.75	67.08	97.74	128.40
Teamsters - Working foreperson Group 3		38.92	-	5.06	3.50	5.18	10.55	2.00	3.75	68.96	100.56	132.16
Teamsters - Non-working foreperson Group 3		38.92	-	5.06	3.50	5.18	10.55		1.50	64.71	96.31	127.91
Teamsters - General foreperson Group 3		39.42	-	5.12	3.50	5.24	10.55		1.50	65.33	97.25	129.16
Teamsters - Group 4 teamster		37.85	-	4.92	3.50	5.04	10.55	2.00	3.75	67.61	98.54	129.47
Teamsters - Working foreperson Group 4		39.35	-	5.11	3.50	5.23	10.55	2.00	3.75	69.49	101.36	133.23
Teamsters - Non-working foreperson Group 4		39.35	-	5.11	3.50	5.23	10.55		1.50	65.24	97.11	128.98
Teamsters - General foreperson Group 4		39.85	-	5.18	3.50	5.29	10.55		1.50	65.87	98.05	130.23
Teamsters - Group 5 teamster		43.25	-	5.62	3.50	5.71	10.55	2.00	3.75	74.38	108.70	143.01
Teamsters - Working foreperson Group 5		44.75	-	5.82	3.50	5.89	10.55	2.00	3.75	76.26	111.52	146.77
Teamsters - Non-working foreperson Group 5		44.75	-	5.82	3.50	5.89	10.55		1.50	72.01	107.27	142.52
Teamsters - General foreperson Group 5		45.25	-	5.88	3.50	5.96	10.55		1.50	72.64	108.21	143.78
Teamsters - Group 6 teamster		48.96	-	6.36	3.50	6.41	10.55	2.00	3.75	81.54	119.43	157.33
Teamsters - Working foreperson Group 6		50.46	-	6.56	3.50	6.60	10.55	2.00	3.75	83.42	122.25	161.09
Teamsters - Non-working foreperson Group 6		50.46	-	6.56	3.50	6.60	10.55		1.50	79.17	118.00	156.84
Teamsters - General foreperson Group 6		50.96	-	6.62	3.50	6.66	10.55		1.50	79.79	118.94	158.09
Teamsters - Group 4 Apprentice 1		26.49	-	3.44	3.50	3.65	10.55	2.00	3.75	53.38	77.20	101.01
Teamsters - Group 4 Apprentice 2		30.28	-	3.94	3.50	4.11	10.55	2.00	3.75	58.12	84.31	110.50
Teamsters - Group 4 Apprentice 3		34.06	-	4.43	3.50	4.58	10.55	2.00	3.75	62.87	91.43	119.98
Elevator Constructors - Multiplier / Fixed Value				12.0%	3.50	10.90%	4.09	2.00	3.75			
Elevator Constructors - Mechanic		45.55	-	5.47	3.50	5.94	4.09	2.00	3.75	70.30	102.57	134.85
Elevator Constructors - Mechanic in charge I		51.24	-	6.15	3.50	6.64	4.09	2.00	3.75	77.37	113.18	148.98
Elevator Constructors - Mechanic in charge II		52.38	-	6.29	3.50	6.78	4.09	2.00	3.75	78.78	115.30	151.82
Elevator Constructors - Probationary Helper I		22.78	-	2.73	3.50	3.16	4.09	2.00	3.75	42.02	60.15	78.28
Elevator Constructors - Probationary Helper II		25.05	-	3.01	3.50	3.44	4.09	2.00	3.75	44.83	64.38	83.92
Elevator Constructors - Helper I		31.89	-	3.83	3.50	4.28	4.09	2.00	3.75	53.33	77.12	100.91
Elevator Constructors - Helper II		34.16	-	4.10	3.50	4.55	4.09	2.00	3.75	56.15	81.35	106.54
Elevator Constructors - Improver helper		36.44	-	4.37	3.50	4.83	4.09	2.00	3.75	58.98	85.60	112.22



PERSONNEL RATE SCHEDULE  
PLA LABOUR

Appendix D  
Personnel Rate Schedule  
CH0031-001

Rates Effective from 01 May 2017 – 30 April 2018 - NIGHTSHIFT

Trade or Classification	Reference Formula	Base Rate (B)	Shift Premium per Hour (C) fixed	Vacation & Holiday Pay (D) =sum(B?:C?)*CS?	LCP Premium (E) fixed	Govt. Payroll Burdens (F) =sum(B?:E?)*FS?	Union Benefits and Funds (G) fixed	Small Tools (H) fixed	Consumables and PPE (I) fixed	Straight Time Rate per Hour (J) =sum(B?:I?)	Overtime Rate (1.5x) per Hour (K) =((SUM(\$B?:\$G?)-(\$C?*(1+\$D\$?)))*1.5)+(\$C?*(1+\$D\$?))+SUM(\$H?:\$I?)	Overtime Rate (2.0x) per Hour (L) =((SUM(\$B?:\$G?)-(\$C?*(1+\$D\$?)))*2)+(\$C?*(1+\$D\$?))+SUM(\$H?:\$I?)
<b>Boilermakers - Multiplier / Fixed Value</b>												
Boilermakers - General foreperson		45.83	3.00	5.86	3.50	6.34	11.68	3.00	5.00	77.71	114.14	150.57
Boilermakers - foreperson		44.73	3.00	5.73	3.50	6.21	11.68		1.50	76.35	112.09	147.83
Boilermakers - Assistaht foreperson		43.38	3.00	5.57	3.50	6.04	11.68		1.50	74.67	109.58	144.48
Boilermakers - Journeyman		41.68	3.00	5.36	3.50	5.84	11.68	3.00	5.00	79.06	112.91	146.76
Boilermakers - Helper		31.26	3.00	4.11	3.50	4.56	11.68	3.00	5.00	66.12	93.49	120.87
Boilermakers - Apprentice - Level 3		37.51	3.00	4.86	3.50	5.33	11.68	3.00	5.00	73.88	105.14	136.40
Boilermakers - Apprentice - Level 2		31.26	3.00	4.11	3.50	4.56	11.68	3.00	5.00	66.12	93.49	120.87
Boilermakers - Apprentice - Level 1		25.01	3.00	3.36	3.50	3.80	11.68	3.00	5.00	58.35	81.85	105.35
<b>Bricklayers - Multiplier / Fixed Value</b>												
Bricklayers - General foreperson		51.19	3.00	5.42	3.50	6.88	8.95	2.00	3.75	80.44	118.26	156.08
Bricklayers - foreperson		49.06	3.00	5.21	3.50	6.62	8.95		1.50	77.84	114.36	150.87
Bricklayers - Journeyman - Group 1		42.66	3.00	4.57	3.50	5.86	8.95	2.00	3.75	74.28	106.90	139.51
Bricklayers - Journeyman - Group 2		39.25	3.00	4.22	3.50	5.45	8.95	2.00	3.75	70.12	100.66	131.19
Bricklayers - Journeyman - Group 3		41.02	3.00	4.40	3.50	5.66	8.95	2.00	3.75	72.28	103.90	135.51
Bricklayers - Apprentice - 1st 6 months		23.89	3.00	2.69	3.50	3.61	8.95	2.00	3.75	51.38	72.55	93.72
Bricklayers - Apprentice - 2nd 6 months		26.45	3.00	2.94	3.50	3.91	8.95	2.00	3.75	54.51	77.23	99.96
Bricklayers - Apprentice - 3rd 6 months		29.01	3.00	3.20	3.50	4.22	8.95	2.00	3.75	57.63	81.92	106.21
Bricklayers - Apprentice - 4th 6 months		31.57	3.00	3.46	3.50	4.53	8.95	2.00	3.75	60.75	86.60	112.45
Bricklayers - Apprentice - 5th 6 months		34.13	3.00	3.71	3.50	4.83	8.95	2.00	3.75	63.87	91.28	118.70
Bricklayers - Apprentice - 6th 6 months		36.26	3.00	3.93	3.50	5.09	8.95	2.00	3.75	66.48	95.19	123.90
Bricklayers - Apprentice - 7th 6 months		38.39	3.00	4.14	3.50	5.35	8.95	2.00	3.75	69.08	99.09	129.10
Bricklayers - Apprentice - 8th 6 months		40.53	3.00	4.35	3.50	5.60	8.95	2.00	3.75	71.68	102.99	134.31
<b>Carpenters - Multiplier / Fixed Value</b>												
Carpenters - General foreperson		45.07	3.00	6.25	3.50	6.30	11.75	2.00	3.75	77.37	113.61	149.86
Carpenters - Non-working foreperson		43.19	3.00	6.00	3.50	6.07	11.75		1.50	75.02	110.08	145.14
Carpenters - Working foreperson		41.32	3.00	5.76	3.50	5.84	11.75	2.00	3.75	76.92	110.81	144.71
Carpenters - Journeyman carpenter welder scaffolder		37.56	3.00	5.27	3.50	5.38	11.75	2.00	3.75	72.21	103.75	135.28
Carpenters - Helper		22.54	3.00	3.32	3.50	3.53	11.75	2.00	3.75	53.39	75.51	97.64
Carpenters - Apprentice - 1		24.41	3.00	3.56	3.50	3.76	11.75	2.00	3.75	55.73	79.03	102.32
Carpenters - Apprentice - 2		26.29	3.00	3.81	3.50	3.99	11.75	2.00	3.75	58.08	82.56	107.03
Carpenters - Apprentice - 3		30.05	3.00	4.30	3.50	4.45	11.75	2.00	3.75	62.80	89.63	116.46
Carpenters - Apprentice - 4		33.80	3.00	4.78	3.50	4.91	11.75	2.00	3.75	67.50	96.68	125.85
<b>Electricians - Multiplier / Fixed Value</b>												
Electricians - General foreperson		48.93	3.00	6.75	3.50	6.78	9.75	2.00	3.75	80.21	117.87	155.53
Electricians - Non-working foreperson		46.81	3.00	6.48	3.50	6.52	9.75		1.50	77.55	113.88	150.22
Electricians - Working foreperson		44.68	3.00	6.20	3.50	6.25	9.75	2.00	3.75	79.13	114.12	149.12
Electricians - Apprentice/Journeyman electrician welder/welder		44.68	3.00	6.20	3.50	6.25	9.75	2.00	3.75	79.13	114.12	149.12
Electricians - Journeyperson		42.55	3.00	5.92	3.50	5.99	9.75	2.00	3.75	76.46	110.13	143.79
Electricians - Apprentice - 1st year		23.40	3.00	3.43	3.50	3.63	9.75	2.00	3.75	52.47	74.13	95.80



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Personnel Rate Schedule  
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Rates Effective from 01 May 2017 – 30 April 2018 - NIGHTSHIFT

Trade or Classification	Base Rate (B)	Shift Premium per Hour (C) fixed	Vacation & Holiday Pay (D) =sum(B?:C?)*CS ?	LCP Premium (E) fixed	Govt. Payroll Burdens (F) =sum(B?:E?)* F\$?	Union Benefits and Funds (G) fixed	Small Tools (H) fixed	Consumables and PPE (I) fixed	Straight Time Rate per Hour (J) =sum(B?:I?)	Overtime Rate (1.5x) per Hour (K) =((SUM(\$B?:\$G?)- (\$C?*(1+\$D\$?)))*1. 5)+(\$C?*(1+\$D\$?)) +SUM(\$H?:\$I?)	Overtime Rate (2.0x) per Hour (L) =((SUM(\$B?:\$G?)- (\$C?*(1+\$D\$?)))*2)+( \$C?*(1+\$D\$?))+SUM (\$H?:\$I?)
Electricians - Apprentice - 2nd year	27.66	3.00	3.99	3.50	4.16	9.75	2.00	3.75	57.80	82.13	106.46
Electricians - Apprentice - 3rd year	29.79	3.00	4.26	3.50	4.42	9.75	2.00	3.75	60.47	86.14	111.81
Electricians - Apprentice - 4th year	34.04	3.00	4.82	3.50	4.94	9.75	2.00	3.75	65.80	94.13	122.46
<b>Hotel and Restaurant - Multiplier / Fixed Value</b>		<b>3.00</b>	<b>13.0%</b>	<b>1.00</b>	<b>10.90%</b>	<b>16.04</b>	<b>2.00</b>	<b>3.75</b>			
Hotel and Restaurant - Group 1 - Security	40.45	3.00	5.65	1.00	5.46	16.04	2.00	3.75	77.35	111.45	145.56
Hotel and Restaurant - Group 2 - Security	38.91	3.00	5.45	1.00	5.27	16.04	2.00	3.75	75.42	108.56	141.70
Hotel and Restaurant - Group 3 - Security	37.43	3.00	5.26	1.00	5.09	16.04	2.00	3.75	73.57	105.78	137.99
Hotel and Restaurant - Group 1	41.39	3.00	5.77	1.00	5.58	16.04	2.00	3.75	78.53	113.22	147.91
Hotel and Restaurant - Group 2	38.42	3.00	5.38	1.00	5.21	16.04	2.00	3.75	74.81	107.64	140.47
Hotel and Restaurant - Group 3	37.43	3.00	5.26	1.00	5.09	16.04	2.00	3.75	73.57	105.78	137.99
Hotel and Restaurant - Group 4	36.40	3.00	5.12	1.00	4.96	16.04	2.00	3.75	72.27	103.84	135.40
Hotel and Restaurant - Group 5	35.92	3.00	5.06	1.00	4.90	16.04	2.00	3.75	71.67	102.94	134.20
Hotel and Restaurant - Group 6	35.42	3.00	4.99	1.00	4.84	16.04	2.00	3.75	71.05	102.00	132.95
Hotel and Restaurant - Group 7	34.40	3.00	4.86	1.00	4.72	16.04	2.00	3.75	69.77	100.08	130.39
<b>Insulators - Multiplier / Fixed Value</b>		<b>3.00</b>	<b>13.0%</b>	<b>3.50</b>	<b>10.90%</b>	<b>10.65</b>	<b>2.00</b>	<b>3.75</b>			
Insulators - General foreperson	44.58	3.00	6.19	3.50	6.24	10.65	2.00	1.50	75.65	111.04	146.42
Insulators - Non-working foreperson	42.08	3.00	5.86	3.50	5.93	10.65	2.00	1.50	72.52	106.34	140.15
Insulators - Working foreperson	41.33	3.00	5.76	3.50	5.84	10.65	2.00	3.75	75.83	109.18	142.52
Insulators - Journeyman mechanic	40.08	3.00	5.60	3.50	5.69	10.65	2.00	3.75	74.27	106.83	139.39
Insulators - Apprentice - 1st year	24.05	3.00	3.52	3.50	3.71	10.65	2.00	3.75	54.18	76.69	99.21
Insulators - Apprentice - 2nd year	26.05	3.00	3.78	3.50	3.96	10.65	2.00	3.75	56.69	80.46	104.23
Insulators - Apprentice - 3rd year	30.06	3.00	4.30	3.50	4.45	10.65	2.00	3.75	61.71	87.99	114.28
Insulators - Apprentice - 4th year	34.07	3.00	4.82	3.50	4.95	10.65	2.00	3.75	66.73	95.53	124.32
<b>Ironworkers - Multiplier / Fixed Value</b>		<b>3.00</b>	<b>13.5%</b>	<b>3.50</b>	<b>10.90%</b>	<b>10.28</b>	<b>3.00</b>	<b>5.00</b>			
Ironworkers - Structural General foreperson	49.39	3.00	7.07	3.50	6.86	10.28	3.00	1.50	81.61	119.97	158.32
Ironworkers - Structural foreperson	47.33	3.00	6.79	3.50	6.61	10.28	3.00	1.50	79.01	116.07	153.12
Ironworkers - Structural Connectors	42.07	3.00	6.08	3.50	5.96	10.28	3.00	5.00	78.90	112.64	146.39
Ironworkers - Structural Journeyman	41.16	3.00	5.96	3.50	5.85	10.28	3.00	5.00	77.75	110.92	144.10
Ironworkers - Structural Apprentice - 1st 1,000 hrs	28.81	3.00	4.29	3.50	4.32	10.28	3.00	5.00	62.21	87.61	113.01
Ironworkers - Structural Apprentice - 2nd 1,000 hrs	32.93	3.00	4.85	3.50	4.83	10.28	3.00	5.00	67.39	95.38	123.37
Ironworkers - Structural Apprentice - 3rd 1,000 hrs	37.04	3.00	5.41	3.50	5.34	10.28	3.00	5.00	72.56	103.14	133.72
Ironworkers - Structural Apprentice - 4th 1,000 hrs	39.10	3.00	5.68	3.50	5.59	10.28	3.00	5.00	75.16	107.04	138.91
Ironworkers - Rebar General foreperson	48.01	3.00	6.89	3.50	6.69	10.28	3.00	1.50	79.88	117.36	154.85
Ironworkers - Rebar foreperson	46.01	3.00	6.62	3.50	6.45	10.28	3.00	1.50	77.36	113.58	149.81
Ironworkers - Rebar Journeyman	40.01	3.00	5.81	3.50	5.70	10.28	3.00	5.00	76.30	108.75	141.20
Ironworkers - Rebar Apprentice - 1st 1,000 hrs	28.01	3.00	4.19	3.50	4.22	10.28	3.00	5.00	61.19	86.09	110.98
Ironworkers - Rebar Apprentice - 2nd 1,000 hrs	32.01	3.00	4.73	3.50	4.71	10.28	3.00	5.00	66.23	93.64	121.05
Ironworkers - Rebar Apprentice - 3rd 1,000 hrs	36.01	3.00	5.27	3.50	5.21	10.28	3.00	5.00	71.27	101.20	131.13
Ironworkers - Rebar Apprentice - 4th 1,000 hrs	38.01	3.00	5.54	3.50	5.46	10.28	3.00	5.00	73.78	104.97	136.16
<b>Labourers - Multiplier / Fixed Value</b>		<b>3.00</b>	<b>13.0%</b>	<b>3.50</b>	<b>10.90%</b>	<b>11.59</b>	<b>2.00</b>	<b>3.75</b>			



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Rates Effective from 01 May 2017 – 30 April 2018 - NIGHTSHIFT

Trade or Classification	Reference Formula	Base Rate (B)	Shift Premium per Hour (C) fixed	Vacation & Holiday Pay (D) =sum(B?:C?)*CS?	LCP Premium (E) fixed	Govt. Payroll Burdens (F) =sum(B?:E?)*F\$?	Union Benefits and Funds (G) fixed	Small Tools (H) fixed	Consumables and PPE (I) fixed	Straight Time Rate per Hour (J) =sum(B?:I?)	Overtime Rate (1.5x) per Hour (K) =((SUM(\$B?:\$G?)-(\$C?* (1+\$D\$?)))*1.5)+(\$C?* (1+\$D\$?))	Overtime Rate (2.0x) per Hour (L) =((SUM(\$B?:\$G?)-(\$C?* (1+\$D\$?)))*2)+(\$C?* (1+\$D\$?))+SUM(\$H?:\$I?)
Labourers - Class 1		36.80	3.00	5.17	3.50	5.28	11.59	2.00	3.75	71.10	102.08	133.06
Labourers - Class 2		36.84	3.00	5.18	3.50	5.29	11.59	2.00	3.75	71.15	102.15	133.16
Labourers - Class 3		36.90	3.00	5.19	3.50	5.30	11.59	2.00	3.75	71.22	102.27	133.31
Labourers - Class 4		36.95	3.00	5.19	3.50	5.30	11.59	2.00	3.75	71.29	102.36	133.43
Labourers - Class 5		37.00	3.00	5.20	3.50	5.31	11.59	2.00	3.75	71.35	102.45	133.56
Labourers - Class 6		37.05	3.00	5.21	3.50	5.32	11.59	2.00	3.75	71.41	102.55	133.68
Labourers - Class 7		37.23	3.00	5.23	3.50	5.34	11.59	2.00	3.75	71.64	102.89	134.14
Labourers - Class 8		37.30	3.00	5.24	3.50	5.35	11.59	2.00	3.75	71.73	103.02	134.31
Labourers - Class 9		37.75	3.00	5.30	3.50	5.40	11.59	2.00	3.75	72.29	103.86	135.44
Labourers - Class 10		37.85	3.00	5.31	3.50	5.41	11.59	2.00	3.75	72.41	104.05	135.69
Labourers - Class 11		42.85	3.00	5.96	3.50	6.03	11.59	2.00	3.75	78.68	113.45	148.22
Labourers - Class 1 - foreperson		38.55	3.00	5.40	3.50	5.50	11.59		1.50	69.04	101.12	133.19
Labourers - Class 2 - foreperson		38.59	3.00	5.41	3.50	5.51	11.59		1.50	69.09	101.19	133.29
Labourers - Class 3 - foreperson		38.65	3.00	5.41	3.50	5.51	11.59		1.50	69.17	101.31	133.44
Labourers - Class 4 - foreperson		38.70	3.00	5.42	3.50	5.52	11.59		1.50	69.23	101.40	133.57
Labourers - Class 5 - foreperson		38.75	3.00	5.43	3.50	5.52	11.59		1.50	69.29	101.49	133.69
Labourers - Class 6 - foreperson		38.80	3.00	5.43	3.50	5.53	11.59		1.50	69.36	101.59	133.82
Labourers - Class 7 - foreperson		38.98	3.00	5.46	3.50	5.55	11.59		1.50	69.58	101.93	134.27
Labourers - Class 8 - foreperson		39.05	3.00	5.47	3.50	5.56	11.59		1.50	69.67	102.06	134.45
Labourers - Class 9 - foreperson		39.50	3.00	5.53	3.50	5.62	11.59		1.50	70.23	102.90	135.57
Labourers - Class 10 - foreperson		39.60	3.00	5.54	3.50	5.63	11.59		1.50	70.36	103.09	135.83
Labourers - Class 11 - foreperson		44.60	3.00	6.19	3.50	6.25	11.59		1.50	76.62	112.49	148.36
Labourers - Class 1 - General foreperson		39.30	3.00	5.50	3.50	5.59	11.59		1.50	69.98	102.53	135.07
Labourers - Class 2 - General foreperson		39.34	3.00	5.50	3.50	5.60	11.59		1.50	70.03	102.60	135.17
Labourers - Class 3 - General foreperson		39.40	3.00	5.51	3.50	5.60	11.59		1.50	70.11	102.72	135.32
Labourers - Class 4 - General foreperson		39.45	3.00	5.52	3.50	5.61	11.59		1.50	70.17	102.81	135.45
Labourers - Class 5 - General foreperson		39.50	3.00	5.53	3.50	5.62	11.59		1.50	70.23	102.90	135.57
Labourers - Class 6 - General foreperson		39.55	3.00	5.53	3.50	5.62	11.59		1.50	70.29	103.00	135.70
Labourers - Class 7 - General foreperson		39.73	3.00	5.55	3.50	5.65	11.59		1.50	70.52	103.34	136.15
Labourers - Class 8 - General foreperson		39.80	3.00	5.56	3.50	5.65	11.59		1.50	70.61	103.47	136.33
Labourers - Class 9 - General foreperson		40.25	3.00	5.62	3.50	5.71	11.59		1.50	71.17	104.31	137.45
Labourers - Class 10 - General foreperson		40.35	3.00	5.64	3.50	5.72	11.59		1.50	71.30	104.50	137.70
Labourers - Class 11 - General foreperson		45.35	3.00	6.29	3.50	6.34	11.59		1.50	77.56	113.90	150.24
Linespersons - Multiplier / Fixed Value			3.00	13.0%	3.50	10.90%	8.15	2.00	3.75			
Linespersons - General foreperson		42.14	3.00	5.87	3.50	5.94	8.15		1.50	70.11	102.71	135.32
Linespersons - foreperson		40.14	3.00	5.61	3.50	5.70	8.15		1.50	67.60	98.96	130.31
Linespersons - Lead linesman		39.62	3.00	5.54	3.50	5.63	8.15	2.00	3.75	71.20	102.23	133.26
Linespersons - Utility worker		32.79	3.00	4.65	3.50	4.79	8.15	2.00	3.75	62.64	89.39	116.14
Linespersons - Mechanic		36.15	3.00	5.09	3.50	5.21	8.15	2.00	3.75	66.85	95.70	124.56
Linespersons - Operator + Driller/blaster		35.48	3.00	5.00	3.50	5.12	8.15	2.00	3.75	66.01	94.45	122.88
Linespersons - Full-time storekeeper		34.74	3.00	4.91	3.50	5.03	8.15	2.00	3.75	65.08	93.05	121.03
Linespersons - Instrument Person		33.38	3.00	4.73	3.50	4.86	8.15	2.00	3.75	63.38	90.50	117.62
Linespersons - Journeyman linesman or splicer		38.94	3.00	5.45	3.50	5.55	8.15	2.00	3.75	70.35	100.95	131.55



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Trade or Classification	Base Rate (B)	Shift Premium per Hour (C) fixed	Vacation & Holiday Pay (D) =sum(B?:C?)*CS?	LCP Premium (E) fixed	Govt. Payroll Burdens (F) =sum(B?:E?)*FS?	Union Benefits and Funds (G) fixed	Small Tools (H) fixed	Consumables and PPE (I) fixed	Straight Time Rate per Hour (J) =sum(B?:I?)	Overtime Rate (1.5x) per Hour (K) =((SUM(\$B?:\$G?)-(\$C?*(1+\$D\$?)))*1.5)+(\$C?*(1+\$D\$?))+SUM(\$H?:\$I?)	Overtime Rate (2.0x) per Hour (L) =((SUM(\$B?:\$G?)-(\$C?*(1+\$D\$?)))*2)+(\$C?*(1+\$D\$?))+SUM(\$H?:\$I?)
Linespersons - Apprentice - 1st year	21.42	3.00	3.17	3.50	3.39	8.15	2.00	3.75	48.38	68.01	87.63
Linespersons - Apprentice - 2nd year	25.31	3.00	3.68	3.50	3.87	8.15	2.00	3.75	53.26	75.33	97.39
Linespersons - Apprentice - 3rd year	27.26	3.00	3.93	3.50	4.11	8.15	2.00	3.75	55.70	78.99	102.27
Linespersons - Apprentice - 4th year	31.16	3.00	4.44	3.50	4.59	8.15	2.00	3.75	60.59	86.31	112.03
Millwrights - Multiplier / Fixed Value		3.00	13.0%	3.50	10.90%		2.50	5.00			
Millwrights - General foreperson	47.95	3.00	6.62	3.50	6.66	12.56		1.50	81.79	120.24	158.68
Millwrights - Non-working foreperson	45.95	3.00	6.36	3.50	6.41	12.18		1.50	78.90	115.91	152.92
Millwrights - Working foreperson	43.96	3.00	6.10	3.50	6.17	11.80	2.50	5.00	82.03	117.61	153.18
Millwrights - Journeymen millwright, welder, machinist	39.96	3.00	5.59	3.50	5.67	11.05	2.50	5.00	76.27	108.96	141.65
Millwrights - Apprentice 0-1000 hrs	23.98	3.00	3.51	3.50	3.71	8.03	2.50	5.00	53.22	74.38	95.55
Millwrights - Apprentice 1001-2000 hrs	25.97	3.00	3.77	3.50	3.95	8.41	2.50	5.00	56.09	78.69	101.29
Millwrights - Apprentice 2001-3000 hrs	27.97	3.00	4.03	3.50	4.20	8.78	2.50	5.00	58.98	83.02	107.06
Millwrights - Apprentice 3001-4000 hrs	29.97	3.00	4.29	3.50	4.44	9.16	2.50	5.00	61.86	87.35	112.84
Millwrights - Apprentice 4001-5000 hrs	31.97	3.00	4.55	3.50	4.69	9.54	2.50	5.00	64.75	91.67	118.60
Millwrights - Apprentice 5001-6000 hrs	33.97	3.00	4.81	3.50	4.94	9.91	2.50	5.00	67.63	96.00	124.36
Millwrights - Apprentice 6001-7000 hrs	35.96	3.00	5.06	3.50	5.18	10.29	2.50	5.00	70.50	100.30	130.11
Millwrights - Apprentice 7001-8000 hrs	37.96	3.00	5.32	3.50	5.43	10.67	2.50	5.00	73.38	104.63	135.87
Operating Engineers - Multiplier / Fixed Value		3.00	13.0%	3.50	10.90%	12.65	2.00	3.75			
Operating Engineers - Group 1 - JP	39.28	3.00	5.50	3.50	5.59	12.65	2.00	3.75	75.27	108.33	141.39
Operating Engineers - Group 1 - General foreperson	47.14	3.00	6.52	3.50	6.56	12.65		1.50	80.86	118.85	156.83
Operating Engineers - Group 1 - Non-Working foreperson	45.17	3.00	6.26	3.50	6.32	12.65		1.50	78.40	115.16	151.91
Operating Engineers - Group 1 - Working foreperson	45.17	3.00	6.26	3.50	6.32	12.65	2.00	3.75	82.65	119.41	156.16
Operating Engineers - Group 2 - JP	38.28	3.00	5.37	3.50	5.47	12.65	2.00	3.75	74.01	106.45	138.89
Operating Engineers - Group 2 - General foreperson	45.94	3.00	6.36	3.50	6.41	12.65		1.50	79.36	116.59	153.83
Operating Engineers - Group 2 - Non-Working foreperson	44.02	3.00	6.11	3.50	6.17	12.65		1.50	76.96	112.99	149.03
Operating Engineers - Group 2 - Working foreperson	44.02	3.00	6.11	3.50	6.17	12.65	2.00	3.75	81.21	117.24	153.28
Operating Engineers - Group 3 - JP	37.88	3.00	5.31	3.50	5.42	12.65	2.00	3.75	73.51	105.70	137.88
Operating Engineers - Group 3 - General foreperson	45.46	3.00	6.30	3.50	6.35	12.65		1.50	78.76	115.69	152.62
Operating Engineers - Group 3 - Non-Working foreperson	43.56	3.00	6.05	3.50	6.12	12.65		1.50	76.38	112.13	147.88
Operating Engineers - Group 3 - Working foreperson	43.56	3.00	6.05	3.50	6.12	12.65	2.00	3.75	80.63	116.38	152.13
Operating Engineers - Group 4 - JP	36.89	3.00	5.19	3.50	5.30	12.65	2.00	3.75	72.27	103.84	135.40
Operating Engineers - Group 4 - General foreperson	44.27	3.00	6.14	3.50	6.20	12.65		1.50	77.27	113.46	149.64
Operating Engineers - Group 4 - Non-Working foreperson	42.42	3.00	5.91	3.50	5.98	12.65		1.50	74.96	109.99	145.02
Operating Engineers - Group 4 - Working foreperson	42.42	3.00	5.91	3.50	5.98	12.65	2.00	3.75	79.21	114.24	149.27
Operating Engineers - Group 5 - JP	36.15	3.00	5.09	3.50	5.20	12.65	2.00	3.75	71.34	102.45	133.55
Operating Engineers - Group 5 - General foreperson	43.38	3.00	6.03	3.50	6.10	12.65		1.50	76.15	111.79	147.42
Operating Engineers - Group 5 - Non-Working foreperson	41.57	3.00	5.79	3.50	5.87	12.65		1.50	73.89	108.39	142.89
Operating Engineers - Group 5 - Working foreperson	41.57	3.00	5.79	3.50	5.87	12.65	2.00	3.75	78.14	112.64	147.14
Operating Engineers - 1st period	22.97	3.00	3.38	3.50	3.58	12.65	2.00	3.75	54.83	77.68	100.53
Operating Engineers - 2nd period	24.88	3.00	3.62	3.50	3.82	12.65	2.00	3.75	57.22	81.26	105.30
Operating Engineers - 3rd period	26.80	3.00	3.87	3.50	4.05	12.65	2.00	3.75	59.63	84.88	110.12
Operating Engineers - 4th period	28.71	3.00	4.12	3.50	4.29	12.65	2.00	3.75	62.02	88.46	114.90



PERSONNEL RATE SCHEDULE  
PLA LABOUR

Rates Effective from 01 May 2017 – 30 April 2018 - NIGHTSHIFT

Trade or Classification	Base Rate (B)	Shift Premium per Hour (C) fixed	Vacation & Holiday Pay (D) =sum(B?:C?)*CS ?	LCP Premium (E) fixed	Govt. Payroll Burdens (F) =sum(B?:E?)* FS?	Union Benefits and Funds (G) fixed	Small Tools (H) fixed	Consumables and PPE (I) fixed	Straight Time Rate per Hour (J) =sum(B?:I?)	Overtime Rate (1.5x) per Hour (K) =((SUM(\$B?:\$G?)- (\$C?*(1+\$D\$?)))*1. 5)+(\$C?*(1+\$D\$?)) +SUM(\$H?:\$I?)	Overtime Rate (2.0x) per Hour (L) =((SUM(\$B?:\$G?)- (\$C?*(1+\$D\$?)))*2)+( \$C?*(1+\$D\$?))+SUM (\$H?:\$I?)
Operating Engineers - 5th period	30.62	3.00	4.37	3.50	4.52	12.65	2.00	3.75	64.41	92.05	119.69
Operating Engineers - 6th period	34.45	3.00	4.87	3.50	5.00	12.65	2.00	3.75	69.21	99.25	129.29
Operating Engineers - Clerical Group 1	30.93	3.00	4.41	3.50	4.56	12.65	2.00	3.75	64.80	92.64	120.47
Operating Engineers - Clerical Group 2	33.15	3.00	4.70	3.50	4.84	12.65	2.00	3.75	67.59	96.81	126.03
Operating Engineers - Clerical Group 3	34.49	3.00	4.87	3.50	5.00	12.65	2.00	3.75	69.27	99.33	129.39
<b>Painters - Multiplier / Fixed Value</b>		3.00	13.0%	3.50	10.90%	10.25	2.00	4.00			
Painters - General foreperson - Group 1	40.75	3.00	5.69	3.50	5.77	10.25		1.50	70.46	103.24	136.03
Painters - Non-working foreperson - Group 1	40.25	3.00	5.62	3.50	5.71	10.25		1.50	69.83	102.30	134.77
Painters - Chargehands and working foremen - Group 1	39.75	3.00	5.56	3.50	5.65	10.25	2.00	4.00	73.71	105.86	138.02
Painters - Group 1	38.25	3.00	5.36	3.50	5.46	10.25	2.00	4.00	71.83	103.04	134.26
Painters - General foreperson - Group 2	43.75	3.00	6.08	3.50	6.14	10.25		1.50	74.22	108.88	143.55
Painters - Non-working foreperson - Group 2	43.25	3.00	6.01	3.50	6.08	10.25		1.50	73.59	107.94	142.29
Painters - Chargehands and working foremen - Group 2	42.75	3.00	5.95	3.50	6.02	10.25	2.00	4.00	77.47	111.50	145.54
Painters - Group 2	41.25	3.00	5.75	3.50	5.83	10.25	2.00	4.00	75.59	108.68	141.78
Painters - Apprentice - 1st year	22.95	3.00	3.37	3.50	3.58	10.25	2.00	4.00	52.65	74.28	95.91
Painters - Apprentice - 2nd year	28.69	3.00	4.12	3.50	4.29	10.25	2.00	4.00	59.85	85.07	110.30
Painters - Apprentice - 3rd year	34.43	3.00	4.87	3.50	4.99	10.25	2.00	4.00	67.04	95.86	124.69
<b>Plumbers and pipefitters - Multiplier / Fixed Value</b>		3.00	10.0%	3.50	10.90%	13.08	3.00	5.00			
Plumbers and pipefitters - General foreperson	50.68	3.00	5.37	3.50	6.82	13.08		1.50	83.95	123.52	163.09
Plumbers and pipefitters - foreperson	48.56	3.00	5.16	3.50	6.57	13.08		1.50	81.36	119.65	157.93
Plumbers and pipefitters - Journeyman	42.23	3.00	4.52	3.50	5.81	13.08	3.00	5.00	80.14	114.55	148.97
Plumbers and pipefitters - Apprentice - 2nd year	27.45	3.00	3.04	3.50	4.03	13.08	3.00	5.00	62.11	87.51	112.91
Plumbers and pipefitters - Apprentice - 3rd year	31.67	3.00	3.47	3.50	4.54	13.08	3.00	5.00	67.26	95.24	123.22
Plumbers and pipefitters - Apprentice - 4th year	35.90	3.00	3.89	3.50	5.05	13.08	3.00	5.00	72.42	102.97	133.53
<b>Sheet metal - Multiplier / Fixed Value</b>		3.00	13.0%	3.50	10.90%	9.26	2.00	3.75			
Sheet metal - General foreperson	46.72	3.00	6.46	3.50	6.51	9.26		1.50	76.95	112.98	149.00
Sheet metal - Non-working foreperson	45.72	3.00	6.33	3.50	6.38	9.26		1.50	75.69	111.10	146.50
Sheet metal - Working foreperson	44.72	3.00	6.20	3.50	6.26	9.26	2.00	3.75	78.69	113.47	148.24
Sheet metal - Journeyman	42.72	3.00	5.94	3.50	6.01	9.26	2.00	3.75	76.18	109.71	143.23
Sheet metal - Welder	43.72	3.00	6.07	3.50	6.14	9.26	2.00	3.75	77.44	111.59	145.74
Sheet metal - Apprentice - 2nd year	25.63	3.00	3.72	3.50	3.91	9.26	2.00	3.75	54.77	77.59	100.40
Sheet metal - Apprentice - 3rd year	32.04	3.00	4.55	3.50	4.70	9.26	2.00	3.75	62.80	89.63	116.46
Sheet metal - Apprentice - 4th year	36.31	3.00	5.11	3.50	5.22	9.26	2.00	3.75	68.15	97.66	127.17
<b>Teamsters - Multiplier / Fixed Value</b>		3.00	13.0%	3.50	10.90%	10.55	2.00	3.75			
Teamsters - Group 1 teamster	37.85	3.00	5.31	3.50	5.41	10.55	2.00	3.75	71.37	102.48	133.60
Teamsters - Working foreperson Group 1	39.35	3.00	5.50	3.50	5.60	10.55	2.00	3.75	73.25	105.30	137.36
Teamsters - Non-working foreperson Group 1	39.35	3.00	5.50	3.50	5.60	10.55		1.50	69.00	101.05	133.11
Teamsters - General foreperson Group 1	39.85	3.00	5.57	3.50	5.66	10.55		1.50	69.63	101.99	134.36
Teamsters - Group 2 teamster	37.63	3.00	5.28	3.50	5.39	10.55	2.00	3.75	71.10	102.08	133.06
Teamsters - Working foreperson Group 2	39.13	3.00	5.48	3.50	5.57	10.55	2.00	3.75	72.98	104.90	136.82



PERSONNEL RATE SCHEDULE  
PLA LABOUR

Appendix D  
Personnel Rate Schedule  
CH0031-001

Rates Effective from 01 May 2017 – 30 April 2018 - NIGHTSHIFT

Trade or Classification	Base Rate	Shift Premium per Hour (C)	Vacation & Holiday Pay (D)	LCP Premium (E)	Govt. Payroll Burdens (F)	Union Benefits and Funds (G)	Small Tools (H)	Consumables and PPE (I)	Straight Time Rate per Hour (J)	Overtime Rate (1.5x) per Hour (K)	Overtime Rate (2.0x) per Hour (L)
Reference Formula	(B)	fixed	=sum(B?:C?)*CS?	fixed	=sum(B?:E?)*FS?	fixed	fixed	fixed	=sum(B?:I?)	=((SUM(\$B?:\$G?)-(\$C?*(1+\$D\$?)))*1.5)+(\$C?*(1+\$D\$?))+SUM(\$H?:\$I?)	=((SUM(\$B?:\$G?)-(\$C?*(1+\$D\$?)))*2)+(\$C?*(1+\$D\$?))+SUM(\$H?:\$I?)
Teamsters - Non-working foreperson Group 2	39.13	3.00	5.48	3.50	5.57	10.55		1.50	68.73	100.65	132.57
Teamsters - General foreperson Group 2	39.63	3.00	5.54	3.50	5.63	10.55		1.50	69.36	101.59	133.82
Teamsters - Group 3 teamster	37.42	3.00	5.25	3.50	5.36	10.55	2.00	3.75	70.84	101.68	132.53
Teamsters - Working foreperson Group 3	38.92	3.00	5.45	3.50	5.55	10.55	2.00	3.75	72.72	104.50	136.29
Teamsters - Non-working foreperson Group 3	38.92	3.00	5.45	3.50	5.55	10.55		1.50	68.47	100.25	132.04
Teamsters - General foreperson Group 3	39.42	3.00	5.51	3.50	5.61	10.55		1.50	69.09	101.19	133.29
Teamsters - Group 4 teamster	37.85	3.00	5.31	3.50	5.41	10.55	2.00	3.75	71.37	102.48	133.60
Teamsters - Working foreperson Group 4	39.35	3.00	5.50	3.50	5.60	10.55	2.00	3.75	73.25	105.30	137.36
Teamsters - Non-working foreperson Group 4	39.35	3.00	5.50	3.50	5.60	10.55		1.50	69.00	101.05	133.11
Teamsters - General foreperson Group 4	39.85	3.00	5.57	3.50	5.66	10.55		1.50	69.63	101.99	134.36
Teamsters - Group 5 teamster	43.25	3.00	6.01	3.50	6.08	10.55	2.00	3.75	78.14	112.64	147.14
Teamsters - Working foreperson Group 5	44.75	3.00	6.21	3.50	6.26	10.55	2.00	3.75	80.02	115.46	150.90
Teamsters - Non-working foreperson Group 5	44.75	3.00	6.21	3.50	6.26	10.55		1.50	75.77	111.21	146.65
Teamsters - General foreperson Group 5	45.25	3.00	6.27	3.50	6.33	10.55		1.50	76.40	112.15	147.91
Teamsters - Group 6 teamster	48.96	3.00	6.75	3.50	6.78	10.55	2.00	3.75	85.30	123.38	161.45
Teamsters - Working foreperson Group 6	50.46	3.00	6.95	3.50	6.97	10.55	2.00	3.75	87.18	126.20	165.21
Teamsters - Non-working foreperson Group 6	50.46	3.00	6.95	3.50	6.97	10.55		1.50	82.93	121.95	160.96
Teamsters - General foreperson Group 6	50.96	3.00	7.01	3.50	7.03	10.55		1.50	83.55	122.89	162.22
Teamsters - Group 4 Apprentice 1	26.49	3.00	3.83	3.50	4.01	10.55	2.00	3.75	57.14	81.14	105.14
Teamsters - Group 4 Apprentice 2	30.28	3.00	4.33	3.50	4.48	10.55	2.00	3.75	61.88	88.26	114.63
Teamsters - Group 4 Apprentice 3	34.06	3.00	4.82	3.50	4.95	10.55	2.00	3.75	66.63	95.37	124.11
Elevator Constructors - Multiplier / Fixed Value		3.00	12.0%	3.50	10.90%	4.09	2.00	3.75			
Elevator Constructors - Mechanic	45.55	3.00	5.83	3.50	6.31	4.09	2.00	3.75	74.03	106.48	138.94
Elevator Constructors - Mechanic in charge I	51.24	3.00	6.51	3.50	7.00	4.09	2.00	3.75	81.09	117.08	153.08
Elevator Constructors - Mechanic in charge II	52.38	3.00	6.65	3.50	7.14	4.09	2.00	3.75	82.51	119.21	155.91
Elevator Constructors - Probationary Helper I	22.78	3.00	3.09	3.50	3.53	4.09	2.00	3.75	45.74	64.06	82.38
Elevator Constructors - Probationary Helper II	25.05	3.00	3.37	3.50	3.81	4.09	2.00	3.75	48.56	68.28	88.01
Elevator Constructors - Helper I	31.89	3.00	4.19	3.50	4.64	4.09	2.00	3.75	57.06	81.03	105.01
Elevator Constructors - Helper II	34.16	3.00	4.46	3.50	4.92	4.09	2.00	3.75	59.87	85.25	110.64
Elevator Constructors - Improver helper	36.44	3.00	4.73	3.50	5.20	4.09	2.00	3.75	62.71	89.51	116.31



**PERSONNEL RATE SCHEDULE  
PLA LABOUR**

The following conditions apply to the Personnel Rate Schedules - PLA Labour in this Appendix D.

- Column B: Base rate as per the Project Labour Agreement.
- Column C: The shift premium of \$3.00 per hour and is applied to the second and third shifts. Vacation and holiday pay are added to the shift premium. The shift premium is not included in the calculation of overtime.
- Column D: Vacation pay includes vacation and recognized holiday pay as per the Project Labour Agreement.
- Column E: Lower Churchill Project (LCP) Premium as per the Project Labour Agreement.
- Column F: Government Payroll burdens includes employment insurance (EI), Workplace Health Safety and Compensation Commission (WHSCC), and Canada Pension Plan (CPP) premiums, and the health and post-secondary education tax (HAPSET), and any other government payroll burdens, as applicable. Company reserves the right to verify for any over recovery on EI, CPP and WHSCC premiums, since these are subject to a maximum for the year. Refer to General Note 4. There is no maximum limit for the HAPSET tax.
- Column G: Union Benefits and Funds as per the Project Labour Agreement.
- Column H: Small Tools includes all tools with a replacement value of less than two thousand (\$2,000.00) Canadian Dollars each. Refer to Exhibit 2 - Appendix C for a typical listing of these types of small tools. Such items shall be furnished by the Contractor complete with all accessories and expendable operating parts and shall be maintained in good condition including the replacement of parts as may be necessary.
- Column I: Consumables whether recoverable or non-recoverable and Personal Protective Equipment (refer Exhibit 2 - Appendix C).
- Column J: The Straight Time Rate includes the total of columns B to I inclusive.
- Column K: Overtime Rate at 1.5 x is the all-in rate for labour costs when the overtime premium at 1.5 x is applicable in accordance with the Project Labour Agreement. Overtime Rate = 1.5 x (the sum of the costs in Columns B, D, E, F and G), plus the sum of the costs in columns C, H and I.
- Column L: Overtime Rate at 2.0 x is the all-in rate for labour costs when the overtime premium at 2.0 x is applicable in accordance with the Project Labour Agreement. Overtime Rate = 2.0 x (the sum of the costs in Columns B, D, E, F and G), plus the sum of the costs in columns C, H and I.

General:

 Exhibit 2 - Compensation

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**PERSONNEL RATE SCHEDULE  
PLA LABOUR**

The following conditions apply to the Personnel Rate Schedules - PLA Labour in this Appendix D.

- 1) Currency of the rates is Canadian Dollars
- 2) Shift Premium is the incremental charge applied to the Straight Time Rate and Overtime Rate for shift Personnel.
- 3) The payroll burden rates expressed in dollars in this Schedule may be revised annually as necessary to reflect changes in statutory allowances.
- 4) Column (F) - Govt. Payroll Burdens is intended as an estimate of Employment Insurance (EI), Workplace Health Safety and Compensation Commission (WHSCC), Canada Pension Plan (CPP) and health and post-secondary education tax (HAPSET) only. **It is the intention of this Agreement that Company will pay Contractor's actual cost plus Labour Overhead and Profit for these components of the labour rates.** The payroll burden rates contained in column (F) - Govt. Payroll Burdens may be revised annually as necessary to reflect changes in statutory rates. Within ninety (90) days after the end of each calendar year, and also as part of the Billing Information for the Payment Certificate issued prior to Final Completion, Contractor shall perform a reconciliation of the difference between (a) the total payroll burden costs paid by Company (more specifically, the CPP, EI, HAPSET and WHSCC covered in the rates above), and (b) the actual payroll burden amounts paid by Contractor to Authorities; all as it pertains to this Agreement. Contractor shall provide Company with a report of the results along with any documentation Company may require to verify the amounts contained in the report. The form and content of such report shall be subject to the Approval of Company. In addition, Company reserves the right to verify the established dollar values and revisions thereto. In the event the Contractor has over recovered on its payroll burden costs, the Contractor shall refund to Company the difference between the actual and costs assumed in the rates for Govt. Payroll Burdens.
- 5) Whenever the Rates are to be used in conjunction with Article 34.1 and Section 9 – Standby – of Exhibit 2, the Straight Time Rate as calculated above, but reduced by the sum of columns (H) + (I), shall apply.
- 6) Whenever the Rates are to be used in conjunction with Article 31.7 and Section 9 – Standby – of Exhibit 2, the Straight Time Rate as calculated above, but reduced by the sum of columns (H) + (I), shall apply and no Labour Overhead and Profit shall be applied to the Rates.
- 7) Rate tables do not include the 'Tool Premium' due to some Operating Engineers under the Project Labour Agreement. Contractor will apply this rate as applicable under the Project Labour Agreement.



**PERSONNEL RATE SCHEDULE  
 NON PLA LABOUR**

Rates apply to each category of worker which will Work on the Site but are not be covered under the Project Labour Agreement.

Category	Total Rate per hour
Project Manager	\$ 178.00
Project Controls Lead	\$ 135.00
Planner	\$ 130.00
Scheduler	\$ 105.00
Contract Administrator	\$ 105.00
Cost Control	\$ 95.00
Quantity Surveyor	\$ 95.00
QA / QC Lead	\$ 140.00
QC Inspector	\$ 105.00
Document Control	\$ 70.00
HSE Lead	\$ 120.00
HSE Advisor	\$ 105.00
Construction Manager	\$ 150.00
Superintendent	\$ 135.00
Project Engineer	\$ 120.00
Field Engineer	\$ 105.00
Purchaser	\$ 83.00
Material Control	\$ 90.00
Admin Assistant	\$ 54.00
Clerk / Travel Coordinator	\$ 54.00
Commissioning / Turnover Manager	\$ 140.00
Field Engineer - Survey	\$ 120.00
Commissioning Quality Engineer	\$ 130.00
Commissioning Supervisor	\$ 130.00
Testing Technician / Engineer	\$ 130.00

- Rates in this table apply to Changes only.
- Rates include all amounts associated with the provision of Personnel, in the above categories, performing Work on Site, including overhead, burdens and profit.
- Staff rates to be adjusted annually starting in January 2018 to reflect any increase in the previous year's Consumer Price Index (All Items for Newfoundland and Labrador).
- No overtime premium rate shall apply in any circumstance.

**APPENDIX E**  
**EQUIPMENT RATE SCHEDULE**



EQUIPMENT RATE SCHEDULE

	Equipment Type	Manufacturer and Model Number	Size	Year	Quantity Available	First Shift				Second Shift			
						Hour	Day	Week	Month	Hour	Day	Week	Month
1	Bucket Truck					150.00	1,200.00	4,800.00	14,400.00	150.00	1,200.00	4,800.00	14,400.00
2	Excavator					130.00	1,040.00	4,160.00	12,480.00	130.00	1,040.00	4,160.00	12,480.00
3	Go Track					130.00	1,040.00	4,160.00	12,480.00	130.00	1,040.00	4,160.00	12,480.00
4	Pole Trailer					125.00	1,000.00	4,000.00	12,000.00	125.00	1,000.00	4,000.00	12,000.00
5	Tension Stringer					150.00	1,200.00	4,800.00	14,400.00	150.00	1,200.00	4,800.00	14,400.00
6	Tension Puller					175.00	1,400.00	5,600.00	16,800.00	175.00	1,400.00	5,600.00	16,800.00
7	Tractor Trailer					190.00	1,520.00	6,080.00	18,240.00	190.00	1,520.00	6,080.00	18,240.00
8	Skid Steer Loader					43.75	350.00	1,770.00	5,300.00	43.75	350.00	1,770.00	5,300.00
9	Snow Blower					8.75	70.00	330.00	1,000.00	8.75	70.00	330.00	1,000.00
10	Office Complex					N/A	N/A	N/A	36,000.00	N/A	N/A	N/A	N/A
11	Lavatory Skid Self Contained					41.18	329.43	1,317.71	3,993.06	N/A	N/A	N/A	N/A
12	Lunch / Office trailers 12 x 60 complete with furniture					46.41	371.25	1,485.00	4,500.00	N/A	N/A	N/A	N/A
13	Container, 20'					4.16	33.26	133.03	403.13	N/A	N/A	N/A	N/A
14	Container, 40'					5.99	47.89	191.57	580.50	N/A	N/A	N/A	N/A
15	3/4 T Pick-Up					36.09	288.75	1,155.00	3,500.00	36.09	288.75	1,155.00	3,500.00

Appendix  
 Equipment Rate Schedule  
 Agreement Number: CH0031-001

	Equipment Type	Manufacturer and	Size	Year	Quantity Available	First Shift				Second Shift			
						Hour	Day	Week	Month	Hour	Day	Week	Month
16	1/2 T Pick-Up					33.00	264.00	1,056.00	3,200.00	33.00	264.00	1,056.00	3,200.00
17	15 Passenger Van					36.09	288.75	1,155.00	3,500.00	36.09	288.75	1,155.00	3,500.00
18	Boom Truck 25 - 28T					185.63	1,485.00	5,940.00	18,000.00	185.63	1,485.00	5,940.00	18,000.00
19	Carry Deck Crane 15T - 18T					176.25	1,410.00	5,650.00	17,000.00	176.25	1,410.00	5,650.00	17,000.00
20	Highway Tractor					185.63	1,485.00	5,940.00	18,000.00	185.63	1,485.00	5,940.00	18,000.00
21	Bus (40 Passenger)					N/A	N/A	N/A	4,500.00	N/A	N/A	N/A	4,500.00
22	Scissor 19FT Elect Mini					9.34	74.75	298.98	906.00	9.34	74.75	298.98	906.00
23	Scissor 24-26FT Elect					11.22	89.76	359.04	1,088.00	11.22	89.76	359.04	1,088.00
24	Scissor 30-35FT IC 4WD					21.23	169.87	679.47	2,059.00	21.23	169.87	679.47	2,059.00
25	Scissor 36-49FT IC 4WD					25.97	207.74	830.94	2,518.00	25.97	207.74	830.94	2,518.00
26	Boom 30-33FT Elect Narrow					23.72	189.75	759.00	2,300.00	23.72	189.75	759.00	2,300.00
27	Boom 40-45ft Elect					28.96	231.66	926.64	2,808.00	28.96	231.66	926.64	2,808.00
28	Boom 45ft IC Artic 4WD					33.05	264.41	1,057.65	3,205.00	33.05	264.41	1,057.65	3,205.00
29	Boom 60ft IC Artic 4WD					38.60	308.80	1,235.19	3,743.00	38.60	308.80	1,235.19	3,743.00
30	Boom 65ft IC Stick 4WD					38.60	308.80	1,235.19	3,743.00	38.60	308.80	1,235.19	3,743.00
31	Boom 80ft IC Artic 4WD					81.43	651.42	2,605.68	7,896.00	81.43	651.42	2,605.68	7,896.00
32	Boom 86ft IC Stick 4WD					84.10	672.79	2,691.15	8,155.00	84.10	672.79	2,691.15	8,155.00
33	Welder 400AMP Diesel					16.25	130.00	510.00	1,525.00	16.25	130.00	510.00	1,525.00



Appendix  
Equipment Rate Schedule  
Agreement Number: CH0031-001

	Equipment Type	Manufacturer and	Size	Year	Quantity Available	First Shift				Second Shift			
						Hour	Day	Week	Month	Hour	Day	Week	Month
34	Compressor 185CFM Diesel					10.16	81.26	325.05	985.00	10.16	81.26	325.05	985.00
35	Light Tower Small Diesel					16.56	132.50	530.00	1,590.00	16.56	132.50	530.00	1,590.00
36	Generator 125-149 KVA					31.06	248.49	993.96	3,012.00	31.06	248.49	993.96	3,012.00
37	Generator 70-79 KVA					26.30	210.38	841.50	2,550.00	26.30	210.38	841.50	2,550.00
38	Generator 19-29 KVA					19.35	154.77	619.08	1,876.00	19.35	154.77	619.08	1,876.00
39	Forklift 5000lb Warehouse					19.66	157.25	628.98	1,906.00	19.66	157.25	628.98	1,906.00
40	Forklift 6000lb Warehouse					19.66	157.25	628.98	1,906.00	19.66	157.25	628.98	1,906.00
41	Forklift 8000lb Warehouse					21.34	170.69	682.77	2,069.00	21.34	170.69	682.77	2,069.00
42	Forklift 10000lb Warehouse					25.45	203.61	814.44	2,468.00	25.45	203.61	814.44	2,468.00
43	Forklift 15000lb Warehouse					43.48	347.82	1,391.28	4,216.00	43.48	347.82	1,391.28	4,216.00
44	Forklift Variable Reach 12000lb					52.66	421.25	1,684.98	5,106.00	52.66	421.25	1,684.98	5,106.00
45	Forklift Variable Reach 10000lb					43.78	350.21	1,400.85	4,245.00	43.78	350.21	1,400.85	4,245.00
46	Forklift Variable Reach 8000lb					37.19	297.50	1,189.98	3,606.00	37.19	297.50	1,189.98	3,606.00
47	Burndy Y35 Crimping Tool					8.77	70.13	280.50	850.00	8.77	70.13	280.50	850.00
48	Cable Puller/Pusher					8.04	64.35	257.40	780.00	8.04	64.35	257.40	780.00
49	Cable Reel Roller, 15t					24.23	193.88	775.50	2,350.00	24.23	193.88	775.50	2,350.00
50	Electric Welding Machine					8.66	69.30	277.20	840.00	8.66	69.30	277.20	840.00
51	Greenlee Pulley/Roller System,					9.28	74.25	297.00	900.00	9.28	74.25	297.00	900.00

Appendix  
 Equipment Rate Schedule  
 Agreement Number: CH0031-001

	Equipment Type	Manufacturer and	Size	Year	Quantity Available	First Shift				Second Shift			
						Hour	Day	Week	Month	Hour	Day	Week	Month
	Asst'd												
52	Plate Tamper DSL 1000LB					21.88	175.07	700.26	2,122.00	21.88	175.07	700.26	2,122.00
53	Greenlee Tugger - 6,500 lb.					7.22	57.75	231.00	700.00	7.22	57.75	231.00	700.00
54	Greenlee Tugger - 8,000 lb.					8.04	64.35	257.40	780.00	8.04	64.35	257.40	780.00
55	Hydraulic K.O. Cutters - 1/2" to 2"					3.61	28.88	115.50	350.00	3.61	28.88	115.50	350.00
56	Hydraulic K.O. Cutters - 1/2" to 4"					3.85	30.77	123.09	373.00	3.85	30.77	123.09	373.00
57	Magnetic Drill Press, 3/4",Milwak. 1/2" Chuck					5.16	41.25	165.00	500.00	5.16	41.25	165.00	500.00
58	Portable Pipe Threader - 1/2" to 2"					3.35	26.81	107.25	325.00	3.35	26.81	107.25	325.00
59	Rigid Pipe Bender - 3/4" to 4"					12.89	103.13	412.50	1,250.00	12.89	103.13	412.50	1,250.00
60	Rigid Pipe Threading Machine - 1/2" to 4"					7.73	61.88	247.50	750.00	7.73	61.88	247.50	750.00
61	Victaulic Groover Large					6.51	52.08	208.33	625.00	6.51	52.08	208.33	625.00
62	Victaulic Groover Small					4.69	37.50	150.00	450.00	4.69	37.50	150.00	450.00
63	1 KV Megger					7.43	59.40	237.60	720.00	7.43	59.40	237.60	720.00
64	5 KV Megger					8.66	69.30	277.20	840.00	8.66	69.30	277.20	840.00
65	Burndy Y35 Crimping Tool					8.25	66.00	264.00	800.00	8.25	66.00	264.00	800.00
66	Cable Fault Locator					24.23	193.88	775.50	2,350.00	24.23	193.88	775.50	2,350.00
67	Communicator					19.80	158.40	633.60	1,920.00	19.80	158.40	633.60	1,920.00
68	Digital Dielectric Test												

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Appendix  
 Equipment Rate Schedule  
 Agreement Number: CH0031-001

	Equipment Type	Manufacturer and	Size	Year	Quantity Available	First Shift				Second Shift			
						Hour	Day	Week	Month	Hour	Day	Week	Month
	Set					11.14	89.10	356.40	1,080.00	11.14	89.10	356.40	1,080.00
69	Digital Hipot Test Set					21.04	168.30	673.20	2,040.00	21.04	168.30	673.20	2,040.00
70	Hot Sticks Rate 46KV/CW Test Meter					10.83	86.63	346.50	1,050.00	10.83	86.63	346.50	1,050.00
71	HV Injection Unit					44.86	358.88	1,435.50	4,350.00	44.86	358.88	1,435.50	4,350.00
72	MA & V Source					18.82	150.56	602.25	1,825.00	18.82	150.56	602.25	1,825.00
73	Power Quality Analyzer					12.89	103.13	412.50	1,250.00	12.89	103.13	412.50	1,250.00
74	Regulated Power Supply					7.63	61.05	244.20	740.00	7.63	61.05	244.20	740.00
75	Relay Test Set					19.49	155.93	623.70	1,890.00	19.49	155.93	623.70	1,890.00
76	Scope Meter					8.51	68.06	272.25	825.00	8.51	68.06	272.25	825.00

**NOTES**

1. The rates include, but are not limited to, the cost of equipment rental, fuel, lubricants, tires, expendable parts, service, maintenance, calibration, repairs, storage, insurance, licenses, depreciation, interest, taxes, overhead, mark-up and profit.
2. The rates include labour and equipment for fuelling, lubricating, servicing, maintaining, repairing, spare parts and installation.
3. The rates exclude operator's labour costs.
4. Rates are applicable only to actual operating time.
5. For any equipment not listed, rental rates will be agreed to in writing by Company prior to the deployment and use of such equipment. Equipment rented or leased from a third party shall be compensated at actual documented invoice cost plus the markup set out in Exhibit 2 – Section 6.5(c). Third party leasing shall be subject to the Approval of Company in advance of the deployment and use of such equipment. In the event of third party leased equipment requires operation and maintenance, the appropriate rate for same shall be subject to the Approval of Company in advance of the deployment and use of such equipment.
6. If Approved by Company, the time required to mobilize and demobilize equipment not located at the Site and which is to be deployed at the Site on Change Order Work will be compensated. Compensation will include loading and transportation costs where this is more efficient than travelling the equipment. The cost of demobilizing the equipment will not be compensated if such equipment is used at the Site for Work performed on a lump sum or unit price basis.



**APPENDIX F**

**PLA LABOUR OVERHEAD AND PROFIT APPLICATION**



PLA Labour Overhead and Profit Application

Target Cost of Labour Adjustment

Description	Amount
Target Cost of Labour	\$63,920,703.06
Labour Cost Adjustments	
Adjusted Target Cost of Labour	\$63,920,703.06
Reimbursable Cost of Labour	
Labour Cost Difference (Minimum=0)	\$0.00

Percentage Range	Amount	OH&P Multiplier	Labour Overhead & Profit	Manpower Cost	Total	X Target Cost Labour
Up to Reimbursable Cost of Labour	0.00	0.13	0.00	0.00	0.00	
0-17 above Reimbursable Cost of Labour	0.00	0.07	0.00	0.00	0.00	0.00
>17-34 above Reimbursable Cost of Labour	0.00	0.03	0.00	0.00	0.00	0.00
>34-51 above Reimbursable Cost of Labour	0.00	0.00	0.00	0.00	0.00	0.00
>51-68 above Reimbursable Cost of Labour	0.00	-0.23	0.00	0.00	0.00	0.00
>68-85 above Reimbursable Cost of Labour	0.00	-0.56	0.00	0.00	0.00	0.00
>85-102 above Reimbursable Cost of Labour	0.00	-0.07	0.00	0.00	0.00	0.00
>103 above Reimbursable Cost of Labour	0.00	-0.07	0.00	0.00	0.00	0.00
	\$63,920,703.06		0.00			



Exhibit 2  
Compensation  
Agreement Number: CH0031-001

**APPENDIX G**  
**SWORN DECLARATION**



**SWORN DECLARATION – ACCOMPANYING INVOICE FOR PAYMENT**

CANADA	)	IN THE MATTER OF THE AGREEMENT
	)	BETWEEN MUSKRAT FALLS CORPORATION AND
PROVINCE OF NEWFOUNDLAND	)	[CONTRACTOR]
AND LABRADOR	)	DATED AS OF [DATE] FOR 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 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 23 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 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\_\_.



Exhibit 2  
Compensation  
Agreement Number: CH0031-001

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:

*Handwritten initials/signature*



**APPENDIX H**  
**OPERATING SPARES PRICE SCHEDULE**



**OPERATING SPARES PRICE SCHEDULE  
TABLE OF CONTENTS**

Operating Spares Price Schedule  
Agreement Number: CH0031-001

<b>Packaging</b>	<b>Description</b>
Water Treatment Plant: Magnor	See A2.3 Water Treatment Plant Magnor
Water Treatment: Xylem	See A2.3 Water Treatment Xylem
Diesel Generator: Generatrice Drummond	See A2.3 Diesel Generator Generatrice Drummond
Compressed Air: Kaeser	See A2.3 Compressed Air Kaeser
Filtration: John Brooks	See A2.3 Filtration John Brooks
Oil Skimmers: Rotator Products	See A2.3 Oil Skimmers Rotator Products
Instrumentation: PIC	See A2.3 Instrumentation PIC
Mobile Pumping Filtering: HydraFab	See A2.3 Mobile Pumping Filtering HydraFab
Filtration: General Filtration	See A2.3 Filtration General Filtration
Water Treatment Plant: Natpro	See A2.3 Water Treatment Plant Natpro
HVAC Air Handling Unit	See A2.3 HVAC Air Handling Unit

Note: Where it is not otherwise stated delivery terms for items in the following tables are Incoterms: DDP Muskrat Falls Generating Facility, Newfoundland and Labrador



**OPERATING SPARES PRICE SCHEDULE  
Water Treatment Plant Magnor**

Operating Spares Price Schedule  
Agreement Number: CH0031-001

Description	Part No.	Manufacturer	Manuf. Part No.	Expected annual usage rate	Lead time for delivery (weeks)	Unit price
Butterfly valve Bray 4" series 31	31-713/S04	Bray	31-713/S04	0.1	4	\$ 483.00/EA CAD X-work Boucherville QC
Butterfly valve Bray 2 1/2" series 31	31-713/S01	Bray	31-713/S01	0.1	4	\$ 201.25/EA CAD X-work Boucherville QC
Bray electric actuator series 70	S70	Bray	S70	0.1	4	\$ 1391.50/EA CAD X-work Boucherville QC
Filtering media : Anthracite	1625-0001	Magnus	1625-0001	2 cu.ft	4	\$ 42.49/cu ft CAD X-work Boucherville QC
Filtering media : Sand	1615-0013	Magnus	1615-0013	200 lb	4	\$ 0.41/lb CAD X-work Boucherville QC
Man-hole gasket	1830-0046	Magnus	1830-0046	2	4	\$ 78.87/EA CAD X-work Boucherville QC
VALVE FLOW-TEK #7205-3-RRL 1" SS, SOCKET WELD	7205-3-RRL	Bray	7205-3-RRL	0.1	4	\$ 178.25/EA CAD X-work Boucherville QC
VALVE FLOW-TEK #7207-3-RRL 1 1/2" SS, SOCKET WELD	7207-3-RRL	Bray	7207-3-RRL	0.1	4	\$ 293.25/EA CAD X-work Boucherville QC
VALVE FLOW-TEK #7203-3-RRL 1/2" SS, SOCKET WELD	7203-3-RRL	Bray	7203-3-RRL	0.1	4	\$ 92/EA CAD X-work Boucherville QC
VALMATIC AIR VENT SERIES 200-SS #201CX075	201CX075	VALMATIC	201CX075	0.1	16-18	\$ 6468.75/EA CAD X-work Boucherville QC

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**OPERATING SPARES PRICE SCHEDULE  
Water Treatment Plant Magnor**

Operating Spares Price Schedule  
Agreement Number: CH0031-001

Description	Part No.	Manufacturer	Manuf. Part No.	Expected annual usage rate	Lead time for delivery (weeks)	Unit price
PRESSURE SWITCH SERIE 400	J402K- S147B-M201- M446	WAJAX	J402K-S147B-M201-M446	0.1	8	\$ 4588.5/EA CAD X-work Boucherville QC
PRESSURE GAUGE WINTERS SERIE PFP645Z R2R1, 600-1000 kPag, 4PO SS304, 1/4NPT	PFP645Z R2R1	WINTERS	PFP645Z R2R1	0.1	4	\$ 891.25/EA CAD X-work Boucherville QC
SWAGELOK VALVE SERIES 60 1/4" #SS-62TS4	SS-62TS4	SWAGELOK	SS-62TS4	0.1	4	\$ 368/EA CAD X-work Boucherville QC
DIFF PRESS GAUGE ASHCROFT TYPE 1127 P/N 45- 1127SD-02L 0-70KPA/PSI	45-1127SD-02L 0-70KPA/PSI	ASHCROFT	45-1127SD-02L 0-70KPA/PSI	0.1	8	\$ 2242.5/EA CAD X-work Boucherville QC
Filter control valve 2850NXT	1105-0107	Magnus	1105-0107	0.1	4	\$ 1376.55/EA CAD X-work Boucherville QC
Exchanger control valve 2900NXT	1105-0081	Magnus	1105-0081	0.1	4	\$ 2472.50/EA CAD X-work Boucherville QC
UV lamp SPV410	1485-0102	Magnus	1485-0102	3	4	\$ 138.00/EA CAD X-work Boucherville QC
UV quartz sleeve	1485-0182	Magnus	1485-0182	3	4	\$ 63.25/EA CAD X-work Boucherville QC
UV controler	1490-0009	Magnus	1490-0009	3	4	\$ 661.25/EA CAD X-work Boucherville QC

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OPERATING SPARES PRICE SCHEDULE

Operating Spares Price Schedule  
Agreement Number: CH0031-001

Water Treatment Plant Magnor

Description	Part No.	Manufacturer	Manuf. Part No.	Expected annual usage rate	Lead time for delivery (weeks)	Unit price
UV sensor	1440-0008	Magnus	1440-0008	3	4	\$ 431.25/EA CAD X-work Boucherville QC
Chlorine dosing pump	1705-0019	Magnus	1705-0019	0.2	6	\$ 2673.75/EA CAD X-work Boucherville QC
Chlorine back pressure valve	2040-0099	Magnus	2040-0099	0.2	4	\$ 346.15/EA CAD X-work Boucherville QC
Chlorine relief valve	2040-0107	Magnus	2040-0107	0.2	4	\$ 392.15/EA CAD X-work Boucherville QC
Chlorine flow switch	1715-0020	Magnus	1715-0020	0.2	4	\$ 1277.65/EA CAD X-work Boucherville QC







OPERATING SPARES PRICE SCHEDULE

Operating Spares Price Schedule

Agreement Number: CH0031-001

**Compressed Air Kaeser**

Description	Part No.	Manufacturer	Manuf. Part No.	Expected annual usage rate	Lead time for delivery (weeks)	Unit price
Set of Filter Cartridges	ANK-Filt	L.M.F.		1 Set / Year	Stock Montreal	\$ 516.12/EA CAD
Set Gasket Valve Inspection	ANK- GAS	L.M.F.		1 Set / Year	3 Weeks ARO	\$ 422.83/EA CAD
Various Service Kits (solenoid, Vent Valve, check valve)		L.M.F.		1 Set / Year	3 Weeks ARO	\$ 3308.76/EA CAD
Set of Gaskets		L.M.F.		1 Set /2Years	3 Weeks ARO	\$ 1603.20/EA CAD
Complete Set of Valves		L.M.F.		1 Set /2Years	3 Weeks ARO	\$ 11391.60/EA CAD
Maintenance Kit	AN5YRCKC SD2	Kaeser		1 Set / Year	Stock Montreal	\$ 2979.60/EA CAD
High Pressure Compressor Oil	ANP122-5	Schell Corena		4 Pails / Year	Stock Montreal	\$ 291.60/EA CAD
Low Pressure Compressor Oil	M-460	Kaeser		4 Pails / Year	Stock Montreal	\$ 429.60/EA CAD
Filter Separator Cartridge	USLS-485	Kaeser		1 / Year	Stock Montreal	\$ 225.60/EA CAD
Oil/Water Separator Cartridge	ANKCF200 CART	Kaeser		1 / Year	Stock Montreal	\$ 721.20/EA CAD

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OPERATING SPARES PRICE SCHEDULE

Operating Spares Price Schedule  
Agreement Number: CH0031-001

**Compressed Air Kaeser**

Description	Part No.	Manufacturer	Manuf. Part No.	Expected annual usage rate	Lead time for delivery (weeks)	Unit price

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OPERATING SPARES PRICE SCHEDULE

Operating Spares Price Schedule  
Agreement Number: CH0031-001

Filtration John Brooks

Description	Part No.	Manufacturer	Manuf. Part No.	Expected annual usage rate	Lead time for delivery (weeks)	Unit price (Incoterm) (specify currency)
Spare Screen	3442, 07	IFC	SC0100YT1500003	1 /STRAINER/YEAR	2-3 weeks	\$ 27.14/EA CAD
Gasket	3442, 07	IFC	SC0100YT1500003	1 /STRAINER/YEAR	2-3 weeks	\$ 14.95/EA CAD
Spare Screen	3442,08	IFC	SC0100YT1500003	1 /STRAINER/YEAR	2-3 weeks	\$ 27.14/EA CAD
Gasket	3442,08	IFC	SC0100YT1500003	1 /STRAINER/YEAR	2-3 weeks	\$ 14.95/EA CAD
Spare Screen	344A,02	IFC	SC0100YT600003	1 /STRAINER/YEAR	2-3 weeks	\$ 27.14/EA CAD
Gasket	344A,02	IFC	SC0100YT600003	1 /STRAINER/YEAR	2-3 weeks	\$ 13.80/EA CAD
Spare Screen	344A,03	IFC	SC0100YT600003	1 /STRAINER/YEAR	2-3 weeks	\$ 27.14/EA CAD
Gasket	344A,03	IFC	SC0100YT600003	1 /STRAINER/YEAR	2-3 weeks	\$ 13.80/EA CAD
Basket 300mesh	344B,02	Eaton	#85, 2-/2" Flang	1 /STRAINER/YEAR	2-3 weeks	\$ 217.41/EA CAD
Gasket	344B,02	Eaton	gasket for #85 2-/2" Flang	1 /STRAINER/YEAR	2-3 weeks	\$ 28.52/EA CAD
Basket	344B,02	IFC	YF150, 2-/2" Flang ed	1 /STRAINER/YEAR	2-3 weeks	\$ 141.57/EA CAD
Gasket	344B,02	IFC	gasket for YF150	1 /STRAINER/YEAR	2-3 weeks	\$ 20.59/EA CAD
Basket 300mesh	3449,02	Eaton	#85, 1-1/2" SW	1 /STRAINER/YEAR	2-3 weeks	\$ 133.00/EA CAD
Gasket	3449,02	Eaton	gasket for #85 1-1/2" SW	1 /STRAINER/YEAR	2-3 weeks	\$ 25.30/EA CAD
Basket	3449,02	IFC	YSW300, 1-1/2"	1 /STRAINER/YEAR	2-3 weeks	\$ 44.51/EA CAD
Gasket	3449,02	IFC	gasket for YSW300	1 /STRAINER/YEAR	2-3 weeks	\$ 11.50/EA CAD
Basket 300mesh	3449,03	Eaton	#85, 2-/2" Flang	1 /STRAINER/YEAR	2-3 weeks	\$ 217.41/EA CAD
Gasket	3449,03	Eaton	gasket for #85 2-/2" Flang	1 /STRAINER/YEAR	2-3 weeks	\$ 28.52/EA CAD
Basket	3449,03	IFC	YF150, 2-/2" Flang ed	1 /STRAINER/YEAR	2-3 weeks	\$ 141.57/EA CAD
Gasket	3449,03	IFC	gasket for YF150	1 /STRAINER/YEAR	2-3 weeks	\$ 20.59/EA CAD
Spare Basket	3448,01	Eaton	Model#73	1 /STRAINER/YEAR	2-3 weeks	\$ 3775.84/EA CAD
Spare Basket	3448,01	IFC	BF125CI	1 /STRAINER/YEAR	2-3 weeks	\$ 1128.04/EA CAD
Gasket	3448,01	IFC	gasket for BF125CI	1 /STRAINER/YEAR	2-3 weeks	\$ 51.75/EA CAD
MEDIA KIT, INLET	344B,01	Lakos	106433	0.20 Each	2-3 weeks	\$ 34.94/EA CAD



OPERATING SPARES PRICE SCHEDULE

Operating Spares Price Schedule  
Agreement Number: CH0031-001

Filtration John Brooks

Description	Part No.	Manufacturer	Manuf. Part No.	Expected annual usage rate	Lead time for delivery (weeks)	Unit price (Incoterm) (specify currency)
MEDIA KIT, OUTLET	344B,01	Lakos	128411	0.20 Each	2-3 weeks	\$ 34.94/EA CAD
12 V SOLENOID VALVE	344B,01	Lakos	108131	0.20 Each	2-3 weeks	\$ 194.06/EA CAD
MURPHY SWITCH	344B,01	Lakos	107833	0.20 Each	2-3 weeks	\$ 388.13/EA CAD
SPIN CLEAN FILTER	344B,01	Lakos	123245	0.20 Each	2-3 weeks	\$ 41.4/EA CAD
BACKWASH VALVE	344B,01	Lakos	108030	0.20 Each	2-3 weeks	\$ 64.69/EA CAD
316SS Impeller	3444	TRU20	TBA	0.25 Each	10-12 weeks	\$ 2951.36/EA CAD
Shaft	3444	TRU20	TBA	0.25 Each	10-12 weeks	\$ 1702.71/EA CAD
Mechanical Seal	3444	TRU20	TBA	0.25 Each	10-12 weeks	\$ 3334.06/EA CAD
Bearing	3444	TRU20	TBA	0.5 Each	10-12 weeks	\$ 216.21/EA CAD
Shaft sleeve	3444	TRU20	TBA	0.5 Each	10-12 weeks	\$ 529.74/EA CAD
Wear ring	3444	TRU20	TBA	0.5 Each	10-12 weeks	\$ 421.62/EA CAD
Gasket	3444	TRU20	TBA	1 Each	10-12 weeks	\$ 162.16/EA CAD
O ring	3444	TRU20	TBA	1 Each	10-12 weeks	\$ 108.11/EA CAD
K12 Spare Seal	3444	National Pump Company	TBA	0.25 Each	8 Weeks	\$ 6500.64/EA CAD
K12 Spare Wear Ring	3444	National Pump Company	TBA	0.25 Each	8 Weeks	\$ 2818.89/EA CAD
K20 Spare Seal	3444	National Pump Company	TBA	0.25 Each	8 Weeks	\$ 8911.35/EA CAD
K20 Spare Wear Ring	3444	National Pump Company	TBA	0.25 Each	8 Weeks	\$ 10 002.54/EA CAD

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OPERATING SPARES PRICE SCHEDULE

Operating Spares Price Schedule  
Agreement Number: CH0031-001

**Filtration General Filtration**

Description	Part No.	Manufacturer	Manuf. Part No.	Expected annual usage rate	Lead time for delivery (weeks)	Unit price
<b>Automatic Strainer 2596</b>						
Cover O-Ring	TBA	Eaton	TBA	8	3 to 4 weeks	\$ 200.32/EA USD
Shaft seal replacement kit	TBA	Eaton	TBA	16	3 to 4 weeks	\$ 556.45/EA USD
Drive Pin	TBA	Eaton	TBA	8	3 to 4 weeks	\$ 103.87/EA USD
Shaft Bushing	TBA	Eaton	TBA	8	3 to 4 weeks	\$ 1069.87/EA USD
Element	TBA	Eaton	TBA	4	6 to 8 weeks	\$ 8152.38/EA USD
<b>Simplex Strainer Model 73</b>						
Basket 20 mesh	XST052160 M020SM	Eaton	XST052160M 020SM	4	4 to 6 weeks	\$ 8987.95/EA USD
Gasket	ORS469B70	Eaton	ORS469B70	8	3 to 4 weeks	\$ 128.80/EA USD
<b>Y-strainer 1.5</b>						
Screen	TBA	Eaton	TBA	7	3 to 4 weeks	\$ 142.30/EA USD
Gasket	TBA	Eaton	TBA	14	3 to 4 weeks	\$ 25.97/EA USD
<b>Y-strainer 2.5</b>						
Screen	TBA	Eaton	TBA	8	3 to 4 weeks	\$ 183.85/EA USD
Gasket	TBA	Eaton	TBA	20	3 to 4 weeks	\$ 30.12/EA USD
Screen 50 micron (325 mesh)	TBA	Eaton	TBA	2	3 to 4 weeks	\$ 232.67/EA USD

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OPERATING SPARES PRICE SCHEDULE

Operating Spares Price Schedule  
Agreement Number: CH0031-001

Filtration General Filtration

Description	Part No.	Manufacturer	Manuf. Part No.	Expected annual usage rate	Lead time for delivery (weeks)	Unit price

*dl*



OPERATING SPARES PRICE SCHEDULE

Operating Spares Price Schedule  
Agreement Number: CH0031-001

Water Treatment Plant Natpro

Description	Part No.	Manufacturer	Manuf. Part No.	Expected annual usage rate	Lead time for delivery (weeks)	Unit price
Service Water Pump 3449-P6000/6001 & 6002						
Seal Repair Kit		Aurora		One	4 - 6 Weeks	\$ 5635.00/EA CAD
Overhaul Kit		Aurora		One	4 - 6 Weeks	\$ 7705.00/EA CAD
Rotating Assembly		Auroa		-	TBA	\$ 16 675.00/EA CAD
Grinder Submersible Pump 3353-P5000/5001						
Seals, Oring & Bearings		Hydromatic		1 per Pump	4 - 5 Weeks	\$ 4600.00/EA CAD
Impellers		Hydromatic		1 per Pump	4 - 5 Weeks	\$ 1828.50/EA CAD
Cutters (Radial & Stationary)		Hydromatic		1 per Pump	4 - 5 Weeks	\$ 1966.50/EA CAD
Lubrifcation Water Pump 344B-P5000/5001						
Seal Kit		Aurora		1 per Pump	4-5 Weeks	\$ 385.25/EA CAD
Gasket Kit		Aurora		1 per Pump	4-5 Weeks	\$ 57.50/EA CAD
Stack Kt		Aurora		1 per Pump	4-5 Weeks	\$ 1914.75/EA CAD
Dewatering Pump 3445-P5000/5001 & 5002						
Mechanical Seal, Rubber Line Shaft Bearings & Gaskets				1	4 - 5 Weeks	\$ 5175.00/EA CAD

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OPERATING SPARES PRICE SCHEDULE

Operating Spares Price Schedule  
Agreement Number: CH0031-001

Water Treatment Plant Natpro

Description	Part No.	Manufacturer	Manuf. Part No.	Expected annual usage rate	Lead time for delivery (weeks)	Unit price
Water Treatment Plant Pump 3352-P6000/6001						
Seal Kit		Aurora		1 per Pump	4-5 Weeks	\$ 385.25/EA CAD
Gasket Kit		Aurora		1 per Pump	4-5 Weeks	\$ 57.50/EA CAD
Stack Kt		Aurora		1 per Pump	4-5 Weeks	\$ 1914.75/EA CAD
Drainage Pump 3444-P5000/5001 & 5002						
Mechanical Seal, Rubber Line Shaft Bearings & Gaskets					4 - 5 Weeks	\$ 5175.00/EA CAD

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OPERATING SPARES PRICE SCHEDULE

Operating Spares Price Schedule  
Agreement Number: CH0031-001

**Air Handling Units**

Description	Part No.	Manufacturer	Manuf. Part No.	Expected annual usage rate	Lead time for delivery (weeks)	Unit price
<b>Motors</b>						
1 HP		PF-SWSI		N/A	2 Weeks	514.15 ea
2 HP		PF-SWSI		N/A	2 Weeks	514.15 ea
3 HP		PF-SWSI		N/A	2 Weeks	734.5 ea
5 HP		PF-SWSI		N/A	2 Weeks	881.4 ea
7.5 HP		PF-SWSI		N/A	2 Weeks	1175.2 ea
10 HP		PF-SWSI		N/A	2 Weeks	1469 ea
15 HP		PF-SWSI		N/A	2 Weeks	1762.8 ea
<b>Filters</b>						
Merv 8 - AAF Perfect Pleat Ultra		PF-SWSI		N/A	2 Weeks	23.73 ea
Merv 14 - AAF Varicel VXL		PF-SWSI		N/A	2 Weeks	587.6 ea
<b>VFD</b>						
1 HP				N/A	2 Weeks	1322.1 ea
2 HP				N/A	2 Weeks	1322.1 ea
3 HP				N/A	2 Weeks	1469 ea
7.5 HP				N/A	2 Weeks	1762.8 ea
10 HP				N/A	2 Weeks	1909.7 ea
15 HP				N/A	2 Weeks	2203.5 ea
60 HP				N/A	2 Weeks	7345 ea
<b>Duct Heaters</b>						
Transformers		Neptronic	DP 10-9050	N/A	2 Weeks	37.29 ea
		Neptronic	DP 10-9051	N/A	2 Weeks	49.72 ea
Contactors		Neptronic	DP 11-6002	N/A	2 Weeks	42.94 ea
		Neptronic	DP 11-1003	N/A	2 Weeks	51.98 ea
		Neptronic	DP 11-1005	N/A	2 Weeks	98.31 ea
Solid State Relays		Neptronic	DW SSR50Y2	N/A	2 Weeks	427.14 ea
		Neptronic	DW SSR50Y1	N/A	2 Weeks	275.72 ea
		Neptronic	DW SSR25Y2	N/A	2 Weeks	397.76 ea
HEC Boards		Neptronic	NW HEC0000SS	N/A	2 Weeks	82.49 ea

OPERATING SPARES PRICE SCHEDULE

Operating Spares Price Schedule  
Agreement Number: CH0031-001

**Air Handling Units**

Description	Part No.	Manufacturer	Manuf. Part No.	Expected annual usage rate	Lead time for delivery (weeks)	Unit price
		Neptronic	NW HEC0S02SS	N/A	2 Weeks	108.48 ea
<b>Roof &amp; Wall Exhaust Fans Motors</b>						
1 HP		Greenheck		N/A	2 Weeks	791 ea
1.5 HP		Greenheck		N/A	2 Weeks	791 ea
5 HP		Greenheck		N/A	2 Weeks	2531.2 ea
15 HP		Greenheck		N/A	2 Weeks	2847.6 ea
3 HP		Greenheck		N/A	2 Weeks	1265.6 ea
0.5 HP		Greenheck		N/A	2 Weeks	632.8 ea
7.5 HP		Greenheck		N/A	2 Weeks	1740.2 ea
0.33 HP		Greenheck		N/A	2 Weeks	632.8 ea
0.25 HP		Greenheck		N/A	2 Weeks	632.8 ea
<b>Humidifier</b>						0 ea
Tank Gasket		Neptronic	SP 1021	N/A	2 Weeks	81.36 ea
10kW 600 volt heating element		Neptronic	SP 5939	N/A	2 Weeks	375.16 ea
High temperature switch		Neptronic	SP 3035	N/A	2 Weeks	57.63 ea
Water level sensor		Neptronic	SW SK300BPROBME ED	N/A	2 Weeks	528.84 ea
Fill valve		Neptronic	SP 6007	N/A	2 Weeks	107.35 ea
Cooling fan		Neptronic	SP 3007	N/A	2 Weeks	108.48 ea
Contactator		Neptronic	SP 3100	N/A	2 Weeks	162.72 ea
Transformer 600/24vac 100VA		Neptronic	SP 3341	N/A	2 Weeks	144.64 ea
SSR 50 amps NW SK300BMAIN- TES Neptronic \$324.00 ea NW SK300BMAIN- TES Neptronic \$324.00 ea		Neptronic	SP 3102	N/A	2 Weeks	170.63 ea
Main pc board		Neptronic	NW SK300BMAIN- TES	N/A	2 Weeks	366.12 ea

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OPERATING SPARES PRICE SCHEDULE

Operating Spares Price Schedule  
 Agreement Number: CH0031-001

**Air Handling Units**

Description	Part No.	Manufacturer	Manuf. Part No.	Expected annual usage rate	Lead time for delivery (weeks)	Unit price
Drain pump		Neptronic	SP G4101	N/A	2 Weeks	194.36 ea
Temperature sensor for SSR		Neptronic	NP 242010001	N/A	2 Weeks	20.34 ea
<b>Welding Exhaust</b>						
Spark filter for metal hood		Nederman	10373118	N/A	2 Weeks	301.71 ea
Wear disc set		Nederman		N/A	2 Weeks	133.34 ea

Appendix I  
Estimated PLA Labour Hours by Trade  
Agreement Number: CH0031-001

**APPENDIX I**

**ESTIMATED PLA LABOUR HOURS BY TRADE**





ESTIMATED PLA LABOUR HOURS BY TRADE

dix I  
 Estimated PLA Labour Hours By Trade  
 Agreement Number: CH0031-001

Trade	Number of LOA Person-Days	Travel KMs	Regular Time Person-Hours	Overtime (1.5x) Person-Hours	Overtime (2.0x) Person-Hours	Second Shift Person-Hours	Third Shift Person-Hours	Travel Time Hours	Total Person-Hours
Electrical			74,672	37,336	18,668	39,033			169,709
Piping & Mechanical			29,655	14,827	7,414	15,501			67,398
Piping Insulation			6,019	3,010	1,505	3,146			13,680
Instrumentation			1,400	700	350	732			3,183
HVAC & Duct Installation			19,052	9,526	4,763	9,959			43,299
EMCS			5,068	2,534	1,267	2,649			11,519
Fire Protection			6,295	3,148	1,574	3,291			14,307
Architectural			48,898	24,449	12,225	25,560			111,132
Structural			655	328	164	343			1,489
Commissioning			7,867	3,933	1,967	4,112			17,879
Mob & Demob			3,767	1,883	942	1,969			8,560
Craft Support PLA Labour			108,479	54,239	27,120	56,705			246,543
*LOA = Living Out Allowance.		Total	311,827	155,913	77,957	163,000			708,698

**APPENDIX J**

**MONTHLY PAYMENT FORECAST SCHEDULE**

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**APPENDIX J**

**MONTHLY PAYMENT FORECAST SCHEDULE**

**CIMFP Exhibit P-01891**  
**MONTHLY PAYMENT RECAST SCHEDULE**

Rev 1, 30-Jun-17

MONTH	1	2	3	4	5	6	7	8	9
Reimbursable Cost Labour	\$ 181,543	\$ 208,415	\$ 201,697	\$ 1,234,555	\$ 2,357,560	\$ 2,015,097	\$ 2,372,246	\$ 2,122,429	\$ 2,900,315
Travel Allowances	\$ -	\$ 12,506	\$ 14,357	\$ 13,895	\$ 85,047	\$ 162,410	\$ 138,818	\$ 163,421	\$ 146,212
Indirect Costs (General) PMT	\$ -	\$ 1,099,366	\$ 1,099,366	\$ 1,099,366	\$ 1,099,366	\$ 1,099,366	\$ 1,099,366	\$ 1,099,366	\$ 1,099,366
Mobilization	\$ -	\$ -	\$ 162,571	\$ 650,283	\$ -	\$ -	\$ 270,951	\$ -	\$ -
Site Installation	\$ -	\$ -	\$ -	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655
Demobilization	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Piping Mechanical - Design & Engineering	\$ -	\$ 116,354	\$ -	\$ -	\$ -	\$ -	\$ 54,884	\$ -	\$ 61,470
Piping Mechanical - Supply & Installation	\$ -	\$ -	\$ 535,343	\$ 965,095	\$ 374,566	\$ 164,109	\$ 1,847,633	\$ 387,707	\$ 1,104,284
HVAC System - Supply & Installation	\$ -	\$ -	\$ 29,734	\$ 381,862	\$ 808,807	\$ 110,788	\$ 284,921	\$ 411,223	\$ 262,182
Electrical - Design & Engineering	\$ -	\$ 127,653	\$ -	\$ -	\$ -	\$ -	\$ 91,474	\$ -	\$ 36,180
Electrical - Supply and Installation	\$ -	\$ -	\$ 2,143,250	\$ 372,201	\$ 1,021,641	\$ 319,002	\$ 1,035,226	\$ 757,595	\$ 412,899
Electrical -Free Issued Materials - Assembly & Installation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Architectural - Supply & Installation	\$ -	\$ -	\$ 374,312	\$ 30,147	\$ 66,460	\$ 560,221	\$ 21,230	\$ 2,536	\$ 395,402
Diesel Generator System - Supply & Installation	\$ -	\$ -	\$ 29,260	\$ -	\$ 44,499	\$ -	\$ -	\$ -	\$ -
Piping Mechanical - Single Contractor Dynamic Commissioning	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
HVAC System - Single Contractor Dynamic Commissioning	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Electrical - Single Contractor Dynamic Commissioning	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Diesel Generator System - Single Contractor Dynamic Commissioning	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>INVOICE AMOUNT</b>	<b>\$ 181,543</b>	<b>\$ 1,564,295</b>	<b>\$ 4,589,890</b>	<b>\$ 4,861,058</b>	<b>\$ 5,971,601</b>	<b>\$ 4,544,647</b>	<b>\$ 7,330,403</b>	<b>\$ 5,057,931</b>	<b>\$ 6,531,963</b>
<b>Mechanics Lien Holdback</b>	<b>\$ (18,154)</b>	<b>\$ (156,429)</b>	<b>\$ (458,989)</b>	<b>\$ (485,508)</b>	<b>\$ (596,562)</b>	<b>\$ (453,867)</b>	<b>\$ (732,442)</b>	<b>\$ (505,195)</b>	<b>\$ (652,598)</b>
<b>Letter of Credit - Work - Agreement Article 7.1(a)</b>	<b>\$ 2,697,438</b>								
<b>Letter of Credit - Warranty Period - Agreement Article 7.1(b)</b>									
<b>TOTAL INVOICE AMOUNT</b>	<b>\$ 2,860,827</b>	<b>\$ 1,407,865</b>	<b>\$ 4,130,901</b>	<b>\$ 4,375,551</b>	<b>\$ 5,375,039</b>	<b>\$ 4,090,781</b>	<b>\$ 6,597,961</b>	<b>\$ 4,552,736</b>	<b>\$ 5,879,365</b>

\*\*Preliminary Estimate. Subject to change based on final payment terms, cash flow assumptions and detailed construction schedule and execution plan



**CIMFP Exhibit P-01891**  
**MONTHLY PAYMENT RECAST SCHEDULE**

Rev 1, 30-Jun-17

MONTH	10	11	12	13	14	15	16	17	18
Reimbursable Cost Labour	\$ 3,303,709	\$ 3,488,377	\$ 3,209,188	\$ 4,063,471	\$ 3,915,987	\$ 4,797,768	\$ 5,382,393	\$ 5,038,523	\$ 4,325,631
Travel Allowances	\$ 199,799	\$ 227,589	\$ 240,310	\$ 221,077	\$ 279,928	\$ 269,768	\$ 330,513	\$ 370,787	\$ 347,098
Indirect Costs (General) PMT	\$ 1,099,366	\$ 1,099,366	\$ 1,099,366	\$ 1,099,366	\$ 1,099,366	\$ 1,099,366	\$ 1,099,366	\$ 1,099,366	\$ 1,099,366
Mobilization	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Site Installation	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655
Demobilization	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Piping Mechanical - Design & Engineering	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Piping Mechanical - Supply & Installation	\$ 882,843	\$ 717,360	\$ 1,428,538	\$ 1,386,248	\$ 1,532,016	\$ 352,074	\$ 791,437	\$ 1,239,286	\$ 989,937
HVAC System - Supply & Installation	\$ 228,770	\$ 187,671	\$ 633,855	\$ 256,187	\$ 2,621,468	\$ 982,541	\$ 405,670	\$ 1,383,103	\$ 823,470
Electrical - Design & Engineering	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Electrical - Supply and Installation	\$ 1,253,310	\$ 1,433,348	\$ 713,090	\$ 283,714	\$ 1,920,376	\$ 2,939,815	\$ 744,696	\$ 2,618,135	\$ 643,159
Electrical -Free Issued Materials - Assembly & Installation	\$ -	\$ -	\$ 48,999	\$ 79,081	\$ 123,540	\$ 161,873	\$ 161,873	\$ 161,873	\$ 161,873
Architectural - Supply & Installation	\$ 30,667	\$ 164,126	\$ 58,628	\$ 80,915	\$ 108,913	\$ 268,679	\$ 54,057	\$ 402,846	\$ 172,733
Diesel Generator System - Supply & Installation	\$ -	\$ 12,293	\$ 279,289	\$ 12,293	\$ 12,293	\$ 56,792	\$ 56,792	\$ 175,558	\$ -
Piping Mechanical - Single Contractor Dynamic Commissioning	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 32,878
HVAC System - Single Contractor Dynamic Commissioning	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,261
Electrical - Single Contractor Dynamic Commissioning	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 167,062
Diesel Generator System - Single Contractor Dynamic Commissioning	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,241
<b>INVOICE AMOUNT</b>	<b>\$ 7,112,118</b>	<b>\$ 7,443,783</b>	<b>\$ 7,824,917</b>	<b>\$ 7,596,007</b>	<b>\$ 11,727,542</b>	<b>\$ 11,042,330</b>	<b>\$ 9,140,450</b>	<b>\$ 12,603,131</b>	<b>\$ 8,912,362</b>

<b>Mechanics Lien Holdback</b>	\$ (710,614)	\$ (743,780)	\$ (781,894)	\$ (759,003)	\$ (1,172,156)	\$ (1,103,635)	\$ (913,447)	\$ (1,259,715)	\$ (890,638)
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<b>Letter of Credit - Work - Agreement Article 7.1(a)</b>									
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<b>Letter of Credit - Warranty Period - Agreement Article 7.1(b)</b>									
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<b>TOTAL INVOICE AMOUNT</b>	<b>\$ 6,401,505</b>	<b>\$ 6,700,003</b>	<b>\$ 7,043,024</b>	<b>\$ 6,837,005</b>	<b>\$ 10,555,386</b>	<b>\$ 9,938,695</b>	<b>\$ 8,227,004</b>	<b>\$ 11,343,416</b>	<b>\$ 8,021,724</b>
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\*\*Preliminary Estimate. Subject to change based on



**CIMFP Exhibit P-01891**  
**MONTHLY PAYMENT RECAST SCHEDULE**

Rev 1, 30-Jun-17

MONTH	19	20	21	22	23	24	25	26	27
Reimbursable Cost Labour	\$ 4,627,317	\$ 3,754,129	\$ 2,242,729	\$ 1,756,062	\$ 1,904,015	\$ 860,533	\$ 348,556	\$ 150,765	\$ 162,326
Travel Allowances	\$ 297,988	\$ 318,771	\$ 258,618	\$ 154,499	\$ 120,973	\$ 131,165	\$ 59,281	\$ 24,012	\$ 10,386
Indirect Costs (General) PMT	\$ 1,099,366	\$ 1,099,366	\$ 1,099,366	\$ 1,099,366	\$ 1,099,366	\$ 1,099,366	\$ 1,099,366	\$ 1,099,366	\$ 1,099,366
Mobilization	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Site Installation	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655
Demobilization	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Piping Mechanical - Design & Engineering	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Piping Mechanical - Supply & Installation	\$ 725,856	\$ 1,844,450	\$ 467,107	\$ 198,051	\$ 255,342	\$ 398,322	\$ 45,910	\$ 158,251	\$ 1,493,392
HVAC System - Supply & Installation	\$ 1,064,910	\$ 437,217	\$ 529,156	\$ 237,099	\$ 354,718	\$ 352,931	\$ 10,180	\$ -	\$ 738,972
Electrical - Design & Engineering	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Electrical - Supply and Installation	\$ 1,436,765	\$ 886,980	\$ 298,862	\$ 233,162	\$ 495,082	\$ 152,771	\$ 10,061	\$ 234,808	\$ 2,074,666
Electrical -Free Issued Materials - Assembly & Installation	\$ 189,479	\$ 148,839	\$ 93,625	\$ 75,151	\$ 94,616	\$ 45,069	\$ 64,534	\$ 25,604	\$ 45,069
Architectural - Supply & Installation	\$ 51,951	\$ 268,652	\$ 399,949	\$ 39,275	\$ 189,284	\$ 344,929	\$ -	\$ 93,885	\$ 310,269
Diesel Generator System - Supply & Installation	\$ 29,260	\$ 29,260	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Piping Mechanical - Single Contractor Dynamic Commissioning	\$ 32,878	\$ 32,878	\$ 32,878	\$ 32,878	\$ 32,878	\$ 32,878	\$ 32,878	\$ 32,878	\$ -
HVAC System - Single Contractor Dynamic Commissioning	\$ 12,261	\$ 12,261	\$ 12,261	\$ 12,261	\$ 12,261	\$ 12,261	\$ 12,261	\$ 12,261	\$ -
Electrical - Single Contractor Dynamic Commissioning	\$ 167,062	\$ 167,062	\$ 167,062	\$ 167,062	\$ 167,062	\$ 167,062	\$ 167,062	\$ 167,062	\$ -
Diesel Generator System - Single Contractor Dynamic Commissioning	\$ 23,241	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>INVOICE AMOUNT</b>	<b>\$ 9,871,988</b>	<b>\$ 9,113,519</b>	<b>\$ 5,715,266</b>	<b>\$ 4,118,520</b>	<b>\$ 4,839,251</b>	<b>\$ 3,710,942</b>	<b>\$ 1,963,743</b>	<b>\$ 2,112,547</b>	<b>\$ 6,048,101</b>

<b>Mechanics Lien Holdback</b>	\$ (986,601)	\$ (910,754)	\$ (570,928)	\$ (411,254)	\$ (483,327)	\$ (370,496)	\$ (195,776)	\$ (210,657)	\$ (604,212)
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<b>Letter of Credit - Work - Agreement Article 7.1(a)</b>									
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<b>Letter of Credit - Warranty Period - Agreement Article 7.1(b)</b>									
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<b>TOTAL INVOICE AMOUNT</b>	<b>\$ 8,885,387</b>	<b>\$ 8,202,765</b>	<b>\$ 5,144,337</b>	<b>\$ 3,707,266</b>	<b>\$ 4,355,924</b>	<b>\$ 3,340,446</b>	<b>\$ 1,767,967</b>	<b>\$ 1,901,891</b>	<b>\$ 5,443,889</b>
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\*\*Preliminary Estimate. Subject to change based on



**CIMFP Exhibit P-01891**  
**MONTHLY PAYMENT RECAST SCHEDULE**

Rev 1, 30-Jun-17

MONTH	28	29	30	31	32	33	34	35	36	37
Reimbursable Cost Labour	\$ 85,460	\$ -	\$ 290,906	\$ 1,973,851	\$ 1,598,423	\$ 424,798	\$ 392,927	\$ 208,728	\$ -	\$ 302,468
Travel Allowances	\$ 11,182	\$ 5,887	\$ -	\$ 20,040	\$ 135,976	\$ 110,114	\$ 29,264	\$ 27,068	\$ 14,379	\$ -
Indirect Costs (General) PMT	\$ 1,099,366	\$ 1,099,366	\$ 342,025	\$ 342,025	\$ 342,025	\$ 342,025	\$ 342,025	\$ 342,025	\$ 342,025	\$ 342,025
Mobilization	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Site Installation	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655	\$ 113,655
Demobilization	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Piping Mechanical - Design & Engineering	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Piping Mechanical - Supply & Installation	\$ 1,365,259	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
HVAC System - Supply & Installation	\$ 738,972	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Electrical - Design & Engineering	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Electrical - Supply and Installation	\$ 2,074,666	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Electrical -Free Issued Materials - Assembly & Installation	\$ 38,930	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Architectural - Supply & Installation	\$ 216,384	\$ -	\$ 16,687	\$ 113,222	\$ 91,687	\$ 24,367	\$ 22,539	\$ 11,973	\$ -	\$ -
Diesel Generator System - Supply & Installation	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Piping Mechanical - Single Contractor Dynamic Commissioning	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
HVAC System - Single Contractor Dynamic Commissioning	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Electrical - Single Contractor Dynamic Commissioning	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Diesel Generator System - Single Contractor Dynamic Commissioning	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
<b>INVOICE AMOUNT</b>	<b>\$ 5,743,873</b>	<b>\$ 1,218,907</b>	<b>\$ 763,272</b>	<b>\$ 2,562,793</b>	<b>\$ 2,281,766</b>	<b>\$ 1,014,958</b>	<b>\$ 900,409</b>	<b>\$ 703,448</b>	<b>\$ 470,058</b>	<b>\$ 758,147</b>
<b>Mechanics Lien Holdback</b>	<b>\$ (573,789)</b>	<b>\$ (121,293)</b>	<b>\$ (75,729)</b>	<b>\$ (255,681)</b>	<b>\$ (227,578)</b>	<b>\$ (100,898)</b>	<b>\$ (89,443)</b>	<b>\$ (69,747)</b>	<b>\$ (46,408)</b>	<b>\$ (75,217)</b>
<b>Letter of Credit - Work - Agreement Article 7.1(a)</b>										
<b>Letter of Credit - Warranty Period - Agreement Article 7.1(b)</b>									\$ 851,822	
<b>TOTAL INVOICE AMOUNT</b>	<b>\$ 5,170,084</b>	<b>\$ 1,097,615</b>	<b>\$ 687,543</b>	<b>\$ 2,307,112</b>	<b>\$ 2,054,187</b>	<b>\$ 914,061</b>	<b>\$ 810,966</b>	<b>\$ 633,702</b>	<b>\$ 1,275,473</b>	<b>\$ 682,931</b>

\*\*Preliminary Estimate. Subject to change based on

**CIMFP Exhibit P-01891**  
**MONTHLY PAYMENT RECAST SCHEDULE**

Rev 1, 30-Jun-17

MONTH	38	39	40		Total
Reimbursable Cost Labour	\$ 27,497	\$ -	\$ -		\$ 72,230,394
Travel Allowances	\$ 20,837	\$ 1,894	\$ -		\$ 4,975,871
Indirect Costs (General) PMT	\$ 342,025	\$ 342,025	\$ -		\$ 34,202,484
Mobilization	\$ -	\$ -	\$ -		\$ 1,083,805
Site Installation	\$ 113,655	\$ 113,655	\$ -	0.00	\$ 4,091,565
Demobilization	\$ -	\$ 384,818	\$ -		\$ 384,818
Piping Mechanical - Design & Engineering	\$ -	\$ -	\$ -		\$ 232,709
Piping Mechanical - Supply & Installation	\$ -	\$ -	\$ -		\$ 21,650,417
HVAC System - Supply & Installation	\$ -	\$ -	\$ -		\$ 14,276,404
Electrical - Design & Engineering	\$ -	\$ -	\$ -		\$ 255,307
Electrical - Supply and Installation	\$ -	\$ -	\$ -		\$ 26,509,281
Electrical -Free Issued Materials - Assembly & Installation	\$ -	\$ -	\$ -		\$ 1,720,027
Architectural - Supply & Installation	\$ -	\$ -	\$ -		\$ 4,986,925
Diesel Generator System - Supply & Installation	\$ -	\$ -	\$ -		\$ 737,589
Piping Mechanical - Single Contractor Dynamic Commissioning	\$ -	\$ -	\$ -		\$ 295,901
HVAC System - Single Contractor Dynamic Commissioning	\$ -	\$ -	\$ -		\$ 110,351
Electrical - Single Contractor Dynamic Commissioning	\$ -	\$ -	\$ -		\$ 1,503,558
Diesel Generator System - Single Contractor Dynamic Commissioning	\$ -	\$ -	\$ -		\$ 46,481
<b>INVOICE AMOUNT</b>	<b>\$ 504,013</b>	<b>\$ 842,392</b>	<b>\$ -</b>		<b>\$ 189,293,888</b>

<b>Mechanics Lien Holdback</b>	\$ (49,803)	\$ (83,641)	\$ 18,907,854		\$ -
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<b>Letter of Credit - Work - Agreement Article 7.1(a)</b>					\$ 2,697,438
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<b>Letter of Credit - Warranty Period - Agreement Article 7.1(b)</b>					\$ 851,822
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<b>TOTAL INVOICE AMOUNT</b>	<b>\$ 454,210</b>	<b>\$ 758,751</b>	<b>\$ 18,907,854</b>		<b>\$ 192,843,148</b>
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\*\*Preliminary Estimate. Subject to change based on

