
**REFERENCE: SAMPLE CCDC5A-2010
CONSTRUCTION MANAGEMENT CONTRACT – FOR
SERVICES**

CCDC 5A

Construction Management Contract – for Services

2 0 1 0

[Name of the Project]

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AGREEMENT BETWEEN OWNER AND CONSTRUCTION MANAGER – FOR SERVICES

This agreement made on the _____ day of _____ in the year _____
by and between

hereinafter called the *Owner*
and

hereinafter called the *Construction Manager*

The *Owner* and *Construction Manager* agree as follows:

ARTICLE A-1 THE SERVICES

The *Construction Manager* shall

- 1.1 perform the *Services* for
[Name of the Project]

insert above the title of the Project
located at

insert above the Place of the Project
and as further described in Article A-3 – DESCRIPTION OF THE PROJECT, for which the Agreement has been signed
by the parties, and for which

insert above the name of the Consultant
is acting as and is hereinafter called the “*Consultant*”, and

- 1.2 do and fulfill everything indicated by the *Contract Documents*, and
- 1.3 commence the *Services* by the _____ day of _____ in the year _____ and continue in accordance with any schedule provided in Article A-3 – DESCRIPTION OF THE PROJECT. The *Construction Manager*’s obligation to provide *Services* shall end no later than one year after the *Project In-Use Date*.

ARTICLE A-2 AGREEMENTS AND AMENDMENTS

- 2.1 This *Contract* supersedes all prior negotiations, representations or agreements, either written or oral, relating in any manner to the *Services*.
- 2.2 This *Contract* may be amended as provided in the *Contract Documents*.

ARTICLE A-3 DESCRIPTION OF THE PROJECT

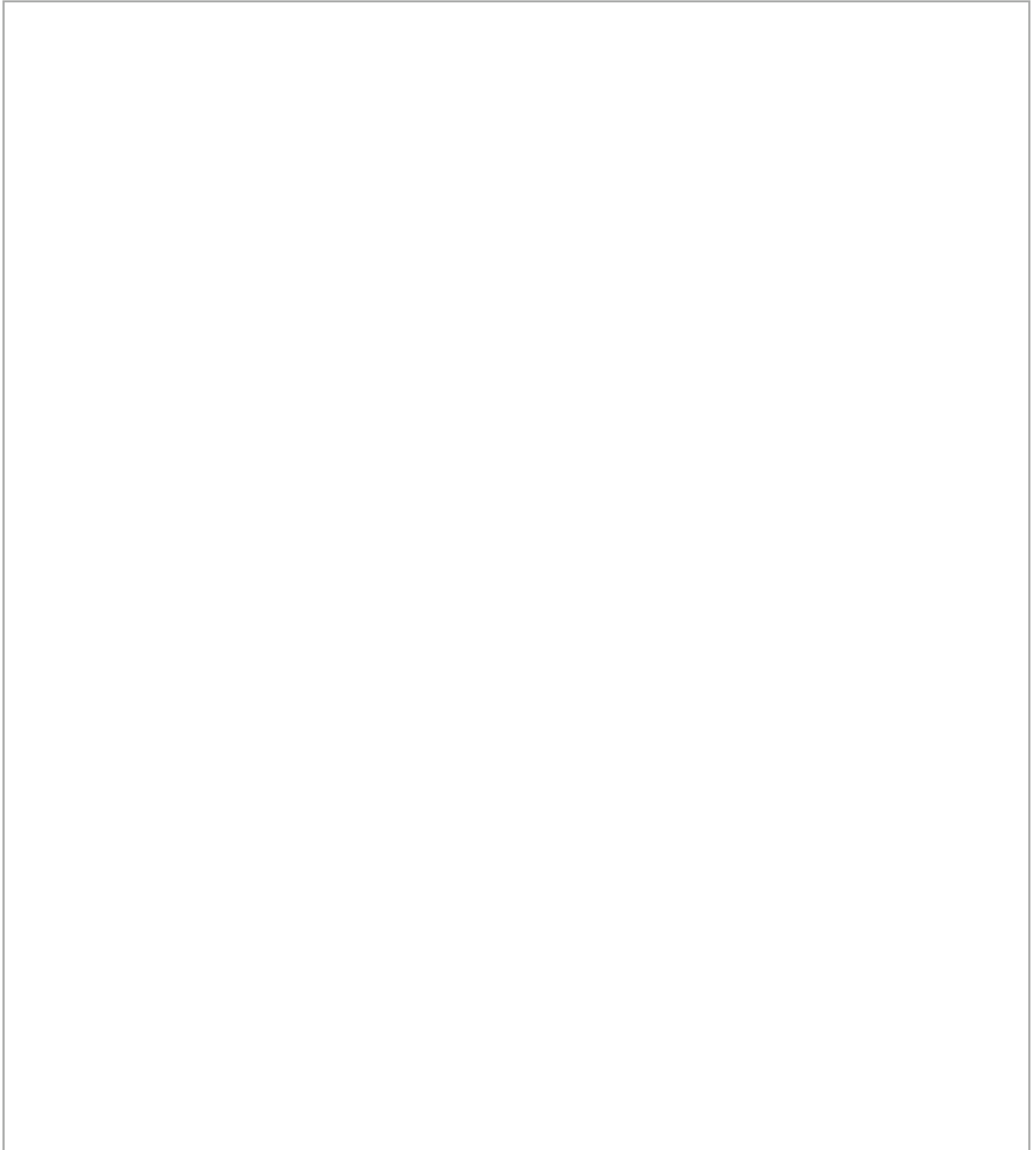
- 3.1 The following is a description of the *Project* including intended use, scope, budget, schedule, phases if applicable, the anticipated *Project In-Use Date*, and any other information which further generally describes the nature of the *Project*:

ARTICLE A-4 CONTRACT DOCUMENTS

4.1 The following are the *Contract Documents* referred to in Article A-1 of the Agreement – THE SERVICES:

- the Agreement Between *Owner* and *Construction Manager* (including the Schedules to the Agreement)
- the Definitions
- the General Conditions

*



* (Insert here, attaching additional pages if required, a list identifying all other *Contract Documents*)

ARTICLE A-5 COMPENSATION FOR SERVICES

- 5.1 The *Construction Manager's* compensation shall be equal to the sum of the *Construction Manager's* fee as specified in paragraph 5.2 and the reimbursable expenses as described in paragraph 5.3.
- 5.2 The *Construction Manager's* fee is comprised of one or more of the following:
- .1* A fixed amount of _____; and
 - .2* A percentage amount of _____ percent (____ %) of the *Construction Cost*. In the event that the *Owner* furnishes labour or material below market cost or materials are re-used beyond that anticipated in the original scope of the *Project*, the *Construction Cost* for purposes of establishing the *Construction Manager's* fee is the cost of all materials and labour necessary to complete the *Project* as if all materials had been new and as if all labour had been paid for at market prices at the time of construction or, in the event that the construction does not proceed, at existing market prices at the anticipated time of construction. Where the actual cost has not been determined for all or part of the *Project*, the *Construction Cost* shall be the *Construction Cost Estimate*, as agreed by the *Owner* and the *Construction Manager*, at market rates at the anticipated time of construction; and
 - .3* An amount based on the time-based rates for personnel employed by the *Construction Manager* as described in Schedule C to the Agreement and engaged in performing the *Services* to the level of effort agreed prior to the commencement of the *Services*.
- * Strike out inapplicable paragraph(s).
- 5.3 The reimbursable expenses are the actual expenses, supported by receipts or invoices, that the *Construction Manager* incurred in performing the *Services*, and as identified in Schedules A2 and B2 to the Agreement plus the administrative charge of _____ percent (____ %). If there are no receipts or invoices, the expenses shall be at rates prevailing in the area of the *Place of the Project* and supported with suitable documentation.
- 5.4 The *Owner* may by written request require the *Construction Manager* to:
- .1 provide prior to commencement of the *Services* an estimate of the total amount of the *Construction Manager's* fee for the *Services* as described in paragraph 5.2.3;
 - .2 provide prior to commencement of the *Services* an estimate of the total amount of the reimbursable expenses as described in paragraph 5.3 for evaluation and verification purposes; and
 - .3 inform the *Owner* in writing prior to incurring reimbursable expenses as described in paragraph 5.3.
- 5.5 All amounts are in Canadian funds.

ARTICLE A-6 PAYMENT

- 6.1 Where required by provincial or territorial legislation, payments shall be subject to the lien legislation applicable to the *Place of the Project*. The *Owner* shall pay the *Construction Manager*:
- .1 payments on account of the compensation described in Article A-5 of the Agreement – COMPENSATION FOR SERVICES together with such *Value Added Taxes* as may be applicable to such payments, and
 - .2 upon completion of the *Services*, the unpaid balance of the compensation together with such *Value Added Taxes* as may be applicable to such payments.
- 6.2 Should the *Owner* fail to make payments as they become due under the terms of the *Contract* or in an award by arbitration or court, interest at the following rates on such unpaid amounts shall also become due and payable until payment:
- .1 2% per annum above the prime rate for the first 60 days.
 - .2 4% per annum above the prime rate after the first 60 days.
- Such interest shall be compounded on a monthly basis. The prime rate shall be the rate of interest quoted by

(Insert name of chartered lending institution whose prime rate is to be used)

for prime business loans as it may change from time to time.

ARTICLE A-7 RECEIPT OF AND ADDRESSES FOR NOTICES IN WRITING

- 7.1 *Notices in Writing* will be addressed to the recipient at the address set out below.
- 7.2 The delivery of a *Notice in Writing* will be by hand, by courier, by prepaid first class mail, or by facsimile or other form of electronic communication during the transmission of which no indication of failure of receipt is communicated to the sender.
- 7.3 A *Notice in Writing* delivered by one party in accordance with this *Contract* will be deemed to have been received by the other party on the date of delivery if delivered by hand or courier, or if sent by mail it shall be deemed to have been received five calendar days after the date on which it was mailed, provided that if either such day is not a *Working Day*, then the *Notice in Writing* shall be deemed to have been received on the *Working Day* next following such day.
- 7.4 A *Notice in Writing* sent by facsimile or other form of electronic communication shall be deemed to have been received on the date of its transmission provided that if such day is not a *Working Day* or if it is received after the end of normal business hours on the date of its transmission at the place of receipt, then it shall be deemed to have been received at the opening of business at the place of receipt on the first *Working Day* next following the transmission thereof.
- 7.5 An address for a party may be changed by *Notice in Writing* setting out the new address delivered to the other party in accordance with this Article.

Owner

*name of Owner**

address

facsimile number

email address

Construction Manager

*name of Construction Manager**

address

facsimile number

email address

** If it is intended that the notice must be received by a specific individual, that individual's name shall be indicated.*

ARTICLE A-8 LANGUAGE OF THE CONTRACT

- 8.1 When the *Contract Documents* are prepared in both the English and French languages, it is agreed that in the event of any apparent discrepancy between the English and French versions, the English/French# language shall prevail.
- 8.2 This Agreement is drawn in English at the request of the parties hereto. La présente convention est rédigée en anglais à la demande des parties.

Complete this statement by striking out inapplicable term.

ARTICLE A-9 SUCCESSION

9.1 This *Contract* shall enure to the benefit of and be binding upon the parties hereto, their respective heirs, legal representatives, successors and assigns.

In witness whereof the parties hereto have executed this Agreement by their respective hands or by the hands of their duly authorized representatives.

SIGNED AND DELIVERED
in the presence of:

WITNESS

OWNER

signature

name of Owner

name of person signing

signature

name and title of person signing

signature

signature

name of person signing

name and title of person signing

WITNESS

CONSTRUCTION MANAGER

signature

name of Construction Manager

name of person signing

signature

name and title of person signing

signature

signature

name of person signing

name and title of person signing

- N.B. Where legal jurisdiction, local practice, or Owner or Construction Manager requirement calls for:
- (a) proof of authority to execute this document, attach such proof of authority in the form of a certified copy of a resolution naming the representative(s) authorized to sign the Agreement for and on behalf of the corporation or partnership; or
 - (b) the affixing of a corporate seal, this Agreement should be properly sealed.

SCHEDULE A1 TO THE AGREEMENT – SERVICES AND COMPENSATION

SCHEDULE A-3 TO THE AGREEMENT – SERVICES AND COMPENSATION			
1. PRECONSTRUCTION	Performed by the Owner or Someone Other Than the Construction Manager	Performed by the Construction Manager (*F1/F2/F3)	Not Applicable
(*Note: F1 Included in the fixed amount as described in paragraph 5.2.1 of Article A-5 – COMPENSATION FOR SERVICES. F2 Included in the percentage amount as described in paragraph 5.2.2 of Article A-5 – COMPENSATION FOR SERVICES. F3 Fee to the <i>Construction Manager</i> based on time-based rates as described in paragraph 5.2.3 of Article A-5 – COMPENSATION FOR SERVICES.)			
1.1 General Services .1 Attend regular <i>Project</i> meetings with the <i>Owner</i> and the <i>Consultant</i> . .2 Provide advice to the <i>Owner</i> and the <i>Consultant</i> with respect to construction and market conditions.	☐ ☐	F3 F3	☐ ☐
1.2 Predesign .1 Estimating: (1) Confirm or prepare a <i>Class D Construction Cost Estimate</i> . (2) Advise the <i>Owner</i> if it appears that the <i>Construction Cost Estimate</i> may exceed the <i>Project</i> budget, and make recommendation for corrective action. .2 Scheduling: Prepare a preliminary overall <i>Project</i> schedule.	☐ ☐	F3 F3	☐ ☐
1.3 Schematic Design Phase .1 Constructability: Provide advice on site use and possible improvements, selection of materials, assembly systems, and, equipment and provide recommendations on construction feasibility, availability of materials and labour, time requirements for installation and construction, and factors related to alternative designs and possible economies. .2 Estimating: (1) Prepare a <i>Class C Construction Cost Estimate</i> at the end of the Schematic Design Phase. (2) Advise the <i>Owner</i> if it appears that the <i>Construction Cost Estimate</i> may exceed the <i>Project</i> budget, and make recommendation for corrective action. .3 Scheduling: Prepare in consultation with the <i>Consultant</i> and the <i>Owner</i> a preliminary <i>Project</i> schedule for the <i>Owner's</i> review; such <i>Project</i> schedule shall take into consideration the sequence and timing of the required basic program decisions, including anticipated design time, approval period, preparation of documentation, bid calls and subsequent evaluations, trade contract awards, on-site construction activities, and the <i>Project-In-Use Date</i> . .4 Other Services: Assist in providing liaison and coordination among government authorities, utility companies, and other authorities having jurisdiction over the <i>Place of the Project</i> .	☐ ☐ ☐ ☐	F3 F3 F3 F3	☐ ☐ ☐ ☐
1.4 Design Development Phase .1 Constructability: (1) Provide updates as necessary regarding the availability of materials and labour, building systems, and possible economies. (2) Make recommendations to the <i>Owner</i> and the <i>Consultant</i> regarding the scope of <i>Work</i> packages, to help facilitate the subsequent bidding and awarding of trade and supply contracts. (3) Review the specifications and drawings and at the end of the Design Development Phase, make recommendations to the <i>Owner</i> and the <i>Consultant</i> as to constructability and coordination among the <i>Trade Contractors</i> . (4) Prepare general functional layout of construction site access and organization and <i>Temporary Work</i> . .2 Estimating and Cost Control: (1) Prepare a <i>Class B Construction Cost Estimate</i> at the end of the Design Development Phase. (2) Advise the <i>Owner</i> if it appears that the <i>Construction Cost Estimate</i> may exceed the <i>Project</i> budget, and make recommendations for corrective action. (3) Establish a cost control program, and prepare a cash flow forecast for the <i>Project</i> . .3 Scheduling: (1) Review and update the <i>Project</i> schedule with appropriate details. (2) Advise the <i>Owner</i> if it appears that the <i>Project</i> schedule may vary from that specified in Article A-3 of the Agreement – DESCRIPTION OF THE PROJECT or otherwise agreed with the <i>Owner</i> , update the <i>Project</i> schedule, and make recommendations for corrective action. (3) Make recommendations to the <i>Owner</i> regarding any equipment or materials, which should be pre-ordered to meet the <i>Project</i> schedule.	☐ ☐ ☐	F3 F3 F3	☐ ☐ ☐

SCHEDULE A1 TO THE AGREEMENT – SERVICES AND COMPENSATION

1. PRECONSTRUCTION		Performed by the Owner or Someone Other Than the Construction Manager	Performed by the Construction Manager (*F1/F2/F3)	Not Applicable
(*Note: F1 Included in the fixed amount as described in paragraph 5.2.1 of Article A-5 – COMPENSATION FOR SERVICES. F2 Included in the percentage amount as described in paragraph 5.2.2 of Article A-5 – COMPENSATION FOR SERVICES. F3 Fee to the <i>Construction Manager</i> based on time-based rates as described in paragraph 5.2.3 of Article A-5 – COMPENSATION FOR SERVICES.)				
1.5 Construction Document Phase				
.1 Constructability:		☐	F3	☐
(1) Provide updates as necessary regarding the availability of materials and labour, building systems, and possible economies.				
(2) Review the specifications and drawings and make recommendations to the <i>Owner</i> and the <i>Consultant</i> as to clarity, consistency, constructability, and coordination among the <i>Trade Contractors</i> .				
(3) Assist the <i>Owner</i> and the <i>Consultant</i> in preparing bid documents for <i>Trade Contractors</i> .				
(4) Assist the <i>Owner</i> in determining the contract security requirements of <i>Trade Contractors</i> .				
.2 Estimating and Cost Control:		☐	F3	☐
(1) Update the <i>Class B Construction Cost Estimate</i> at defined intervals of <i>Construction Documents</i> completion.				
(2) Prepare a <i>Class A Construction Cost Estimate</i> at the end of the Construction Document Phase.				
(3) Update the cash flow forecasts for the <i>Project</i> .				
(4) Advise the <i>Owner</i> if it appears that the <i>Construction Cost Estimate</i> may exceed the <i>Project</i> budget and make recommendations for corrective action.				
.3 Scheduling:		☐	F3	☐
(1) Review and update the <i>Project</i> schedule with appropriate details.				
(2) Advise the <i>Owner</i> if it appears that the <i>Project</i> schedule may vary from that specified in Article A-3 of the Agreement – DESCRIPTION OF THE PROJECT or otherwise agreed with the <i>Owner</i> , and make recommendations for corrective action, including changes to <i>Project</i> scope, schedule or budget.				
.4 Make recommendations to the <i>Owner</i> regarding any equipment or materials which should be pre-ordered to meet the <i>Project</i> objective.		☐	F3	☐
.5 Prepare general requirements.		☐	F3	☐
.6 Collate, assemble and distribute bid documents.		☐	F3	☐
1.6 Construction Procurement Phase				
.1 Scheduling:		☐	F3	☐
(1) Review and update the <i>Project</i> schedule with appropriate details.				
.2 Contracting:		☐	F3	☐
(1) Develop methods of solicitation for <i>Trade Contractors</i> and the distribution of addenda.				
(2) Prepare the prequalification criteria for <i>Trade Contractors</i> and <i>Suppliers</i> as required by the <i>Owner</i> .				
(3) Review for completeness and coordinate all bid documents for the solicitation of competitive bids for the <i>Work</i> of each <i>Trade Contractor</i> .				
.3 Solicit bids.		☐	F3	☐
.4 Assist the <i>Owner</i> in the evaluation and awarding of contracts.		☐	F3	☐
.5 Update the cash flow forecasts for the <i>Project</i> .		☐	F3	☐

SCHEDULE A1 TO THE AGREEMENT – SERVICES AND COMPENSATION

2. CONSTRUCTION (*Note: F1 Included in the fixed amount as described in paragraph 5.2.1 of Article A-5 – COMPENSATION FOR SERVICES. F2 Included in the percentage amount as described in paragraph 5.2.2 of Article A-5 – COMPENSATION FOR SERVICES. F3 Fee to the <i>Construction Manager</i> based on time-based rates as described in paragraph 5.2.3 of Article A-5 – COMPENSATION FOR SERVICES.)	Performed by the Owner or Someone Other Than the Construction Manager	Performed by the Construction Manager (*F1/F2/F3)
2.1 General Services .1 Chair and minute regular <i>Project</i> meetings with the <i>Owner</i> , the <i>Consultant</i> and <i>Trade Contractors</i> . .2 Organize and distribute all documents related to the performance of the contract and execution of the <i>Work</i> of each <i>Trade Contractor</i> . .3 Provide administration as described in the trade contract documents including. (1) Facilitate all communications among the <i>Owner</i> , the <i>Consultant</i> , the <i>Payment Certifier</i> , and <i>Trade Contractors</i> that relate to the <i>Project</i> . (2) In the first instance, receive all questions in writing by the <i>Owner</i> or <i>Trade Contractors</i> for interpretations and findings relating to the performance of the <i>Work</i> or the interpretation of the trade contract documents except with respect to financing information required of the <i>Owner</i> . (3) In the first instance, give interpretations and make findings on matters in question relating to the performance of any <i>Work</i> or the requirements of the trade contract documents, except with respect to any and all architectural and engineering aspects of the <i>Project</i> or financing information required of the <i>Owner</i> . (4) During the progress of the <i>Work</i> , issue supplemental instructions to <i>Trade Contractors</i> with reasonable promptness or in accordance with a schedule for such instructions agreed to by the <i>Construction Manager</i> and <i>Trade Contractors</i> . (5) Promptly investigate, make findings and inform the <i>Owner</i> , <i>Trade Contractors</i> and the <i>Consultant</i> concerning all concealed or unknown conditions which are discovered by the <i>Construction Manager</i> or of which <i>Notice in Writing</i> is given to the <i>Construction Manager</i> . (6) Make findings upon all claims for a change in any trade contract price, and provide <i>Notice in Writing</i> of such findings to all parties within 30 <i>Working Days</i> after receipt of such claim or within such other time period as may be agreed by the parties. (7) Give instructions necessary for the proper performance of <i>Work</i> of each <i>Trade Contractor</i> during any dispute so as to prevent delays pending settlement of such dispute. (8) Investigate the impact on <i>Work of each Trade Contractor</i> of the discovery of any fossils, coins, articles of value or antiquity, structures and other remains or things of scientific or historic interest discovered at the <i>Place of the Project</i> , and advise the <i>Owner</i> concerning the issuance of appropriate instructions for any change in <i>Work</i> as a result of such discovery. (9) Act on behalf of the <i>Owner</i> , <i>Trade Contractors</i> and the <i>Consultant</i> for the purpose of adjusting the amount of any loss or damage payment with insurers under property or boiler and machinery policies affecting any <i>Work</i> .		F3 F3 F3
2.2 Project Control and Scheduling .1 (1) Establish and implement organization and procedures with respect to all aspects of the <i>Project</i> . (2) Provide to <i>Trade Contractors</i> the <i>Project</i> schedule that indicates the timing of major activities of the <i>Project</i> in sufficient detail for <i>Trade Contractors</i> to schedule their <i>Work</i> . (3) Provide coordination and general direction for the progress of the <i>Project</i> . (4) Monitor the <i>Work</i> of each <i>Trade Contractor</i> . (5) Coordinate all <i>Trade Contractors</i> in the performance of their respective <i>Work</i> , with one another and with the activities and responsibilities of the <i>Owner</i> and the <i>Consultant</i> . (6) Review the performance of <i>Trade Contractors</i> ' personnel and equipment and the availability of materials and supplies to meet the <i>Project</i> schedule and recommend courses of action to the <i>Owner</i> when requirements of a trade contract are not being met. (7) Provide regular monitoring of the schedule as construction progresses. Identify potential variances to planned completion dates. Review schedule for work not started or incomplete and recommend to the <i>Owner</i> and <i>Trade Contractors</i> adjustments in the schedule to achieve the <i>Project In-Use Date</i> . Provide summary reports of each monitoring and document all changes in schedule.		F3

2. CONSTRUCTION (*Note: F1 Included in the fixed amount as described in paragraph 5.2.1 of Article A-5 – COMPENSATION FOR SERVICES. F2 Included in the percentage amount as described in paragraph 5.2.2 of Article A-5 – COMPENSATION FOR SERVICES. F3 Fee to the <i>Construction Manager</i> based on time-based rates as described in paragraph 5.2.3 of Article A-5 – COMPENSATION FOR SERVICES.)	Performed by the Owner or Someone Other Than the Construction Manager	Performed by the Construction Manager (*F1/F2/F3)
2.3 Common Construction Facilities and Services .1 Arrange for the required <i>Temporary Work</i>.		F3
2.4 Cost Control and Accounting .1 (1) Prepare and update the <i>Construction Cost</i> cash flow forecasts in accordance with the <i>Project</i> budget as specified in Article A-3 of the Agreement – DESCRIPTION OF THE PROJECT or otherwise agreed with the <i>Owner</i>. (2) Develop, implement and maintain a system of <i>Project</i> cost control and accounting. (3) Advise the <i>Owner</i> and the <i>Consultant</i> on the variances between actual cost and <i>Construction Cost Estimate</i>. (4) Provide reasonable assistance and information to permit recovery of all tax rebates where applicable. (5) Jointly with each <i>Trade Contractor</i>, prepare a schedule showing when items called for under cash allowances must be ordered to avoid delaying the progress of <i>Work</i>. (6) Provide recommendations to the <i>Owner</i> for necessary changes to maintain <i>Project</i> budget and <i>Project</i> schedule.		F3
2.5 Changes in Work .1 (1) Develop and implement a system for processing changes in any <i>Work</i>. (2) Recommend appropriate changes in any <i>Work</i> to the <i>Owner</i> and the <i>Consultant</i>. (3) Review requests for changes in any <i>Work</i> and provide recommendations to the <i>Owner</i> and the <i>Consultant</i> and, if necessary, assist in negotiation. (4) Prepare and issue to <i>Trade Contractors</i> change orders and change directives, including written descriptions of proposed changes in <i>Work</i>, all of which are to be prepared in consultation with the <i>Consultant</i> when they are related to the specifications and drawings.		F3
2.6 Payments to Trade Contractors and Suppliers .1 (1) Develop and implement a procedure for timely process of payments to <i>Trade Contractors</i> and <i>Suppliers</i>. (2) Promptly inform the <i>Owner</i> of the date of receipt of the <i>Trade Contractors</i>' applications for payment. (3) Promptly forward to the <i>Payment Certifier</i> the applications for payment received from the <i>Trade Contractors</i>. .2 (1) Determine the amounts owing to <i>Trade Contractors</i> and issue certificates for payment based on the <i>Construction Manager</i>'s observations and evaluation of <i>Trade Contractors</i>' applications for payment.		F3 F3
2.7 Field Review .1 (1) Develop, implement and maintain a system for quality assurance and quality control. (2) Reject work that in the opinion of the <i>Construction Manager</i> or the <i>Consultant</i> does not conform to the requirements of the trade contract documents and whenever it is considered necessary or advisable, require inspection or testing of work.		F3
2.8 Health and Construction Safety .1 (1) Subject to paragraph 3.1.2 of GC 3.1 – PROVISION OF INFORMATION AND OBLIGATIONS, be responsible for establishing, initiating, maintaining, and overseeing the health and safety precautions and programs required to be put in place at the <i>Place of the Project</i> and review with the <i>Owner</i> all safety programs for adequacy. (2) Review with the <i>Owner</i> the <i>Trade Contractors</i>' safety programs for compliance.		F3

SCHEDULE A1 TO THE AGREEMENT – SERVICES AND COMPENSATION

2. CONSTRUCTION (*Note: F1 Included in the fixed amount as described in paragraph 5.2.1 of Article A-5 – COMPENSATION FOR SERVICES. F2 Included in the percentage amount as described in paragraph 5.2.2 of Article A-5 – COMPENSATION FOR SERVICES. F3 Fee to the <i>Construction Manager</i> based on time-based rates as described in paragraph 5.2.3 of Article A-5 – COMPENSATION FOR SERVICES.)	Performed by the Owner or Someone Other Than the Construction Manager	Performed by the Construction Manager (*F1/F2/F3)
2.9 Submittals .1 (1) Establish procedures for processing submittals. (2) Coordinate all relevant information required to perform any <i>Work</i> . (3) Upon request by any <i>Trade Contractor</i> or the <i>Consultant</i> , jointly prepare a schedule of the dates for provision, review and return of shop drawings. (4) Forward to the <i>Consultant</i> for review all shop drawings that are considered to be complete. (5) Indicate in writing the <i>Consultant's</i> acceptance or rejection of all deviations in the shop drawings from the requirements of the trade contract documents. (6) Return all shop drawings in accordance with the agreed schedule, or in the absence of such agreed schedule, with reasonable promptness so as to cause no delay in the performance of any <i>Work</i> .		F3
2.10 Reports and Project Site Documents .1 (1) Keep a daily log available to the <i>Owner</i> and the <i>Consultant</i> . (2) Maintain copies of all necessary documents at the <i>Place of the Project</i> . (3) Collate and compile record documents and operating and maintenance manuals in accordance with the <i>Owner's</i> requirements.		F3
2.11 Start-up .1 (1) Assist the <i>Owner</i> in coordinating and monitoring initial start-up and testing conducted by <i>Trade Contractors</i> . (2) Coordinate the commissioning of utilities, systems and equipment.		F3
2.12 Substantial Performance of the Work .1 (1) Subject to applicable legislation, arrange for the issuance of the necessary certificates respecting <i>Substantial Performance of the Work</i> of each <i>Trade Contractor</i> or designated portions thereof, lists of incomplete or unsatisfactory items, and schedules for their completion. (2) Distribute certificates of <i>Substantial Performance of the Work</i> and final certificates for payment of <i>Work</i> of each <i>Trade Contractor</i> . (3) Arrange with <i>Trade Contractors</i> to finish <i>Work</i> to be completed or corrected.		F3
2.13 Project In-Use Date .1 (1) Determine, in consultation with the <i>Owner</i> and the <i>Consultant</i> , and advise <i>Trade Contractors</i> in writing of, the <i>Project In-Use Date</i> .		F3
2.14 Handover .1 (1) Inform the <i>Owner</i> and the <i>Consultant</i> in writing when <i>Work</i> of each <i>Trade Contractor</i> is ready for final review prior to issuance of final certificate for payment. (2) Seek, obtain and transmit to the <i>Owner</i> warranties (in consultation with the <i>Consultant</i> , if applicable), affidavits, releases, bonds, insurances, and waivers received from <i>Trade Contractors</i> . (3) Turn over to the <i>Owner</i> all keys and maintenance stocks. (4) Arrange for the issuance of the final certificate for payment for each <i>Trade Contractor</i> . (5) Assist the <i>Owner's</i> operating staff to facilitate a smooth and proper takeover of <i>Work</i> of each <i>Trade Contractor</i> and the <i>Project</i> , including all necessary training and instruction of the <i>Owner's</i> operating staff.		F3

3. POST-CONSTRUCTION (*Note: F1 Included in the fixed amount as described in paragraph 5.2.1 of Article A-5 – COMPENSATION FOR SERVICES. F2 Included in the percentage amount as described in paragraph 5.2.2 of Article A-5 – COMPENSATION FOR SERVICES. F3 Fee to the <i>Construction Manager</i> based on time-based rates as described in paragraph 5.2.3 of Article A-5 – COMPENSATION FOR SERVICES.)	Performed by the Owner or Someone Other Than the Construction Manager	Performed by the Construction Manager (*F1/F2/F3)
3.1 General Services .1 (1) Chair and minute <i>Project</i> meetings with the <i>Owner</i> , the <i>Consultant</i> , and <i>Trade Contractors</i> . (2) Prepare final <i>Construction Cost</i> report.		F3
3.2 Occupancy Review .1 Assist the <i>Owner</i> in conducting post-construction occupancy review.		F3
3.3 Warranties .1 Assist the <i>Owner</i> in administering warranties.		F3

SCHEDULE A2 – REIMBURSABLE EXPENSES APPLICABLE TO SCHEDULE A1

Unless otherwise agreed to by the parties or as indicated in the following table, all expense items relating to *Services* are included in the *Construction Manager's* fee as described in paragraph 5.2 of Article of the Agreement A-5 – COMPENSATION FOR SERVICES.

	Costs Included in the Construction Manager's Fee (A5.2)	Reimbursable Expenses (A5.3)
1. Travel and subsistence expenses of the <i>Construction Manager's</i> personnel outside a radius of 50km from the <i>Place of the Project</i> .	☐	☒
2. Charges for long distance telephone and facsimile communications, courier services, and reproduction of trade contract documents incurred in relation to the performance of this <i>Contract</i> .	☐	☒
3. The cost of <i>Project</i> specific information technology support in accordance with the method determined by the parties.	☐	☒
4. Deposits lost, provided that they are not caused by negligent acts or omissions of the <i>Construction Manager</i> and the <i>Services</i> are performed in accordance with this <i>Contract</i> .		☒
5. The costs to the <i>Construction Manager</i> that result from any <i>Trade Contractor's</i> insolvency or failure to perform.		☒
6. Charges levied by authorities having jurisdiction at the <i>Place of the Project</i> .		☒
7. Royalties, patent licence fees and damages for infringement of patents and cost of defending suits therefore.		☒
8. Any adjustment in taxes and duties directly related to the <i>Project</i> for which the <i>Construction Manager</i> is liable.		☒
9. Losses and expenses sustained by the <i>Construction Manager</i> for matters which are the subject of the insurance coverages obtained pursuant to GC 8.1 – INSURANCE when such losses and expenses are not recoverable because the amounts are in excess of collectible amounts, within the deductible amounts or are not insurable.		☒
10. The costs incurred due to emergencies affecting the safety of persons or property.		☒
11. Legal costs incurred by the <i>Construction Manager</i> in relation to the performance of the <i>Services</i> provided that they are not caused by negligent acts or omissions of the <i>Construction Manager</i> and the <i>Services</i> are performed in accordance with this <i>Contract</i> .		☒
12. Such other costs directly incurred by the <i>Construction Manager</i> in the performance of this <i>Contract</i> as follows:		☒

SCHEDULE B1 – ADDITIONAL SERVICES AND COMPENSATION

The *Construction Manager* will provide the following additional services and *Temporary Work* that are within the scope of the *Services*:

	Method of Compensation (*F1/F2/F3)

SCHEDULE B2 – REIMBURSABLE EXPENSES APPLICABLE TO SCHEDULE B1

Unless otherwise agreed to by the parties or as indicated in the following table, all expense items relating to additional services are included in the *Construction Manager's* fee as described in paragraph 5.2 of Article of the Agreement A-5 – COMPENSATION FOR SERVICES.

	Costs Included in the Construction Manager's Fee (A5.2)	Reimbursable Expenses (A5.3)
1. Travel and subsistence expenses of the <i>Construction Manager's</i> personnel outside a radius of 50km from the <i>Place of the Project</i> .	☐	☒
2. Charges for long distance telephone and facsimile communications, courier services, reproduction of trade contract documents incurred in relation to the performance of this <i>Contract</i> .	☐	☒
3. Deposits lost provided that they are not caused by negligent acts or omissions of the <i>Construction Manager</i> and the <i>Services</i> are performed in accordance with this <i>Contract</i> .	☐	☒
4. The costs to the <i>Construction Manager</i> that result from any <i>Trade Contractor's</i> insolvency or failure to perform.	☐	☒
5. The cost of all products purchased by the <i>Construction Manager</i> for the <i>Project</i> , including cost of transportation thereof.	☐	☒
6. The cost of all equipment and services required for the <i>Construction Manager's</i> field office.	☐	☒
7. The amounts of all contracts between the <i>Construction Manager</i> and subcontractors and suppliers.	☐	☒
8. The cost of quality assurance such as independent inspection and testing services.	☐	☒
9. Any adjustment in premiums for insurance which the <i>Construction Manager</i> is required, by this <i>Contract</i> , to purchase and maintain.	☐	☒
10. If applicable, the cost of time-based rate for labour in the direct employ of the <i>Construction Manager</i> in performing the additional services described in Schedule B1.	☐	☒
11. Charges levied by authorities having jurisdiction at the <i>Place of the Project</i> .		☒
12. Royalties, patent licence fees and damages for infringement of patents and cost of defending suits therefore.		☒
13. Any adjustment in taxes and duties directly related to the <i>Project</i> for which the <i>Construction Manager</i> is liable.		☒
14. Losses and expenses sustained by the <i>Construction Manager</i> for matters which are the subject of the insurance coverages obtained pursuant to GC 8.1 – INSURANCE when such losses and expenses are not recoverable because the amounts are in excess of collectible amounts, are within the deductible amounts or are not insurable.		☒
15. The costs incurred due to emergencies affecting the safety of persons or property.		☒
16. Legal costs, incurred by the <i>Construction Manager</i> in relation to the performance of the <i>Project</i> provided that they are not caused by negligent acts or omissions of the <i>Construction Manager</i> and the <i>Services</i> are performed in accordance with this <i>Contract</i> .		☒
17. Such other costs directly incurred by the <i>Construction Manager</i> in performing the additional services as follows: 		☒

SCHEDULE C – TIME-BASED RATES FOR PERSONNEL EMPLOYED BY THE CONSTRUCTION MANAGER

[illegible]

DEFINITIONS

The following Definitions apply to the *Contract Documents*. References in the definition to the singular shall be considered to include the plural as the context requires.

Class A Construction Cost Estimate

The *Class A Construction Cost Estimate* is an estimate of the *Construction Cost* based on the completed *Construction Documents*. *Class A Construction Cost Estimate* is the final estimate before the bid or proposal call. *Class A Construction Cost Estimate* shall be presented in elemental format and include labour and material costs, allowance for all costs resulting from the *Project* schedule, all actual associated costs, including cash allowances, contingencies, allowances for design, escalation, market conditions and anticipated amendment amounts as applicable.

Class B Construction Cost Estimate

The *Class B Construction Cost Estimate* is an estimate of the *Construction Cost* with a level of precision that is based on the degree of completion of the *Construction Documents* at the time of preparation of the estimate. The *Class B Construction Cost Estimate* is typically prepared when all site or installation investigations are completed and the design of the major systems and sub-systems of the *Project* (including outline specifications and preliminary drawings and models) are well underway. *Class B Construction Cost Estimate* shall be presented in elemental format and include labour and material costs, allowance for all costs resulting from the *Project* schedule, all actual associated costs, including cash allowances, contingencies, allowances for design, escalation, market conditions and anticipated amendment amounts as applicable.

Class C Construction Cost Estimate

The *Class C Construction Cost Estimate* is an estimate of the *Construction Cost* based on updated *Owner* requirements, general description of the *Project*, preliminary site information and existing conditions, and takes into consideration market conditions as well as basic implementation logistics. *Class C Construction Cost Estimate* shall include labour and material costs and the *Owner's* construction contingencies and allowances.

Class D Construction Cost Estimate

The *Class D Construction Cost Estimate* is an estimate of the *Construction Cost* based on the *Owner's* functional requirements to the degree known at the time. The *Class D Construction Cost Estimate* shall as a minimum be based on historical cost data for similar projects, suitably adjusted for such factors as inflation, location, risk, quality, size, and time. All related factors affecting cost are considered to the extent possible. The *Class D Construction Cost Estimate* provides the *Owner* an indication of the order of magnitude of the *Construction Cost* for a project completed within the estimated completion date, and shall include labour and material costs and the *Owner's* construction contingencies and allowances.

Construction Cost

Construction Cost means the actual cost of all elements of the *Project* including all applicable taxes but excluding the applicable value added taxes, whether recoverable or not. *Construction Cost* does not include the compensation of the *Construction Manager* and the *Consultant*.

Construction Cost Estimate

Construction Cost Estimate is either a *Class A Construction Cost Estimate*, a *Class B Construction Cost Estimate*, a *Class C Construction Cost Estimate*, or a *Class D Construction Cost Estimate*, as the context shall require and is prepared with a level of precision commensurate with the level of detail of information available at the time.

Construction Documents

The *Construction Documents* consist of the specifications and drawings that are consistent with the *Contract Documents* and are prepared by the *Consultant* and accepted by the *Owner* after execution of the Agreement for the performance of the *Project*.

Construction Manager

The *Construction Manager* is the person or entity identified as such in the Agreement.

Consultant

The *Consultant* is the person or entity engaged by the *Owner* and identified as such in the Agreement. The *Consultant* is the Architect, the Engineer or entity licensed to practise in the province or territory of the *Place of the Project*.

Contract

The *Contract* is the undertaking by the parties to perform their respective duties, responsibilities and obligations as prescribed in the *Contract Documents* and represents the entire agreement between the parties.

Contract Documents

The *Contract Documents* consist of those documents listed in Article A-4 of the Agreement – CONTRACT DOCUMENTS and amendments agreed upon between the parties.

Contract Time

The *Contract Time* is the time stipulated in paragraph 1.3 of Article A-1 of the Agreement – THE SERVICES.

Notice in Writing

A *Notice in Writing*, where identified in this *Contract*, is a written communication between the parties that is transmitted in accordance with the provisions of Article A-7 of the Agreement – RECEIPT OF AND ADDRESSES FOR NOTICES IN WRITING.

Owner

The *Owner* is the person or entity identified as such in the Agreement.

Payment Certifier

The *Payment Certifier* is either the *Construction Manager* or the *Consultant* identified as such in a trade contract.

Place of the Project

The *Place of the Project* is the designated site or location of the *Project* identified in this Agreement.

Project

The *Project* means the total construction as described in Article A-3 of the Agreement – DESCRIPTION OF THE PROJECT contemplated by the *Owner*.

Project In-Use Date

Project In-Use Date shall have been reached when the *Project* is ready for use or is being used for the purpose intended and is so confirmed in writing by the *Construction Manager* in consultation with the *Consultant* and the *Owner*.

Services

The *Services* means all services described in Schedule A1 to the Agreement – SERVICES AND COMPENSATION and Schedule B1 to the Agreement – ADDITIONAL SERVICES AND COMPENSATION to be performed by the *Construction Manager* under this *Contract*.

Substantial Performance of the Work

Substantial Performance of the Work is defined in the lien legislation applicable to the *Place of the Project* with respect to each *Trade Contractor*. If such legislation is not in force or does not contain such definition, or if the *Work* is governed by the Civil Code of Quebec, *Substantial Performance of the Work* shall have been reached when the *Work* of each *Trade Contractor* is ready for use or is being used for the purpose intended and is so certified by the *Payment Certifier*.

Supplier

A *Supplier* is a person or entity having a direct contract with the *Owner* to supply products.

Temporary Work

Temporary Work means temporary supports, structures, facilities, services, and other temporary items required for the execution of *Work* but not incorporated into *Work*.

Trade Contractor

Trade Contractor is the person or entity identified as such in a trade contract between the *Owner* and the *Trade Contractor* to perform *Work*.

Value Added Taxes

Value Added Taxes means such sums as shall be levied upon the *Owner's* payment to the *Construction Manager* by the Federal or any Provincial or Territorial government and is computed as a percentage of such payment and includes the Goods and Services Tax, the Quebec Sales Tax, The Harmonized Sales Tax, and any other similar tax, the collection and payment of which have been imposed on the *Construction Manager* by tax legislation.

Work

Work means the construction and related services required to be performed by a *Trade Contractor*.

Working Day

Working Day means a day other than a Saturday, Sunday, statutory holiday, or statutory vacation day that is observed by the construction industry in the area of the *Place of the Project*.

GENERAL CONDITIONS

PART 1 GENERAL PROVISIONS

GC 1.1 CONTRACT DOCUMENTS

1.1.1 If there is a conflict within the *Contract Documents*:

- .1 the order of priority of documents, from highest to lowest, shall be
 - the Agreement between the *Owner* and the *Construction Manager* (including the Schedules to the Agreement),
 - the Definitions,
 - Supplementary Conditions, if any
 - the General Conditions.
- .2 later dated documents shall govern over earlier documents of the same type.
- .3 amendments to documents shall govern over documents so amended.

GC 1.2 LAW OF THE CONTRACT

1.2.1 The law of the *Place of the Project* shall govern the interpretation of this *Contract*.

GC 1.3 RIGHTS AND REMEDIES

- 1.3.1 Except as expressly provided in the *Contract Documents*, the duties and obligations imposed by the *Contract Documents* and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights, and remedies otherwise imposed or available by law.
- 1.3.2 No action or failure to act by the *Owner* or the *Construction Manager* shall constitute a waiver of any right or duty afforded either of them under this *Contract*, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

GC 1.4 ASSIGNMENT

1.4.1 Neither party to this *Contract* shall assign this *Contract* or a portion thereof without the written consent of the other, which consent shall not be unreasonably withheld.

GC 1.5 PROJECT REPRESENTATIVES

1.5.1 The *Owner*, *Construction Manager* and *Consultant* may appoint one or more project representatives to assist in carrying out their responsibilities under this *Contract*. The duties, responsibilities and limitations of authority of such project representatives shall be as set forth in writing.

PART 2 CONSTRUCTION MANAGER'S RESPONSIBILITIES

GC 2.1 SERVICES

- 2.1.1 The *Construction Manager* shall provide the basic services identified in Schedule A1 to the Agreement and additional services identified in Schedule B1 to the Agreement.
- 2.1.2 The *Construction Manager* shall retain the personnel named in the Agreement in their designated roles for the duration of the assignment and promptly inform and obtain approval by the *Owner* of any change.
- 2.1.3 In providing the *Services*, the *Construction Manager* assumes no responsibility for, nor offers any professional advice with respect to, any and all architectural or engineering aspects of the *Project* or the *Consultant's* services.
- 2.1.4 The authority of the *Construction Manager* as agent of the *Owner* is expressly limited to the provision of the *Services* more particularly described in Schedules A1 and B1 to the Agreement.
- 2.1.5 Interpretations and findings of the *Construction Manager* shall be consistent with the intent of the *Contract Documents* as they relate to the *Work*. In making such interpretations and findings the *Construction Manager* will not show partiality to either the *Owner* or *Trade Contractors*.

PART 3 OWNER'S RESPONSIBILITIES

GC 3.1 PROVISION OF INFORMATION AND OBLIGATIONS

3.1.1 The *Owner* shall:

- .1 retain the *Consultant* who shall be responsible for the design and design-related services required for the *Project*;
- .2 inform the *Construction Manager* of the scope and terms of the *Consultant's* services;

- .3 inform the *Consultant* of the scope and terms of the *Services*;
- .4 coordinate and facilitate the services of the *Construction Manager* and the *Consultant*;
- .5 enter into contracts or written agreements with *Trade Contractors* to perform the *Work*. Such agreements shall be consistent with the requirements of CCDC 17 – STIPULATED PRICE CONTRACT BETWEEN OWNER AND TRADE CONTRACTOR FOR CONSTRUCTION MANAGEMENT PROJECTS;
- .6 inform the *Construction Manager* of the scope and terms of each trade contract;
- .7 upon request by the *Construction Manager*, furnish to the *Construction Manager* reasonable evidence that financial arrangements have been made and that adequate financing is available in order to ensure the completion of the *Project*;
- .8 communicate with *Trade Contractors* through the *Construction Manager* except:
 - (1) for direct communications with the *Payment Certifier*,
 - (2) with respect to formal notices in writing, or
 - (3) when expressly specified in a trade contract.
- .9 pay *Trade Contractors* in accordance with the terms and conditions of each trade contract;
- .10 furnish promptly to the *Construction Manager* all information that is required for the *Project* regarding the *Place of the Project* including surveys as to the physical characteristics of the site, soils reports, subsurface investigations, legal limitations, utility locations, and legal description. The *Construction Manager* shall be entitled to rely on such information;
- .11 provide full and timely information and approvals regarding the requirements of the *Project* for the orderly progress of the *Services*;
- .12 review documents submitted by the *Construction Manager* and give the *Construction Manager* timely decisions for the orderly progress of the *Services*;
- .13 obtain and pay for development approvals, building permit, permanent easements, rights of servitude, and all other necessary approvals and permits;
- .14 provide, maintain and pay for the insurance coverages required for the *Project* in accordance with Part 8 of the General Conditions – INSURANCE;
- .15 immediately notify the *Construction Manager* if the *Owner* observes or otherwise becomes aware of any fault or defect in the *Work*, the *Project* or any non-conformity with the requirements of the *Contract*;
- .16 designate in writing a representative who shall be fully acquainted with the *Project* and shall have the authority to act on the *Owner's* behalf in relation to all duties and responsibilities of the *Owner* under this *Contract*; and
- .17 designate in writing a *Payment Certifier* and advise the *Construction Manager* and the *Consultant*.

3.1.2 The *Owner* shall be responsible for construction health and safety at the *Place of the Project* in compliance with the rules, regulations and practices required by the applicable health and construction safety legislation.

PART 4 PAYMENT

GC 4.1 APPLICATIONS FOR PAYMENT

- 4.1.1 The *Construction Manager's* applications for payment shall be made monthly as the *Services* progress or in accordance with such other period agreed to by the *Owner* and the *Construction Manager*.
- 4.1.2 The amount claimed shall be in accordance with a schedule agreed to by the *Owner* and the *Construction Manager*, or in the absence of such a schedule, equal to the value of the *Services* provided as of the last day of the payment period.

GC 4.2 PAYMENT

- 4.2.1 The *Owner* shall make payment to the *Construction Manager* on account in accordance with the provisions of Article A-6 of the Agreement – PAYMENT no later than 20 calendar days following the date of receipt of an application for payment.
- 4.2.2 No deductions shall be made by the *Owner* from amounts payable to the *Construction Manager* other than those for which the *Construction Manager* is proven to be responsible as in accordance with Part 7 – DISPUTE RESOLUTION or has agreed to pay.
- 4.2.3 Variance from the *Construction Cost Estimate* established under this *Contract* shall not constitute grounds for the *Owner* to withhold fees due to the *Construction Manager*.
- 4.2.4 Where required by provincial or territorial legislation, payments shall be subject to the lien legislation applicable to the *Place of the Project*.

PART 5 CHANGES

GC 5.1 CHANGES TO THE PROJECT

- 5.1.1 The *Owner*, without invalidating this *Contract*, may make changes in the *Project* provided they are within the general scope of the *Project* and of the *Services*.
- 5.1.2 The *Construction Manager* shall promptly advise the *Owner* if a change contemplated by the *Owner* under paragraph 5.1.1 will change the *Construction Manager's* compensation or the *Project In-Use Date*.
- 5.1.3 If the *Owner* and the *Construction Manager* agree on an adjustment to the *Construction Manager's* compensation or *Contract Time*, such agreement shall be recorded in writing.
- 5.1.4 If the *Owner* and *Construction Manager* cannot agree on the change in *Construction Manager's* compensation, the matter shall be determined in accordance with the provisions of Part 7 of the General Conditions – DISPUTE RESOLUTION.
- 5.1.5 If the *Contract Time* is exceeded or extended through no fault of the *Construction Manager*, the *Construction Manager's* compensation shall be adjusted accordingly to cover the *Construction Manager's* additional costs.

GC 5.2 CHANGES IN SERVICES

- 5.2.1 Any agreement between the *Owner* and the *Construction Manager* on a change to the *Services* shall be recorded in writing.

PART 6 DEFAULT NOTICE

GC 6.1 OWNERS' RIGHT TO TERMINATE THE CONTRACT

- 6.1.1 If a party is adjudged bankrupt, or makes a general assignment for the benefit of creditors because of its insolvency, or a receiver is appointed because of its insolvency, the other party may, without prejudice to any other right or remedy it may have, terminate this *Contract* by giving the party or receiver or trustee in bankruptcy *Notice in Writing* to that effect.
- 6.1.2 If the *Construction Manager* neglects to properly perform the *Service* or otherwise fails to comply with the requirements of this *Contract* to a substantial degree, the *Owner* may, without prejudice to any other right or remedy the *Owner* may have, give the *Construction Manager Notice in Writing* that the *Construction Manager* is in default of the *Construction Manager's* contractual obligations and instruct the *Construction Manager* to correct the default in the 5 *Working Days* immediately following the receipt of such *Notice in Writing*.
- 6.1.3 If the default cannot be corrected in the 5 *Working Days* specified or in such other time period as may be subsequently agreed in writing by the parties, the *Construction Manager* shall be in compliance with the *Owner's* instructions if the *Construction Manager*:
 - .1 commences the correction of the default within the specified time, and
 - .2 provides an acceptable schedule to the *Owner* for such correction, and
 - .3 corrects the default in accordance with the *Contract* terms and with such schedule.
- 6.1.4 If the *Construction Manager* fails to correct the default in the time specified or in such other time period as may be subsequently agreed in writing by the parties, without prejudice to any other right or remedy the *Owner* may have, the *Owner* may:
 - .1 correct such default and deduct the cost thereof from any payment then or thereafter due to the *Construction Manager*, or
 - .2 terminate the *Construction Manager's* right to continue with the *Services* in whole or in part or terminate this *Contract*.
- 6.1.5 If the *Owner* terminates this *Contract* as provided in paragraphs 6.1.1 and 6.1.4, the *Owner* shall pay the *Construction Manager* within 30 calendar days of the date that an invoice is submitted for all *Services* properly performed to the effective termination date, including reimbursable expenses and applicable taxes then due.
- 6.1.6 The *Owner* may, if conditions arise which make it necessary for reasons other than as provided in paragraphs 6.1.1 and 6.1.4, terminate this *Contract* by giving *Notice in Writing* to that effect to the *Construction Manager*.
- 6.1.7 Suspension of the *Project* shall be deemed to have occurred if:
 - .1 the *Project* has been stopped at the *Owner's* request or due to no fault of the *Construction Manager*, and
 - .2 such stoppage or stoppages have continued individually for a period of 30 calendar days or collectively for a period of 60 calendar days.

- 6.1.8 If the *Owner* terminates this *Contract* as provided in paragraph 6.1.6 or suspends the *Project* as described in paragraph 6.1.7:
- .1 the *Owner* shall pay the *Construction Manager* within 30 calendar days of the date that an invoice is submitted for all *Services* performed to the effective termination date, including reimbursable expenses and applicable taxes then due; and
 - .2 the *Construction Manager* shall be entitled to reasonable termination costs and an amount for anticipated loss of profit.

GC 6.2 CONSTRUCTION MANAGER'S RIGHT TO TERMINATE THE CONTRACT

- 6.2.1 If the *Owner* fails to comply with the requirements of this *Contract* to a substantial degree, including but not limited to the non-payment of compensation for *Services* described in Article A-5 – COMPENSATION FOR SERVICES, the *Construction Manager* may, without prejudice to any other right or remedy the *Construction Manager* may have, give the *Owner Notice in Writing* that the *Owner* is in default of the *Owner's* contractual obligations and notify the *Owner* to correct the default in the 5 *Working Days* immediately following the receipt of such *Notice in Writing*.
- 6.2.2 If the *Owner* fails to correct the default in the time specified or in such other time period as may be subsequently agreed in writing by the parties, without prejudice to any other right or remedy the *Construction Manager* may have, the *Construction Manager* may terminate this *Contract*.
- 6.2.3 If the *Construction Manager* terminates this *Contract* as described in paragraph 6.2.2:
- .1 the *Owner* shall pay the *Construction Manager* within 30 calendar days of the date that an invoice is submitted for all *Services* performed to the effective termination date, including reimbursable expenses and applicable taxes then due; and
 - .2 the *Construction Manager* shall be entitled to reasonable termination costs and an amount for anticipated loss of profit.

PART 7 DISPUTE RESOLUTION

GC 7.1 NEGOTIATION, MEDIATION AND ARBITRATION

- 7.1.1 Differences between the parties to this *Contract* as to the interpretation, application or administration of this *Contract* or any failure to agree where agreement between the parties is called for, herein collectively called disputes, shall be settled in accordance with the requirements of this General Condition.
- 7.1.2 The parties shall make all reasonable efforts to resolve their dispute by amicable negotiations and agree to provide, without prejudice, frank, candid and timely disclosure of relevant facts, information and documents to facilitate these negotiations.
- 7.1.3 If the parties so agree the dispute shall be submitted to mediation or arbitration in accordance with the provisions of the Rules for Mediation and Arbitration of Construction Disputes as provided in CCDC 40 in effect as at the date of this *Contract*.
- 7.1.4 If no agreement is made for mediation or arbitration as described in paragraph 7.1.3, the parties may refer the unresolved dispute to the courts or to any other agreed form of dispute resolution.

PART 8 INSURANCE

GC 8.1 INSURANCE

- 8.1.1 The *Owner* shall obtain, maintain and pay for 'wrap-up' general liability insurance in the joint names of the *Owner*, the *Construction Manager*, the *Consultant*, all *Trade Contractors*, all subconsultants, and all trade subcontractors with limits of not less than \$10,000,000 per occurrence and a deductible not more than \$10,000. The insurance coverage shall be primary to all other insurance policies and shall not be substantially less than the insurance provided by IBC Form 2100 (including an extension for a standard provincial and territorial form of non-owned automobile liability policy) and IBC Form 2320, except for liability arising from damage to the *Project* during construction, which shall be limited to the completed operations period. The insurance shall be maintained from the date of commencement of the *Project* until 90 calendar days after the *Project In-Use Date*. The *Owner* is responsible to provide coverage for completed operations hazards from the *Project In-Use Date* for a period of 2 years.

- 8.1.2 The *Owner* shall obtain, maintain and pay for ‘broad form’ property insurance in the joint names of the *Owner*, the *Construction Manager*, the *Consultant*, and all *Trade Contractors*. The policy shall have limits of not less than the sum of 1.1 times the *Construction Cost Estimate* with a deductible not more than \$10,000. The “Broad Form” property insurance shall be provided from the date of commencement of the *Project* until the earliest of:
- .1 10 calendar days after the *Project In-Use Date*;
 - .2 on the commencement of use or occupancy of any part or section of the *Work* of any *Trade Contractors* unless such use or occupancy is for construction purposes, habitational, office, banking, convenience store under 465 square metres in area, or parking purposes, or for the installation, testing and commissioning of equipment forming part of the *Project*;
 - .3 when the *Place of the Project* is left unattended for more than 30 consecutive calendar days or when construction activity has ceased for more than 30 consecutive calendar days.
- 8.1.3 The *Owner* shall or cause to obtain, maintain and pay for an Aircraft or Watercraft Liability Insurance when owned or non-owned aircraft or watercraft are used directly or indirectly in the performance of the *Project*. The policy shall have limits of not less than \$10,000,000 inclusive per occurrence for bodily injury, death, and damage to property including loss of use thereof and limits of not less than \$5,000,000 for aircraft passenger hazard.
- 8.1.4 The *Construction Manager* shall provide, maintain and pay for general liability insurance that has limits of not less than \$5,000,000 per occurrence and a deductible not more than \$5,000. The policy shall be maintained from the date of commencement of the *Project* until the *Construction Manager* completes the *Services*. Liability coverage shall be provided for completed operations hazards on an ongoing basis for a period of 6 years following the *Project In-Use Date*.
- 8.1.5 The *Construction Manager* shall provide, maintain and pay for Automobile Liability Insurance in respect of vehicles that are required by law to be insured under a contract by a Motor Vehicle Liability Policy. The policy shall have limits not less than \$5,000,000 inclusive per occurrence for bodily injury, death, and damage to property, covering all vehicles owned or leased by the *Construction Manager*. Where the policy has been issued pursuant to a government-operated automobile insurance system, the *Construction Manager* shall provide the *Owner* with confirmation of automobile insurance coverage for all automobiles registered in the name of the *Construction Manager*.
- 8.1.6 Prior to commencement of the *Project* and upon the placement, renewal, amendment, or extension of all or any part of the insurance, the parties shall promptly provide each other with confirmation of coverage that they are responsible for and, if required, a certified true copy of the policies certified by an authorized representative of the insurer together with copies of any amending endorsements applicable to the *Project*.
- 8.1.7 The parties shall pay their share of the deductible amounts in direct proportion to their responsibility in regards to any loss for which the above policies are required to pay, except where such amounts may be excluded by the terms of this *Contract*.
- 8.1.8 All required insurance policies shall be with insurers licensed to underwrite insurance in the jurisdiction of the *Place of the Project*.

PART 9 INDEMNIFICATION AND WAIVER OF CLAIMS

GC 9.1 INDEMNIFICATION

- 9.1.1 The *Owner* and the *Construction Manager* shall each indemnify and hold harmless the other from and against all claims, demands, losses, costs, damages, actions, suits, or proceedings whether in respect to losses suffered by them or in respect to claims by third parties that arise out of, or are attributable in any respect to, their involvement as parties to this *Contract*, provided such claims are:
- .1 caused by:
 - (1) the negligent acts or omissions of the party from whom indemnification is sought or anyone for whose acts or omissions that party is liable, or
 - (2) a failure of the party to the *Contract* from whom indemnification is sought to fulfill its terms or conditions; and
 - .2 made by *Notice in Writing* within a period of 6 years from the date of *Project In-Use Date* or within such shorter period as may be prescribed by any limitation statute of the province or territory of the *Place of the Project*.
- The parties expressly waive the right to indemnity for claims other than those provided for in this *Contract*.
- 9.1.2 The obligation of either party to indemnify as set forth in paragraph 9.1.1 shall be limited as follows:
- .1 In respect to losses suffered by the *Owner* and the *Construction Manager* for which insurance is to be provided by either party pursuant to GC 8.1 – INSURANCE, the insurance limit for the loss so covered as prescribed in GC 8.1 – INSURANCE.

- .2 In respect to losses suffered by the *Owner* and the *Construction Manager* for which insurance is not required to be provided by either party in accordance with GC 8.1 – INSURANCE, the *Construction Manager*'s compensation as recorded in Article A-5 of the Agreement – COMPENSATION FOR SERVICES.
 - .3 In respect to claims by third parties for direct loss resulting from bodily injury, sickness, disease or death, or to injury to or destruction of tangible property, the obligation to indemnify is without limit. In respect to all other claims for indemnity as a result of claims advanced by third parties, the limits of indemnity set forth in paragraphs 9.1.2.1 and 9.1.2.2 shall apply.
- 9.1.3 The obligation of either party to indemnify the other as set forth in paragraphs 9.1.1 and 9.1.2 shall be inclusive of interest and all legal costs.
- 9.1.4 In respect to any claim for indemnity or to be held harmless by the *Owner* or the *Construction Manager*:
- .1 *Notice in Writing* of such claim shall be given within a reasonable time after the facts upon which such claim is based became known to the party required to give such *Notice in Writing*;
 - .2 should either party be required as a result of its obligation to indemnify the other pay or satisfy a final order, judgment or award made against the party entitled by this *Contract* to be indemnified, then the indemnifying party, upon assuming all liability for any costs that might result, shall have the right to appeal in the name of the party against whom such final order or judgment has been made until such rights of appeal have been exhausted.

GC 9.2 WAIVER OF CLAIMS

- 9.2.1 As of the date of one year from the *Project In-Use Date*, the *Construction Manager* waives and releases the *Owner* from all claims which the *Construction Manager* has or reasonably ought to have knowledge of that could be advanced by the *Construction Manager* against the *Owner* arising from the *Construction Manager*'s involvement in the *Project*, including, without limitation, those arising from negligence or breach of contract in respect to which the cause of action is based upon acts or omissions which occurred prior to or on the *Project In-Use Date*, except as follows:
- .1 claims arising prior to or on the *Project In-Use Date* for which *Notice in Writing* of claim has been received by the *Owner* from the *Construction Manager* no later than 20 days after the *Project In-Use Date*;
 - .2 indemnification for claims advanced against the *Construction Manager* by third parties for which a right of indemnification may be asserted by the *Construction Manager* against the *Owner* pursuant to the provisions of this *Contract*;
 - .3 claims resulting from acts or omissions which occur after the *Project In-Use Date*.
- 9.2.2 The *Construction Manager* waives and releases the *Owner* from all claims referenced in paragraph 9.2.1.3 except for those referred in paragraph 9.2.1.2 and claims for which *Notice in Writing* of claim has been received by the *Owner* from the *Construction Manager* within 395 calendar days following the *Project In-Use Date*.
- 9.2.3 As of the date of one year from the *Project In-Use Date*, the *Owner* waives and releases the *Construction Manager* from all claims which the *Owner* has or reasonably ought to have knowledge of that could be advanced by the *Owner* against the *Construction Manager* arising from the *Owner*'s involvement in the *Project*, including, without limitation, those arising from negligence or breach of contract in respect to which the cause of action is based upon acts or omissions which occurred prior to or on the *Project In-Use Date*, except as follows:
- .1 claims arising prior to or on the *Project In-Use Date* for which *Notice in Writing* of claim has been received by the *Construction Manager* from the *Owner* no later than 20 days from the *Project In-Use Date*;
 - .2 indemnification for claims advanced against the *Owner* by third parties for which a right of indemnification may be asserted by the *Owner* against the *Construction Manager* pursuant to the provisions of this *Contract*;
 - .3 damages arising from the *Construction Manager*'s actions which result in substantial defects or deficiencies in the *Project*. "Substantial defects or deficiencies" mean those defects or deficiencies in the *Project* which affect the *Project* to such an extent or in such a manner that a significant part or the whole of the *Project* is unfit for the purpose intended by this *Contract*;
 - .4 claims arising from acts or omissions which occur after the *Project In-Use Date*.
- 9.2.4 The *Owner* waives and releases the *Construction Manager* from all claims referred to in paragraph 9.2.3.3 except for those referred in paragraph 9.2.3.2 and claims for which *Notice in Writing* of claim has been received by the *Construction Manager* from the *Owner* within a period of six years from *Project In-Use Date* should any limitation statute of the Province or Territory of the *Place of the Project* permit such agreement. If the applicable limitation statute does not permit such agreement, within such shorter period as may be prescribed by:
- .1 any limitation statute of the Province or Territory of the *Place of the Project*; or
 - .2 the Civil Code of Quebec if the *Place of the Project* is the Province of Quebec.

- 9.2.5 The *Owner* waives and releases the *Construction Manager* from all claims referenced in paragraph 9.2.3.4 except for those arising from claims for which *Notice in Writing* has been received by the *Construction Manager* from the *Owner* within 395 calendar days following the *Project In-Use Date*.
- 9.2.6 *Notice in Writing* of claim as provided for in GC 9.2 – WAIVER OF CLAIMS to preserve a claim or right of action which would otherwise, by the provisions of GC 9.2 – WAIVER OF CLAIMS, be deemed to be waived, must include the following:
- .1 a clear and unequivocal statement of the intention to claim;
 - .2 a statement as to the nature of the claim and the grounds upon which the claim is based; and
 - .3 a statement of the estimated quantum of the claim.
- 9.2.7 The party giving *Notice in Writing* of claim as provided for in GC 9.2 – WAIVER OF CLAIMS shall submit within a reasonable time a detailed account of the amount claimed.
- 9.2.8 Where the event or series of events giving rise to a claim made under paragraphs 9.2.1 or 9.2.3 has a continuing effect, the detailed account submitted under paragraph 9.2.7 shall be considered to be an interim account and the party making the claim shall submit further interim accounts, at reasonable intervals, giving the accumulated amount of the claim and any further grounds upon which it is based. The party making the claim shall submit a final account after the end of the effects resulting from the event or series of events that gave rise to the claim.
- 9.2.9 If a *Notice in Writing* of claim pursuant to paragraph 9.2.1.1 is received on the 18th or 19th calendar day after the *Project In-Use Date*, the period within which *Notice in Writing* of claim shall be received pursuant to paragraph 9.2.3.1 shall be extended to 24 calendar days after the *Project In-Use Date*.
- 9.2.10 If a *Notice in Writing* of claim pursuant to paragraph 9.2.3.1 is received on the 18th or 19th calendar day after the *Project In-Use Date*, the period within which *Notice in Writing* of claim shall be received pursuant to paragraph 9.2.1.1 shall be extended to 24 calendar days after the *Project In-Use Date*.

REFERENCE: SAMPLE CCDC2 CONTRACT

CCDC 2

Stipulated Price Contract

2 0 2 0

[Name of Project]

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CCDC 2 STIPULATED PRICE CONTRACT

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AGREEMENT BETWEEN OWNER AND CONTRACTOR

For use when a stipulated price is the basis of payment.

This Agreement made on _____ day of _____ in the year _____.
by and between the parties

hereinafter called the "Owner"

and

hereinafter called the "Contractor"

The Owner and the Contractor agree as follows:

ARTICLE A-1 THE WORK

The Contractor shall:

1.1 perform the *Work* required by the *Contract Documents* for (insert below the description or title of the Work)

located at (insert below the Place of the Work)

for which the Agreement has been signed by the parties, and for which (insert below the name of the Consultant)

is acting as and is hereinafter called the "Consultant" and

1.2 do and fulfill everything indicated by the *Contract Documents*, and

1.3 commence the *Work* by the _____ day of _____ in the year _____ and, subject to adjustment in *Contract Time* as provided for in the *Contract Documents*, attain *Ready-for-Takeover*, by the _____ day of _____ in the year _____.

ARTICLE A-2 AGREEMENTS AND AMENDMENTS

2.1 The *Contract* supersedes all prior negotiations, representations or agreements, either written or oral, relating in any manner to the *Work*, including the bid documents that are not expressly listed in Article A-3 of the Agreement – CONTRACT DOCUMENTS.

2.2 The *Contract* may be amended only as provided in the *Contract Documents*.

ARTICLE A-3 CONTRACT DOCUMENTS

3.1 The following are the *Contract Documents* referred to in Article A-1 of the Agreement – THE WORK:

- Agreement between *Owner* and *Contractor*
- Definitions
- General Conditions

*

* (Insert here, attaching additional pages if required, a list identifying all other Contract Documents e.g. supplementary conditions; Division 01 of the Specifications – GENERAL REQUIREMENTS; Project information that the Contractor may rely upon; technical Specifications, giving a list of contents with section numbers and titles, number of pages and date; material finishing schedules; Drawings, giving drawing number, title, date, revision date or mark; addenda, giving title, number, date; time schedule)

ARTICLE A-4 CONTRACT PRICE

4.1 The *Contract Price*, which excludes *Value Added Taxes*, is:

/100 dollars \$

4.2 *Value Added Taxes* (of _____ %) payable by the *Owner* to the *Contractor* are:

/100 dollars \$

4.3 Total amount payable by the *Owner* to the *Contractor* for the *Work* is:

/100 dollars \$

4.4 These amounts shall be subject to adjustments as provided in the *Contract Documents*.

4.5 All amounts are in Canadian funds.

ARTICLE A-5 PAYMENT

5.1 Subject to the provisions of the *Contract Documents* and *Payment Legislation*, and in accordance with legislation and statutory regulations respecting holdback percentages, the *Owner* shall:

- .1 make progress payments to the *Contractor* on account of the *Contract Price* when due in the amount certified by the *Consultant* unless otherwise prescribed by *Payment Legislation* together with such *Value Added Taxes* as may be applicable to such payments,
- .2 upon *Substantial Performance of the Work*, pay to the *Contractor* the unpaid balance of the holdback amount when due together with such *Value Added Taxes* as may be applicable to such payment, and
- .3 upon the issuance of the final certificate for payment, pay to the *Contractor* the unpaid balance of the *Contract Price* when due together with such *Value Added Taxes* as may be applicable to such payment.

5.2 Interest

- .1 Should either party fail to make payments as they become due under the terms of the *Contract* or in an award by adjudication, arbitration or court, interest at the following rates on such unpaid amounts shall also become due and payable until payment:
 - (1) 2% per annum above the prime rate for the first 60 days.
 - (2) 4% per annum above the prime rate after the first 60 days.

Such interest shall be compounded on a monthly basis. The prime rate shall be the rate of interest quoted by
(Insert name of chartered lending institution whose prime rate is to be used)

for prime business loans as it may change from time to time.

- .2 Interest shall apply at the rate and in the manner prescribed by paragraph 5.2.1 of this Article on the settlement amount of any claim in dispute that is resolved either pursuant to Part 8 of the General Conditions – DISPUTE RESOLUTION or otherwise, from the date the amount would have been due and payable under the *Contract*, had it not been in dispute, until the date it is paid.

ARTICLE A-6 RECEIPT OF AND ADDRESSES FOR NOTICES IN WRITING

6.1 *Notices in Writing* will be addressed to the recipient at the address set out below.

6.2 The delivery of a *Notice in Writing* will be by hand, by courier, by prepaid first class mail, or by other form of electronic communication during the transmission of which no indication of failure of receipt is communicated to the sender.

6.3 A *Notice in Writing* delivered by one party in accordance with this *Contract* will be deemed to have been received by the other party on the date of delivery if delivered by hand or courier, or if sent by mail it will be deemed to have been received five calendar days after the date on which it was mailed, provided that if either such day is not a *Working Day*, then the *Notice in Writing* will be deemed to have been received on the *Working Day* next following such day.

6.4 A *Notice in Writing* sent by any form of electronic communication will be deemed to have been received on the date of its transmission provided that if such day is not a *Working Day* or if it is received after the end of normal business hours on the date of its transmission at the place of receipt, then it will be deemed to have been received at the opening of business at the place of receipt on the first *Working Day* next following the transmission thereof.

6.5 An address for a party may be changed by *Notice in Writing* to the other party setting out the new address in accordance with this Article.

Owner

*name of Owner**

address

email address

Contractor

*name of Contractor**

address

email address

Consultant

*name of Consultant**

address

email address

** If it is intended that a specific individual must receive the notice, that individual's name shall be indicated.*

ARTICLE A-7 LANGUAGE OF THE CONTRACT

- 7.1 When the *Contract Documents* are prepared in both the English and French languages, it is agreed that in the event of any apparent discrepancy between the English and French versions, the English / French # language shall prevail.
Complete this statement by striking out inapplicable term.
- 7.2 This Agreement is drawn in English at the request of the parties hereto. La présente convention est rédigée en anglais à la demande des parties.

ARTICLE A-8 SUCCESSION

- 8.1 The *Contract* shall enure to the benefit of and be binding upon the parties hereto, their respective heirs, legal representatives, successors, and assigns.

In witness whereof the parties hereto have executed this Agreement by the hands of their duly authorized representatives.

SIGNED AND DELIVERED
in the presence of:

WITNESS

OWNER

name of Owner

signature

signature

name of person signing

name and title of person signing

WITNESS

CONTRACTOR

name of Contractor

signature

signature

name of person signing

name and title of person signing

- N.B. Where legal jurisdiction, local practice or Owner or Contractor requirement calls for:*
- (a) proof of authority to execute this document, attach such proof of authority in the form of a certified copy of a resolution naming the representative(s) authorized to sign the Agreement for and on behalf of the corporation or partnership; or*
 - (b) the affixing of a corporate seal, this Agreement should be properly sealed.*

DEFINITIONS

The following Definitions shall apply to all *Contract Documents*.

Change Directive

A *Change Directive* is a written instruction prepared by the *Consultant* and signed by the *Owner* directing the *Contractor* to proceed with a change in the *Work* within the general scope of the *Contract Documents* prior to the *Owner* and the *Contractor* agreeing upon adjustments in the *Contract Price* and the *Contract Time*.

Change Order

A *Change Order* is a written amendment to the *Contract* prepared by the *Consultant* and signed by the *Owner* and the *Contractor* stating their agreement upon:

- a change in the *Work*;
- the method of adjustment or the amount of the adjustment in the *Contract Price*, if any; and
- the extent of the adjustment in the *Contract Time*, if any.

Construction Equipment

Construction Equipment means all machinery and equipment, either operated or not operated, that is required for preparing, fabricating, conveying, erecting, or otherwise performing the *Work* but is not incorporated into the *Work*.

Consultant

The *Consultant* is the person or entity engaged by the *Owner* and identified as such in the Agreement. The *Consultant* is the Architect, the Engineer or entity licensed to practise in the province or territory of the *Place of the Work*.

Contract

The *Contract* is the undertaking by the parties to perform their respective duties, responsibilities and obligations as prescribed in the *Contract Documents* and represents the entire agreement between the parties.

Contract Documents

The *Contract Documents* consist of those documents listed in Article A-3 of the Agreement – CONTRACT DOCUMENTS and amendments agreed upon between the parties.

Contract Price

The *Contract Price* is the amount stipulated in Article A-4 of the Agreement – CONTRACT PRICE.

Contract Time

The *Contract Time* is the time from commencement of the *Work* to the date of *Ready-for-Takeover* as stipulated in paragraph 1.3 of Article A-1 of the Agreement – THE WORK.

Contractor

The *Contractor* is the person or entity identified as such in the Agreement.

Drawings

The *Drawings* are the graphic and pictorial portions of the *Contract Documents*, wherever located and whenever issued, showing the design, location and dimensions of the *Work*, generally including plans, elevations, sections, details, and diagrams.

Notice in Writing

A *Notice in Writing*, where identified in the *Contract Documents*, is a written communication between the parties or between them and the *Consultant* that is transmitted in accordance with the provisions of Article A-6 of the Agreement – RECEIPT OF AND ADDRESSES FOR NOTICES IN WRITING.

Owner

The *Owner* is the person or entity identified as such in the Agreement.

Other Contractor

Other Contractor means a contractor, other than the *Contractor* or a *Subcontractor*, engaged by the *Owner* for the *Project*.

Payment Legislation

Payment Legislation means such legislation in effect at the *Place of the Work* which governs payment under construction contracts.

Place of the Work

The *Place of the Work* is the designated site or location of the *Work* identified in the *Contract Documents*.

Product

Product or Products means material, machinery, equipment, and fixtures forming part of the *Work*, but does not include *Construction Equipment*.

Project

The *Project* means the total construction contemplated of which the *Work* may be the whole or a part.

Ready-for-Takeover

Ready-for-Takeover shall have been attained when the conditions set out in paragraph 12.1.1 of GC 12.1 – READY-FOR-TAKEOVER have been met, as verified by the *Consultant* pursuant to paragraph 12.1.4.2 of GC 12.1 – READY-FOR-TAKEOVER.

Shop Drawings

Shop Drawings are drawings, diagrams, illustrations, schedules, performance charts, brochures, *Product* data, and other data which the *Contractor* provides to illustrate details of portions of the *Work*.

Specifications

The *Specifications* are that portion of the *Contract Documents*, wherever located and whenever issued, consisting of the written requirements and standards for *Products*, systems, workmanship, quality, and the services necessary for the performance of the *Work*.

Subcontractor

A *Subcontractor* is a person or entity having a direct contract with the *Contractor* to perform a part or parts of the *Work* at the *Place of the Work*.

Substantial Performance of the Work

Substantial Performance of the Work is as defined in the lien legislation applicable to the *Place of the Work*.

Supplemental Instruction

A *Supplemental Instruction* is an instruction, not involving adjustment in the *Contract Price* or *Contract Time*, in the form of *Specifications*, *Drawings*, schedules, samples, models, or written instructions, consistent with the intent of the *Contract Documents*. It is to be issued by the *Consultant* to supplement the *Contract Documents* as required for the performance of the *Work*.

Supplier

A *Supplier* is a person or entity having a direct contract with the *Contractor* to supply *Products*.

Temporary Work

Temporary Work means temporary supports, structures, facilities, services, and other temporary items, excluding *Construction Equipment*, required for the execution of the *Work* but not incorporated into the *Work*.

Value Added Taxes

Value Added Taxes means such sum as shall be levied upon the *Contract Price* by the Federal or any Provincial or Territorial Government and is computed as a percentage of the *Contract Price* and includes the Goods and Services Tax, the Quebec Sales Tax, the Harmonized Sales Tax, and any similar tax, the collection and payment of which have been imposed on the *Contractor* by tax legislation.

Work

The *Work* means the total construction and related services required by the *Contract Documents*.

Working Day

Working Day means a day other than a Saturday, Sunday, statutory holiday, or statutory vacation day that is observed by the construction industry in the area of the *Place of the Work*.

GENERAL CONDITIONS

PART 1 GENERAL PROVISIONS

GC 1.1 CONTRACT DOCUMENTS

- 1.1.1 The intent of the *Contract Documents* is to include the labour, *Products* and services necessary for the performance of the *Work* by the *Contractor* in accordance with these documents. It is not intended, however, that the *Contractor* shall supply products or perform work not consistent with, not covered by, or not properly inferable from the *Contract Documents*.
- 1.1.2 The *Contract Documents* are complementary, and what is required by one shall be as binding as if required by all. Performance by the *Contractor* shall be required only to the extent consistent with the *Contract Documents*.
- 1.1.3 The *Contractor* shall review the *Contract Documents* for the purpose of facilitating co-ordination and execution of the *Work* by the *Contractor*.
- 1.1.4 The *Contractor* is not responsible for errors, omissions or inconsistencies in the *Contract Documents*. If there are perceived errors, omissions or inconsistencies discovered by or made known to the *Contractor*, the *Contractor* shall promptly report to the *Consultant* and shall not proceed with the work affected until the *Contractor* has received corrected or additional information from the *Consultant*.
- 1.1.5 If there is a conflict within the *Contract Documents*:
- .1 the order of priority of documents, from highest to lowest, shall be
 - the Agreement between *Owner* and *Contractor*,
 - the Definitions,
 - Supplementary Conditions,
 - the General Conditions,
 - Division 01 of the *Specifications*,
 - technical *Specifications*,
 - material and finishing schedules,
 - the *Drawings*.
 - .2 *Drawings* of larger scale shall govern over those of smaller scale of the same date.
 - .3 dimensions shown on *Drawings* shall govern over dimensions scaled from *Drawings*.
 - .4 amended or later dated documents shall govern over earlier documents of the same type.
 - .5 noted materials and annotations shall govern over graphic indications.
- 1.1.6 Nothing contained in the *Contract Documents* shall create any contractual relationship between:
- .1 the *Owner* and a *Subcontractor*, a *Supplier*, or their agent, employee, or other person performing any portion of the *Work*.
 - .2 the *Consultant* and the *Contractor*, a *Subcontractor*, a *Supplier*, or their agent, employee, or other person performing any portion of the *Work*.
- 1.1.7 Words and abbreviations which have well known technical or trade meanings are used in the *Contract Documents* in accordance with such recognized meanings.
- 1.1.8 References in the *Contract Documents* to the singular shall be considered to include the plural as the context requires.
- 1.1.9 Neither the organization of the *Specifications* nor the arrangement of *Drawings* shall control the *Contractor* in dividing the work among *Subcontractors* and *Suppliers*.
- 1.1.10 *Specifications*, *Drawings*, models, and copies thereof furnished by the *Consultant* are and shall remain the *Consultant's* property, with the exception of the signed *Contract* sets, which shall belong to each party to the *Contract*. All *Specifications*, *Drawings* and models furnished by the *Consultant* are to be used only with respect to the *Work* and are not to be used on other work. These *Specifications*, *Drawings* and models are not to be copied or altered in any manner without the written authorization of the *Consultant*.
- 1.1.11 Physical models furnished by the *Contractor* at the *Owner's* expense are the property of the *Owner*.

GC 1.2 LAW OF THE CONTRACT

- 1.2.1 The law of the *Place of the Work* shall govern the interpretation of the *Contract*.

GC 1.3 RIGHTS AND REMEDIES

- 1.3.1 Except as expressly provided in the *Contract Documents*, the duties and obligations imposed by the *Contract Documents* and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights, and remedies otherwise imposed or available by law.

- 1.3.2 No action or failure to act by the *Owner*, the *Consultant* or the *Contractor* shall constitute a waiver of any right or duty afforded any of them under the *Contract*, nor shall any such action or failure to act constitute an approval of or acquiescence in any breach thereunder, except as may be specifically agreed in writing.

GC 1.4 ASSIGNMENT

- 1.4.1 Neither party to the *Contract* shall assign the *Contract* or a portion thereof without the written consent of the other, which consent shall not be unreasonably withheld.

PART 2 ADMINISTRATION OF THE CONTRACT

GC 2.1 AUTHORITY OF THE CONSULTANT

- 2.1.1 The *Consultant* will have authority to act on behalf of the *Owner* only to the extent provided in the *Contract Documents*, unless otherwise modified by written agreement as provided in paragraph 2.1.2.
- 2.1.2 The duties, responsibilities and limitations of authority of the *Consultant* as set forth in the *Contract Documents* shall be modified or extended only with the written consent of the *Owner*, the *Consultant* and the *Contractor*.

GC 2.2 ROLE OF THE CONSULTANT

- 2.2.1 The *Consultant* will provide administration of the *Contract* as described in the *Contract Documents*.
- 2.2.2 The *Consultant* will visit the *Place of the Work* at intervals appropriate to the progress of construction to become familiar with the progress and quality of the work and to determine if the *Work* is proceeding in general conformity with the *Contract Documents*.
- 2.2.3 If the *Owner* and the *Consultant* agree, the *Consultant* will provide at the *Place of the Work*, one or more project representatives to assist in carrying out the *Consultant's* responsibilities. The duties, responsibilities and limitations of authority of such project representatives shall be as set forth in writing to the *Contractor*.
- 2.2.4 Based on the *Consultant's* observations and evaluation of the *Contractor's* applications for payment, the *Consultant* will determine the amounts owing to the *Contractor* under the *Contract* and will issue certificates for payment as provided in Article A-5 of the Agreement – PAYMENT, GC 5.3 – PAYMENT and GC 5.5 – FINAL PAYMENT.
- 2.2.5 The *Consultant* will not be responsible for and will not have control, charge or supervision of construction means, methods, techniques, sequences, or procedures, or for safety precautions and programs required in connection with the *Work* in accordance with the applicable construction safety legislation, other regulations or general construction practice. The *Consultant* will not be responsible for the *Contractor's* failure to perform the *Work* in accordance with the *Contract Documents*.
- 2.2.6 Except with respect to GC 5.1 – FINANCING INFORMATION REQUIRED OF THE OWNER, the *Consultant* will be, in the first instance, the interpreter of the requirements of the *Contract Documents*.
- 2.2.7 Matters in question relating to the performance of the *Work* or the interpretation of the *Contract Documents* shall be initially referred in writing to the *Consultant* by the party raising the question for interpretations and findings and copied to the other party.
- 2.2.8 Interpretations and findings of the *Consultant* shall be consistent with the intent of the *Contract Documents*. In making such interpretations and findings the *Consultant* will not show partiality to either the *Owner* or the *Contractor*.
- 2.2.9 The *Consultant's* interpretations and findings will be given in writing to the parties within a reasonable time.
- 2.2.10 With respect to claims for a change in *Contract Price*, the *Consultant* will make findings as set out in GC 6.6 – CLAIMS FOR A CHANGE IN CONTRACT PRICE.
- 2.2.11 The *Consultant* will have authority to reject work which in the *Consultant's* opinion does not conform to the requirements of the *Contract Documents*. Whenever the *Consultant* considers it necessary or advisable, the *Consultant* will have authority to require inspection or testing of work, whether or not such work is fabricated, installed or completed. However, neither the authority of the *Consultant* to act nor any decision either to exercise or not to exercise such authority shall give rise to any duty or responsibility of the *Consultant* to the *Contractor*, *Subcontractors*, *Suppliers*, or their agents, employees, or other persons performing any of the *Work*.
- 2.2.12 During the progress of the *Work* the *Consultant* will furnish *Supplemental Instructions* to the *Contractor* with reasonable promptness or in accordance with a schedule for such instructions agreed to by the *Consultant* and the *Contractor*.
- 2.2.13 The *Consultant* will review and take appropriate action upon *Shop Drawings*, samples and other submittals by the *Contractor*, in accordance with the *Contract Documents*.

- 2.2.14 The *Consultant* will prepare *Change Orders* and *Change Directives* as provided in GC 6.2 – CHANGE ORDER and GC 6.3 – CHANGE DIRECTIVE.
- 2.2.15 The *Consultant* will conduct reviews of the *Work* to determine the date of *Substantial Performance of the Work* and verify that *Ready-for-Takeover* has been attained.
- 2.2.16 All certificates issued by the *Consultant* will be to the best of the *Consultant*'s knowledge, information and belief. By issuing any certificate, the *Consultant* does not guarantee the *Work* is correct or complete.
- 2.2.17 The *Consultant* will receive and review written warranties and related documents required by the *Contract* and provided by the *Contractor* and will forward such warranties and documents to the *Owner* for the *Owner*'s acceptance.
- 2.2.18 If the *Consultant*'s engagement is terminated, the *Owner* shall immediately engage a *Consultant* against whom the *Contractor* makes no reasonable objection and whose duties and responsibilities under the *Contract Documents* will be that of the former *Consultant*.

GC 2.3 REVIEW AND INSPECTION OF THE WORK

- 2.3.1 The *Owner* and the *Consultant* shall have access to the *Work* at all times. The *Contractor* shall provide sufficient, safe and proper facilities at all times for the review of the *Work* by the *Consultant* and the inspection of the *Work* by authorized agencies. If parts of the *Work* are in preparation at locations other than the *Place of the Work*, the *Owner* and the *Consultant* shall be given access to such work whenever it is in progress.
- 2.3.2 If work is designated for tests, inspections or approvals in the *Contract Documents*, by the *Consultant*'s instructions, or by the laws or ordinances of the *Place of the Work*, the *Contractor* shall give the *Consultant* reasonable notification of when the work will be ready for review and inspection. The *Contractor* shall arrange for and shall give the *Consultant* reasonable notification of the date and time of inspections by other authorities.
- 2.3.3 The *Contractor* shall furnish promptly to the *Consultant* two copies of certificates and inspection reports relating to the *Work*.
- 2.3.4 If the *Contractor* covers, or permits to be covered, work that has been designated for special tests, inspections or approvals before such special tests, inspections or approvals are made, given or completed, the *Contractor* shall, if so directed, uncover such work, have the inspections or tests satisfactorily completed, and make good covering work at the *Contractor*'s expense.
- 2.3.5 The *Consultant* may order any portion or portions of the *Work* to be examined to confirm that such work is in accordance with the requirements of the *Contract Documents*. If the work is not in accordance with the requirements of the *Contract Documents*, the *Contractor* shall correct the work and pay the cost of examination and correction. If the work is in accordance with the requirements of the *Contract Documents*, the *Owner* shall pay the cost of examination and restoration.
- 2.3.6 The *Contractor* shall pay the cost of making any test or inspection, including the cost of samples required for such test or inspection, if such test or inspection is designated in the *Contract Documents* to be performed by the *Contractor* or is required by the laws or ordinances applicable to the *Place of the Work*.
- 2.3.7 The *Contractor* shall pay the cost of samples required for any test or inspection to be performed by others if such test or inspection is designated in the *Contract Documents*.

GC 2.4 DEFECTIVE WORK

- 2.4.1 The *Contractor* shall promptly correct defective work that has been rejected by the *Consultant* as failing to conform to the *Contract Documents* whether or not the defective work was incorporated in the *Work* or the defect is the result of poor workmanship, use of defective products or damage through carelessness or other act or omission of the *Contractor*.
- 2.4.2 The *Contractor* shall make good promptly *Other Contractors*' work destroyed or damaged by such corrections at the *Contractor*'s expense.
- 2.4.3 If in the opinion of the *Consultant* it is not expedient to correct defective work or work not performed as provided in the *Contract Documents*, the *Owner* may deduct from the amount otherwise due to the *Contractor* the difference in value between the work as performed and that called for by the *Contract Documents*. If the *Owner* and the *Contractor* do not agree on the difference in value, they shall refer the matter to the *Consultant* for a finding.

PART 3 EXECUTION OF THE WORK

GC 3.1 CONTROL OF THE WORK

- 3.1.1 The *Contractor* shall have total control of the *Work* and shall effectively direct and supervise the *Work* so as to ensure conformity with the *Contract Documents*.

- 3.1.2 The *Contractor* shall be solely responsible for construction means, methods, techniques, sequences, and procedures and for co-ordinating the various parts of the *Work* under the *Contract*.

GC 3.2 CONSTRUCTION BY THE OWNER OR OTHER CONTRACTORS

- 3.2.1 The *Owner* reserves the right to award separate contracts in connection with other parts of the *Project* to *Other Contractors* and to perform work with own forces.
- 3.2.2 When separate contracts are awarded for other parts of the *Project*, or when work is performed by the *Owner*'s own forces, the *Owner* shall:
- .1 provide for the co-ordination of the activities and work of *Other Contractors* and the *Owner*'s own forces with the *Work* of the *Contract*;
 - .2 enter into separate contracts with *Other Contractors* under conditions of contract which are compatible with the conditions of the *Contract*;
 - .3 ensure that insurance coverage is provided to the same requirements as are called for in GC 11.1 – INSURANCE and co-ordinate such insurance with the insurance coverage of the *Contractor* as it affects the *Work*; and
 - .4 take all reasonable precautions to avoid labour disputes or other disputes on the *Project* arising from the work of *Other Contractors* or the *Owner*'s own forces.
- 3.2.3 When separate contracts are awarded for other parts of the *Project*, or when work is performed by the *Owner*'s own forces, the *Contractor* shall:
- .1 afford the *Owner* and *Other Contractors* reasonable opportunity to store their products and execute their work;
 - .2 co-ordinate and schedule the *Work* with the work of *Other Contractors* or the *Owner*'s own forces that are identified in the *Contract Documents*;
 - .3 participate with *Other Contractors* and the *Owner* in reviewing their construction schedules when directed to do so; and
 - .4 report promptly to the *Consultant* in writing any apparent deficiencies in the work of *Other Contractors* or of the *Owner*'s own forces, where such work affects the proper execution of any portion of the *Work*, prior to proceeding with that portion of the *Work*.
- 3.2.4 Where a change in the *Work* is required as a result of the co-ordination and integration of the work of *Other Contractors* or *Owner*'s own forces with the *Work*, the changes shall be authorized and valued as provided in GC 6.1 – OWNER'S RIGHT TO MAKE CHANGES, GC 6.2 – CHANGE ORDER and GC 6.3 – CHANGE DIRECTIVE.
- 3.2.5 Disputes and other matters in question between the *Contractor* and *Other Contractors* shall be dealt with as provided in Part 8 of the General Conditions – DISPUTE RESOLUTION provided the *Other Contractors* have reciprocal obligations. The *Contractor* shall be deemed to have consented to arbitration of any dispute with any *Other Contractor* whose contract with the *Owner* contains a similar agreement to arbitrate. In the absence of *Other Contractors* having reciprocal obligations, disputes and other matters in question initiated by the *Contractor* against *Other Contractors* will be considered disputes and other matters in question between the *Contractor* and the *Owner*.
- 3.2.6 Should the *Owner*, the *Consultant*, *Other Contractors*, or anyone employed by them directly or indirectly be responsible for ill-timed work necessitating cutting or remedial work to be performed, the cost of such cutting or remedial work shall be valued as provided in GC 6.1 – OWNER'S RIGHT TO MAKE CHANGES, GC 6.2 – CHANGE ORDER and GC 6.3 – CHANGE DIRECTIVE.

GC 3.3 TEMPORARY WORK

- 3.3.1 The *Contractor* shall have the sole responsibility for the design, erection, operation, maintenance, and removal of *Temporary Work* unless otherwise specified in the *Contract Documents*.
- 3.3.2 The *Contractor* shall engage and pay for registered professional engineering personnel skilled in the appropriate disciplines to perform those functions referred to in paragraph 3.3.1 where required by law or by the *Contract Documents* and in all cases where such *Temporary Work* is of such a nature that professional engineering skill is required to produce safe and satisfactory results.
- 3.3.3 Notwithstanding the provisions of GC 3.1 – CONTROL OF THE WORK, paragraphs 3.3.1 and 3.3.2 or provisions to the contrary elsewhere in the *Contract Documents* where such *Contract Documents* include designs for *Temporary Work* or specify a method of construction in whole or in part, such designs or methods of construction shall be considered to be part of the design of the *Work* and the *Contractor* shall not be held responsible for that part of the design or the specified method of construction. The *Contractor* shall, however, be responsible for the execution of such design or specified method of construction in the same manner as for the execution of the *Work*.

GC 3.4 CONSTRUCTION SCHEDULE

3.4.1 The *Contractor* shall:

- .1 prepare and submit to the *Owner* and the *Consultant* prior to the first application for payment, a construction schedule that indicates the timing of the major activities of the *Work* and provides sufficient detail of the critical events and their inter-relationship to demonstrate the *Work* will be performed in conformity with the *Contract Time*;
- .2 monitor the progress of the *Work* relative to the construction schedule and update the schedule on a monthly basis or as stipulated by the *Contract Documents*; and
- .3 advise the *Consultant* of any revisions required to the schedule as the result of extensions of the *Contract Time* as provided in Part 6 of the General Conditions – CHANGES IN THE WORK.

GC 3.5 SUPERVISION

3.5.1 The *Contractor* shall provide all necessary supervision and appoint a competent representative who shall be in attendance at the *Place of the Work* while the *Work* is being performed. The appointed representative shall not be changed except for valid reason.

3.5.2 The appointed representative shall represent the *Contractor* at the *Place of the Work*. Information and instructions provided by the *Consultant* to the *Contractor's* appointed representative shall be deemed to have been received by the *Contractor*, except with respect to Article A-6 of the Agreement – RECEIPT OF AND ADDRESSES FOR NOTICES IN WRITING.

GC 3.6 SUBCONTRACTORS AND SUPPLIERS

3.6.1 The *Contractor* shall preserve and protect the rights of the parties under the *Contract* with respect to work to be performed under subcontract, and shall:

- .1 enter into contracts or written agreements with *Subcontractors* and *Suppliers* to require them to perform their work as provided in the *Contract Documents*;
- .2 incorporate the applicable terms and conditions of the *Contract Documents* into all contracts or written agreements with *Subcontractors* and *Suppliers*; and
- .3 be as fully responsible to the *Owner* for acts and omissions of *Subcontractors*, *Suppliers* and any persons directly or indirectly employed by them as for acts and omissions of persons directly employed by the *Contractor*.

3.6.2 The *Contractor* shall indicate in writing, if requested by the *Owner*, those *Subcontractors* or *Suppliers* whose bids have been received by the *Contractor* which the *Contractor* would be prepared to accept for the performance of a portion of the *Work*. Should the *Owner* not object before signing the *Contract*, the *Contractor* shall employ those *Subcontractors* or *Suppliers* so identified by the *Contractor* in writing for the performance of that portion of the *Work* to which their bid applies.

3.6.3 The *Owner* may, for reasonable cause, at any time before the *Owner* has signed the *Contract*, object to the use of a proposed *Subcontractor* or *Supplier* and require the *Contractor* to employ one of the other subcontract bidders.

3.6.4 If the *Owner* requires the *Contractor* to change a proposed *Subcontractor* or *Supplier*, the *Contract Price* and *Contract Time* shall be adjusted by the difference occasioned by such required change.

3.6.5 The *Contractor* shall not be required to employ as a *Subcontractor* or *Supplier*, a person or firm to which the *Contractor* may reasonably object.

3.6.6 The *Owner*, through the *Consultant*, may provide to a *Subcontractor* or *Supplier* information as to the percentage of the *Subcontractor's* or *Supplier's* work which has been certified for payment.

GC 3.7 LABOUR AND PRODUCTS

3.7.1 The *Contractor* shall maintain good order and discipline among the *Contractor's* employees engaged on the *Work* and employ only workers that are skilled in the tasks assigned.

3.7.2 The *Contractor* shall provide and pay for labour, *Products*, tools, *Construction Equipment*, water, heat, light, power, transportation, and other facilities and services necessary for the performance of the *Work* in accordance with the *Contract*.

3.7.3 Unless otherwise specified in the *Contract Documents*, *Products* provided shall be new. *Products* which are not specified shall be of a quality consistent with those specified and their use acceptable to the *Consultant*.

GC 3.8 SHOP DRAWINGS

3.8.1 The *Contractor* shall provide *Shop Drawings* as required in the *Contract Documents*.

3.8.2 The *Contractor* shall provide *Shop Drawings* to the *Consultant* to review in accordance with an agreed schedule, or in the absence of an agreed schedule, in orderly sequence and sufficiently in advance so as to cause no delay in the *Work* or in the work of *Other Contractors* or the *Owner's* own forces.

- 3.8.3 The *Contractor* shall review all *Shop Drawings* before providing them to the *Consultant*. The *Contractor* represents by this review that:
- .1 the *Contractor* has determined and verified all applicable field measurements, field construction conditions, *Product* requirements, catalogue numbers and similar data, or will do so, and
 - .2 the *Contractor* has checked and co-ordinated each *Shop Drawing* with the requirements of the *Work* and of the *Contract Documents*.
- 3.8.4 The *Consultant's* review is for conformity to the design concept and for general arrangement only.
- 3.8.5 At the time of providing *Shop Drawings*, the *Contractor* shall expressly advise the *Consultant* in writing of any deviations in a *Shop Drawing* from the requirements of the *Contract Documents*. The *Consultant* shall indicate the acceptance or rejection of such deviation expressly in writing.
- 3.8.6 The *Consultant's* review shall not relieve the *Contractor* of responsibility for errors or omissions in the *Shop Drawings* or for meeting all requirements of the *Contract Documents*.
- 3.8.7 The *Consultant* will review and return *Shop Drawings* in accordance with the schedule agreed upon, or, in the absence of such schedule, with reasonable promptness so as to cause no delay in the performance of the *Work*.

PART 4 ALLOWANCES

GC 4.1 CASH ALLOWANCES

- 4.1.1 The *Contract Price* includes the cash allowances, if any, stated in the *Contract Documents*. The scope of the *Work* or costs included in such cash allowances shall be as described in the *Contract Documents*.
- 4.1.2 The *Contract Price*, and not the cash allowances, includes the *Contractor's* overhead and profit in connection with such cash allowances.
- 4.1.3 Expenditures under cash allowances shall be authorized by the *Owner* through the *Consultant*.
- 4.1.4 Where the actual cost of the *Work* under any cash allowance exceeds the amount of the allowance, any unexpended amounts from other cash allowances shall be reallocated, at the *Consultant's* direction, to cover the shortfall, and, in that case, there shall be no additional amount added to the *Contract Price* for overhead and profit. Only where the actual cost of the *Work* under all cash allowances exceeds the total amount of all cash allowances shall the *Contractor* be compensated for the excess incurred and substantiated, plus an amount for overhead and profit on the excess only, as set out in the *Contract Documents*.
- 4.1.5 The net amount of any unexpended cash allowances, after providing for any reallocations as contemplated in paragraph 4.1.4, shall be deducted from the *Contract Price* by *Change Order* without any adjustment for the *Contractor's* overhead and profit on such amount.
- 4.1.6 The value of the *Work* performed under a cash allowance is eligible to be included in progress payments.
- 4.1.7 The *Contractor* and the *Consultant* shall jointly prepare a schedule that shows when the items called for under cash allowances must be ordered to avoid delaying the progress of the *Work*.

GC 4.2 CONTINGENCY ALLOWANCE

- 4.2.1 The *Contract Price* includes the contingency allowance, if any, stated in the *Contract Documents*.
- 4.2.2 The contingency allowance includes the *Contractor's* overhead and profit in connection with such contingency allowance.
- 4.2.3 Expenditures under the contingency allowance shall be authorized and valued as provided in GC 6.1 – OWNER'S RIGHT TO MAKE CHANGES, GC 6.2 – CHANGE ORDER and GC 6.3 – CHANGE DIRECTIVE.
- 4.2.4 The *Contract Price* shall be adjusted by *Change Order* to provide for any difference between the expenditures authorized under paragraph 4.2.3 and the contingency allowance.

PART 5 PAYMENT

GC 5.1 FINANCING INFORMATION REQUIRED OF THE OWNER

- 5.1.1 The *Owner* shall, at the request of the *Contractor*, before signing the *Contract*, and promptly from time to time thereafter, furnish to the *Contractor* reasonable evidence that financial arrangements have been made to fulfill the *Owner's* obligations under the *Contract*.
- 5.1.2 The *Owner* shall give the *Contractor Notice in Writing* of any material change in the *Owner's* financial arrangements to fulfil the *Owner's* obligations under the *Contract* during the performance of the *Contract*.

GC 5.2 APPLICATIONS FOR PAYMENT

- 5.2.1 Applications for payment on account as provided in Article A-5 of the Agreement – PAYMENT shall be submitted monthly to the *Owner* and the *Consultant* simultaneously as the *Work* progresses.
- 5.2.2 Applications for payment shall be dated the last day of each payment period, which is the last day of the month or an alternative day of the month agreed in writing by the parties.
- 5.2.3 The amount claimed shall be for the value, proportionate to the amount of the *Contract*, of *Work* performed and *Products* delivered to the *Place of the Work* as of the last day of the payment period.
- 5.2.4 The *Contractor* shall submit to the *Consultant*, at least 15 calendar days before the first application for payment, a schedule of values for the parts of the *Work*, aggregating the total amount of the *Contract Price*, so as to facilitate evaluation of applications for payment.
- 5.2.5 The schedule of values shall be made out in such form as specified in the *Contract* and supported by such evidence as the *Consultant* may reasonably require.
- 5.2.6 Applications for payment shall be based on the schedule of values accepted by the *Consultant* and shall comply with the provisions of *Payment Legislation*.
- 5.2.7 Each application for payment shall include evidence of compliance with workers' compensation legislation at the *Place of the Work* and after the first payment, a declaration by the *Contractor* as to the distribution made of the amounts previously received using document CCDC 9A 'Statutory Declaration'.
- 5.2.8 Applications for payment for *Products* delivered to the *Place of the Work* but not yet incorporated into the *Work* shall be supported by such evidence as the *Consultant* may reasonably require to establish the value and delivery of the *Products*.

GC 5.3 PAYMENT

- 5.3.1 After receipt by the *Consultant* and the *Owner* of an application for payment submitted by the *Contractor* in accordance with GC 5.2 – APPLICATIONS FOR PAYMENT:
 - .1 The *Consultant* will issue to the *Owner* and copy to the *Contractor*, no later than 10 calendar days after the receipt of the application for payment, a certificate for payment in the amount applied for, or in such other amount as the *Consultant* determines to be properly due. If the *Consultant* certifies a different amount, or rejects the application or part thereof, the *Owner* shall promptly issue a written notice to the *Contractor* giving reasons for the revision or rejection, such written notice to be in compliance with *Payment Legislation*.
 - .2 The *Owner* shall make payment to the *Contractor* on account as provided in Article A-5 of the Agreement – PAYMENT on or before 28 calendar days after the receipt by the *Owner* and the *Consultant* of the application for payment, and in any event, in compliance with *Payment Legislation*.

GC 5.4 SUBSTANTIAL PERFORMANCE OF THE WORK AND PAYMENT OF HOLDBACK

- 5.4.1 The *Consultant* will review the *Work* to certify or verify the validity of the application for *Substantial Performance of the Work* and will promptly, and in any event, no later than 20 calendar days after receipt of the *Contractors* application:
 - .1 advise the *Contractor* in writing that the *Work* or the designated portion of the *Work* is not substantially performed and give reasons why, or
 - .2 state the date of *Substantial Performance of the Work* or a designated portion of the *Work* in a certificate and issue a copy of that certificate to each of the *Owner* and the *Contractor*.
- 5.4.2 Where the holdback amount required by the applicable lien legislation has not been placed in a separate lien holdback account, the *Owner* shall, no later than 10 calendar days prior to the expiry of the holdback period stipulated in the lien legislation applicable to the *Place of the Work*, place the holdback amount in a bank account in the joint names of the *Owner* and the *Contractor*.
- 5.4.3 Subject to the requirements of any *Payment Legislation*, all holdback amount prescribed by the applicable lien legislation for the *Work* shall become due and payable to the *Contractor* no later than 10 *Working Days* following the expiration of the holdback period stipulated in the lien legislation applicable to the *Place of the Work*.
- 5.4.4 The *Contractor* shall submit an application for payment of the lien holdback amount in accordance with GC 5.3 – PAYMENT.
- 5.4.5 Where legislation permits progressive release of the holdback for a portion of the *Work* and the *Consultant* has certified or verified that the part of the *Work* has been performed prior to *Substantial Performance of the Work*, the *Owner* hereby agrees to release, and shall release, such portion to the *Contractor* in accordance with such legislation.

- 5.4.6 Notwithstanding any progressive release of the holdback, the *Contractor* shall ensure that such parts of the *Work* are protected pending the issuance of a final certificate for payment and be responsible for the correction of defects or work not performed regardless of whether or not such was apparent when the holdback was released.

GC 5.5 FINAL PAYMENT

- 5.5.1 When the *Contractor* considers that the *Work* is completed, the *Contractor* shall submit an application for final payment.
- 5.5.2 The *Consultant* will, no later than 10 calendar days after the receipt of an application from the *Contractor* for final payment, review the *Work* to verify the validity of the application and when the *Consultant* finds the *Contractor's* application for final payment valid, the *Consultant* will promptly issue a final certificate for payment to the *Owner*, with a copy to the *Contractor*.
- 5.5.3 If the *Consultant* rejects the application or part thereof, the *Owner* will promptly issue a written notice to the *Contractor* giving reasons for the revision or rejection, such written notice to be in compliance with *Payment Legislation*.
- 5.5.4 Subject to the provision of paragraph 10.4.1 of GC 10.4 – WORKERS' COMPENSATION, and any legislation applicable to the *Place of the Work*, the *Owner* shall, no later than 5 calendar days after the issuance of a final certificate for payment, pay the *Contractor* as provided in Article A-5 of the Agreement – PAYMENT and in any event, in compliance with *Payment Legislation*.

GC 5.6 DEFERRED WORK

- 5.6.1 If because of climatic or other conditions reasonably beyond the control of the *Contractor*, or if the *Owner* and the *Contractor* agree that, there are items of work that must be deferred, payment in full for that portion of the *Work* which has been performed as certified by the *Consultant* shall not be withheld or delayed by the *Owner* on account thereof, but the *Owner* may withhold, until the remaining portion of the *Work* is finished, only such an amount that the *Consultant* determines is sufficient and reasonable to cover the cost of performing such deferred *Work*.

GC 5.7 NON-CONFORMING WORK

- 5.7.1 No payment by the *Owner* under the *Contract* nor partial or entire use or occupancy of the *Work* by the *Owner* shall constitute an acceptance of any portion of the *Work* or *Products* which are not in accordance with the requirements of the *Contract Documents*.

PART 6 CHANGES IN THE WORK

GC 6.1 OWNER'S RIGHT TO MAKE CHANGES

- 6.1.1 The *Owner*, through the *Consultant*, without invalidating the *Contract*, may make:
- .1 changes in the *Work* consisting of additions, deletions or other revisions to the *Work* by *Change Order* or *Change Directive*, and
 - .2 changes to the *Contract Time* for the *Work*, or any part thereof, by *Change Order*.
- 6.1.2 The *Contractor* shall not perform a change in the *Work* without a *Change Order* or a *Change Directive*.

GC 6.2 CHANGE ORDER

- 6.2.1 When a change in the *Work* is proposed or required, the *Consultant* will provide the *Contractor* with a written description of the proposed change in the *Work*. The *Contractor* shall promptly present to the *Consultant*, in a form that can be reasonably evaluated, a method of adjustment or an amount of adjustment for the *Contract Price*, if any, and the adjustment in the *Contract Time*, if any, for the proposed change in the *Work*.
- 6.2.2 When the *Owner* and the *Contractor* agree to the adjustments in the *Contract Price* and *Contract Time* or to the method to be used to determine the adjustments, such agreement shall be effective immediately and shall be recorded in a *Change Order*. The value of the work performed as the result of a *Change Order* shall be included in the applications for progress payment.

GC 6.3 CHANGE DIRECTIVE

- 6.3.1 If the *Owner* requires the *Contractor* to proceed with a change in the *Work* prior to the *Owner* and the *Contractor* agreeing upon the corresponding adjustment in *Contract Price* and *Contract Time*, the *Owner*, through the *Consultant*, shall issue a *Change Directive*.
- 6.3.2 A *Change Directive* shall only be used to direct a change in the *Work* which is within the general scope of the *Contract Documents*.
- 6.3.3 A *Change Directive* shall not be used to direct a change in the *Contract Time* only.

- 6.3.4 Upon receipt of a *Change Directive*, the *Contractor* shall proceed promptly with the change in the *Work*.
- 6.3.5 For the purpose of valuing *Change Directives*, changes in the *Work* that are not substitutions or otherwise related to each other shall not be grouped together in the same *Change Directive*.
- 6.3.6 The adjustment in the *Contract Price* for a change carried out by way of a *Change Directive* shall be determined on the basis of the cost of the *Contractor's* actual expenditures and savings attributable to the *Change Directive*, valued in accordance with paragraph 6.3.7 and as follows:
- .1 If the change results in a net increase in the *Contractor's* cost, the *Contract Price* shall be increased by the amount of the net increase in the *Contractor's* cost, plus the *Contractor's* percentage fee on such net increase.
 - .2 If the change results in a net decrease in the *Contractor's* cost, the *Contract Price* shall be decreased by the amount of the net decrease in the *Contractor's* cost, without adjustment for the *Contractor's* percentage fee.
 - .3 The *Contractor's* fee shall be as specified in the *Contract Documents* or as otherwise agreed by the parties.
- 6.3.7 The cost of performing the work attributable to the *Change Directive* shall be limited to the actual cost of the following in as much as it contributes directly to the implementation of the *Change Directive*:

Labour

- .1 rates that are listed in the schedule or as agreed by the *Owner* and the *Contractor* including wages, benefits, compensation, contributions, assessments, or taxes incurred for such items as employment insurance, provincial or territorial health insurance, workers' compensation, and Canada or Quebec Pension Plan for:
 - (1) trade labour in the direct employ of the *Contractor*;
 - (2) the *Contractor's* personnel when stationed at the field office;
 - (3) the *Contractor's* personnel engaged at shops or on the road, in expediting the production or transportation of materials or equipment; and
 - (4) the *Contractor's* office personnel engaged in a technical capacity, or other personnel identified in Article A-3 of the Agreement – CONTRACT DOCUMENTS for the time spent in the performance of the *Work*;

Products, Construction Equipment and Temporary Work

- .2 cost of all *Products* including cost of transportation thereof;
- .3 in the absence of agreed rates, cost less salvage value of *Construction Equipment*, *Temporary Work* and tools, exclusive of hand tools under \$1,000 owned by the *Contractor*;
- .4 rental cost of *Construction Equipment*, *Temporary Work* and tools, exclusive of hand tools under \$1,000;
- .5 cost of all equipment and services required for the *Contractor's* field office;

Subcontract

- .6 subcontract amounts of Subcontractor with pricing mechanism approved by the *Owner*;

Others

- .7 travel and subsistence expenses of the *Contractor's* personnel described in paragraph 6.3.7.1;
- .8 deposits lost provided that they are not caused by negligent acts or omissions of the *Contractor*;
- .9 cost of quality assurance such as independent inspection and testing services;
- .10 charges levied by authorities having jurisdiction at the *Place of the Work*;
- .11 royalties, patent license fees, and damages for infringement of patents and cost of defending suits therefor subject always to the *Contractor's* obligations to indemnify the *Owner* as provided in paragraph 10.3.1 of GC 10.3 – PATENT FEES;
- .12 premium for all contract securities and insurance for which the *Contractor* is required, by the *Contract Documents*, to provide, maintain and pay in relation to the performance of the *Work*;
- .13 losses and expenses sustained by the *Contractor* for matters which are the subject of insurance under the policies prescribed in GC 11.1 – INSURANCE when such losses and expenses are not recoverable because the amounts are in excess of collectible amounts or within the deductible amounts;
- .14 taxes and duties, other than *Value Added Taxes*, income, capital, or property taxes, relating to the *Work* for which the *Contractor* is liable;
- .15 charges for voice and data communications, courier services, expressage, transmittal and reproduction of documents, and petty cash items;
- .16 cost for removal and disposal of waste products and debris;
- .17 legal costs, incurred by the *Contractor*, in relation to the performance of the *Work* provided that they are not:
 - (1) relating to a dispute between the *Owner* and the *Contractor* unless such costs are part of a settlement or awarded by arbitration or court,
 - (2) the result of the negligent acts or omissions of the *Contractor*, or
 - (3) the result of a breach of this *Contract* by the *Contractor*;
- .18 cost of auditing when requested by the *Owner*; and
- .19 cost of *Project* specific information technology in accordance with the method determined by the parties.

- 6.3.8 Notwithstanding any other provisions contained in the General Conditions of the *Contract*, it is the intention of the parties that the cost of any item under any cost element referred to in paragraph 6.3.7 shall cover and include any and all costs or liabilities attributable to the *Change Directive* other than those which are the result of or occasioned by any failure on the part of the *Contractor* to exercise reasonable care and diligence in the *Contractor's* attention to the *Work*. Any cost due to failure on the part of the *Contractor* to exercise reasonable care and diligence in the *Contractor's* performance of the *Work* attributable to the *Change Directive* shall be borne by the *Contractor*.
- 6.3.9 The *Contractor* shall keep full and detailed accounts and records necessary for the documentation of the cost of performing the *Work* attributable to the *Change Directive* and shall provide the *Consultant* with copies thereof.
- 6.3.10 For the purpose of valuing *Change Directives*, the *Owner* shall be afforded reasonable access to all of the *Contractor's* pertinent documents related to the cost of performing the *Work* attributable to the *Change Directive*.
- 6.3.11 Pending determination of the final amount of a *Change Directive*, the undisputed value of the *Work* performed as the result of a *Change Directive* is eligible to be included in progress payments.
- 6.3.12 If the *Owner* and the *Contractor* do not agree on the proposed adjustment in the *Contract Time* attributable to the change in the *Work*, or the method of determining it, the adjustment shall be referred to the *Consultant* for a finding.
- 6.3.13 When the *Owner* and the *Contractor* reach agreement on the adjustment to the *Contract Price* and to the *Contract Time*, this agreement shall be recorded in a *Change Order*.

GC 6.4 CONCEALED OR UNKNOWN CONDITIONS

- 6.4.1 If the *Owner* or the *Contractor* discover conditions at the *Place of the Work* which are:
- .1 subsurface or otherwise concealed physical conditions which existed before the commencement of the *Work* and differ materially from those indicated in the *Contract Documents*; or
 - .2 physical conditions, other than conditions due to weather, that are of a nature which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the *Contract Documents*,
- then the observing party shall give *Notice in Writing* to the other party of such conditions before they are disturbed and in no event later than 5 *Working Days* after first observance of the conditions.
- 6.4.2 The *Consultant* will promptly investigate such conditions and make a finding. If the finding is that the conditions differ materially and this would cause an increase or decrease in the *Contractor's* cost or time to perform the *Work*, the *Owner*, through the *Consultant*, shall issue appropriate instructions for a change in the *Work* as provided in GC 6.2 – CHANGE ORDER or GC 6.3 – CHANGE DIRECTIVE.
- 6.4.3 If the *Consultant* finds that the conditions at the *Place of the Work* are not materially different or that no change in the *Contract Price* or the *Contract Time* is justified, the *Consultant* will promptly inform the *Owner* and the *Contractor* in writing.
- 6.4.4 If such concealed or unknown conditions relate to toxic and hazardous substances and materials, artifacts and fossils, or mould, the parties will be governed by the provisions of GC 9.2 – TOXIC AND HAZARDOUS SUBSTANCES, GC 9.3 – ARTIFACTS AND FOSSILS and GC 9.5 – MOULD.

GC 6.5 DELAYS

- 6.5.1 If the *Contractor* is delayed in the performance of the *Work* by the *Owner*, the *Consultant*, or anyone employed or engaged by them directly or indirectly, contrary to the provisions of the *Contract Documents*, then the *Contract Time* shall be extended for such reasonable time as the *Consultant* may recommend in consultation with the *Contractor*. The *Contractor* shall be reimbursed by the *Owner* for reasonable costs incurred by the *Contractor* as the result of such delay.
- 6.5.2 If the *Contractor* is delayed in the performance of the *Work* by a stop work order issued by a court or other public authority and providing that such order was not issued as the result of an act or fault of the *Contractor* or any person employed or engaged by the *Contractor* directly or indirectly, resulting in the failure of the *Contractor* to attain *Ready-for-Takeover* by the date stipulated in Article A-1 of the Agreement – THE WORK, then the *Contract Time* shall be extended for such reasonable time as the *Consultant* may recommend in consultation with the *Contractor*. The *Contractor* shall be reimbursed by the *Owner* for reasonable costs incurred by the *Contractor* as the result of such delay.
- 6.5.3 If the *Contractor* is delayed in the performance of the *Work* by:
- .1 labour disputes, strikes, lock-outs (including lock-outs decreed or recommended for its members by a recognized contractors' association, of which the *Contractor* is a member or to which the *Contractor* is otherwise bound),
 - .2 fire, unusual delay by common carriers or unavoidable casualties,
 - .3 abnormally adverse weather conditions, or

- .4 any cause beyond the *Contractor's* control other than one resulting from a default or breach of *Contract* by the *Contractor*, then the *Contract Time* shall be extended for such reasonable time as the *Consultant* may recommend in consultation with the *Contractor*. The extension of time shall not be less than the time lost as the result of the event causing the delay, unless the *Contractor* agrees to a shorter extension. The *Contractor* shall not be entitled to payment for costs incurred by such delays unless such delays result from actions by the *Owner*, the *Consultant* or anyone employed or engaged by them directly or indirectly.

6.5.4 No extension shall be made for delay unless *Notice in Writing* of the cause of delay is given to the *Consultant* not later than 10 *Working Days* after the commencement of the delay. In the case of a continuing cause of delay only one *Notice in Writing* shall be necessary.

6.5.5 If no schedule is made under paragraph 2.2.12 of GC 2.2 – ROLE OF THE CONSULTANT, then no request for extension shall be made because of failure of the *Consultant* to furnish instructions until 10 *Working Days* after demand for such instructions has been made.

GC 6.6 CLAIMS FOR A CHANGE IN CONTRACT PRICE

6.6.1 If the *Contractor* intends to make a claim for an increase to the *Contract Price*, or if the *Owner* intends to make a claim against the *Contractor* for a credit to the *Contract Price*, the party that intends to make the claim shall give timely *Notice in Writing* of intent to claim to the other party and to the *Consultant*.

6.6.2 Upon commencement of the event or series of events giving rise to a claim, the party intending to make the claim shall:

- .1 take all reasonable measures to mitigate any loss or expense which may be incurred as a result of such event or series of events, and
- .2 keep such records as may be necessary to support the claim.

6.6.3 The party making the claim shall submit within a reasonable time to the *Consultant* a detailed account of the amount claimed and the grounds upon which the claim is based and the *Consultant* will make a finding upon such claim.

6.6.4 Where the event or series of events giving rise to the claim has a continuing effect, the detailed account submitted under paragraph 6.6.3 shall be considered to be an interim account and the party making the claim shall, at such intervals as the *Consultant* may reasonably require, submit further interim accounts giving the accumulated amount of the claim and any further grounds upon which it is based. The party making the claim shall submit a final account after the end of the effects resulting from the event or series of events.

6.6.5 The *Consultant's* findings, with respect to a claim made by either party, will be given by *Notice in Writing* to both parties within 30 *Working Days* after receipt of the claim by the *Consultant*, or within such other time period as may be agreed by the parties.

6.6.6 If such finding is not acceptable to either party, the claim shall be settled in accordance with Part 8 of the General Conditions – DISPUTE RESOLUTION.

PART 7 DEFAULT NOTICE

GC 7.1 OWNER'S RIGHT TO PERFORM THE WORK, TERMINATE THE CONTRACTOR'S RIGHT TO CONTINUE WITH THE WORK OR TERMINATE THE CONTRACT

7.1.1 If the *Contractor* is adjudged bankrupt, or makes a general assignment for the benefit of creditors because of the *Contractor's* insolvency, or if a receiver is appointed because of the *Contractor's* insolvency, the *Owner* may, without prejudice to any other right or remedy the *Owner* may have, terminate the *Contractor's* right to continue with the *Work*, by giving the *Contractor* or receiver or trustee in bankruptcy *Notice in Writing* to that effect.

7.1.2 If the *Contractor* neglects to perform the *Work* properly or otherwise fails to comply with the requirements of the *Contract* to a substantial degree and if the *Consultant* has given a written statement to the *Owner* and *Contractor* which provides the detail of such neglect to perform the *Work* properly or such failure to comply with the requirements of the *Contract* to a substantial degree, the *Owner* may, without prejudice to any other right or remedy the *Owner* may have, give the *Contractor Notice in Writing*, containing particulars of the default including references to applicable provisions of the *Contract*, that the *Contractor* is in default of the *Contractor's* contractual obligations and instruct the *Contractor* to correct the default in the 5 *Working Days* immediately following the receipt of such *Notice in Writing*.

7.1.3 If the default cannot be corrected in the 5 *Working Days* specified or in such other time period as may be subsequently agreed in writing by the parties, the *Contractor* shall be in compliance with the *Owner's* instructions if the *Contractor*:

- .1 commences the correction of the default within the specified time,
- .2 provides the *Owner* with an acceptable schedule for such correction, and
- .3 corrects the default in accordance with the *Contract* terms and with such schedule.

- 7.1.4 If the *Contractor* fails to correct the default in the time specified or in such other time period as may be subsequently agreed in writing by the parties, without prejudice to any other right or remedy the *Owner* may have, the *Owner* may by giving *Notice in Writing*:
- .1 correct such default and deduct the cost thereof from any payment then or thereafter due the *Contractor* for the *Work* provided the *Consultant* has certified such cost to the *Owner* and the *Contractor*, or
 - .2 terminate the *Contractor*'s right to continue with the *Work* in whole or in part or terminate the *Contract*.
- 7.1.5 If the *Owner* terminates the *Contractor*'s right to continue with the *Work* as provided in paragraphs 7.1.1 and 7.1.4, the *Owner* shall be entitled to:
- .1 take possession of the *Work* and *Products* at the *Place of the Work*; subject to the rights of third parties, utilize the *Construction Equipment* at the *Place of the Work*; finish the *Work* by whatever method the *Owner* may consider expedient, but without undue delay or expense,
 - .2 withhold further payment to the *Contractor* until a final certificate for payment is issued,
 - .3 charge the *Contractor* the amount by which the full cost of finishing the *Work* as certified by the *Consultant*, including compensation to the *Consultant* for the *Consultant*'s additional services and a reasonable allowance as determined by the *Consultant* to cover the cost of corrections to work performed by the *Contractor* that may be required under GC 12.3 – WARRANTY, exceeds the unpaid balance of the *Contract Price*; however, if such cost of finishing the *Work* is less than the unpaid balance of the *Contract Price*, the *Owner* shall pay the *Contractor* the difference, and
 - .4 on expiry of the warranty period, charge the *Contractor* the amount by which the cost of corrections to the *Contractor*'s work under GC 12.3 – WARRANTY exceeds the allowance provided for such corrections, or if the cost of such corrections is less than the allowance, pay the *Contractor* the difference.
- 7.1.6 The *Contractor*'s obligation under the *Contract* as to quality, correction and warranty of the work performed by the *Contractor* up to the time of termination shall continue in force after such termination of the *Contract*.

GC 7.2 CONTRACTOR'S RIGHT TO SUSPEND THE WORK OR TERMINATE THE CONTRACT

- 7.2.1 If the *Owner* is adjudged bankrupt, or makes a general assignment for the benefit of creditors because of the *Owner*'s insolvency, or if a receiver is appointed because of the *Owner*'s insolvency, the *Contractor* may, without prejudice to any other right or remedy the *Contractor* may have, terminate the *Contract* by giving the *Owner* or receiver or trustee in bankruptcy *Notice in Writing* to that effect.
- 7.2.2 If the *Work* is suspended or otherwise delayed for a period of 20 *Working Days* or more under an order of a court or other public authority and providing that such order was not issued as the result of an act or fault of the *Contractor* or of anyone directly or indirectly employed or engaged by the *Contractor*, the *Contractor* may, without prejudice to any other right or remedy the *Contractor* may have, terminate the *Contract* by giving the *Owner* *Notice in Writing* to that effect.
- 7.2.3 The *Contractor* may give *Notice in Writing* to the *Owner*, with a copy to the *Consultant*, that the *Owner* is in default of the *Owner*'s contractual obligations if:
- .1 the *Owner* fails to furnish, when so requested by the *Contractor*, reasonable evidence that financial arrangements have been made to fulfill the *Owner*'s obligations under the *Contract*,
 - .2 the *Consultant* fails to issue a certificate as provided in Part 5 of the General Conditions – PAYMENT,
 - .3 the *Owner* fails to pay the *Contractor* when due the amounts certified by the *Consultant* or awarded by adjudication, arbitration or court, or
 - .4 the *Owner* fails to comply with the requirements of the *Contract* to a substantial degree and the *Consultant*, except for GC 5.1 – FINANCING INFORMATION REQUIRED OF THE OWNER, gives a written statement to the *Owner* and the *Contractor* that provides detail of such failure to comply with the requirements of the *Contract* to a substantial degree.
- 7.2.4 The *Contractor*'s *Notice in Writing* to the *Owner* provided under paragraph 7.2.3 shall advise that if the default is not corrected within 5 *Working Days* following the receipt of the *Notice in Writing*, the *Contractor* may, without prejudice to any other right or remedy the *Contractor* may have, suspend the *Work* or terminate the *Contract*.
- 7.2.5 If the *Contractor* terminates the *Contract* by giving a *Notice in Writing* to the *Owner* under the conditions set out above, the *Contractor* shall be entitled to be paid for all work performed including reasonable profit, for loss sustained upon *Products* and *Construction Equipment*, and such other damages as the *Contractor* may have sustained as a result of the termination of the *Contract*.

PART 8 DISPUTE RESOLUTION

GC 8.1 AUTHORITY OF THE CONSULTANT

- 8.1.1 Differences between the parties to the *Contract* as to the interpretation, application or administration of the *Contract* or any failure to agree where agreement between the parties is called for, herein collectively called disputes, which are not resolved

in the first instance by findings of the *Consultant* as provided in GC 2.2 – ROLE OF THE CONSULTANT, shall be settled in accordance with the requirements of Part 8 of the General Conditions – DISPUTE RESOLUTION.

- 8.1.2 If a dispute arises under the *Contract* in respect of a matter in which the *Consultant* has no authority under the *Contract* to make a finding, the procedures set out in paragraph 8.1.3 and paragraphs 8.3.3 to 8.3.8 of GC 8.3 – NEGOTIATION, MEDIATION AND ARBITRATION, and in GC 8.4 – RETENTION OF RIGHTS apply to that dispute with the necessary changes to detail as may be required.
- 8.1.3 If a dispute is not resolved promptly, the *Consultant* will give such instructions as in the *Consultant's* opinion are necessary for the proper performance of the *Work* and to prevent delays pending settlement of the dispute. The parties shall act immediately according to such instructions, it being understood that by so doing neither party will jeopardize any claim the party may have. If it is subsequently determined that such instructions were in error or at variance with the *Contract Documents*, the *Owner* shall pay the *Contractor* costs incurred by the *Contractor* in carrying out such instructions which the *Contractor* was required to do beyond what the *Contract Documents* correctly understood and interpreted would have required, including costs resulting from interruption of the *Work*.

GC 8.2 ADJUDICATION

- 8.2.1 Nothing in this *Contract* shall be deemed to affect the rights of the parties to resolve any dispute by adjudication as may be prescribed by applicable legislation.

GC 8.3 NEGOTIATION, MEDIATION AND ARBITRATION

- 8.3.1 In accordance with the rules for mediation as provided in CCDC 40 'Rules for Mediation and Arbitration of Construction Industry Disputes' in effect at the time of bid closing, the parties shall appoint a Project Mediator
- .1 within 20 *Working Days* after the *Contract* was awarded, or
 - .2 if the parties neglected to make an appointment within the 20 *Working Days*, within 10 *Working Days* after either party by *Notice in Writing* requests that the Project Mediator be appointed.
- 8.3.2 A party shall be conclusively deemed to have accepted a finding of the *Consultant* under GC 2.2 – ROLE OF THE CONSULTANT and to have expressly waived and released the other party from any claims in respect of the particular matter dealt with in that finding unless, within 15 *Working Days* after receipt of that finding, the party sends a *Notice in Writing* of dispute to the other party and to the *Consultant*, which contains the particulars of the matter in dispute and the relevant provisions of the *Contract Documents*. The responding party shall send a *Notice in Writing* of reply to the dispute within 10 *Working Days* after receipt of such *Notice in Writing* setting out particulars of this response and any relevant provisions of the *Contract Documents*.
- 8.3.3 The parties shall make all reasonable efforts to resolve their dispute by amicable negotiations and agree to provide, without prejudice, frank, candid, and timely disclosure of relevant facts, information and documents to facilitate these negotiations.
- 8.3.4 After a period of 10 *Working Days* following receipt of a responding party's *Notice in Writing* of reply under paragraph 8.3.2, the parties shall request the Project Mediator to assist the parties to reach agreement on any unresolved dispute. The mediated negotiations shall be conducted in accordance with the rules for mediation as provided in CCDC 40 in effect at the time of bid closing.
- 8.3.5 If the dispute has not been resolved at the mediation or within such further period as is agreed by the parties, the Project Mediator will terminate the mediated negotiations by giving *Notice in Writing* to the *Owner*, the *Contractor* and the *Consultant*.
- 8.3.6 By giving a *Notice in Writing* to the other party and the *Consultant*, not later than 10 *Working Days* after the date of termination of the mediated negotiations under paragraph 8.3.5, either party may refer the dispute to be finally resolved by arbitration under the rules of arbitration as provided in CCDC 40 in effect at the time of bid closing. The arbitration shall be conducted in the jurisdiction of the *Place of the Work*.
- 8.3.7 On expiration of the 10 *Working Days*, the arbitration agreement under paragraph 8.3.6 is not binding on the parties and, if a *Notice in Writing* is not given under paragraph 8.3.6 within the required time, the parties may refer the unresolved dispute to the courts or to any other form of dispute resolution, including arbitration, which they have agreed to use.
- 8.3.8 If neither party, by *Notice in Writing*, given within 10 *Working Days* of the date of *Notice in Writing* requesting arbitration in paragraph 8.3.6, requires that a dispute be arbitrated immediately, all disputes referred to arbitration as provided in paragraph 8.3.6 shall be:
- .1 held in abeyance until:
 - (1) *Ready-for-Takeover*,
 - (2) the *Contract* has been terminated, or
 - (3) the *Contractor* has abandoned the *Work*,whichever is earlier; and

.2 consolidated into a single arbitration under the rules governing the arbitration under paragraph 8.3.6.

GC 8.4 RETENTION OF RIGHTS

- 8.4.1 It is agreed that no act by either party shall be construed as a renunciation or waiver of any rights or recourses, provided the party has given the *Notice in Writing* required under Part 8 of the General Conditions – DISPUTE RESOLUTION and has carried out the instructions as provided in paragraph 8.1.3 of GC 8.1 – AUTHORITY OF THE CONSULTANT.
- 8.4.2 Nothing in Part 8 of the General Conditions – DISPUTE RESOLUTION shall be construed in any way to limit a party from asserting any statutory right to a lien under applicable lien legislation of the jurisdiction of the *Place of the Work* and the assertion of such right by initiating judicial proceedings is not to be construed as a waiver of any right that party may have under paragraph 8.3.6 of GC 8.3 – NEGOTIATION, MEDIATION AND ARBITRATION to proceed by way of arbitration to adjudicate the merits of the claim upon which such a lien is based.

PART 9 PROTECTION OF PERSONS AND PROPERTY

GC 9.1 PROTECTION OF WORK AND PROPERTY

- 9.1.1 The *Contractor* shall protect the *Work*, the *Owner's* property and property adjacent to the *Place of the Work* from damage which may arise as the result of the *Contractor's* operations under the *Contract*, and shall be responsible for such damage, except damage which occurs as the result of:
- .1 errors or omissions in the *Contract Documents*; or
 - .2 acts or omissions by the *Owner*, the *Consultant*, *Other Contractors*, or their agents and employees.
- 9.1.2 Before commencing any work, the *Contractor* shall determine the location of all underground utilities and structures indicated in the *Contract Documents* or that are reasonably apparent in an inspection of the *Place of the Work*.
- 9.1.3 Should the *Contractor* in the performance of the *Contract* damage the *Work*, the *Owner's* property or property adjacent to the *Place of the Work*, the *Contractor* shall be responsible for making good such damage at the *Contractor's* expense.
- 9.1.4 Should damage occur to the *Work* or the *Owner's* property for which the *Contractor* is not responsible, as provided in paragraph 9.1.1, the *Contractor* shall make good such damage to the *Work* and, if the *Owner* so directs, to the *Owner's* property. The *Contract Price* and *Contract Time* shall be adjusted as provided in GC 6.1 – OWNER'S RIGHT TO MAKE CHANGES, GC 6.2 – CHANGE ORDER and GC 6.3 – CHANGE DIRECTIVE.

GC 9.2 TOXIC AND HAZARDOUS SUBSTANCES

- 9.2.1 For the purposes of applicable legislation related to toxic and hazardous substances, the *Owner* shall be deemed to have control and management of the *Place of the Work* with respect to existing conditions.
- 9.2.2 Prior to the *Contractor* commencing the *Work*, the *Owner* shall,
- .1 take all reasonable steps to determine whether any toxic or hazardous substances are present at the *Place of the Work*, and
 - .2 provide the *Consultant* and the *Contractor* with a written list of any such substances that are known to exist and their locations.
- 9.2.3 The *Owner* shall take all reasonable steps to ensure that no person's exposure to any toxic or hazardous substance exceeds the time weighted levels prescribed by applicable legislation at the *Place of the Work* and that no property is damaged or destroyed as a result of exposure to, or the presence of, toxic or hazardous substances which were at the *Place of the Work* prior to the *Contractor* commencing the *Work*.
- 9.2.4 Unless the *Contract* expressly provides otherwise, the *Owner* shall be responsible for taking all necessary steps, in accordance with applicable legislation in force at the *Place of the Work*, to dispose of, store or otherwise render harmless any toxic or hazardous substance which was present at the *Place of the Work* prior to the *Contractor* commencing the *Work*.
- 9.2.5 If the *Contractor*
- .1 encounters toxic or hazardous substances at the *Place of the Work*, or
 - .2 has reasonable grounds to believe that toxic or hazardous substances are present at the *Place of the Work*, which were not brought to the *Place of the Work* by the *Contractor* or anyone for whom the *Contractor* is responsible and which were not disclosed by the *Owner* or which were disclosed but have not been dealt with as required under paragraph 9.2.4, the *Contractor* shall
 - .3 take all reasonable steps, including stopping the *Work*, to ensure that no person's exposure to any toxic or hazardous substance exceeds any applicable time weighted levels prescribed by applicable legislation at the *Place of the Work*, and
 - .4 immediately report the circumstances to the *Consultant* and the *Owner* in writing.

- 9.2.6 If the *Owner* and the *Contractor* do not agree on the existence, significance of, or whether the toxic or hazardous substances were brought onto the *Place of the Work* by the *Contractor* or anyone for whom the *Contractor* is responsible, the *Owner* shall retain and pay for an independent qualified expert to investigate and determine such matters. The expert's report shall be delivered to the *Owner* and the *Contractor*.
- 9.2.7 If the *Owner* and the *Contractor* agree or if the expert referred to in paragraph 9.2.6 determines that the toxic or hazardous substances were not brought onto the place of the *Work* by the *Contractor* or anyone for whom the *Contractor* is responsible, the *Owner* shall promptly at the *Owner's* own expense:
- .1 take all steps as required under paragraph 9.2.4;
 - .2 reimburse the *Contractor* for the costs of all steps taken pursuant to paragraph 9.2.5;
 - .3 extend the *Contract Time* for such reasonable time as the *Consultant* may recommend in consultation with the *Contractor* and the expert referred to in 9.2.6 and reimburse the *Contractor* for reasonable costs incurred as a result of the delay; and
 - .4 indemnify the *Contractor* as required by GC 13.1 – INDEMNIFICATION.
- 9.2.8 If the *Owner* and the *Contractor* agree or if the expert referred to in paragraph 9.2.6 determines that the toxic or hazardous substances were brought onto the place of the *Work* by the *Contractor* or anyone for whom the *Contractor* is responsible, the *Contractor* shall promptly at the *Contractor's* own expense:
- .1 take all necessary steps, in accordance with applicable legislation in force at the *Place of the Work*, to safely remove and dispose the toxic or hazardous substances;
 - .2 make good any damage to the *Work*, the *Owner's* property or property adjacent to the place of the *Work* as provided in paragraph 9.1.3 of GC 9.1 – PROTECTION OF WORK AND PROPERTY;
 - .3 reimburse the *Owner* for reasonable costs incurred under paragraph 9.2.6; and
 - .4 indemnify the *Owner* as required by GC 13.1 – INDEMNIFICATION.
- 9.2.9 If either party does not accept the expert's findings under paragraph 9.2.6, the disagreement shall be settled in accordance with Part 8 of the General Conditions – DISPUTE RESOLUTION. If such disagreement is not resolved promptly, the parties shall act immediately in accordance with the expert's determination and take the steps required by paragraph 9.2.7 or 9.2.8 it being understood that by so doing, neither party will jeopardize any claim that party may have to be reimbursed as provided by GC 9.2 – TOXIC AND HAZARDOUS SUBSTANCES.

GC 9.3 ARTIFACTS AND FOSSILS

- 9.3.1 Fossils, coins, articles of value or antiquity, structures and other remains or things of scientific or historic interest discovered at the *Place or Work* shall, as between the *Owner* and the *Contractor*, be deemed to be the absolute property of the *Owner*.
- 9.3.2 The *Contractor* shall take all reasonable precautions to prevent removal or damage to discoveries as identified in paragraph 9.3.1, and shall advise the *Consultant* upon discovery of such items.
- 9.3.3 The *Consultant* will investigate the impact on the *Work* of the discoveries identified in paragraph 9.3.1. If conditions are found that would cause an increase or decrease in the *Contractor's* cost or time to perform the *Work*, the *Owner*, through the *Consultant*, shall issue appropriate instructions for a change in the *Work* as provided in GC 6.2 – CHANGE ORDER or GC 6.3 – CHANGE DIRECTIVE.

GC 9.4 CONSTRUCTION SAFETY

- 9.4.1 The *Contractor* shall be responsible for establishing, initiating, maintaining, and supervising all health and safety precautions and programs in connection with the performance of the *Work* in accordance with the applicable health and safety legislation.
- 9.4.2 The *Owner* and the *Contractor* shall comply with all health and safety precautions and programs established at the *Place of the Work*.
- 9.4.3 The *Owner* and the *Contractor* shall comply with the rules, regulations and practices required by the applicable health and safety legislation.
- 9.4.4 The *Owner* shall cause the *Consultant*, *Other Contractors* and the *Owner's* own forces to comply with all health and safety precautions and programs established by the *Contractor* at the *Place of the Work*.
- 9.4.5 Nothing in this *Contract* shall affect the determination of liability under the applicable health and safety legislation.

GC 9.5 MOULD

- 9.5.1 If the *Contractor* or the *Owner* observes or reasonably suspects the presence of mould at the *Place of the Work*, the remediation of which is not expressly part of the *Work*,
- .1 the observing party shall promptly report the circumstances to the other party in writing,
 - .2 the *Contractor* shall promptly take all reasonable steps, including stopping the *Work* if necessary, to ensure that no person suffers injury, sickness or death and that no property is damaged as a result of exposure to or the presence of the mould, and

- .3 if the *Owner* and the *Contractor* do not agree on the existence, significance or cause of the mould or as to what steps need be taken to deal with it, the *Owner* shall retain and pay for an independent qualified expert to investigate and determine such matters. The expert's report shall be delivered to the *Owner* and the *Contractor*.
- 9.5.2 If the *Owner* and the *Contractor* agree, or if the expert referred to in paragraph 9.5.1.3 determines that the presence of mould was caused by the *Contractor*'s operations under the *Contract*, the *Contractor* shall promptly, at the *Contractor*'s own expense:
- .1 take all reasonable and necessary steps to safely remediate or dispose of the mould,
 - .2 make good any damage to the *Work*, the *Owner*'s property or property adjacent to the *Place of the Work* as provided in paragraph 9.1.3 of GC 9.1 – PROTECTION OF WORK AND PROPERTY,
 - .3 reimburse the *Owner* for reasonable costs incurred under paragraph 9.5.1.3, and
 - .4 indemnify the *Owner* as required by GC 13.1 – INDEMNIFICATION.
- 9.5.3 If the *Owner* and the *Contractor* agree, or if the expert referred to in paragraph 9.5.1.3 determines that the presence of mould was not caused by the *Contractor*'s operations under the *Contract*, the *Owner* shall promptly, at the *Owner*'s own expense:
- .1 take all reasonable and necessary steps to safely remediate or dispose of the mould,
 - .2 reimburse the *Contractor* for the cost of taking the steps under paragraph 9.5.1.2 and making good any damage to the *Work* as provided in paragraph 9.1.4 of GC 9.1 – PROTECTION OF WORK AND PROPERTY,
 - .3 extend the *Contract Time* for such reasonable time as the *Consultant* may recommend in consultation with the *Contractor* and the expert referred to in paragraph 9.5.1.3 and reimburse the *Contractor* for reasonable costs incurred as a result of the delay, and
 - .4 indemnify the *Contractor* as required by GC 13.1 – INDEMNIFICATION.
- 9.5.4 If either party does not accept the expert's finding under paragraph 9.5.1.3, the disagreement shall be settled in accordance with Part 8 of the General Conditions – DISPUTE RESOLUTION. If such disagreement is not resolved promptly, the parties shall act immediately in accordance with the expert's determination and take the steps required by paragraphs 9.5.2 or 9.5.3, it being understood that by so doing neither party will jeopardize any claim the party may have to be reimbursed as provided by GC 9.5 – MOULD.

PART 10 GOVERNING REGULATIONS

GC 10.1 TAXES AND DUTIES

- 10.1.1 The *Contract Price* shall include all taxes and customs duties in effect at the time of the bid closing except for *Value Added Taxes* payable by the *Owner* to the *Contractor* as stipulated in Article A-4 of the Agreement – CONTRACT PRICE.
- 10.1.2 Any increase or decrease in costs to the *Contractor* due to changes in taxes and duties after the time of the bid closing shall increase or decrease the *Contract Price* accordingly.

GC 10.2 LAWS, NOTICES, PERMITS, AND FEES

- 10.2.1 The laws of the *Place of the Work* shall govern the *Work*.
- 10.2.2 The *Owner* shall obtain and pay for development approvals, building permit, permanent easements, rights of servitude, and all other necessary approvals and permits, except for the permits and fees referred to in paragraph 10.2.3 or for which the *Contract Documents* specify as the responsibility of the *Contractor*.
- 10.2.3 The *Contractor* shall be responsible for the procurement of permits, licences, inspections, and certificates, which are necessary for the performance of the *Work* and customarily obtained by contractors in the jurisdiction of the *Place of the Work* after the issuance of the building permit. The *Contract Price* includes the cost of these permits, licences, inspections, and certificates, and their procurement.
- 10.2.4 The *Contractor* shall give the required notices and comply with the laws, ordinances, rules, regulations, or codes which are or become in force during the performance of the *Work* and which relate to the *Work*, to the preservation of the public health, and to construction safety.
- 10.2.5 The *Contractor* shall not be responsible for verifying that the *Contract Documents* are in compliance with the applicable laws, ordinances, rules, regulations, or codes relating to the *Work*. If the *Contract Documents* are at variance therewith, or if, subsequent to the time of bid closing, changes are made to the applicable laws, ordinances, rules, regulations, or codes which require modification to the *Contract Documents*, the *Contractor* shall advise the *Consultant* in writing requesting direction immediately upon such variance or change becoming known. The *Consultant* will issue the changes required to the *Contract Documents* as provided in GC 6.1 – OWNER'S RIGHT TO MAKE CHANGES, GC 6.2 – CHANGE ORDER and GC 6.3 – CHANGE DIRECTIVE.

- 10.2.6 If the *Contractor* fails to advise the *Consultant* in writing; fails to obtain direction as required in paragraph 10.2.5; and performs work knowing it to be contrary to any laws, ordinances, rules, regulations, or codes; the *Contractor* shall be responsible for and shall correct the violations thereof; and shall bear the costs, expenses and damages attributable to the failure to comply with the provisions of such laws, ordinances, rules, regulations, or codes.
- 10.2.7 If, subsequent to the time of bid closing, changes are made to applicable laws, ordinances, rules, regulations, or codes of authorities having jurisdiction which affect the cost of the *Work*, either party may submit a claim in accordance with the requirements of GC 6.6 – CLAIMS FOR A CHANGE IN CONTRACT PRICE.

GC 10.3 PATENT FEES

- 10.3.1 The *Contractor* shall pay the royalties and patent licence fees required for the performance of the *Contract*. The *Contractor* shall hold the *Owner* harmless from and against claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of the *Contractor*'s performance of the *Contract* which are attributable to an infringement or an alleged infringement of a patent of invention by the *Contractor* or anyone for whose acts the *Contractor* may be liable.
- 10.3.2 The *Owner* shall hold the *Contractor* harmless against claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of the *Contractor*'s performance of the *Contract* which are attributable to an infringement or an alleged infringement of a patent of invention in executing anything for the purpose of the *Contract*, the physical model, plan or design of which was supplied to the *Contractor* as part of the *Contract*.

GC 10.4 WORKERS' COMPENSATION

- 10.4.1 Prior to commencing the *Work*, and again with the *Contractor*'s applications for payment, the *Contractor* shall provide evidence of compliance with workers' compensation legislation at the *Place of the Work*.

PART 11 INSURANCE

GC 11.1 INSURANCE

- 11.1.1 Without restricting the generality of GC 13.1 – INDEMNIFICATION, the *Contractor* shall provide, maintain and pay for the following insurance coverages, the requirements of which are specified in CCDC 41 'CCDC Insurance Requirements' in effect at the time of bid closing except as hereinafter provided:
- .1 General liability insurance in the name of the *Contractor* and include, or in the case of a single, blanket policy, be endorsed to name, the *Owner* and the *Consultant* as insureds but only with respect to liability, other than legal liability arising out of their sole negligence, arising out of the operations of the *Contractor* with regard to the *Work*. General liability insurance shall be maintained from the date of commencement of the *Work* until one year from the date of *Ready-for-Takeover*. Liability coverage shall be provided for completed operations hazards from the date of *Ready-for-Takeover* on an ongoing basis for a period of 6 years following *Ready-for-Takeover*.
 - .2 Automobile Liability Insurance from the date of commencement of the *Work* until one year after the date of *Ready-for-Takeover*.
 - .3 Unmanned aerial vehicle aircraft, manned aircraft or watercraft Liability Insurance when owned or non-owned manned or unmanned aircraft or watercraft are used directly or indirectly in the performance of the *Work*.
 - .4 "Broad form" property insurance in the joint names of the *Contractor*, the *Owner* and the *Consultant*. The policy shall include as insureds all *Subcontractors*. The "Broad form" property insurance shall be provided from the date of commencement of the *Work* until the earliest of:
 - (1) 10 calendar days after the date of *Ready-for-Takeover*;
 - (2) on the commencement of use or occupancy of any part or section of the *Work* unless such use or occupancy is for construction purposes, habitational, office, banking, convenience store under 465 square metres in area, or parking purposes, or for the installation, testing and commissioning of equipment forming part of the *Work*; and
 - (3) when left unattended for more than 30 consecutive calendar days or when construction activity has ceased for more than 30 consecutive calendar days.
 - .5 Boiler and machinery insurance in the joint names of the *Contractor*, the *Owner* and the *Consultant*. The policy shall include as insureds all *Subcontractors*. The coverage shall be maintained continuously from commencement of use or operation of the boiler and machinery objects insured by the policy and until 10 calendar days after the date of *Ready-for-Takeover*.
 - .6 The "Broad form" property and boiler and machinery policies shall provide that, in the case of a loss or damage, payment shall be made to the *Owner* and the *Contractor* as their respective interests may appear. In the event of loss or damage:
 - (1) the *Contractor* shall act on behalf of the *Owner* for the purpose of adjusting the amount of such loss or damage payment with the insurers. When the extent of the loss or damage is determined, the *Contractor* shall proceed to restore the *Work*. Loss or damage shall not affect the rights and obligations of either party under the *Contract* except

that the *Contractor* shall be entitled to such reasonable extension of *Contract Time* relative to the extent of the loss or damage as the *Consultant* may recommend in consultation with the *Contractor*;

- (2) the *Contractor* shall be entitled to receive from the *Owner*, in addition to the amount due under the *Contract*, the amount which the *Owner's* interest in restoration of the *Work* has been appraised, such amount to be paid as the restoration of the *Work* proceeds in accordance with the progress payment provisions. In addition the *Contractor* shall be entitled to receive from the payments made by the insurer the amount of the *Contractor's* interest in the restoration of the *Work*; and
- (3) to the *Work* arising from the work of the *Owner*, the *Owner's* own forces or *Other Contractors*, the *Owner* shall, in accordance with the *Owner's* obligations under the provisions relating to construction by the *Owner* or *Other Contractors*, pay the *Contractor* the cost of restoring the *Work* as the restoration of the *Work* proceeds and as in accordance with the progress payment provisions.

- .7 *Contractors' Equipment Insurance* from the date of commencement of the *Work* until one year after the date of *Ready-for-Takeover*.
- .8 *Contractors' Pollution Liability Insurance* from the date of commencement of the *Work* until one year after the date of *Ready-for-Takeover*.

- 11.1.2 Prior to commencement of the *Work* and upon the placement, renewal, amendment, or extension of all or any part of the insurance, the *Contractor* shall promptly provide the *Owner* with confirmation of coverage and, if required, a certified true copy of the policies certified by an authorized representative of the insurer together with copies of any amending endorsements applicable to the *Work*.
- 11.1.3 The parties shall pay their share of the deductible amounts in direct proportion to their responsibility in regards to any loss for which the above policies are required to pay, except where such amounts may be excluded by the terms of the *Contract*.
- 11.1.4 If the *Contractor* fails to provide or maintain insurance as required by the *Contract Documents*, then the *Owner* shall have the right to provide and maintain such insurance and give evidence to the *Contractor* and the *Consultant*. The *Contractor* shall pay the cost thereof to the *Owner* on demand or the *Owner* may deduct the cost from the amount which is due or may become due to the *Contractor*.
- 11.1.5 All required insurance policies shall be with insurers licensed to underwrite insurance in the jurisdiction of the *Place of the Work*.
- 11.1.6 If a revised version of CCDC 41 is published, which specifies reduced insurance requirements, the parties shall address such reduction, prior to the *Contractor's* insurance policy becoming due for renewal, and record any agreement in a *Change Order*.
- 11.1.7 If a revised version of CCDC 41 is published, which specifies increased insurance requirements, the *Owner* may request the increased coverage from the *Contractor* by way of a *Change Order*.
- 11.1.8 A *Change Directive* shall not be used to direct a change in the insurance requirements in response to the revision of CCDC 41.

PART 12 OWNER TAKEOVER

GC 12.1 READY-FOR-TAKEOVER

- 12.1.1 The prerequisites to attaining *Ready-for-Takeover* of the *Work* are limited to the following:
 - .1 The *Consultant* has certified or verified the *Substantial Performance of the Work*.
 - .2 Evidence of compliance with the requirements for occupancy or occupancy permit as prescribed by the authorities having jurisdiction.
 - .3 Final cleaning and waste removal at the time of applying for *Ready-for-Takeover*, as required by the *Contract Documents*.
 - .4 The delivery to the *Owner* of such operations and maintenance documents reasonably necessary for immediate operation and maintenance, as required by the *Contract Documents*.
 - .5 Make available a copy of the as-built drawings completed to date on site.
 - .6 Startup, testing required for immediate occupancy, as required by the *Contract Documents*.
 - .7 Ability to secure access to the *Work* has been provided to the *Owner*, if required by the *Contract Documents*.
 - .8 Demonstration and training, as required by the *Contract Documents*, is scheduled by the *Contractor* acting reasonably.
- 12.1.2 If any prerequisites set forth in paragraphs 12.1.1.3 to 12.1.1.6 must be deferred because of conditions reasonably beyond the control of the *Contractor*, or by agreement between the *Owner* and the *Contractor* to do so, *Ready-for-Takeover* shall not be delayed.
- 12.1.3 When the *Contractor* considers that the *Work* is *Ready-for-Takeover*, the *Contractor* shall deliver to the *Consultant* and to the *Owner* a comprehensive list of items to be completed or corrected, together with a written application for *Ready-for-Takeover* for review. Failure to include an item on the list does not alter the responsibility of the *Contractor* to complete the *Contract*.
- 12.1.4 The *Consultant* will review the *Work* to verify the validity of the application and will promptly, and in any event, no later than 10 calendar days after receipt of the *Contractor's* list and application:

- .1 advise the *Contractor* in writing that the *Work* is not *Ready-for-Takeover* and give reasons why, or
- .2 confirm the date of *Ready-for-Takeover* in writing to each of the *Owner* and the *Contractor*.

12.1.5 Immediately following the confirmation of the date of *Ready-for-Takeover*, the *Contractor*, in consultation with the *Consultant*, shall establish a reasonable date for finishing the *Work*.

12.1.6 The provision of GC 12.1 – READY-FOR-TAKEOVER shall be subject to GC 12.2 – EARLY OCCUPANCY BY THE OWNER.

GC 12.2 EARLY OCCUPANCY BY THE OWNER

12.2.1 The *Owner* may take occupancy of a part or the entirety of the *Work* before *Ready-for-Takeover* has been attained only as agreed by the *Contractor* which agreement shall not be unreasonably withheld.

12.2.2 The *Owner* shall not occupy a part or the entirety of the *Work* without prior approval by authorities having jurisdiction.

12.2.3 If the *Owner* takes occupancy of a part of the *Work* before *Ready-for-Takeover* has been attained:

- .1 The part of the *Work* which is occupied shall be deemed to have been taken over by the *Owner* as from the date on which it is occupied.
- .2 The *Contractor* shall cease to be liable for the care of such part as from this date, when responsibility shall pass to the *Owner*.
- .3 The warranty period specified in paragraph 12.3.1 of GC 12.3 – WARRANTY for that part of the *Work* shall start from the date on which it is occupied.

12.2.4 If the *Owner* takes occupancy of the entirety of the *Work* before all the prerequisites are met as described in paragraph 12.1.1 of GC 12.1 – READY-FOR-TAKEOVER, the *Work* shall, subject to the requirements of the applicable lien legislation, be deemed to achieve *Ready-for-Takeover*. This shall not relieve the *Contractor*'s responsibility to complete the *Work* in a timely manner.

GC 12.3 WARRANTY

12.3.1 Except for extended warranties as described in paragraph 12.3.6, the warranty period under the *Contract* is one year from the date when *Ready-for-Takeover* has been attained.

12.3.2 The *Contractor* shall be responsible for the proper performance of the *Work* to the extent that the design and *Contract Documents* permit such performance.

12.3.3 The *Owner*, through the *Consultant*, shall promptly give the *Contractor Notice in Writing* of observed defects and deficiencies which occur during the one year warranty period.

12.3.4 Subject to paragraph 12.3.2, the *Contractor* shall correct promptly, at the *Contractor*'s expense, defects or deficiencies in the *Work* which appear prior to and during the one year warranty period.

12.3.5 The *Contractor* shall correct or pay for damage resulting from corrections made under the requirements of paragraph 12.3.4.

12.3.6 Any extended warranties required beyond the one year warranty period as described in paragraph 12.3.1, shall be as specified in the *Contract Documents*. Extended warranties shall be issued by the warrantor to the benefit of the *Owner*. The *Contractor*'s responsibility with respect to extended warranties shall be limited to obtaining any such extended warranties from the warrantor. The obligations under such extended warranties are solely the responsibilities of the warrantor.

PART 13 INDEMNIFICATION AND WAIVER

GC 13.1 INDEMNIFICATION

13.1.1 Without restricting the parties' obligation to indemnify respecting toxic and hazardous substances, patent fees and defect in title claims all as described in paragraphs 13.1.4 and 13.1.5, the *Owner* and the *Contractor* shall each indemnify and hold harmless the other from and against all claims, demands, losses, costs, damages, actions, suits, or proceedings whether in respect to losses suffered by them or in respect to claims by third parties that arise out of, or are attributable in any respect to their involvement as parties to this *Contract*, provided such claims are:

- .1 caused by:
 - (1) the negligent acts or omissions of the party from whom indemnification is sought or anyone for whose negligent acts or omissions that party is liable, or
 - (2) a failure of the party to the *Contract* from whom indemnification is sought to fulfill its terms or conditions; and
- .2 made by *Notice in Writing* within a period of 6 years from the *Ready-for-Takeover* date or within such shorter period as may be prescribed by any limitation statute of the Province or Territory of the *Place of the Work*.

The parties expressly waive the right to indemnity for claims other than those provided for in this *Contract*.

- 13.1.2 The obligation of either party to indemnify as set forth in paragraph 13.1.1 shall be limited as follows:
- .1 In respect to losses suffered by the *Owner* and the *Contractor* for which insurance is to be provided by either party pursuant to GC 11.1 – INSURANCE, the minimum liability insurance limit for one occurrence, of the applicable insurance policy, as referred to in CCDC 41 in effect at the time of bid closing.
 - .2 In respect to losses suffered by the *Owner* and the *Contractor* for which insurance is not required to be provided by either party in accordance with GC 11.1 – INSURANCE, the greater of the *Contract Price* as recorded in Article A-4 – CONTRACT PRICE or \$2,000,000, but in no event shall the sum be greater than \$20,000,000.
 - .3 In respect to indemnification by a party against the other with respect to losses suffered by them, such obligation shall be restricted to direct loss and damage, and neither party shall have any liability to the other for indirect, consequential, punitive or exemplary damages.
 - .4 In respect to indemnification respecting claims by third parties, the obligation to indemnify is without limit.
- 13.1.3 The obligation of either party to indemnify the other as set forth in paragraphs 13.1.1 and 13.1.2 shall be inclusive of interest and all legal costs.
- 13.1.4 The *Owner* and the *Contractor* shall indemnify and hold harmless the other from and against all claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of their obligations described in GC 9.2 – TOXIC AND HAZARDOUS SUBSTANCES.
- 13.1.5 The *Owner* shall indemnify and hold harmless the *Contractor* from and against all claims, demands, losses, costs, damages, actions, suits, or proceedings:
- .1 as described in paragraph 10.3.2 of GC 10.3 – PATENT FEES, and
 - .2 arising out of the *Contractor*'s performance of the *Contract* which are attributable to a lack of or defect in title or an alleged lack of or defect in title to the *Place of the Work*.
- 13.1.6 In respect to any claim for indemnity or to be held harmless by the *Owner* or the *Contractor*:
- .1 *Notice in Writing* of such claim shall be given within a reasonable time after the facts upon which such claim is based become known; and
 - .2 should any party be required as a result of its obligation to indemnify another to pay or satisfy a final order, judgment or award made against the party entitled by this contract to be indemnified, then the indemnifying party upon assuming all liability for any costs that might result shall have the right to appeal in the name of the party against whom such final order or judgment has been made until such rights of appeal have been exhausted.

GC 13.2 WAIVER OF CLAIMS

- 13.2.1 Subject to any lien legislation applicable to the *Place of the Work*, the *Contractor* waives and releases the *Owner* from all claims which the *Contractor* has or reasonably ought to have knowledge of that could be advanced by the *Contractor* against the *Owner* under the *Contract*, including, without limitation, those arising from negligence or breach of contract in respect to which the cause of action is based upon acts or omissions which occurred prior to or on the *Ready-for-Takeover* date, except as follows:
- .1 claims arising prior to or on the *Ready-for-Takeover* date for which *Notice in Writing* of claim has been received by the *Owner* from the *Contractor* no later than 5 calendar days before the expiry of the lien period provided by the lien legislation applicable at the *Place of the Work* or 20 calendar days following the *Ready-for-Takeover* date, whichever is later;
 - .2 indemnification for claims advanced against the *Contractor* by third parties for which a right of indemnification may be asserted by the *Contractor* against the *Owner* pursuant to the provisions of this *Contract*;
 - .3 claims respecting toxic and hazardous substances, patent fees and defect in title matters for which a right of indemnity could be asserted by the *Contractor* pursuant to the provisions of paragraphs 13.1.4 or 13.1.5 of GC 13.1 – INDEMNIFICATION; and
 - .4 claims resulting from acts or omissions which occur after the *Ready-for-Takeover* date.
- 13.2.2 The *Contractor* waives and releases the *Owner* from all claims resulting from acts or omissions which occurred after the *Ready-for-Takeover* date except for:
- .1 indemnification respecting third party claims, and claims respecting toxic and hazardous substances, patent fees and defect in title matters, all as referred in paragraphs 13.2.1.2 and 13.2.1.3; and
 - .2 claims for which *Notice in Writing* of claim has been received by the *Owner* from the *Contractor* within 395 calendar days following the *Ready-for-Takeover* date.
- 13.2.3 Subject to any lien legislation applicable to the *Place of the Work*, the *Owner* waives and releases the *Contractor* from all claims which the *Owner* has or reasonably ought to have knowledge of that could be advanced by the *Owner* against the *Contractor* under the *Contract*, including, without limitation, those arising from negligence or breach of contract in respect to which the cause of action is based upon acts or omissions which occurred prior to or on the *Ready-for-Takeover* date, except as follows:
- .1 claims arising prior to or on the *Ready-for-Takeover* date for which *Notice in Writing* of claim has been received by the *Contractor* from the *Owner* no later than 20 calendar days following the *Ready-for-Takeover* date;

- .2 indemnification for claims advanced against the *Owner* by third parties for which a right of indemnification may be asserted by the *Owner* against the *Contractor* pursuant to the provisions of this *Contract*;
 - .3 claims respecting toxic and hazardous substances for which a right of indemnity could be asserted by the *Owner* against the *Contractor* pursuant to the provisions of paragraph 13.1.4 of GC 13.1 – INDEMNIFICATION;
 - .4 damages arising from the *Contractor*'s actions which result in substantial defects or deficiencies in the *Work*. "Substantial defects or deficiencies" mean those defects or deficiencies in the *Work* which affect the *Work* to such an extent or in such a manner that a significant part or the whole of the *Work* is unfit for the purpose intended by the *Contract Documents*;
 - .5 claims arising pursuant to GC 12.3 – WARRANTY; and
 - .6 claims arising from acts or omissions which occur after the *Ready-for-Takeover* date.
- 13.2.4 Respecting claims arising upon substantial defects and deficiencies in the *Work*, as referenced in paragraph 13.2.3.4, and notwithstanding paragraph 13.2.3.5, the *Owner* waives and releases the *Contractor* from all claims except claims for which *Notice in Writing* of claim has been received by the *Contractor* from the *Owner* within a period of six years from the *Ready-for-Takeover* date, provided that any limitation statute of the Province or Territory of the *Place of the Work* permit such agreement. If the applicable limitation statute does not permit such agreement, the time within which any such claim may be brought shall be such shorter period as may be prescribed by any limitation statute of the Province or Territory of the *Place of the Work*.
- 13.2.5 The *Owner* waives and releases the *Contractor* from all claims arising from acts or omissions which occur after the *Ready-for-Takeover* date, except for:
- .1 indemnification for claims advanced against the *Owner* by third parties, as referenced in paragraph 13.2.3.2;
 - .2 claims respecting toxic and hazardous substances for which a right of indemnity could be asserted by the *Owner* against the *Contractor*, as referenced in paragraph 13.2.3.3;
 - .3 claims arising under GC 12.3 – WARRANTY; and
 - .4 claims for which *Notice in Writing* has been received by the *Contractor* from the *Owner* within 395 calendar days following the *Ready-for-Takeover* date.
- 13.2.6 "Notice in Writing of claim" as provided for in GC 13.2 – WAIVER OF CLAIMS to preserve a claim or right of action which would otherwise, by the provisions of GC 13.2 – WAIVER OF CLAIMS, be deemed to be waived, must include the following:
- .1 a clear and unequivocal statement of an intention to claim;
 - .2 a statement as to the nature of the claim and the grounds upon which the claim is based; and
 - .3 a statement of the estimated quantum of the claim.
- 13.2.7 A claim for lien asserted under the lien legislation prevailing at the *Place of the Work* shall qualify as notice of claim for the purposes of this *Contract*.
- 13.2.8 The party giving the *Notice in Writing* of claim as provided for in GC 13.2 – WAIVER OF CLAIMS shall submit within a reasonable time a detailed account of the amount claimed.
- 13.2.9 Where the event or series of events giving rise to a claim made under paragraphs 13.2.1 or 13.2.3 has a continuing effect, the detailed account submitted under paragraph 13.2.8 shall be considered to be an interim account and the party making the claim shall submit further interim accounts, at reasonable intervals, giving the accumulated amount of the claim and any further grounds upon which such claim is based. The party making the claim shall submit a final account after the end of the effects resulting from the event or series of events.
- 13.2.10 Nothing in GC 13.2 – WAIVER OF CLAIMS shall be deemed to affect the rights of the parties under any lien legislation or limitations legislation prevailing at the *Place of the Work*.

REFERENCE: GEOTECHNICAL REPORTS

GEOTECHNICAL MEMORANDUM 01

Date: October 4, 2024 **File:** N:/29121/005/08/GM01
To: Razdaq Lekan Mohammed, P.Eng., Urban Systems Ltd. **Pages:** 6
From: Chang Liu, P.Eng., MPE a division of Englobe
Subject: FORW Raw Water Intake – Caisson Well and Pump Station Foundation

1 INTRODUCTION

This Geotechnical Memorandum has been prepared by MPE a division of Englobe (MPE) to assist Urban Systems Ltd. (USL) in the construction of an intake caisson for the proposed Foothills Okotoks Regional Water (FORW) Raw Water Intake near Okotoks, Alberta. It is understood that the design builder, Everest Construction and Reynolds Construction, are currently in the design process for the proposed intake and are looking for recommendations regarding the structural design of the intake well and pump station.

2 PROJECT DETAILS

The project site is in Foothills County within NW-26-21-28-W4M near the confluence of the Bow River and Highwood River. The proposed intake caisson will reportedly consist of a 6.1 m outside diameter circular concrete caisson with 600 mm thick walls, constructed above ground surface in nominal 3 m vertical segments and advanced to the bedrock surface via excavation of the subgrade soils from within the footprint of the caisson. The caisson base will be constructed with a bevelled edge and cutting shoe constructed of 19 mm rolled steel plate. Additional sections of the caisson will be formed and cast as the caisson is advanced. Upon reaching the design depth (Elevation 939.2 metres above sea level [masl]), the base of the caisson will be filled with concrete via tremie method to a depth of approximate 1.2 m. The tremie concrete plug will then be capped with a concrete slab (Elevation 940.1 masl), forming a large circular raft foundation. The pump station building will be installed on top of the intake well/caisson (Elevation 953.5 masl), with the concrete caisson acting as the foundation for the pump station building.

3 SOIL AND GROUNDWATER CONDITIONS

A hydrogeological investigation was conducted by Waterline Resources Inc. (WRI) in April 2024. The results of the hydrogeological investigation were presented in a report titled *"Foothills Okotoks Regional Water Project Horizontal Collector Well East Hydrogeological Investigation"* dated August 23, 2024. A review of the WRI report revealed two boreholes near the site of the proposed intake. The subsurface stratigraphy at the two boreholes locations were relatively consistent with sand overlying gravel underlain by bedrock. Sand was encountered from surface to depths between 2.70 metres below ground surface (mbgs) to 3.05 mbgs, and was described as brown, fine-grained and well-sorted. Gravel was encountered below the sand, extending to depth between 9.90 mbgs to 10.70 mbgs, and was described as containing trace cobbles to cobbly, with local sand lenses, poorly sorted, rounded to subrounded clasts. The bedrock

consisted of variable mudstone, sandstone and shale, extending to depths of 12.2 mbgs and 14.9 mbgs. SPTs and laboratory tests were not conducted by WRI.

4 DESIGN RECOMMENDATIONS

Detailed recommendations are provided in the following subsections. The recommendations provided in this report assume that soil conditions at the borehole locations conducted by WRI near the intake well are representative. Adequate field reviews should be completed during construction to confirm these assumptions. Recommendations and design parameters presented herein are provided on the assumption that MPE will be retained to provide engineering design review and construction supervision as needed to satisfy the requirements of the 2023 National Building Code Alberta Edition (NBCAE). MPE takes no liability for work performed where MPE is not retained to provide adequate engineering review and construction supervision services. Construction supervision should include monitoring of caisson construction and advancement.

4.1 DESIGN CONSIDERATIONS

- The proposed intake well will consist of a 6.1 m outside diameter circular concrete caisson with 600 mm thick walls, constructed above ground surface in 3 m vertical segments and advanced 1.5 m into the bedrock via excavation of the subgrade soils from within the footprint of the caisson. Upon reaching the design depth, concrete will be placed to a depth of approximate 1.2 m to form a plug and allow for the intake structure to be dewatered. The caisson will be advanced without dewatering and the concrete plug will be placed by tremie method.
- The subgrade soils around the intake well reportedly consists of sand overlying gravel underlain by bedrock, with sand extending from surface to depths between 2.70 below ground surface (mbgs) to 3.05 mbgs. Gravel was encountered below the sand, extending to depth between 9.90 mbgs to 10.70 mbgs, and was described as containing trace cobbles to cobbly, with local sand lenses, poorly sorted, rounded to subrounded clasts. The bedrock consisted of variable mudstone, sandstone and shale, extending to depths of 12.2 mbgs and 14.9 mbgs.
- For the caisson to advance into the bedrock, the weight of the intake structure must exceed the frictional resistance associated with sand and gravel on the exterior of the caisson, and the bearing resistance of the bedrock against the leading edge of the cutting shoe. Caisson advancement will also require space for the cutting shoe and bevelled face of the leading section of the caisson to displace sand, gravel, mudstone, sandstone and shale inward for removal and disposal. The contractor must be prepared to excavate below the cutting shoe elevation for this to occur.
- The intake caisson must be designed to resist uplift forces related to buoyancy. For calculation of buoyancy, it is reasonable to assume the groundwater level equal to 952.3 masl (100-year Flood Level), unless operational controls allow a lower level. Buoyancy must be offset using self-weight. If this is not possible, consideration could be given to tension anchors constructed using micropiles embedded within the walls of the caisson.

4.2 FOUNDATION DESIGN

All foundations should be designed in accordance with the 2023 National Building Code Alberta Edition (NBCAE, 2023).

4.2.1 Limit States Design

Under the Limit States Design methodology, foundation design must consider both the Ultimate Limit State (ULS) as well as the Serviceability Limit State (SLS). For ULS design, soil resistance factors should be applied to the ultimate soil resistance to obtain the factored soil resistance. Soil resistance factors, as provided in Table K-1, Structural Commentaries (User's Guide – NBC 2015: Part 4 of Division B) and in the 2023 Canadian Foundation Engineering Manual (CFEM) are summarized in **Table A**.

Table A – Soil Resistance Factors

Ultimate Limit State		Soil Resistance Factor
Deep Foundations Axial Compressive Capacity	From Semi-Empirical Analysis	0.4
	From Dynamic Monitoring	0.5
	From Static Load Test Results	0.6
Deep Foundations Axial Uplift Capacity	From Semi-Empirical Analysis	0.3
	From Static Load Test Results	0.4
Deep Foundations Lateral Capacity	From Semi-Empirical Analysis	0.5
Shallow Foundations Bearing Capacity	From Semi-Empirical Analysis	0.5
Shallow Foundations Passive Capacity	From Semi-Empirical Analysis	0.5
Shallow Foundations Sliding	From Semi-Empirical Analysis	0.8

For SLS design, the load-settlement behavior of the foundation must be analyzed. Comments on foundation settlement for SLS design are provided in **Section 4.2.2.2**.

4.2.2 Caisson Foundation

4.2.2.1 ULS PRELIMINARY DESIGN

The caisson will reportedly be advanced using self-weight approximately 1.5 m into undisturbed bedrock. The lowermost portion of the caisson will also be approximately 100 mm larger than the upper sections to offset frictional resistance, estimated to be 15 kPa to 25 kPa for sand and gravel, respectively. The end bearing resistance of the undisturbed bedrock may be taken as 1200 kPa (ultimate). The bearing resistance is based on MPE's experience with similar soils and published information. For foundation design, the bearing resistance value can be applied to the cross-sectional area of the concrete plug. Geotechnical design parameters for the caisson are provided in **Table B**. Factoring is required, as discussed in **Section 4.2.1**.

Table B – Design Parameters

Depth Interval (m)	Ultimate Shaft Resistance at ULS (kPa)	Ultimate End Bearing Resistance at ULS (kPa)
Frost Zone (elevation 951.2 – 949.1 m)	0	0
Sand Gravel (Elevation 949.1 – 945.2 m)	15	0
Gravel (Elevation 945.2 – 940.4 m)	25	0
Bedrock (Elevation below 940.4 m)	150	1200

4.2.2.2 SLS PRELIMINARY DESIGN

Shallow foundations designed based on factored ultimate bearing resistance are expected to experience less than 25 mm of settlement. Since settlements are within typical values, no reduction in the factored ultimate bearing resistance is required for serviceability. This should be confirmed during detailed design.

4.2.2.3 DESIGN AND CONSTRUCTION

Design and construction of caisson should adhere to the following:

- Bulk excavation for advancement of the caisson may be completed using a clam bucket with teeth, or other means.
- Excavation of the final bearing surface should be completed using a smooth clam bucket and all loose material should be removed. The excavation must include all disturbed soil/bedrock present beneath the beveled portion of the caisson.
- The final bearing surface should be inspected via video camera or other means.
- The final bearing surface should be approved by MPE prior to tremie of the concrete plug.

4.2.3 Lateral Earth Pressures

Lateral earth pressures for below-grade structures may be calculated on the assumption of a triangular pressure distribution. For design of below-grade walls where the top of the caisson is braced, the at-rest pressure may be assumed. The following formula may be used to calculate the lateral earth pressure for the at-rest condition:

$$P_o = K_o(\gamma H + q) + \gamma_w H_w$$

Where:

- K_o = Coefficient of at-rest earth pressure
- γ = Bulk unit weight of backfill soil
- H = Height of the soil acting on the wall in meters
- q = Surcharge pressure at ground level in kPa
- $\gamma_w = 9.81 \text{ kN/m}^3$ (unit weight of water)
- H_w = water head adjacent to wall.

Values for bulk unit weights and coefficients of earth pressure are presented in **Table C**.

Table C – Horizontal Subgrade Modulus

Soil and Depth Intervals (m)	Bulk Unit Weight, γ , kN/m ³	Soil Friction Angle, ϕ'	Earth Pressure Coefficient at Rest, k_o	Passive Earth Pressure Coefficient, k_p	Active Earth Pressure Coefficient, k_a
Sand/Gravel (Elevation 949.1 – 945.2 m)	18.5	34	0.44	3.54	0.28
Gravel (Elevation 945.2 – 940.4 m)	20	36	0.41	3.85	0.26
Bedrock (Elevation below 940.4 m)	21	40	0.36	4.60	0.22

4.3 BUOYANCY

The intake well must be designed to resist uplift forces associated with buoyancy. For calculation of buoyancy, a groundwater level equal to Elevation 952.3 masl (100-year Water Level) is recommended. A lower groundwater level could be used if operational controls limit when the intake well is emptied. Buoyancy must be resisted using the structure self-weight. If buoyancy cannot be resisted using the structure self-weight, consideration could be given to tension anchors constructed using micropiles extending through and below the walls of the caisson into the bedrock.

4.4 DEWATERING

Dewatering may be required during the caisson foundation construction. If conventional dewatering methods using water pumps are not adequate, dewatering using sand points connected to pumping systems are considered well-suited and recommended for this application. Disposal of water that results from the dewatering process and potential for recirculation should be considered during dewatering. Environmental regulations must also be considered when disposing of water that results from the dewatering process. It is recommended that dewatering plans for the project be reviewed by MPE.

4.5 MICROPILES

Grouted micropiles are small diameter piles (<300 mm in diameter) installed by drilling and pressure grouting. Micropile anchor resistances may be established from pull-out tests and applying a resistance factor to the recorded resistance. MPE can provide additional guidance during detailed design. For preliminary design, the tension resistance may be estimated designed based on 150 kPa shaft friction within the bedrock. If micropiles are expected or required due to buoyancy, a supplementary 30 m deep borehole is recommended.

4.6 CONCRETE TYPE

Based on MPE's local experience, concrete elements in contact with soil should have an S-3 exposure classification, for moderate sulphate exposure. In accordance with CSA A21.1-14, concrete with an S-3 exposure classification should have a maximum water/cementitious materials ratio of 0.50, air entrainment of 4% to 7%, and a minimum compressive strength of 30 MPa at 56 days. The air content should be based on the appropriate air content category for the corresponding nominal maximum aggregate size, as per CSA, A23.1-19 Table 4. Additional factors such as structural loading or other exposure conditions should be considered when selecting concrete mix and strength requirements. Limestone fillers shall not be used in concrete and Portland-limestone cement shall not be used as the

sole cementitious material in concrete in contact with soil or groundwater. The final determination of the concrete exposure class and any concrete mix design(s) for this project should be in accordance with the requirements of CSA A23.1-19.

4.7 SEISMIC SITE CLASSIFICATION

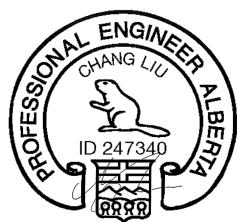
The Seismic Site Response according to the NBCAE, 2023 is based on the average of the Standard Penetration Test results in the top 30 m. From the borehole logs, the bedrock was encountered at a depth of approximately 11 m. The Seismic Site Response, according to Table 4.1.8.4.A is Site Class C, is very dense soil and soft rock.

5 CLOSURE

We trust this memo meets your present requirements. Should you have any questions or concerns, please contact the undersigned at 403-219-6318. Use of this report is subject to the attached Terms of Reference.

Respectfully submitted:

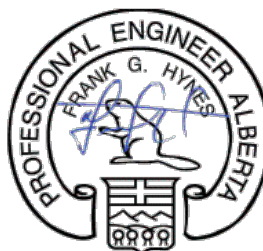
MPE a division of Englobe



2024-10-04

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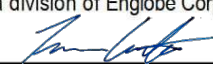


2024-10-04

APEGA ID 275557

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PERMIT TO PRACTICE	
MPE, a division of Englobe Corp.	
Signature	
APEGA ID	111070
Date	October 4, 2024
PERMIT NUMBER: P 7841	
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)	

Attachments: Terms of Reference

TERMS OF REFERENCE FOR GEOTECHNICAL REPORTS ISSUED BY MPE A DIVISION OF ENGLOBE.

MPE has prepared the following Terms of Reference to assist in the interpretation and use of MPE's Geotechnical Reports. Note that the information contained herein is considered supplemental to the body of the report. In case of any discrepancy between this appendix and the body of the report, the report will take precedence.

1.1 USE OF THE REPORT

This geotechnical report has been prepared for and tailored to the needs of a specific client, project, site, and purpose. Any party relying on this report other than the client for which it was prepared does so at their own risk.

In order to properly understand the suggestions, recommendations, and opinions expressed in the Report, reference must be made to the whole of the report. MPE cannot be responsible for improper use of portions of the report without reference to the whole report.

1.2 CHANGING PROJECT DETAILS

Important changes to project details which are made after this report has been prepared could render this report obsolete, or reduce its relevancy. MPE's geotechnical engineer should be retained to review project changes. Examples of important changes may include but are not limited to the following:

- Site layout.
- Function of a proposed structure.
- Type of structure or materials used.
- Elevations, design grades, or drainage.
- Project ownership or design team.

1.3 NATURE AND EXACTNESS OF DESCRIPTIONS

Classification and identification of soils and rocks are based upon commonly accepted systems and methods used in professional geotechnical practice. Classification and identification of geological units are judgemental in nature as to their type, condition, or characteristics. MPE does not warrant conditions represented in the Report as being exact.

Changes from one geological zone to another may be indicated on the logs as a distinct line, but may in fact be transitional. Any circumstance which requires precise definition of soil or rock zone transition elevations may require further investigation and review.

1.4 CHANGES IN SUBSURFACE CONDITIONS

This report has been prepared based on conditions that existed at the time the work scope was undertaken. Do not rely on this report if it is judged that the reliability of the report has been affected by:

- The passage of time;
- Man made events such as construction on or adjacent to the site;
- Natural events such as flood, drought, seismic activity, erosion, groundwater fluctuations, slope instability, etc;

Please contact MPE to confirm that this report is still reliable following any changes to the site or if the passage of time raises any question whether changes may have occurred.

1.5 FINDINGS AND RECOMMENDATIONS ARE PROFESSIONAL OPINION

Site exploration and testing are performed only at specific locations. The exploration provides a valuable yet incomplete picture of the site. In many cases, MPE will review regional geology alongside borehole and laboratory data. Engineering judgement has been applied in the interpretation of the data in order to render an opinion about the rest of the site. Actual subsurface conditions may differ significantly from those identified in the report. MPE should be retained to provide geotechnical design review and construction monitoring in order to manage the risks associated with unanticipated conditions.

1.6 RECOMMENDATIONS ARE NOT FINAL

Many of the recommendations presented in this report are considered confirmation-dependent, as they are developed on engineering judgement and opinion based on an incomplete investigation of site conditions. As such, they should not be considered final.

MPE's recommendations can be finalized only after the actual site conditions are revealed during construction. MPE cannot assume responsibility or liability for this report's recommendations if MPE has not been retained to perform the necessary construction monitoring.

1.7 DO NOT REDRAW BOREHOLE LOGS

MPE has prepared the final borehole logs based on interpretation of field logs and lab data. To prevent errors and omissions, the logs included in this report should not be redrawn for inclusion in other design drawings. Only photographic or complete electronic reproduction of the original is acceptable. Note that separating logs from the report can elevate risk.

1.8 DESIGN PARAMETERS

Where MPE's Report includes design parameters which have been derived from a site investigation, those recommended parameters are based on engineering judgement and may take into account multiple factors. Third party designers who apply their own interpretation to MPE's borehole logs do so at their own risk. MPE cannot be liable for third party interpretations.

1.9 PROTECTION OF EXPOSED GROUND

Weathering and disturbance can substantially alter the physical properties of soil or rock. In circumstances where the strength of soil or rock is to be relied upon (such as for foundation support, floor slabs, roads, excavation or embankment sideslopes, etc.), it must be protected against weathering and disturbance at all times. Weathering includes freezing, wetting, or drying conditions.

1.10 GROUNDWATER FLUCTUATION

MPE's site investigation should not be considered an exhaustive study of groundwater conditions. Groundwater levels will fluctuate, and MPE's boreholes may not have penetrated all natural flow paths. Groundwater conditions encountered during construction may differ dramatically from this report. Local experience and sound judgement will be required in the development of care-of-water procedures.

1.11 SUPPORT OF ADJACENT STRUCTURES

The influence that construction activity can have on adjacent structures or facilities should be considered by the owner, architect, prime engineer, contractor, or developer. MPE's geotechnical engineers should be consulted if adverse conditions are suspected.

Support of ground and structures adjacent to the proposed construction, which may be impacted by construction, is required.

Waterline Project No. 3319-24-001						ATS: NW-26-021-28W4M							BOREHOLE:					BH24-2											
INSTALLED BY: Waterline Resources Inc.						NAD83 UTM Zone 12							Foothills Okotoks Regional Water Project																
DRILL TYPE: ODEX						EAST: 304078							NORTH: 5633103							ELEVATION:					951.88 (masl)				
FILL TYPE: ☐ Backfill ☒ Bentonite ☐ Grout ☐ Open Hole ☒ Cement ☐ Sand SAMPLE TYPE: ☒ Shelby Tube ☐ No Recovery ☒ Split Spoon ☐ Disturbed ☐ Dynamic Cone ☐ Core ☐ Grab Sample																													
SOIL DESCRIPTION						SAMPLE	WELL INSTALLATION Borehole diam. = 0.150 m																						
Depth (m) 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 0.0-3.66 mbgl: SAND and SILT, brown, dry 3.66-8.10 mbgl: GRAVEL, pebbly, silty, sandy ... slow ROP ... medium to coarse grained ... wet ... pebble fragments 8.10-10.67 mbgl: SANDSTONE, fine grained, friable ... very slow ROP ... competent fragments END OF HOLE AT 10.67 m Water Level Date 5-Apr-24								Backfill from 0 to 10.67 mbgl																					
						TYPE: Borehole						COMPLETION DEPTH: 10.67 (m)																	
						LOGGED BY: ZM						COMPLETION DATE: 4-Apr-24																	
						CHECKED BY: SS						Date printed: 08-Aug-2024																	

Waterline Project No. 3319-24-001		ATS: NW-26-021-28W4M		BOREHOLE: BH24-3	
INSTALLED BY: Waterline Resources Inc.		NAD83 UTM Zone 12		Foothills Okotoks Regional Water Project	
DRILL TYPE: ODEX		EAST: 304058 NORTH: 5633137		ELEVATION: 951.45 (masl)	
FILL TYPE:		☐ Backfill ☒ Bentonite ☐ Grout ☐ Open Hole ☐ Cement ☐ Sand ☒ Slough ☐ Unknown			
SAMPLE TYPE:		☒ Shelby Tube ☐ No Recovery ☒ Split Spoon ☐ Disturbed ☐ Dynamic Cone ☐ Core ☐ Grab Sample			
Depth (m)	SOIL DESCRIPTION	S A M P L E	WELL INSTALLATION Borehole diam. = 0.150 m		
0	0.00-1.22 mbgl: SAND, brown, very fine grained, silty, some pebbles, moist		Backfill from 0 to 7.62 mbgl		
1					
2	1.22-7.01 mbgl: GRAVEL, cobbly, sandy matrix, subrounded to rounded clasts, gradational contact				
3	... very low ROP, lots of rock chips/fragments at 2.40 mbgl ... more sand, slightly faster ROP at 2.90 mbgl				
4	... slightly higher ROP at 3.96 mbgl				
5					
6	... low ROP, lots of cherty/quartzite fragments at 5.18 mbgl ... some cobbles, coarser sandy matrix at 5.79 mbgl				
7	7.01-7.62 mbgl: SANDSTONE grey, fine to medium grained, grey, orange/brown mottling, brownish green, bedrock contact				
8	END OF HOLE AT 7.62 m Water Level Date 5-Apr-24				
9					
10					
11					
12					
13					
14					
15					
		TYPE: Borehole		COMPLETION DEPTH: 7.62 (m)	
		LOGGED BY: ZM		COMPLETION DATE: 5-Apr-24	
		CHECKED BY: SS		Date printed: 08-Aug-2024	

Waterline Project No. 3319-24-001			ATS: NW-26-021-28W4M			BOREHOLE: MW24-10				
INSTALLED BY: Waterline Resources Inc.			NAD83 UTM Zone 12			Foothills Okotoks Regional Water Project				
DRILL TYPE: Sonic			EAST: 304084 NORTH: 5633165			ELEVATION: 951.06 (masl)				
FILL TYPE:			Backfill	Bentonite	Grout	Open Hole	Cement	Sand	Slough	Unknown
SAMPLE TYPE:			Shelby Tube	No Recovery	Split Spoon	Disturbed	Dynamic Cone	Core	Grab Sample	
Depth (m) <										

Waterline Project No. 3319-24-001		ATS: NW-26-021-28W4M		BOREHOLE: MW24-11		
INSTALLED BY: Waterline Resources Inc.		NAD83 UTM Zone 12		Foothills Okotoks Regional Water Project		
DRILL TYPE: Sonic		EAST: 304073 NORTH: 5633244		ELEVATION: 949.61 (masl)		
FILL TYPE: ☐ Backfill ☒ Bentonite ☐ Grout ☐ Open Hole ☐ Cement ☐ Sand ☒ Slough ☐ Unknown						
SAMPLE TYPE: ☒ Shelby Tube ☐ No Recovery ☒ Split Spoon ☐ Disturbed ☐ Dynamic Cone ☐ Core ☐ Grab Sample						
Depth (m) 	SOIL DESCRIPTION		S A M P L E	WELL INSTALLATION Borehole diam. = 0.100 m		Recovery (%) [●] 20 40 60 80
	0.00-1.50 mbgl: SAND and SILT, dry, non-cohesive 1.50-6.40 mbgl: GRAVEL brown, (subrounded to rounded), some sand, trace cobbles, inferred upper contact 6.40-7.62 mbgl: SANDSTONE grey, fine grained, friable, sharp upper contact, rubble END OF HOLE AT 7.62 m Water Level Date 13-May-2024		Stickup (TOC) = 0.70 magl Bentonite from 0 to 2.75 mbgl Filter sand (10-20) from 2.75 to 6.10 mbgl PVC screen (0.010 slot, 0.051 m diameter) from 3.05 to 6.10 mbgl Bentonite from 6.10 to 7.62 mbgl			
		TYPE: Groundwater Monitoring Well LOGGED BY: CG/ZM CHECKED BY: SS		COMPLETION DEPTH: 6.10 (m) COMPLETION DATE: 2024-Feb-01 Date printed: 08-Aug-2024		

[illegible]

Waterline Project No. 3319-24-001		ATS: NW-26-021-28W4M		BOREHOLE: MW24-13	
INSTALLED BY: Waterline Resources Inc.		NAD83 UTM Zone 12		Foothills Okotoks Regional Water Project	
DRILL TYPE: Sonic		EAST: 304120 NORTH: 5633226		ELEVATION: 949.90 (masl)	
FILL TYPE: ☐ Backfill ☒ Bentonite ☐ Grout ☐ Open Hole ☐ Cement ☐ Sand ☒ Slough ☐ Unknown					
SAMPLE TYPE: ☒ Shelby Tube ☐ No Recovery ☒ Split Spoon ☐ Disturbed ☐ Dynamic Cone ☐ Core ☐ Grab Sample					
Depth (m)	SOIL DESCRIPTION	SAMPLE	WELL INSTALLATION Borehole diam. = 0.100 m	Recovery (%) [●]	
				20	40 60 80
0.00-3.10	mbgl: SAND, brown, fine grained		Stickup (TOC) = 1.03 magl		
3.10-8.70	mbgl: SAND and GRAVEL, pebbly sands, to trace cobbles in gravel, moderately sorted, subrounded to rounded grains		Bentonite from 0 to 5.18 mbgl		
5.18-8.53			Filter sand (10-20) from 5.18 to 8.53 mbgl		
5.49-8.53			PVC screen (0.010 slot, 0.051 m diameter) from 5.49 to 8.53 mbgl		
8.70-10.67	mbgl: SILTSTONE and SANDSTONE, fine grained, friable, sharp upper contact		Bentonite from 8.53 to 10.67 mbgl		
10.67	END OF HOLE AT 10.67 m Water Level Date 13-May-2024				
Waterline			TYPE: Groundwater Monitoring Well	COMPLETION DEPTH: 8.53 (m)	
			LOGGED BY: CG/ZM	COMPLETION DATE: 2024-Jan-31	
			CHECKED BY: SS	Date printed: 08-Aug-2024	

Waterline Project No. 3319-24-001						ATS:							BOREHOLE: MW24-14								
INSTALLED BY: Waterline Resources Inc.						NAD83 UTM Zone 12							Foothills Okotoks Regional Water Project								
DRILL TYPE: Sonic						EAST: 304059 NORTH: 5633167							ELEVATION: 951.27 (masl)								
FILL TYPE: ☐ Backfill ☒ Bentonite ☐ Grout ☐ Open Hole ☐ Cement ☐ Sand ☒ Slough ☐ Unknown																					
SAMPLE TYPE: ☒ Shelby Tube ☐ No Recovery ☒ Split Spoon ☐ Disturbed ☐ Dynamic Cone ☐ Core ☐ Grab Sample																					
SOIL DESCRIPTION						S A M P L E		WELL INSTALLATION Borehole diam. = 0.100 m						Recovery (%) [●] 20 40 60 80							
Depth (m) 0.00-3.05 mbgl: SAND, brown, fine grained ... trace cobble								Stickup (TOC) = 0.83 m						●							
3.05-10.70 mbgl: GRAVEL, local sands, trace cobbles, rounded to subrounded clasts, inferred upper contact								Bentonite from 0 to 7.32 mbgl													
▽								Filter sand (10-20) from 7.32 to 10.67 mbgl													
								PVC screen (0.010 slot, 0.051 m diameter) from 7.62 to 10.67 mbgl													
10.70-12.19 mbgl: SANDSTONE, grey, fine grained, silty, friable, sharp contact, rubble throughout								Bentonite from 10.67 to 12.19 mbgl						●							
END OF HOLE AT 12.19 m Water Level Date 13-May-2024																					
13																					
14																					
15																					
Waterline						TYPE: Groundwater Monitoring Well						COMPLETION DEPTH: 10.67 (m)									
						LOGGED BY: CG/ZM						COMPLETION DATE: 2024-Jan-30									
						CHECKED BY: SS						Date printed: 08-Aug-2024									

Waterline Project No. 3319-24-001		ATS: NW-26-021-28W4M		BOREHOLE: MW24-15	
INSTALLED BY: Waterline Resources Inc.		NAD83 UTM Zone 12		Foothills Okotoks Regional Water Project	
DRILL TYPE: Sonic		EAST: 304085 NORTH: 5633203		ELEVATION: 948.34 (masl)	
FILL TYPE:		☐ Backfill ☒ Bentonite ☐ Grout ☐ Open Hole ☐ Cement ☐ Sand ☐ Slough ☐ Unknown			
SAMPLE TYPE:		☒ Shelby Tube ☐ No Recovery ☒ Split Spoon ☐ Disturbed ☐ Dynamic Cone ☐ Core ☐ Grab Sample			
Depth (m)	SOIL DESCRIPTION	S A M P L E	WELL INSTALLATION Borehole diam. = 0.100 m	Recovery (%) [●] 20406080	
0.00-3.05 mbgl	CLAY, brown, medium pasticity and cohesive		Stickup (TOC) = 1.48 magl		
1					
2	... trace sand		Bentonite from 0 to 2.44 mbgl		●
3			Filter sand (10-20) from 2.44 to 5.61 mbgl		●
4	3.05-5.72 mbgl: GRAVEL, cobbly, sandy, moderately sorted, sub rounded clasts				
5			PVC screen (0.010 slot, 0.051 m diameter) from 2.56 to 5.61 mbgl		
6	...rafted bedrock at 5.50 mbgl			●	
7	5.72-7.62 mbgl: MUDSTONE, grey				
8	7.62-8.10 mbgl: SANDSTONE, grey, fine grained, interbedded with a grey siltstone, rubble		Bentonite from 5.61 to 9.14 mbgl		●
9	8.10-9.14 mbgl: SILTSTONE, grey, friable, gradational upper contact, rubble				
10	END OF HOLE AT 9.14 m Water Level Date 13-May-2024				
11					
12					
13					
14					
15					
		TYPE: Groundwater Monitoring Well		COMPLETION DEPTH: 5.61 (m)	
		LOGGED BY: CG/ZM		COMPLETION DATE: 2024-Jan-30	
		CHECKED BY: SS		Date printed: 08-Aug-2024	

[illegible]

Waterline Project No. 3319-24-001		ATS: NW-26-021-28W4M		BOREHOLE: MW24-17	
INSTALLED BY: Waterline Resources Inc.		NAD83 UTM Zone 12		Foothills Okotoks Regional Water Project	
DRILL TYPE: Sonic		EAST: 304097 NORTH: 5633169		ELEVATION: 951.00 (masl)	
FILL TYPE: ☐ Backfill ☒ Bentonite ☐ Grout ☐ Open Hole ☐ Cement ☐ Sand ☒ Slough ☐ Unknown					
SAMPLE TYPE: ☒ Shelby Tube ☐ No Recovery ☒ Split Spoon ☐ Disturbed ☐ Dynamic Cone ☐ Core ☐ Grab Sample					
Depth (m)	SOIL DESCRIPTION	SAMPLE	WELL INSTALLATION Borehole diam. = 0.100 m	Recovery (%) [●] 20 40 60 80	
0.00-2.70 mbgl	SAND, fbrown, fine grained, trace gravel, dry		Stickup (TOC) = 0.76 magl		
2.70-9.15 mbgl	GRAVEL, very coarse and cobbly, sandy, some pebbles, subrounded to rounded		Bentonite from 0 to 5.79 mbgl		
... poor recovery, heavily washed			Filter sand (10-20) from 5.79 to 9.14 mbgl		
			PVC screen (0.010 slot, 0.051 m diameter) from 6.10 to 9.14 mbgl		
9.15-10.67 mbgl	SANDSTONE, grey, fine grained, friable, rubble				
... competent			Bentonite from 9.14 to 10.67 mbgl		
END OF HOLE AT 10.67 m Water Level Date 13-May-2024					
11					
12					
13					
14					
15					
		TYPE: Groundwater Monitoring Well		COMPLETION DEPTH: 9.14 (m)	
		LOGGED BY: CG/ZM		COMPLETION DATE: 2024-Jan-31	
		CHECKED BY: SS		Date printed: 08-Aug-2024	

Waterline Project No. 3319-24-001		ATS: NW-26-021-28W4M		BOREHOLE: MW24-18	
INSTALLED BY: Waterline Resources Inc.		NAD83 UTM Zone 12		Foothills Okotoks Regional Water Project	
DRILL TYPE: Sonic		EAST: 304042 NORTH: 5633262		ELEVATION: 949.90 (masl)	
FILL TYPE:		☐ Backfill ☒ Bentonite ☐ Grout ☐ Open Hole ☐ Cement ☐ Sand ☐ Slough ☐ Unknown			
SAMPLE TYPE:		☒ Shelby Tube ☐ No Recovery ☒ Split Spoon ☐ Disturbed ☐ Dynamic Cone ☐ Core ☐ Grab Sample			
Depth (m)	SOIL DESCRIPTION	S A M P L E	WELL INSTALLATION Borehole diam. = 0.100 m	Recovery (%) [●]	
	0.00-2.70 mbgl: SAND, brown, fine grained, silty		Stickup (TOC) = 0.92 magl	20	40
1					
2			Bentonite from 0 to 2.74 mbgl		●
3	... medium grained at 2.50 mbgl 2.70-6.10 mbgl: GRAVEL, sandy, some cobbles, multiple fining up graded sequences		Filter sand (10-20) from 2.74 to 6.10 mbgl		●
4					
5			PVC screen (0.010 slot, 0.051 m diameter) from 3.05 to 6.10 mbgl		●
6	6.10-6.40 mbgl: SANDSTONE, greenish brown, fine grained				
7	6.40-7.62 mbgl: SILTSTONE, grey, rubble				●
8	7.62-10.67 mbgl: SANDSTONE, grey, medium to fine grained, competent, well sorted		Bentonite from 6.10 to 10.67 mbgl		●
9					●
10					
11	END OF HOLE AT 10.67 m Water Level Date 13-May-2024				
12					
13					
14					
15					
		TYPE: Groundwater Monitoring Well		COMPLETION DEPTH: 6.10 (m)	
		LOGGED BY: CG/ZM		COMPLETION DATE: 2024-Feb-01	
		CHECKED BY: SS		Date printed: 08-Aug-2024	

Waterline Project No. 3319-24-001		ATS: NW-26-021-28W4M		BOREHOLE: MW24-19	
INSTALLED BY: Waterline Resources Inc.		NAD83 UTM Zone 12		Foothills Okotoks Regional Water Project	
DRILL TYPE: ODEX		EAST: 304076 NORTH: 5633055		ELEVATION: 952.04 (masl)	
FILL TYPE:		☐ Backfill ☒ Bentonite ☐ Grout ☐ Open Hole ☐ Cement ☐ Sand ☒ Slough ☐ Unknown			
SAMPLE TYPE:		☒ Shelby Tube ☐ No Recovery ☒ Split Spoon ☐ Disturbed ☐ Dynamic Cone ☐ Core ☐ Grab Sample			
Depth (m)	SOIL DESCRIPTION	S A M P L E	WELL INSTALLATION Borehole diam. = 0.150 m		
1	0.00-3.00 mbgl: SAND, brown, fine grained, some silt, dry, non-cohesive		Stickup (TOC) = 0.96 magl		
2			Bentonite from 0 to 7.00 mbgl		
3	... moist at 2.44 mbgl				
4	3.00-4.00 mbgl: CLAY, brown, silty, some sand, moist, moderately cohesive				
5	4.00-9.20 mbgl: GRAVEL, pebbly, sandy, some silt, medium to coarse grained, subrounded to rounded pebble cuttings, moderately sorted				
6	... wet at 6.01 mbgl				
7	... coarse to very coarse sandy matrix at 7.31 mbgl				
8					
9			Filter pack from 7.00 to 10.29 mbgl		
10	9.20-10.10 mbgl: SANDSTONE, green-brown, fine grained, bedrock contact		PVC screen (0.010 slot, 0.051 m diameter) from 7.24 to 10.29 mbgl		
11	10.10-10.52 mbgl: SHALE, green, oxidation mottling		Slough from 10.29 to 10.52 mbgl		
12	END OF HOLE AT 10.52 m Water Level Date 13-May-2024				
13					
14					
15					
		TYPE: Groundwater Monitoring Well		COMPLETION DEPTH: 10.29 (m)	
		LOGGED BY: ZM		COMPLETION DATE: 4-Apr-24	
		CHECKED BY: SS		Date printed: 08-Aug-2024	

Waterline Project No. 3319-24-001		ATS: NW-26-021-28W4M		BOREHOLE: MW24-20	
INSTALLED BY: Waterline Resources Inc.		NAD83 UTM Zone 12		Foothills Okotoks Regional Water Project	
DRILL TYPE: ODEX		EAST: 304093 NORTH: 5633014		ELEVATION: 951.77 (masl)	
FILL TYPE:		☐ Backfill ☒ Bentonite ☐ Grout ☐ Open Hole ☐ Cement ☐ Sand ☒ Slough ☐ Unknown			
SAMPLE TYPE:		☒ Shelby Tube ☐ No Recovery ☒ Split Spoon ☐ Disturbed ☐ Dynamic Cone ☐ Core ☐ Grab Sample			
Depth (m)	SOIL DESCRIPTION	S A M P L E	WELL INSTALLATION Borehole diam. = 0.150 m		
1	0.00-3.70 mbgl: SAND, brown, fine grained, dry, non-cohesive		Stickup (TOC) = 0.84 magl		
2	... some silt, moist at 1.52 mbgl		Bentonite from 0 to 3.96 mbgl		
3	... some clay, noncohesive, non plastic				
4	3.70-9.00 mbgl: GRAVEL, some cobbles, sub-rounded clasts, moderately sorted, interbedded coarse grained sand				
5					
6	... wet at 5.49 mbgl		Natural pack from 3.96 to 9.14 mbgl		
7					
8			PVC screen (0.010 slot, 0.051 m diameter) from 6.09 to 9.14 mbgl		
9	... sand, green-brown, foamy texture in cuttings at 8.53 mbgl				
10	9.00-9.80 mbgl: SANDSTONE, brown-green, medium grained		Slough from 9.14 to 9.80 mbgl		
11	END OF HOLE AT 9.8 m				
12	Water Level Date 13-May-2024				
13					
14					
15					
		TYPE: Groundwater Monitoring Well		COMPLETION DEPTH: 9.14 (m)	
		LOGGED BY: ZM		COMPLETION DATE: 4-Apr-24	
		CHECKED BY: SS		Date printed: 08-Aug-2024	

Waterline Project No. 3319-24-001		ATS: NW-26-021-28W4M		BOREHOLE: MW24-21	
INSTALLED BY: Waterline Resources Inc.		NAD83 UTM Zone 12		Foothills Okotoks Regional Water Project	
DRILL TYPE: ODEX		EAST: 304045 NORTH: 5633154		ELEVATION: 951.17 (masl)	
FILL TYPE: ☐ Backfill ☒ Bentonite ☐ Grout ☐ Open Hole ☐ Cement ☐ Sand ☒ Slough ☐ Unknown					
SAMPLE TYPE: ☒ Shelby Tube ☐ No Recovery ☒ Split Spoon ☐ Disturbed ☐ Dynamic Cone ☐ Core ☐ Grab Sample					
DEPTH (m)		SOIL DESCRIPTION		WELL INSTALLATION Borehole diam. = 0.150 m	
1		0.00-2.28 mbgl: SAND, brown, fine grained, well-sorted, moderately cohesive		Stickup (TOC) = 0.99 magl	
2					
3		2.28-9.14 mbgl: GRAVEL, cobbly, some pebbles, angular quartzite/chert clasts, interbedded sand, fine to medium grained, low ROP ... steam at 3.05 mbgl		Bentonite from 0 to 3.96 mbgl	
4					
5		... wet at 4.57 mbgl		Natural pack from 3.96 to 10.22 mbgl	
6					
7					
8					
9				PVC screen (0.010 slot, 0.051 m diameter) from 7.17 to 10.22 mbgl	
10		9.14-9.75 mbgl: SANDSTONE, grey, fine to medium grained			
11		9.75-10.67 mbgl: SHALE, grey-green		Slough from 10.22 to 10.67 mbgl	
12		END OF HOLE AT 10.67 m Water Level Date 13-May-2024			
13					
14					
15					
		TYPE: Groundwater Monitoring Well		COMPLETION DEPTH: 10.22 (m)	
		LOGGED BY: CG		COMPLETION DATE: 5-Apr-24	
		CHECKED BY: SS		Date printed: 08-Aug-2024	

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Waterline Project No. 3319-24-001		ATS: NW-26-021-28W4M		BOREHOLE: MW24-23	
INSTALLED BY: Waterline Resources Inc.		NAD83 UTM Zone 12		Foothills Okotoks Regional Water Project	
DRILL TYPE: Sonic		EAST: 304059 NORTH: 5633205		ELEVATION: 948.20 (masl)	
FILL TYPE: ☐ Backfill ☒ Bentonite ☐ Grout ☐ Open Hole ☐ Cement ☐ Sand ☒ Slough ☐ Unknown					
SAMPLE TYPE: ☒ Shelby Tube ☐ No Recovery ☒ Split Spoon ☐ Disturbed ☐ Dynamic Cone ☐ Core ☐ Grab Sample					
Depth (m)	SOIL DESCRIPTION	SAMPLE	WELL INSTALLATION Borehole diam. = 0.150 m	Recovery (%) [●]	
0	0.00-2.90 mbgl: CLAY, brown		Stickup (TOC) = 0.43 magl	20	40
1	... very dark grey at 1.4 mbgl		Bentonite from 0 to 2.44 mbgl	60	80
2					
3	2.90-5.80 mbgl: GRAVEL, coarse		Filter sand (10-20) from 2.44 to 5.79 mbgl		
4			PVC screen (0.010 slot, 0.051 m diameter) from 2.74 to 5.79 mbgl		
5	... cobbles at 5.1 mbgl				
6	5.80-7.01 mbgl: SHALE, brown, interbedded with brown sandstone (fine to medium grained)		Bentonite from 5.79 to 7.01 mbgl		
7	... grey-green and rubble at 6.1 mbgl				
8	END OF HOLE AT 7.01 m Water Level Date 13-May-2024				
9					
10					
11					
12					
13					
14					
15					
		TYPE: Groundwater Monitoring Well		COMPLETION DEPTH: 5.79 (m)	
		LOGGED BY: CG		COMPLETION DATE: 26-Apr-24	
		CHECKED BY: SS		Date printed: 08-Aug-2024	

Waterline Project No. 3319-24-001		ATS: NW-26-021-28W4M		BOREHOLE: MW24-24	
INSTALLED BY: Waterline Resources Inc.		NAD83 UTM Zone 12		Foothills Okotoks Regional Water Project	
DRILL TYPE: Sonic		EAST: 304083 NORTH: 5633189		ELEVATION: 948.90 (masl)	
FILL TYPE:		☐ Backfill ☒ Bentonite ☐ Grout ☐ Open Hole ☐ Cement ☐ Sand ☐ Slough ☐ Unknown			
SAMPLE TYPE:		☒ Shelby Tube ☐ No Recovery ☒ Split Spoon ☐ Disturbed ☐ Dynamic Cone ☐ Core ☐ Grab Sample			
Depth (m)	SOIL DESCRIPTION	SAMPLE TYPE	WELL INSTALLATION	Recovery (%) [●]	
			Borehole diam. = 0.150 m	20406080	
0.00-2.70 mbgl: CLAY, brown			Stickup (TOC) = 0.67 magl		
1	...very dark grey at 1.40 mbgl				
2			Bentonite from 0 to 3.73 mbgl		
3	2.70-7.30 mbgl: GRAVEL, coarse grained, cobbly, some sand				
4					
5					
6			Filter sand (10-20) from 3.73 to 7.08 mbgl		
7	... rafted bedrock boulder at 6.4 to 7.0 mbgl		PVC screen (0.010 slot, 0.051 m diameter) from 4.03 to 7.08 mbgl		
8	7.30-8.40 mbgl: SHALE, green-grey, rubble				
9	8.40-9.14 mbgl: SANDSTONE, light grey, medium grained, competent		Bentonite from 7.08 to 9.14 mbgl		
10	END OF HOLE AT 9.14 m Water Level Date 13-May-2024				
11					
12					
13					
14					
15					
		TYPE: Groundwater Monitoring Well		COMPLETION DEPTH: 7.08 (m)	
		LOGGED BY: CG		COMPLETION DATE: 26-Apr-24	
		CHECKED BY: SS		Date printed: 08-Aug-2024	

Waterline Project No. 3319-24-001		ATS: NW-26-021-28W4M		BOREHOLE: MW24-25	
INSTALLED BY: Waterline Resources Inc.		NAD83 UTM Zone 12		Foothills Okotoks Regional Water Project	
DRILL TYPE: Sonic		EAST: 304000 NORTH: 5633199		ELEVATION: 949.66 (masl)	
FILL TYPE:		☐ Backfill ☒ Bentonite ☐ Grout ☐ Open Hole ☐ Cement ☐ Sand ☒ Slough ☐ Unknown			
SAMPLE TYPE:		☒ Shelby Tube ☐ No Recovery ☒ Split Spoon ☐ Disturbed ☐ Dynamic Cone ☐ Core ☐ Grab Sample			
Depth (m)	SOIL DESCRIPTION	SAMPLE	WELL INSTALLATION Borehole diam. = 0.150 m	Recovery (%) [●]	
	0.00-0.50 mbgl: TOPSOIL, brown		Stickup (TOC) = 0.51 magl	20	40
1	0.50-3.70 mbgl: SAND, brown, medium grained well sorted, massive texture		Bentonite from 0 to 2.74 mbgl		80
2	... dark grey and silty at 1.90 mbgl				
3					
4	... medium grained at 3.50 mbgl 3.70-6.10 mbgl: GRAVEL, granule to fine pebble ... coarser (pebbles) at 4.0 mbgl		Filter sand (10-20) from 2.74 to 6.10 mbgl		
5			PVC screen (0.010 slot, 0.051 m diameter) from 3.05 to 6.10 mbgl		
6	... rafted shale bedrock boulder at 5.60 to 5.90 mbgl				
7	6.10-7.00 mbgl: SHALE, grey-green, fractured		Bentonite from 6.10 to 7.62 mbgl		
	7.00-7.62 mbgl: SANDSTONE, fine grained, rubble				
8	END OF HOLE AT 7.62 m Water Level Date 13-May-2024				
9					
10					
11					
12					
13					
14					
15					
		TYPE: Groundwater Monitoring Well		COMPLETION DEPTH: 6.10 (m)	
		LOGGED BY: CG		COMPLETION DATE: 26-Apr-24	
		CHECKED BY: SS		Date printed: 08-Aug-2024	

Waterline Project No. 3319-24-001		ATS: NW-26-021-28W4M		BOREHOLE: MW24-26	
INSTALLED BY: Waterline Resources Inc.		NAD83 UTM Zone 12		Foothills Okotoks Regional Water Project	
DRILL TYPE: Sonic		EAST: 304094 NORTH: 5633145		ELEVATION: 951.76 (masl)	
FILL TYPE:		☐ Backfill ☒ Bentonite ☐ Grout ☐ Open Hole ☐ Cement ☐ Sand ☐ Slough ☐ Unknown			
SAMPLE TYPE:		☒ Shelby Tube ☐ No Recovery ☒ Split Spoon ☐ Disturbed ☐ Dynamic Cone ☐ Core ☐ Grab Sample			
Depth (m)	SOIL DESCRIPTION	SAMPLE	WELL INSTALLATION	Recovery (%) [●]	
			Borehole diam. = 0.150 m	10203040	
1	0.00-3.00 mbgl: SAND, brown, fine grained, silty, well sorted		Stickup (TOC) = 0.58 magl		
2					
3			Bentonite from 0 to 4.88 mbgl		
4	3.00-8.40 mbgl: GRAVEL, cobbly, pebbly, interbedded sand, gradational contact				
5	... no recovery				
6			Filter sand (10-20) from 4.88 to 8.23 mbgl		
7			PVC screen (0.010 slot, 0.051 m diameter) from 5.18 to 8.23 mbgl		
8	... quartzite (0.12 m diameter) at 7.60 mbgl				
9	8.40-9.14 mbgl: SHALE, silty, grey-green, local rubble		Bentonite from 8.23 to 9.14 mbgl		
10	END OF HOLE AT 9.14 m Water Level Date 06-May-2024				
11					
12					
13					
14					
15					
		TYPE: Groundwater Monitoring Well		COMPLETION DEPTH: 8.23 (m)	
		LOGGED BY: CG		COMPLETION DATE: 26-Apr-24	
		CHECKED BY: SS		Date printed: 08-Aug-2024	

Waterline Project No. 3319-24-001		ATS: NW-26-021-28W4M		BOREHOLE: MW24-27			
INSTALLED BY: Waterline Resources Inc.		NAD83 UTM Zone 12		Foothills Okotoks Regional Water Project			
DRILL TYPE: Sonic		EAST: 304087 NORTH: 5633130		ELEVATION: 951.90 (masl)			
FILL TYPE: ☐ Backfill ☒ Bentonite ☐ Grout ☐ Open Hole ☐ Cement ☐ Sand ☒ Slough ☐ Unknown							
SAMPLE TYPE: ☒ Shelby Tube ☐ No Recovery ☒ Split Spoon ☐ Disturbed ☐ Dynamic Cone ☐ Core ☐ Grab Sample							
Depth (m)	SOIL DESCRIPTION	SAMPLE	WELL INSTALLATION Borehole diam. = 0.150 m	Recovery (%) [●]			
0.00-1.20	mbgl: SAND, brown, very fine grained, silty		Stickup (TOC) = 0.73 magl Bentonite from 0.00 to 5.79 mbgl Filter sand (10-20) from 5.79 to 9.14 mbgl PVC screen (0.010 slot, 0.051 m diameter) from 6.10 to 9.14 mbgl Bentonite from 9.14 to 10.67 mbgl	20	40	60	80
1.20-9.10	mbgl: GRAVEL, some cobbles, local medium grained, poorly sorted, sand						
3.90	... wet at 3.90 mbgl						
5.79							
6.10							
9.14							
9.10-10.67	mbgl: SHALE, grey-green, sharp contact						
10.10	... dry at 10.10 mbgl						
10.67	END OF HOLE AT 10.67 m Water Level Date 13-May-2024						
15							
		TYPE: Groundwater Monitoring Well		COMPLETION DEPTH: 9.14 (m)			
		LOGGED BY: CG		COMPLETION DATE: 25-Apr-24			
		CHECKED BY: SS		Date printed: 08-Aug-2024			

SITE: Foothills Okotoks Regional Water Project		EAST: 304070 NORTH: 5633166	
DRILLER: Aaron Drilling		DRILL TYPE: Air Rotary	
		BOREHOLE: PW001	
		ELEVATION: 951.33 (masl)	
INSTALLED BY: Waterline Resources Inc.			
FILL TYPE: ☐ Backfill ☒ Bentonite ☐ Grout ☐ Open Hole ☐ Cement ☐ Sand ☒ Slough ☐ Unknown			
SAMPLE TYPE: ☒ Shelby Tube ☐ No Recovery ☒ Split Spoon ☐ Disturbed ☐ Dynamic Cone ☐ Core ☐ Grab Sample			
Depth (m)	Elevation (masl)	DRILLING OBSERVATIONS	WELL INSTALLATION
			Casing diam. OD = 0.305 m Borehole diam. = 0.305 m
951		0.00-2.30 mbgl: SAND dark brown, very fine grained, silty, moist, low cohesion, well sorted	Stickup = 0.69 magl
950			0.305 m OD casing from 0 to 7.04 mbgl
949		2.30-4.60 mbgl: GRAVEL coarse grained, cobble to boulders present, quartzite cuttings (hard drilling)	
948		... sandy (coarse grained) matrix @ 3.00 mbgl ... sandy (medium to coarse grained) matrix @ 3.70 mbgl ... some silty fine grained sand @ 4.00 mbgl	
947			Initial Water Level 4.33 mbgl
946		4.60-4.90 mbgl: SAND fine to medium grained, some gravel	
945		4.90-6.40 mbgl: SAND (medium grained) and GRAVEL, locally silty ... pebble to cobble gravel, subrounded pebbles in matrix, wet @ 5.30 mbgl	
944		6.40-6.70 mbgl: SAND (very coarse grained), trace gravel (coarse grained), wet, well sorted	Top of K-Packer 6.29 mbgl
943		6.70-10.70 mbgl: GRAVEL coarse grained, with coarse grained sand matrix	0.254m OD Blank 6.35 to 7.04 mbgl
942		... trace fine grained sand @ 7.30 mbgl	Natural Pack from 6.35 to 13.59 mbgl
941		... medium to coarse grained sand matrix @ 10.10 mbgl	0.254 m OD Stainless steel screen (300-slot;)from 7.04 to 10.08 mbgl
940		10.70-13.70 mbgl: SANDSTONE (fine grained), brown, friable transitioning to SHALE and SANDSTONE, grey-green	
939			
938			
		END OF HOLE AT 13.70m Water Level Date 2-May-24	Bottom of blank 13.40 mbgl Washdown assembly 13.60 mbgl
		TYPE: Water Supply Well	COMPLETION DEPTH: 13.60 (m)
		LOGGED BY: CG	COMPLETION DATE: 3-Apr-24
		CHECKED BY:	Date printed: 17-Aug-2024

SITE: Foothills Okotoks Regional Water Project		EAST: 304093 NORTH: 5633042	
DRILLER: Aaron Drilling		DRILL TYPE: Air Rotary	
		BOREHOLE: PW002	
		ELEVATION: 952.24 (masl)	
INSTALLED BY: Waterline Resources Inc.			
FILL TYPE: ☐ Backfill ☒ Bentonite ☐ Grout ☐ Open Hole ☐ Cement ☐ Sand ☒ Slough ☐ Unknown			
SAMPLE TYPE: ☒ Shelby Tube ☐ No Recovery ☒ Split Spoon ☐ Disturbed ☐ Dynamic Cone ☐ Core ☐ Grab Sample			
Depth (m)	Elevation (masl)	DRILLING OBSERVATIONS	WELL INSTALLATION
			Casing diam. OD = 0.305 m Borehole diam. = 0.305 m
952		0.00-3.66 mbgl: SAND brown, very fine grained, silty, moist, low cohesion, massive	Stickup = 0.74 magl
951			0.305 m OD Casing from 0 to 6.35 mbgl
950			
949			
948		3.66-8.53 mbgl: SAND and GRAVEL, trace clay, sub-rounded to rounded pebbles, interbedded sand and gravel sequences	
947		... wet @ 4.30 mbgl	
946		... very fine to medium grained sand and silt bed, grey-brown @ 4.90 mbgl	Initial Water Level 5.45 mbgl
945		... possibly rafted sandstone boulder (medium to coarse grained) grey @ 5.20 to 5.50 mbgl	Top of K-packer 5.85 mbgl
944		... coarse grained sand @ 6.10 mbgl	0.254 m OD blank from 6.10 to 6.35 mbgl
943		...sandy gravels @ 7.30 mbgl	Natural pack from 6.35 to 12.67 mbgl
942		8.53- 9.60 mbgl: SAND (coarse grained), less gravel (pebbles) than above	0.254 m OD Stainless steel screen (50-slot) from 6.35 to 9.40 mbgl
941		... quartzite cuttings @ 9.1 mbgl	
940		9.60-9.80 mbgl: SANDSTONE (medium grained)	
939		9.80-10.40 mbgl: SHALE (grey-brown)	
		10.40-11.58 mbgl: SANDSTONE (very fine grained), grey, some oxide staining, competent	
		11.58-12.67 mbgl: SHALE, grey-green	
		END OF HOLE AT 12.67 m Water Level Date 2-May-24	Bottom of blank 12.50 mbgl Washdown valve 12.67 mbgl
		TYPE: Water Supply Well	COMPLETION DEPTH: 12.67 (m)
		LOGGED BY: CG	COMPLETION DATE: 22-Apr-24
		CHECKED BY:	Date printed: 17-Aug-2024

**REFERENCE: SAMPLE MCC PREPURCHASING
AGREEMENT**



REQUEST FOR PROPOSAL

FOR

SUPPLY OF TWO MOTOR CONTROL CENTERS (MCC)

RFP #: 24-133
ISSUED ON: November 12, 2024
CLOSING DATE AND TIME: December 9, 2024 AT 2:00PM LOCAL TIME



Addendum # 1

Bid Opportunity: 24-133 -Supply of Motor Control Center

Closing Date: Monday, December 9, 2024 2:00 PM

AMENDMENT OF SPECIFICATIONS

Specification Section 26 24 19 – Add item 2.1.1.2.9 as follows:

Include IR windows capable of viewing power wiring terminations or connection points. IR windows are to maintain the arc flash rating of the same enclosures without windows. Window optic material to be UL746 compliant, visual, UV and IR transmissive polymer. Window to have aluminum reinforcing grill with hinged door and latch. Window quantity, shape, and size to be suitable for each enclosure.

QUESTIONS AND ANSWERS

Question 1:

Please advise how to be considered as an approved manufacturer?

Answer 1:

Respondents that submit proposals that meet the criteria and technical specifications outlined in the RFP documents will be considered if they can demonstrate the following in their submission:

- Have a manufacturer record of at least 5 years;
- Ensure the equipment is of comparable quality;
- Have a demonstrated track record of providing regional support; and
- Confirm spare/replacement parts availability.

Question 2:

The document for the tender is password protected, can you please send us the unlocked copy RFP# 24-133 - FORW MCC Pre-Purchase (Final RFP).

Answer 2:

There are no other versions available. Documents that need to be amended (like the appendices) are uploaded as fillable documents.

Question 3:

Are refurbished MCC sections with Intertek certification acceptable?

Answer 3:

Only new product with CSA approval will be acceptable.

Question 4:

Is the generator system to be separately grounded at site or will the generator ground path be tied into the MCC system? This will determine if the ATS is to switch the neutral upon transfer of power.

Answer 4:

For each site, the generator and MCC will connect to a common ground grid. Each ATS is to have a solid neutral.

Question 5:

What is the overall kA rating that is intended for the MCC's?
42kA rated bracing is noted in the bus configuration, but not the main breaker.

Answer 5:

The MCCs are to have a short circuit rating of 25kA.

Question 6:

Please confirm the requirement of a motor operated breaker for the 1200A.

Answer 6:

Motor operated breakers are not required.

Summary, Contents & Instructions:

Summary:

Through this Request for Proposal (RFP), the Town of Okotoks (Town) seeks to select and contract with a supplier to supply, deliver, test, and support the commissioning of two Motor Control Centers (MCC), which will form part of the Town's project to build an Intake Pump Station and Mid-Line Pump Station for the Foothills Okotoks Regional Water (FORW) project during 2025-2026.

The Town is conducting this RFP now, while completing detailed design for construction of the project, in order to pre-order the equipment and commence the order process for this long lead-time item. The Town's intent is to assign this equipment to its construction contractor(s) for the Foothills Okotoks Regional Water Intake Pump Station and Mid-Line Pump Station projects, once the contractor(s) is/are selected through a separate RFP early of 2025.

Full details on the equipment plus ancillary services required are provided in Part A hereto.

Contents:

This Request for Proposals (the "RFP") is organized into the following parts:

- **Part A: The Equipment & Services** – full details of the Equipment & ancillary services required
- **Part B: The RFP Process** – the process for submissions, evaluation and award of the Contract
- **Part C: The Contract** – the Contract the Town will enter into with the selected Supplier
- **Part D: Submission Forms** – the forms a Respondent should submit in their Proposal
- **Exhibits:**
 - **Schedule A:** Technical Specifications

Instructions:

Whenever you see the following symbol and box throughout this document, this box is providing instructions to a Respondent on what this section means and/or what a Respondent must do:

Example:

	Whenever you see this box throughout the RFP document, the text is providing instructions or information on what this section means and/or what a Respondent must do.
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Part A: The Equipment & Services



This Part A provides details on the backup power generator equipment and ancillary services (collectively referred to herein as the "Equipment") required by the Town of Okotoks (the "Town"). Respondents should ensure they are fully capable of providing all of the requirements outlined, as this section will form part of the specifications and requirements in the final Contract.

1. Introduction:

The Scope of Work shall include the design, supply, delivery, commissioning support, and testing support of all equipment and appurtenances required for two (2) motor control centers and ancillary components (the "Equipment") at the Foothills Okotoks Regional Water (FORW) Intake Pump Station and Mid-Line Pump Station.

2. Background:

2.1. The Town of Okotoks:

The Town of Okotoks (the "Town") is a municipality located south of Calgary, Alberta, Canada. Further details on the Town can be found at: www.okotoks.ca.

2.2. Background – FORW Mid-Line Pump Station Project:

The work outlined in this RFP is specific to the construction of an Intake Pump Station and a Mid-Line Pump Station construction project. The Equipment for each station is different, as outlined in the Specifications, to meet the needs of the individual station. Installation and commissioning of the Equipment will be performed by a general contractor for each pump station (referred to herein as the "Contractor"), which the Town intends to select following a separate RFP early in 2025. However, the successful supplier (the "Supplier") following this RFP, shall support the Contractor(s) with the commissioning of the equipment as identified in Schedule A. The Contractor(s) will perform a project involving the construction of two pump stations that serve to deliver water from a intake at the confluence of the Bow and Highwood rivers to the Mid Line Pump Station site, which will deliver water from a raw water reservoir to two receiving points through a raw water transmission line: The Okotoks water treatment plant (WTP) and an Aldersyde raw water storage reservoir. Construction for the pump stations will be completed under two separate construction contracts. However, staging and timing details have not yet been determined, as the detailed design for both projects is currently ongoing.

2.3. Motor Control Center Equipment Pre-Purchase:

The Town intends to construct the FORW Intake and Mid-Line Pump Station projects during 2025-2026, which will include the installation and commissioning support of the Equipment.

The detailed design for the wider projects will advance during the anticipated lead time

Supply of Motor Control Center (MCC)

to supply the Equipment. Therefore, the Town seeks to pre-select and contract for the supply of the Equipment now. The detailed design for the FORW Pump Stations will be completed, and then construction contractor(s) to build the Stations will be selected. The Town's intention is to assign the Equipment over to the Contractor(s). It is not yet known whether the Intake Pump Station and Mid Line Pump Station will be awarded to one or two contractors. This will be determined at a later date.

3. Motor Control Center Equipment & Ancillary Services Required (the "Specifications"):

- 3.1. The motor control center Equipment supplied under the Contract should meet all the requirements of the Specifications listed below (the "Specifications") and shall be as per the Equipment Specified by the Respondent in Part D, *Appendix B – Proposed Equipment Details Form*. In case of any conflict between the Specifications listed below and the Respondent's Appendix B, then the requirements of the Specifications shall take precedence. Any deviations proposed by the Respondent will be evaluated by the Engineer to ensure the necessary performance criteria of the Equipment is met.
- 3.2. The Specifications which the Equipment should meet are as follows (all contained in "Schedule A – General Description of Equipment and Specifications", available under the Documents section on the Bidding Portal):
 - 26 05 00 – Basic Electrical Requirements
 - 26 24 19 – Motor Control Centers
 - 26 29 23 – Variable Frequency Drives
 - 26 36 23 – Automatic Transfer Switch

4. Delivery Lead Time and Performance Schedule:

The Town requires the Equipment shop drawings to be submitted for review no more than 3 weeks from signing the Contract. The Town requires the Equipment to be delivered on site to the FORW Intake and Mid-Line Pump Station, respectively no later than October 28, 2025.

5. Equipment Warranty:

All Equipment supplied shall come with a warranty against defects in materials or workmanship, for a period of 24 months from completion of Equipment commissioning. Warranty terms shall be as per the Contract in Part C and the Suppliers' Proposal in Part D, *Appendix D – Warranty Details*.

Part B: The RFP Process



This Part B details the terms and conditions of how this RFP process will be run by the Town, and how the Supplier will be selected. Respondents to this RFP must ensure they follow all the terms detailed below. Failure to follow the terms of this Part B may result in a Proposal being rejected.

1. Key Details:

1.1. Questions Regarding this RFP:

Any question a Respondent has related to this RFP process must be submitted to the Town through the Bids & Tenders System by clicking on the "Submit a Question" button for the specific bid opportunity.

Questions regarding this RFP must not be submitted to the Town via any other method. Answers to questions received will be provided either directly to the Respondent or via an addendum to all Respondents, through the Bids & Tenders System. Information obtained from any source other than the Town through the Bids & Tenders System is unofficial and must not be relied upon as part of this RFP.

All questions regarding this RFP must be submitted prior to the 'Deadline for Questions' detailed under Section 1.2 of this Part B. Questions received after the Deadline for Questions will be addressed if time permits.

The Respondent is solely responsible for seeking any clarification required regarding this RFP, and the Town shall not be held responsible for any misunderstanding by the Respondent.

1.2. Timetable:

This RFP process will run to the following timetable. This timetable may be amended at the Town's discretion through the issuance of an addendum to this RFP.

Event:	Date:
Issue Date of this RFP	November 12, 2024
Deadline for Questions	November 27, 2024 at 2:00PM local Time
Last Day for Issue of Addenda	November 29, 2024
RFP Closing Date and Time:	December 9, 2024 at 2:00PM Local Time

1.3. Site Meeting:

No Site Meeting will be held for this RFP.

1.4. Submission of Proposals (Location, Date & Time, Format):

Proposals to this RFP should be submitted in accordance with the following:

- **Electronic Submissions Only:** Proposals must be submitted electronically through the Town's online *Bids & Tenders* System at <https://okotoks.bidsandtenders.ca>. Proposals sent by Email, paper copy, fax, or other methods will not be accepted.
- **RFP Closing Date and Time:** Electronic Proposals must be completed and confirmed as 'submitted', in accordance with the submission requirements of the *Bids & Tenders* System instructions, no later than the RFP Closing Date and Time detailed in Section 1.2. The RFP Closing Date and Time shall be determined by the *Bids & Tenders* System web clock. Late submissions are not permitted in the *Bids & Tenders* System.
- **Format:** A Proposal must be submitted in accordance with the *Bids & Tenders* System submission requirements, which will include submitting all of the information required in the forms listed under Part D – Submission Forms, of this RFP.
- ***Bids & Tenders* System Instructions:**
 - All Respondents shall have a *Bids & Tenders* System 'Vendor Account' and shall be registered as a 'Plan Taker' for this RFP opportunity, which will enable the Respondent to follow the on-screen instructions to: download the RFP document; receive addenda email notifications; download addenda; and submit a Proposal electronically through the *Bids & Tenders* System.
 - Respondents are cautioned that the timing of their Proposal submission is based on when the Proposal (also referred to in the system as the "Bid") is received by the *Bids & Tenders* System and not when a Proposal is submitted. Uploading of Proposals can be delayed due to file transfer size, transmission speed and other factors. For this reason, it is recommended that Respondents allow sufficient time to upload their Proposal, including all attachments and other submission details.
 - If any problems are encountered in using the *Bids & Tenders* System, Respondents should contact the *Bids & Tenders* Support team at support@bidsandtenders.ca at least 24 hours prior to the RFP Closing Date and Time.
 - Once a Proposal is successfully submitted, the *Bids & Tenders* System will send a confirmation email to the Respondent advising that the Proposal was submitted successfully. If this confirmation email is not received, Respondents should contact support@bidsandtenders.ca.
 - Attachments uploaded to the *Bids & Tenders* System should not exceed 20MB in total file size.

The Town of Okotoks assumes no responsibility for the receipt of Proposals where the instructions detailed above, or on the *Bids & Tenders* System, have not be complied with.

2. Definitions Used in this RFP:



The following are definitions used in this RFP document. Whenever one of the following terms is used with a capitalized first letter, the term shall have the meaning as set out below. Some definitions below repeat those already detailed in Part A for completeness.

- 2.1. "Addenda" or "Addendum" means additional information or amendments to this RFP, issued by the Town in accordance with Section 5 of this Part B.
- 2.2. "Bid", "Bids" or "Tenders" are terms used in the *Bids & Tenders* System and mean either the RFP opportunity within the system, or an aspect of the RFP opportunity, depending on the context. The use of these terms in no way infer that this RFP is an irrevocable bid or tender process.
- 2.3. "*Bids & Tenders* System" means the Town's online bidding platform, which all Respondents must register, login and follow in order to submit a Proposal to this RFP. The *Bids & Tenders* System is accessed at <https://okotoks.bidsandtenders.ca>.
- 2.4. "Contract" means a written agreement for the provision of the Equipment and services that may result from this RFP, executed between the Town and the successful Respondent. Following execution of the Contract, the successful Respondent is then referred to as the 'Supplier'.
- 2.5. "Contractor" means the general contractor for construction that the Town contracts with to perform the FORW Intake and/or Mid-Line Pump Station project.
- 2.6. "Engineer" means the Town's design and engineering consultant for the FORW Mid-Line Pump Station project.
- 2.7. "Equipment" means the Motor Control Center (MCC) Equipment plus the Ancillary Services, which the Town seeks to be provided by the Supplier, as detailed in the Specifications and Part A.
- 2.8. "Manufacturer" means the original manufacturer of the Backup power Equipment or component part of the Equipment, which may or may not be the same entity as the Supplier.
- 2.9. "Proposal" means a Proposal submitted by a Respondent in response to this RFP.
- 2.10. "RFP Closing Date and Time" means the date and time that Proposals to this RFP must be received by in accordance with Section 1.4 of this Part B. The time will be determined by the *Bids & Tenders* System web clock.
- 2.11. "Respondent" means a person or entity that submits a Proposal to this RFP.
- 2.12. "RFP" means this Request For Proposals #XX-XXX, including all Parts A to D and Schedules.
- 2.13. "Section" means the numbered section of the referenced part of this RFP.
- 2.14. "Specifications" means the Town's requirements for the Equipment, as detailed in Part A of this RFP.
- 2.15. "Sub-Contractor" means a person, partnership, firm or corporation that the Respondent proposes to contract with to deliver part of the Equipment or ancillary services, in a subordinate relationship to the Respondent.

5.1. "Supplier" means the successful Respondent to this RFP, which the Town enters into the Contract with for the supply of the Equipment.

2.16. "Town" means the Town of Okotoks

3. Amendment of a Proposal by Respondent:

A Respondent may amend a Proposal at any time up until the RFP Closing Date and Time. Amendments may be submitted in the same way as the original Proposal, as detailed in Section 1.4 of this Part B.

4. Withdrawal of a Proposal by Respondent:

A Respondent may withdraw a Proposal that is already submitted at any time throughout the RFP process, including after the Closing Date and Time. To withdraw a Proposal before the Closing Date and Time, the Respondent should amend the Proposal through the *Bids & Tenders* System.

5. Addenda Issued by Town:

This RFP may only be amended by way of an Addendum issued in accordance with this Section. At any time up until the Closing Date and Time, the Town may issue an Addendum in order to amend, clarify, or answer questions to this RFP. Each Addendum will be issued through the RFP opportunity on the *Bids & Tenders* System. Each Addendum will form an integral part of this RFP. Respondents are solely responsible for checking for Addenda up until the Closing Date and Time. If the Town deems it necessary to issue an Addendum after the Last Day for Issue of Addenda, as detailed in Section 1.2 of this Part B, then the Town may extend the RFP Closing Date and Time in order to provide Respondents with more time to complete their Proposal.

Respondents will be requested to acknowledge any addenda issued through the *Bids & Tenders* System before they can submit a Proposal.

6. Evaluation of Proposals & Award of Contract:

The Town will conduct the evaluation of Proposals and selection of a successful Respondent in accordance with the process detailed in this Section. Evaluation of Proposals will be by an evaluation committee which may include Town employees and the Town's Engineer. The Town's intent is to enter into a Contract with the Respondent who has met all mandatory criteria, and who has the Lowest Total Stipulated Contract Price.

6.1. Mandatory Criteria:

Proposals not clearly demonstrating that they meet the following mandatory criteria will be excluded from further consideration in the evaluation process.

Mandatory Criteria:

1. The Proposal must be received by the Closing Date and Time, in accordance with the requirements of Section 1.4
2. The Appendix A – Pricing Form (Microsoft Excel or PDF version) must be completed and submitted in the format required.
3. The Appendix B – Proposed Equipment Details Form must be completed and submitted, and must meet all of the 'Pass' Criteria as listed in Appendix B.
4. The Appendix C – Schedule/Lead Times Form submission of the Proposal must meet all of the 'Pass' Criteria as listed in Appendix C.
5. The Appendix D – Warranty Details Form submission of the Proposal must meet all of the 'Pass' Criteria as listed in Appendix D.
6. The Appendix E – Exceptions to Contract Form must be completed and submitted in the format required.

6.2. Scored Criteria:

Proposals that meet all of the Mandatory Criteria will be further scored based on 'Total Stipulated Contract Price' (as shown in Appendix A Pricing Form) in accordance with the following:

- a) The Respondent that submits a Proposal with the Lowest 'Total Stipulated Contract Price' out of all Proposals received and meeting the required technical specifications detailed in Schedule A, will be the 'Highest-Ranked Respondent' and will be the first Respondent invited to enter into discussions to conclude a Contract for the Work, as per the process detailed in Sub-Section 6.6.
- b) Should the Town and the Highest-Ranked Respondent not execute a contract as per subsection 6.6, then the Respondent with the next-highest ranked Proposal will be the Respondent that submitted the next Lowest Total Stipulated Contract Price, and meeting the required technical specifications detailed in Schedule A. Should the Town not execute a contract with the next-highest ranked Respondent, then The Town will continue to seek to execute a Contract in this same order of next Lowest Total Stipulated Contract Price.
- c) The Town may cancel the RFP process entirely should the 'Total Stipulated Contract Price' (excluding GST) for the Work submitted by the Highest-Ranked Respondent, or next highest ranked Respondent, not be within the Town's maximum budget for the Work.

6.3. N/A

6.4. Clarifications & Remedy Period:

Notwithstanding the requirements for mandatory criteria and scored criteria detailed in this Section 6, the Town will allow the following remedies and clarifications at its sole discretion:

- Remedy for missing submission requirements: If the Town finds that a Proposal fails to meet all of the submission requirements required of this RFP, then the Town may provide written notification to a Respondent which identifies the requirements not met and provides the Respondent with 24 hours to remedy and supply the requirements. The 24 hours shall commence upon notification by the Town to the Respondent. This option to remedy missing requirements shall not apply to Proposals not received by the RFP Closing Date and Time or failure to submit Pricing not conform the Town's requirements.
- Clarification of Proposals: During evaluation of the scored criteria, the Town may at its sole option, request further details or clarification from the Respondent and/or third parties, on aspects of a Proposal by way of a written request for clarification. The written request shall clearly state the required clarification and time limit to supply the information requested. Following receipt of the clarification information, the Town may use this information to reassess and/or re-score the Proposal according to the scored criteria.

6.5. N/A

6.6. Conclusion and Execution of a Contract

The Respondent will not be legally bound to provide the Equipment until the execution of a written Contract. Following an invitation to a Respondent, by the Town, to conclude a Contract, it is expected that the Town and that Respondent would enter into discussions which may include, among other things:

- Clarification or amendment to the specifications, plus any resulting price adjustments, based on items submitted in the Proposal.
- Amendments to the terms and conditions of the Contract (Part C), based on items submitted in the Proposal.

The Town would seek to execute a Contract within 10 days of issuing an invitation to the Respondent to conclude a Contract. If the Town and Respondent do not, for any reason, execute a Contract within this time-period, the Town may discontinue the process with that Respondent and invite the Respondent with the next-highest-ranked Proposal to conclude a Contract. The Town may then continue this process until a Contract is executed, or there are no further Respondents, or the Town otherwise elects to cancel the RFP process entirely. For clarity, the Town may discontinue discussions

with a Respondent if at any time the Town is of the view that it will not be able to conclude a Contract with that Respondent.

7. Other Terms & Conditions of this RFP Process:

The following terms and conditions shall also apply to this RFP:

7.1. Proposals in English:

All Proposals are to be in the English language only.

7.2. Only One Entity as Respondent:

The Town will accept Proposals where more than one organization or individual is proposed to deliver the Equipment, so long as the Proposal identifies only one entity that will be the lead entity and will be the Respondent with the sole responsibility to perform the Contract if executed. The Town will only enter into a Contract with that one Respondent. Any other entity involved in delivering the Service should be listed as a Sub-Contractor. The Respondent may include the Sub-Contractor and its resources as part of the Proposal and the Town will accept this, as presented in the Proposal, in order to perform the evaluation. All Sub-Contractors to be used in the Service must be clearly identified in the Proposal.

7.3. Proposals to Contain All Content in Prescribed Forms:

All information that Respondents wish to be evaluated must be contained within the submitted Proposal. Proposals should not reference external content in other documents or websites. The Town may not consider any information which is not submitted within the Proposal or in accordance with the forms set-out in this RFP.

7.4. References and Experience:

In evaluating a Respondent's experience, as per the scored criteria, the Town may consider information provided by the Respondent's clients on the projects submitted in the Proposal, and may also consider the Town's own experience with the Respondent or Manufacturer.

7.5. Respondent's Expenses:

Respondents are solely responsible for their own expenses in participating in this RFP process, including costs in preparing a Proposal and for subsequent finalizations of an agreement with the Town, if required. The Town will not be liable to any Respondent for any claims, whether for costs, expenses, damages or losses incurred by the Respondent in preparing its Proposal, loss of anticipated profit in connection with any final Contract, or any matter whatsoever.

7.6. Retention of Proposals and FOIP:

All Proposals submitted to the Town will not be returned and will be retained in accordance with the Freedom of Information and Protection of Privacy Act ("FOIP").

Respondents should note that in accordance with the provisions of FOIP, certain details of this RFP and any executed Contract may be made public, including the Supplier's Name and total Contract price. Respondents should identify with their Proposal any information which is supplied in confidence, however, Respondents should be aware of and review the Town's obligations under FOIP and the Town's limited ability to refuse to disclose third party information pursuant to Section 21 of FOIP.

7.7. Notification and Feedback to Unsuccessful Respondents:

At any time up until or after the execution of a written Contract with the Contractor, the Town may notify unsuccessful Respondents in writing through the *Bids & Tenders* System that they have not been selected to conclude a Contract. Unsuccessful Respondents may then request a feedback email or telephone call with a Town representative in order to obtain feedback on how their Proposal fared in the evaluation. Such requests for feedback must be made within 30 days of notification of the RFP results to the unsuccessful Respondent. Details of feedback provided will be at the Town's sole discretion in order to protect the confidentiality of other Respondents and the Town's commercial interest.

7.8. Conflict of Interest:

All Respondents must disclose an actual or potential conflict of interest, by answering the questions related to Conflict of Interest that are requested of Respondents by the *Bids & Tenders* System when submitting a Proposal. The Town may, at its sole discretion, disqualify any Respondent from this RFP process, if it determines that the Respondent's conduct, situation, relationship (including relationships of the Respondent's employees and Town employees) create or could be perceived to create a conflict of interest.

The Town may rescind or terminate a Contract entered into if it subsequently determines that the Respondent failed to declare an actual or potential conflict of interest during this RFP process.

7.9. Confidentiality:

All information provided to Respondents by the Town as part of this RFP process is the sole property of the Town and must not be disclosed further without the written permission of the Town.

7.10. No Contract A and No Claims:

This RFP process is not intended to create and no contractual obligations whatsoever (including what is commonly referred to as 'Contract A') shall arise between the Town and any Respondent upon the submission of a Proposal in response to this RFP. For extra clarity, both the Respondent and the Town are free to cancel their participation in this RFP process at any time up until the execution of a written Contract for the Equipment.

Without limiting the above paragraph, no Respondent shall have any claim whatsoever against the Town for any damage or other loss resulting from a Respondent's participation in this RFP, including where the Town does not comply with any aspect of this RFP and including any claim for loss of profits or Proposal preparation costs should the Town not execute a Contract with the Respondent for any reason whatsoever.

7.11. Right to Cancel RFP:

Although the Town fully intends to conclude a Contract as a result of this RFP, the Town may at its sole discretion, cancel or amend this RFP process at any time without any liability to any Respondent.

7.12. Governing Law and Trade Agreements:

This RFP is governed by the laws of the Province of Alberta and any other agreements which exist between the Province of Alberta and other jurisdictions.

7.13. RFP Basis:

This RFP is not a tender and does not commit the Town in any way to select a Supplier, or to proceed to negotiations for a Contract, or to award any Contract, and the Town reserves the complete and absolute right, at any time and for any reason, to reject all Proposals, and to terminate this RFP process without compensation to any Respondent. The lowest price Proposal will not necessarily be selected and the Town reserves the right to reject any and all Proposals. Without limitation:

- a) The Town has the right to consider selecting the Proposal, which in its sole discretion, it deems most advantageous to its interests, and in each such case, without giving any notice and without liability to Respondents;
- b) Any awards shall be based on Proposals which the Town perceives, in its sole discretion, as giving the greatest value based on quality, service, price, reputation, experience, and other criteria, whether disclosed or not;
- c) Proposals with qualifying conditions or otherwise failure to conform to these instructions may be disqualified or rejected. The Town may, however, in its sole discretion, elect to retain for consideration Proposals which are non-conforming because they do not contain the content or form required by these instructions or because they have not complied with the process for submission set out herein;
- d) The Town retains the additional right, in its sole discretion, to waive irregularities in the form of submission of the Proposal, whether of a minor or major nature;
- e) The Town may reject any Proposal which omits or fails to include any one or more items in the Proposal for which a price is required by the RFP; and

- f) The Town reserves the right, in its discretion, to further negotiate with any Respondent as detailed in Section 6 of this Part B. In no event will the Town be required to offer any modified terms to any other Respondent prior to entering into a Contract with the Supplier, and the Town shall incur no liability to any Respondent whatsoever under this RFP and the RFP process, including as a result of such negotiations, modifications, or contract awards.

Part C: The Contract



This Part C details the Contract terms and conditions that the Town will enter into with the Supplier at the conclusion of the process outlined in Section 6.6 of Part B.

This Part C is provided for information only, and Respondents are not required to complete any details herein.

CONTRACT FOR THE SUPPLY OF TWO MOTOR CONTROL CENTERS (MCC) EQUIPMENT

THIS AGREEMENT is made as of _____, 2024 (the "Effective Date")

BETWEEN: **TOWN OF OKOTOKS**
5 Elizabeth St, Station Main
Okotoks, AB.
(the "**Town**")

AND: **[SUPPLIER NAME]**

(the "**Supplier**")

WHEREAS the Town wishes to engage the Supplier to supply and provide certain Equipment and related services to the Town and the Supplier wishes to contract with the Town to provide such Equipment and Services to the Town, THIS AGREEMENT is evidence that in consideration of the promises exchanged below, and other good and valuable consideration, (the receipt and sufficiency each party acknowledges), the Town and the Supplier agree as follows:

Definitions

1. In this Agreement, in addition to the words defined above and elsewhere in this Agreement,
 - (a) "**Additional Services**" means the additional work and services, if any, described in **Schedule B**.
 - (b) "**Town Representative**" means _____ or such other person as the Town may appoint in writing.
 - (c) "**Delivery Date**" means the last date for delivery of the Equipment as specified in the Performance Schedule.
 - (d) "**Delivery Services**" means the delivery services described in **Schedule B**.

- (e) **"Engineering Services"** means the engineering services, if any, described in **Schedule B**.
- (f) **"Equipment"** means the equipment described generally in **Schedule A**.
- (g) **"Equipment Price"** means the purchase price amount specified in **Schedule C** for the Equipment, which purchase price excludes goods and services tax ("**GST**").
- (h) **"Equipment Specifications"** means the specifications for the Equipment referred to or listed in **Schedule A** and any changes or additions to such specifications as are approved by the Town Representative in writing in accordance with this Agreement.
- (i) **"Governmental Approvals"** means any licenses, permits, consents, authorizations, certificates, operating certificates and other approvals of any kind from any Governmental Authority that are required for or in connection with the performance of the Services.
- (j) **"Governmental Authority"** means any federal, provincial, local or other government or governmental agency, authority, board, bureau or commission.
- (k) **"Performance Schedule"** means the schedule for the performance of the Services attached as **Schedule D**.
- (l) **"Payment Schedule"** means **Schedule C**.
- (m) **"RFP"** means the Town's Request for Proposals for the Equipment and Services reference #24-133 including any addenda issued by the Town with respect to that Request for Proposals.
- (n) **"Services"** means the following services and work:
 - (i) the supply, manufacturing, testing, and delivery of the Equipment, including the Delivery Services;
 - (ii) the Engineering Services, if any;
 - (iii) the Additional Services, if any.
 - (iv) any other services and work described in this Agreement.
- (o) **"Standards"** means any and all laws, enactments, bylaws, statutes, regulations, rules, orders, permits, licenses, codes, building codes, professional standards and specifications (including Canadian Standards Association standards) applicable to the provision of the Services, as they are in force from time to time or in the latest current version, as the case may be.
- (p) **"Supplier Personnel"** or **"Manufacturer's Representative"** means any individuals identified by name in the Supplier's Proposal and any individuals employed or otherwise engaged by the Supplier to perform the Services with the prior consent of the Town.

- (q) **"Supplier's Proposal"** means the Supplier's written proposal to the Town for supply of the Equipment and Services, dated _____.

Equipment Supply & Purchase

2. In accordance with the terms and conditions of this Agreement, the Supplier shall sell the Equipment to the Town and the Town shall purchase the Equipment from the Supplier.

Supplier Services General Requirements

3. The Supplier shall perform the Services and shall do so in accordance with all Standards and the terms and conditions of this Agreement.

4. The Supplier shall:

- (a) ensure that the Equipment is designed and manufactured so that it meets the Specifications, all applicable Standards and any other requirements of this Agreement;
- (b) supply all labour, machinery, equipment, tools, supplies, material, labour and other services and things necessary to perform the Services in accordance with this Agreement;
- (c) obtain, maintain in good standing and comply with the terms of all Governmental Approvals;
- (d) perform promptly and safely all of its obligations under this Agreement;
- (e) be just and faithful in the performance of its obligations under this Agreement, in its dealings with the public and in its dealings with the Town, the Town Representative and other Town representatives; and
- (f) pay all costs and expenses whatsoever associated with performing the Services and its other obligations under this Agreement.

Schedule

5. The Supplier shall perform the Services in accordance with the Performance Schedule.

6. The Supplier shall deliver the Equipment to the Town, in accordance with the Delivery Services requirements, by no later than the Delivery Date.

7. The Supplier shall not deliver the Equipment to the Town before the '**earliest delivery date**' if any such date is specified in the Performance Schedule.

8. The Town Representative and the Supplier may alter the Performance Schedule by written agreement.

Supplier Personnel

9. The Supplier shall use only the Supplier Personnel to perform the Services to be performed by such Supplier Personnel as identified in the Schedule B, unless otherwise approved in writing by the Town Representative.

10. If it is necessary to replace an individual who is Supplier Personnel because of death, illness or injury, resignation or employment termination, the Supplier shall promptly arrange for a replacement who is acceptable to the Town Representative and who has been fully trained for the provision of the Services.

11. The Supplier shall ensure that all Supplier Personnel are at all times available to perform the Services required to be performed by them.

12. The Supplier represents and warrants to, and covenants with, the Town that the Supplier and the Supplier's employees who perform the Services, including the Supplier Personnel, have and shall have the education, training, skill, experience and resources necessary to perform the Services in accordance with this Agreement and the Supplier acknowledges and agrees that the Town has entered into this Agreement relying on the representations, warranties and covenants in this section.

13. The Supplier shall promptly remove and replace any employee performing any of the Services where the Town Representative is of the opinion that the individual lacks the skills or qualifications to perform the applicable Services or has, in performing the Services, been negligent or engaged in misconduct and the Supplier shall ensure that any person so removed does not thereafter perform any Services.

Town's Representative

14. The Town appoints the Town Representative as the only person authorized by the Town to communicate with the Supplier in respect of this Agreement and the Services.

Remuneration and Reimbursement

15. The Town shall pay the Supplier for the performance of the Services, including the supply of the Equipment, in accordance with the Payment Schedule. The Supplier shall not be entitled to any compensation whatsoever from the Town, including reimbursement for Supplier costs and expenses, except as set out in Payment Schedule and as may otherwise be approved by the Town Representative by way of Contract Addendum (as defined below).

16. Except as expressly provided in this Agreement, the Supplier shall be solely responsible for all costs and expenses associated with performing the Services and the Supplier's other obligations

under this Agreement, including costs of manufacturing, assembly, storage, labour, supervision, management, overhead, insurance, equipment, transportation, travel, fuel, delivery, tools, supplies and materials, office expenses, brokerage costs, import duties and taxes (except GST on the Equipment and the Services as applicable).

Taxes

17. The Town shall be responsible for paying any GST payable by the Town as purchaser of the Equipment and the Services.

Invoices & Payment

18. The Supplier may deliver invoices to the Town at such times and for such amounts as may be specified in the Payment Schedule. If and to the extent the Town Representative is satisfied that an invoice is properly due and payable in accordance with the Payment Schedule and is for Services satisfactorily performed by the Supplier, the Town Representative shall approve of the invoice or a portion thereof and the Town shall pay the Supplier the approved portion of the invoice within 30 days after receipt of such invoice by the Town.

19. The Supplier shall ensure that all invoices under the preceding section show an itemized list of the tasks with respect to which payment is claimed, with such specification as may be required by the Town Representative, and the Supplier shall attach to each such invoice a brief report detailing the Services completed to date, the Services completed during the period covered by the invoice and the outstanding Services.

20. Notwithstanding any other provision of this Agreement, in no circumstances shall the Town be obligated to make further payment to the Supplier if and for so long as the Town Representative is of the opinion that the compensation paid to the Supplier to date as a share of the total compensation that is payable to the Supplier to complete the Services exceeds the Services completed to date as a share of all of the Services and in such circumstances the Town Representative may choose not to approve of an invoice or a part thereof.

21. Where this Agreement permits the Town Representative to refuse to approve of all or a part of an invoice, no interest shall be payable by the Town to the Supplier with respect to such unapproved invoice or portion thereof.

Changes to Equipment or Services

22. The Town may request that the Supplier make changes to the Equipment Specifications or that the Supplier perform services in addition to the Services.

23. No change to the Equipment Specifications shall be effective, and the Supplier shall not proceed with any services in addition to the Services or be entitled to any compensation for such additional services, except where the change to the Equipment Specifications or provision of additional services

and the change in Supplier compensation for such change in Equipment Specifications or additional services, as the case may be, are approved by a written addendum to this Agreement that meets all of the following requirements (a "**Contract Addendum**"):

- (a) The addendum must be in writing and entitled "Contract Addendum";
- (b) The addendum must be signed by the Town Representative and the Supplier;
- (c) The addendum must describe the additional services or Equipment Specification change and identify them as "Additional Services" or "Equipment Specification Change"; and
- (d) The addendum must specify the change in compensation to be paid by the Town to the Supplier resulting from such Equipment Specification change or additional services, including any details regarding the timing of and pre-conditions to such payment.

Certificate of Acceptance, Title and Risk

24. Following delivery to the Town in accordance with all Delivery Services requirements to the satisfaction of the Town Representative, the Town Representative, together with such other Town employees, contractors, consultants and advisors as the Town Representative considers advisable, shall inspect the Equipment and if the Town Representative is satisfied with such visual inspection that the Equipment meets the requirements of this Agreement, the Town Representative shall confirm the Town's acceptance of the delivery of the Equipment by issuing and signing a written acceptance certificate (the "**Certificate of Acceptance**").

25. For clarity, no inspection of the Equipment by the Town Representative or any Town employees, contractors, consultants and advisors shall affect the Supplier's obligations under this Agreement, nor shall issuance of the Certificate of Acceptance affect such Supplier obligations, including the Supplier's obligation to ensure the Equipment meets the Equipment Specifications, all applicable Standards and all other requirements of this Agreement.

26. Title to the Equipment shall vest to the Town upon full payment of the Equipment and risk shall pass to Town upon delivery of the Equipment.

Equipment Warranty and Warranty Holdback

27. The Supplier warrants that:

- (a) the Equipment shall be manufactured in accordance with, and shall meet, the Equipment Specifications and all applicable standards,
- (b) the Equipment shall, on delivery to the Town, be free of all defects and deficiencies;

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- (c) upon issuance of the Certificate of Acceptance, the Town shall have and enjoy quiet possession of the Equipment and the Equipment shall be free from any charge or encumbrance in favour of any third party; and
- (d) the Equipment shall be fit for the Town's proposed use of the Equipment as set out in the RFP.

28. If during the one-year period following the date of issuance of the Certificate of Acceptance (the "**Warranty Period**"), the Town identifies any defects or deficiencies in the Equipment, the Town may, by its own forces or using contractors, correct and remedy such defect or deficiency and the Supplier shall pay the Town's cost of doing so if the Supplier does not correct and remedy such defect or deficiency within 14 days following notice from the Town. For clarity, the Town's rights under this section shall not affect any warranty provided by the Supplier under this Agreement.

Manufacturer Warranties & Operating Manuals

29. Prior to the issuance of the Certificate of Acceptance, the Supplier shall deliver to the Town Representative:

- (a) all warranties provided by the manufacturers of components of the Equipment, including any warranties specifically required in the Equipment Specifications,
- (b) such documentation as the Town Representative may require in order to assign the warranties under the preceding paragraph to the Town, duly executed by the Supplier; and
- (c) all operating manuals pertaining to the Equipment

Indemnity

30. The Supplier shall indemnify, and save harmless, the Town, and its elected and appointed officials, employees, Suppliers and agents, from and against all claims, losses, damages, costs, expenses (including legal fees and disbursements), liabilities, actions and proceedings, suffered, made, incurred, sustained, brought, prosecuted, threatened to be brought or prosecuted, in any manner caused by, based upon, occasioned by or attributable to, any wilful or negligent act or omission, or other actionable wrong, on the part of the Supplier, its employees, Suppliers or agents, connected with the performance or breach of this Agreement by the Supplier. The Supplier's obligations under this section shall survive the expiry or earlier termination of this Agreement.

Insurance Requirements

31. The Supplier shall obtain and maintain during the currency of this Agreement:

- (a) commercial general liability insurance providing coverage for death, bodily injury, property loss and damage and all other losses arising out of or in connection with

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- the provision of the Services in an amount not less than \$5,000,000 per occurrence; and
- (b) automotive liability insurance for all motorized vehicles (owned and not owned) used in the provision of the Services in an amount of not less than \$2,000,000 per occurrence.

32. The Supplier shall cause all policies of insurance required to be taken out by it under this Agreement to be with insurance companies satisfactory to the Town and to:

- (a) name the Town as additional insured;
- (b) include that the Town is protected notwithstanding any act, neglect or misrepresentation by the Supplier which might otherwise result in the avoidance of a claim and that such policies are not affected or invalidated by any act, omission or negligence of any third party which is not within the knowledge or control of the insureds;
- (c) be issued by an insurance company entitled to carry on the business of insurance under the laws of Alberta;
- (d) be primary and non-contributing with respect to any policies carried by the Town and shall provide that any coverage carried by the Town is in excess coverage;
- (e) not be cancelled or materially changed without the insurer providing the Town with 30 days written notice stating when such cancellation or change is to be effective;
- (f) be maintained for a period of 12 months per occurrence; and
- (g) include a cross liability clause.

Insurance Certificates

33. The Supplier shall provide the Town with certificates of insurance confirming the placement and maintenance of the required insurance, promptly after a request to do so from time to time by the Town.

Town May Insure

34. If the Supplier fails to insure as required, the Town may effect the insurance in the name and at the expense of the Supplier and the Supplier shall promptly repay the Town all costs incurred by the Town in doing so. For clarity, the Town has no obligation to effect such insurance.

Workers Compensation

35. The Supplier shall, at all times, in providing the Services and otherwise performing its obligations under this Agreement, comply with the *Workers Compensation Act* and all regulations and orders from time to time in force thereunder, including the Occupational Health and Safety Regulation, and, upon request from the Town, provide evidence of any required registration under

that Act and evidence of compliance with any requirement under that Act to make any payments or pay assessments.

36. N/A.

Termination for Default

37. The Town may terminate all, or any part of, the Services, by giving notice of termination to the Supplier, which is effective upon delivery of the notice, if:

- (a) the Supplier breaches this Agreement and the Supplier has not cured the breach, within five days after notice of the breach is given to the Supplier by the Town; or
- (b) the Supplier becomes bankrupt or insolvent, a receiving order is made against the Supplier, an assignment is made for the benefit of its creditors, an order is made or resolution passed for the winding up or dissolution of the Supplier, or the Supplier takes the benefit of any enactment relating to bankrupt or insolvent debtors.

Without limiting any other right or remedy available to the Town, if the Town terminates part or all of the Services under this section, the Town may arrange, upon such terms and conditions and in such manner as the Town considers appropriate, for performance of all or any part of the Services remaining to be completed, and the Supplier shall be liable to the Town for any expenses reasonably and necessarily incurred by the Town in engaging the services of another person to perform those Services (including the amount by which the fees, disbursements and other costs payable by the Town exceed those that would have been payable to the Supplier for completion of the Services under this Agreement). The Town may set off against, and withhold from amounts due to the Supplier, such amounts as the Town estimates shall be required to cover the Town's costs of correcting any breaches of the Supplier's obligations under this Agreement and to be incurred by the Town to complete all or any part of the Services. Without limiting the rest of this section, if the Town terminates this Agreement before issuance of the Certificate of Acceptance: (i) the Town may elect not to accept or complete the purchase of the Equipment, in which case the Supplier shall repay all amounts paid by the Town to the Supplier pursuant to this Agreement within 21 days following notice from the Town of such election and the Town shall have no further payment obligations to the Supplier pursuant to this Agreement; and (ii) within 21 days following the notice of election under paragraph (i) of this section the Supplier shall, at its expense, pick up the Equipment from the Supplier, failing which the Town may store the Equipment at the expense of the Supplier to be paid by the Supplier within 21 days of receipt of an invoice from the Town from time to time and may at any time (including after any period of storage) elect to deliver the Equipment to the Supplier at the expense of the Supplier to be paid by the Supplier within 21 days of receipt of an invoice from the Town.

Records

38. The Supplier:

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- (a) shall keep proper accounts and records of its performance of the Services, including invoices, receipts and vouchers, which shall at all reasonable times be open to audit and inspection by the Town, which may make copies and take extracts from the accounts and records;
- (b) shall keep reasonably detailed records of performance of the Services, which shall at all reasonable times be open to inspection by the Town, which may make copies and take extracts from the records;
- (c) shall afford facilities and access to accounts and records for audit and inspection by the Town and shall furnish the Town with such information as the Town may from time to time require regarding those documents; and
- (d) shall preserve, and keep available for audit and inspection, all records described in this section for at least two years after completion of the Services, expiry of this Agreement or termination of this Agreement, whichever applies.

Copyright and Intellectual Property

39. The Supplier grants to the Town a non-exclusive, royalty-free licence to the Town for the sole purpose of using, maintaining and operating the Equipment supplied by or on behalf of the Supplier in performing the Services in which copyright may exist, including all drawings, plans, specifications, reports and other documents produced by or for the Supplier in connection with the Services. For clarity, the licences granted by this section shall survive the expiry or earlier termination of this Agreement.

40. N/A.

Town Information - Confidentiality

41. The Supplier shall treat with confidence, and will not, without the prior written consent of the Town Representative, disclose to anyone other than its employees who are performing the Services, or provide anyone (other than such employees) directly or indirectly with access to, any records, reports, studies, documentation, plans and copies thereof, and any other information whatsoever, supplied from time to time by the Town or any of its employees or representatives to the Supplier, or any of its employees or representatives, whether in oral, written, graphic, electronic, machine readable or physical form (other than information that is already in the public domain).

42. If required by the Town Representative, the Supplier shall, and shall cause any employees engaged in performing any of the Services to, execute a confidentiality agreement in such form as may be required by the Town Representative in respect of the Services.

Supplier Confidential Information - *Freedom of Information and Protection of Privacy Act*

43. The Supplier acknowledges and agrees that the Town is subject to the provisions of Alberta's *Freedom of Information and Protection of Privacy Act* (FOIP) under which the Town may be obligated to provide a person with access to any record (as defined in FOIP) in the custody or under the control of the Town and that the authority of the Town to refuse to disclose a record containing third party confidential information is limited as set out in FOIP. If the Supplier considers that information supplied by it to the Town in connection with the performance of the Services is confidential information that should not be disclosed to a person making a request under FOIP, the Supplier should identify this information to the Town and indicate that the information is supplied in confidence. The Supplier should refer to FOIP in this regard and acknowledges and agrees that the Town may be required to disclose Supplier information even where the Supplier stipulates that such information is supplied in confidence. The Supplier acknowledges and agrees that any information included in this Agreement (including in the schedules to this Agreement) is not supplied in confidence.

Conflicts of Interest

44. The Supplier represents and warrants that neither it nor any of its officers, directors, shareholders employees has any financial or personal relationship or affiliation with any Town elected official, officer or employee, or any of their immediate family members, that the Supplier has not disclosed in writing to the Town prior to the execution of this Agreement and the Supplier shall notify the Town should any such relationship or affiliation arise during the performance of the Services under this Agreement. If the Town at any time discovers the existence of any such relationship or affiliation that was not disclosed to the Town before the execution of this Agreement and that, in the Town's opinion, in its sole discretion, gives rise to or may, in the Town's opinion, give rise to a conflict of interest of interest, the Town may terminate this Agreement effectively immediately upon notice to the Supplier.

45. Unless approved in writing by the Town's Representative, the Supplier shall not, during the Term, enter into any contract with, or provide services to or for, any person (including any corporation or partnership of any kind) that, in the Town's opinion, gives rise to or may give rise to a conflict between the Supplier's duties or loyalty to the Town and Supplier's duties or loyalty to such other person. If the Town at any time discovers the existence of such contract or service relationship that, in the Town's opinion, in its sole discretion, gives rise to or may give rise to such a conflict, the Town may terminate this Agreement effectively immediately upon notice to the Supplier.

Agreement for Services

46. This is an agreement for the performance of services and the Supplier is engaged under this Agreement as an independent contractor for the sole purpose of providing the Services. This Agreement does not create a joint venture or partnership. Neither the Supplier nor any of its

employees or contractors is engaged by the Town as an agent of the Town or has any authority to bind the Town in any way whatsoever.

Withholding Taxes & GST

47. The Supplier will pay and remit, and otherwise be responsible for, all withholding taxes, income taxes, Canada Pension Plan contributions, employment insurance deductions and any other deductions required by the applicable provincial or federal statutes for the Supplier and any of its employees. The Supplier agrees to indemnify and hold harmless the Town should the Town be required to pay any remittances described above.

Subcontracting

48. The Supplier shall not subcontract the performance of any of its obligations under this Agreement without the prior written approval of the Town Representative in his or her sole discretion.

Assignment

49. The Supplier shall not assign this Agreement or the benefit hereof without the prior written consent of the Town, at its sole discretion.

Time of the Essence

50. Time is of the essence of this Agreement.

Alternative Rights and Remedies

51. Exercise by the Town of any right or remedy party, whether in or under this Agreement or at law or in equity, shall not limit or affect any other right or remedy of any kind, whatever its source, that the Town may have against the Supplier and shall not affect the Town's rights to exercise other rights or remedies against the Supplier.

Notice

52. Any notice, direction, demand, approval, certificate or waiver (in this section a "**Notice**") which may be or is required to be given under this Agreement shall be in writing and delivered personally or by courier or sent by e-mail, addressed as follows:

- (a) To the Town:
Town of Okotoks
E-mail Address:
Attention:

(b) To the Supplier:

E-mail Address: _____

Attention:

or to such other address or e-mail address of which notice has been given as provided in this section.

A Notice, if delivered personally or by courier, shall be considered given on the day it is delivered or, if sent by email, shall be considered given on the day it is sent, provided that if in either case the day of delivery or sending is not a business day, then the Notice shall be considered given on the next following business day after delivery or sending, as the case may be. In this section, business day means a day other than a Saturday, Sunday or Alberta statutory holiday.

Interpretation and Governing Law

53. In this Agreement

- (a) where the word "including" is followed by a list, the contents of the list are not intended to circumscribe the generality of the expression preceding the word "including";
- (b) reference to the singular includes a reference to the plural, and vice versa, unless the context requires otherwise;
- (c) reference to a particular numbered section or Schedule is a reference to the correspondingly numbered section or Schedule of this Agreement;
- (d) the word "enactment" has the meaning given to it in the *Interpretation Act* (Alberta) on the reference date of this Agreement;
- (e) reference to any enactment is a reference to that enactment as amended or replaced from time to time, unless otherwise expressly provided;
- (f) reference to a month is a reference to a calendar month; and
- (g) section headings have been inserted for ease of reference only and are not to be used in interpreting this Agreement.

54. This Agreement is governed by, and is to be interpreted according to, the laws of Alberta.

Binding on Successors

55. This Agreement enures to the benefit of and is binding upon the parties and their respective successors, trustees, administrators and receivers, despite any rule of law or equity to the contrary.

Entire Agreement

56. This Agreement is the entire agreement between the parties and it terminates and supersedes all previous communications, representations, warranties, covenants and agreements, whether verbal or written, between the parties with respect to the subject matter of this Agreement.

Waiver

57. Waiver of any default by either party shall be express and in writing to be effective, and a waiver of a particular default does not waive any other default.

As evidence of their agreement to be bound by this Agreement, the parties have executed this Agreement below.

TOWN OF OKOTOKS by its authorized signatories:

Signature

Name

SUPPLIER by its authorized signatories:

Signature

Name

RFP# 24-133

Supply of Motor Control Center (MCC)

Schedules:

Schedule A – General Description of Equipment and Specifications (including warranty requirements)

Schedule B – Ancillary Services

Schedule C – Payment Schedule

Schedule D – Performance Schedule

Part D: Submission Forms



This Part D contains forms detailing the information that should be submitted with the Proposal, as detailed in Part B.

Part D Contents:

This Part D contains the following forms:

- Appendix A – Pricing Form
- Appendix B – Proposed Equipment Details Form
- Appendix C – Schedule / Lead Times Form
- Appendix D – Warranty Details Form
- Appendix E – Exceptions to Contract Form

APPENDIX A – PRICING FORM



Proposals must include this Appendix A – Pricing Form, with all pricing tables with blue header-rows completed. No changes to this form shall be made, except for completing the requested pricing and information in the spaces provided.

The form should be completed, and the completed form must be uploaded with the Proposal as prompted by the 'Document Upload' instructions in the *Bids & Tenders* System.

Evaluation Factors:

The pricing submitted under this form will be evaluated using the Scoring Method detailed in Part B of this RFP.

1. Equipment & Services Lump Sum Price:

- a) For supply of the Equipment and ancillary Services, as detailed in Part A, the Town shall pay the Supplier the Total Lump Sum Equipment Price, as detailed below.
- b) All amounts are in Canadian Dollars, and are inclusive of all applicable duties and taxes, except for the GST which shall be itemized separately where indicated.
- c) The Total Lump Sum Equipment Price shall be all-inclusive and fixed for the Contract Term, and shall include for any changes in; inflation, material or component costs, currency exchange rates, or other variable costs over the Contract Term.

ITEM	EQUIPMENT/SERVICES ITEM DESCRIPTION (MID LINE PUMP STATION)	LUMP SUM PRICE
1	Motor Control Center for Mid Line Pump Station, including 2-year warranty and spare parts for the Equipment (as per Specifications/requirements in Part A & Supplier's Proposal)	\$
2	Shop Drawings, O&M Manuals, Instructions for storage, instructions for installation, and Other Submittals for the Equipment (as per the Specifications). Include allowance for modification of shop drawings to reflect 'As-built' conditions following installation and commissioning.	\$
3	Delivery of all Equipment to the Midline Pump Station Site (LSD 14 NW ¼ SEC 21-21-28-4 W4M). Includes loading, transportation, and unloading of the Equipment on site. Coordination with the Contractor of the midline pump station for delivery and unloading.	\$
4	Certification of Equipment Installation, Operation & Maintenance Training and Equipment Performance Testing as defined by the Specifications (Field Start-up/Testing and Commissioning) (Assume 2 Trips of 2 Days each). Price includes labour & overheads, travel to/from site, all expenses & disbursements.	\$
5	End of Warranty Inspection (Assume 1 Trip of 1 Day). Price includes labour & overheads, travel to/from site, all expenses & disbursements.	\$
6	Any Other Costs for Equipment Items / Services to make Equipment fully effective and operational (specify if any):	\$
TOTAL LUMP SUM EQUIPMENT PRICE (Mid Line Pump Station), EXCLUDING GST: (SUM OF ITEMS 1 TO 6)		\$
ITEM	EQUIPMENT/SERVICES ITEM DESCRIPTION (INTAKE PUMP STATION)	LUMP SUM PRICE
7	Motor Control Center for Intake Pump Station, including 2-year warranty and spare parts for the Equipment (as per Specifications/requirements in Part A & Supplier's Proposal)	\$
8	Shop Drawings, O&M Manuals, Instructions for storage, instructions for installation, and Other Submittals for the Equipment (as per the Specifications). Include allowance for modification of shop drawings to reflect 'As-built' conditions following installation and commissioning.	\$

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9	Delivery of all Equipment to the Intake Pump Station Site (LSD 14 NW ¼ SEC 26-21-28-4 W4M). Includes loading, transportation, and unloading of the Equipment on site. Coordination with the Contractor of the midline pump station for delivery and unloading.	\$
10	Certification of Equipment Installation, Operation & Maintenance Training and Equipment Performance Testing as defined by the Specifications (Field Start-up/Testing and Commissioning) (Assume 2 Trips of 2 Days each). Price includes labour & overheads, travel to/from site, all expenses & disbursements.	\$
11	End of Warranty Inspection (Assume 1 Trip of 1 Day). Price includes labour & overheads, travel to/from site, all expenses & disbursements.	\$
12	Any Other Costs for Equipment Items / Services to make Equipment fully effective and operational (specify if any):	\$
TOTAL LUMP SUM EQUIPMENT PRICE (Intake Pump Station) EXCLUDING GST: (SUM OF ITEMS 7 TO 12)		\$
TOTAL LUMP SUM EQUIPMENT PRICE EXCLUDING GST: (SUM OF ITEMS 1 TO 12)		\$

2. Optional Prices:

The following optional Equipment features or Support Services may be executed at the time of the Contract, or throughout the Contract term, at the Lump Sum Price adjustments listed below:

	OPTIONAL EQUIPMENT FEATURES OR SUPPORT SERVICES ITEM:	ADJUSTMENT TO 'TOTAL LUMP SUM EQUIPMENT PRICE' SHOWN IN SECTION 1. ALL PRICES EXCLUDE GST.
1	Extra Site Attendance (1 Trip of 1 Day). Price includes labour & overheads, travel to/from site, all expenses & disbursements.	ADD: \$
2	Other Additional Items or Services (Specify details of any offered in Appendix B, Optional Items)	ADD: \$
3	Per-month charge for storage of the Equipment at the Supplier's facility if the pump site is not for the equipment delivery. (Mid Line Pump Station MCC)	ADD: \$
4	Additional charge to deliver the Equipment to the Town of Okotoks Operations Yard, should the Midline Pump Station Site not be ready to receive the Equipment. (Mid Line Pump Station MCC)	ADD: \$
5	Per-month charge for storage of the Equipment at the Supplier's facility if the pump site is not for the equipment delivery. (Intake Pump Station MCC)	ADD: \$
6	Additional charge to deliver the Equipment to the Town of Okotoks Operations Yard, should the Midline Pump Station Site not be ready to receive the Equipment. (Intake Pump Station MCC)	ADD: \$

3. Equipment Price Payment Schedule:

In accordance with Section 18 of the Contract (Part C of this RFP), the Supplier may deliver invoices to the Town for payment of the Total Lump Sum Equipment Price specified in Section 1 in accordance with the following payment milestones:

Mid Line Pump Station MCC:

- 30% of Total Lump Sum Equipment Price for Mid Line Pump Station MCC following Town's approval of Supplier's Shop Drawings
- 50% of Total Lump Sum Equipment Price for Mid Line Pump Station MCC following completion of Delivery of the equipment at the site of the FORW Midline Pump.
- 20% of Total Lump Sum Equipment Price for Mid Line Pump Station MCC following satisfactory completion of Equipment field Commissioning and Performance Testing in

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accordance with the Specifications, in the Town's sole opinion.

Intake Pump Station MCC:

- 30% of Total Lump Sum Equipment Price for Intake Pump Station MCC following Town's approval of Supplier's Shop Drawings
- 50% of Total Lump Sum Equipment Price for Intake Pump Station MCC following completion of Delivery of the equipment at the site of the FORW Midline Pump.
- 20% of Total Lump Sum Equipment Price for Intake Pump Station MCC following satisfactory completion of Equipment field Commissioning and Performance Testing in accordance with the Specifications, in the Town's sole opinion.

APPENDIX B – PROPOSED EQUIPMENT DETAILS FORM



Proposals must include this Appendix B – Proposed Equipment Details Form, with all tables with blue header-rows completed. No changes to this form shall be made, except for completing the requested information in the spaces provided. Supporting Documents requested should be attached to the Appendix B submission and clearly marked as “Appendix B – Proposed Equipment Details Form: Supporting Documents”.

This form should be completed with; a PDF writer program; or by print, hand completion and scan. The completed form, plus supporting documents, must be uploaded with the Proposal as prompted by the ‘Document Upload’ instructions in the *Bids & Tenders* System.

Scoring Method:

- Pursuant to Part B of the RFP, the evaluation committee will determine during the ‘Mandatory Criteria’ phase whether the Form is a ‘Pass’ or ‘Fail’ according to the following criteria:

Score	Criteria
PASS	a) The Proposal includes all the details and documents requested in sections 1 – 3. b) Compliance with the design requirements outlined in the Equipment Specifications. Where deviations from the Equipment Specifications exist, the Engineer will evaluate to confirm whether the necessary performance criteria of the Equipment are met.
FAIL	The Proposal does not meet the ‘Pass’ criteria stated above.

1. Specification Compliance:

Please check **either** statement A **or** statement B below:

Specification Compliance Statement:

STATEMENT A:

☐

We have read the Equipment Specifications and requirements detailed in Part A, including Specifications:

- 26 05 00 – Basic Electrical Requirements
- 26 24 19 – Motor Control Centers
- 26 29 23 – Variable Frequency Drives
- 26 36 23 – Automatic Transfer Switch

and confirm that the Equipment proposed meets all Specification requirements.

STATEMENT B:

☐

We have read the Equipment Specifications and requirements detailed in Part A, including Specifications:

- 26 05 00 – Basic Electrical Requirements
- 26 24 19 – Motor Control Centers
- 26 29 23 – Variable Frequency Drives
- 26 36 23 – Automatic Transfer Switch

and confirm that the Equipment proposed meets all Specification requirements, except for the variances detailed below: (please specify, attach further sheet if required.)

--

2. Supporting Documents:

If the following information is not included in the base proposal, please attach to your Appendix B submission as "Supporting Documents":

- a) **General Terms and Conditions**
- b) **General MCC Information**
- c) **Layout c/w Description of each section**
- d) **Site Testing and Training Available**

3. Operating Costs, Maintenance and Service Requirements:

- a) **Operating Cost Information:** Please complete the following table for the Motor Control Center Equipment proposed:

#	OPERATING COST ITEM – Mid Line Pump Station MCC
1	
2	
3	
4	
5	
6	
7	
8	

#	OPERATING COST ITEM – Intake Pump Station MCC
1	
2	
3	
4	
5	
6	
7	
8	

b) **Major Component Manufacturers:**

Provide the following details in a consolidated format in the box below:

Provide details on major component manufacturers and systems assembly locations for the Equipment.

Supply of Motor Control Center (MCC)

c) **O&M Task Details:**

Provide the following details in a consolidated format in the boxes below:

List operations and maintenance (O&M) tasks, frequency, manpower, material and equipment required to service the Motor Control Center Equipment components:

d) **Maintenance Shutdowns:**

Provide the following details in a consolidated format in the box below:

List frequency, purpose, and duration of major required maintenance shutdowns:

e) **Owner's Plant Operator O&M Activities:**

Provide the following details in a consolidated format in the box below:

List the O&M activities that can be performed by the Owner's plant operator staff.

f) Spare Parts:

Provide the following details for recommended replacement parts for the Motor Control Center Equipment components for five (5) years of operation:

Mid Line Pump Station MCC

Description	Quantity	Unit Price	Standard Delivery Time	Location
		\$		
		\$		
		\$		
		\$		
		\$		
		\$		
		\$		

Note: The unit prices shall include all applicable custom duties, shipping charges to site and federal sales tax.

Intake Pump Station MCC

Description	Quantity	Unit Price	Standard Delivery Time	Location
		\$		
		\$		
		\$		
		\$		
		\$		
		\$		
		\$		

Note: The unit prices shall include all applicable custom duties, shipping charges to site and federal sales tax.

APPENDIX C – SCHEDULE / LEAD TIMES FORM



Proposals must include this Appendix C – Schedule / Lead Times Form, with the requested information provided.

This section of your Proposal must be labelled as “Appendix C – Schedule / Lead Times Form” and must be uploaded with the Proposal as prompted by the ‘Document Upload’ instructions in the *Bids & Tenders* System.

Scoring Method:

- Pursuant to Part B of the RFP, the evaluation committee will determine during the ‘Mandatory Criteria’ phase whether the Form is a ‘Pass’ or ‘Fail’ according to the following criteria:

Score	Criteria
PASS	The Schedule Dates/Durations meet or exceed all of the Town’s date requirements, as detailed in Part A of the RFP Documents.
FAIL	The Proposal does not meet the ‘Pass’ criteria stated above.

1. Schedule Dates/Durations:

Provide the following details for Schedule Dates/Durations:

We undertake to supply and deliver to the following maximum timelines:

1. Shop drawings sent to Owner's Engineer for Review _____ week(s) from date of receipt of executed purchase contract.
3. Certified Drawings sent to Owner's Engineer ____ days after receipt of Reviewed Shop Drawings.
4. Installation, operating and maintenance manuals provided to Owner's Engineer _____ weeks from receipt of executed purchase contract.
5. All Equipment delivered DDP to Owner's specified site at Okotoks, AB within _____ weeks from Supplier's receipt of Reviewed Shop Drawings from the Owner.
6. Notification required for installation/training/equipment performance testing assistance: _____days.
7. Submission of complete documentation after equipment performance testing: _____days.

APPENDIX D – WARRANTY DETAILS FORM



Proposals must include an Appendix D – Warranty Details Form, with all requested information provided.

This section of your Proposal must be labelled as “Appendix D – Warranty Details Form” and must be uploaded with the Proposal as prompted by the ‘Document Upload’ instructions in the *Bids & Tenders* System.

Scoring Method:

- Pursuant to Part B of the RFP, the evaluation committee will determine during the ‘Mandatory Criteria’ phase whether the Form is a ‘Pass’ or ‘Fail’ according to the following criteria:

Score	Criteria
PASS	The Proposal includes all the details required in Section 1.
FAIL	The Proposal does not meet the ‘Pass’ criteria stated above.

1. Standard Warranty:

Provide, in a format of your choice, details on the Standard Equipment Supplier and Equipment Manufacturer warranties provided with the Equipment proposed, including the length of the warranty period, inclusions and exclusions (labour, parts, costs incurred).

Respondents should note the Owner’s requirement for an Equipment Warranty against defects in materials and workmanship, for a period of 24 months from completion of Equipment commissioning.

APPENDIX E – EXCEPTIONS TO CONTRACT FORM



Proposals must include this Appendix F – Exceptions to Contract Form, with all requested details completed. **No changes to this form shall be made**, except for completing the requested information in the spaces provided.

This section of your Proposal must be labelled as “Appendix F – Exceptions to Contract Form” and must be uploaded with the Proposal as prompted by the ‘Document Upload’ instructions in the *Bids & Tenders* System.

Evaluation Factors:

Factors to be considered during the evaluation in assessing the response to this Appendix will include:

- Ease for the Town in accepting any proposed exceptions to the terms and conditions.

1. Statement on Exceptions to Contract:

Please check **either** statement A **or** statement B below:

STATEMENT A:

☐

We have read the Contract in Part C and confirm we have no exceptions to the terms and conditions detailed, should we be selected as the Supplier.

We further understand that by selecting Statement A, the Town will be relying on this statement in the RFP evaluation, and there will be no further opportunity to make changes to the terms and conditions in Part C should we be selected as the highest-ranked respondent.

STATEMENT B:

☐

We have read the Contract in Part C and we have the following exceptions to the terms and conditions detailed, should we be selected as the Supplier:
(please specify exceptions in space below):

Schedule A

General Description of Equipment and Specifications

1. REGULATORY REQUIREMENTS

- .1 Comply with Safety Codes Act and rules and regulations made pursuant thereto, including the Canadian Electrical Code.
- .2 Unless otherwise indicated, all references to "Canadian Electrical Code" or "CEC" shall mean the edition of the Canadian Electrical Code, Part I, CSA C22.1, and the variations made thereto by Alberta regulation, which are in force on the date of bid closing for the Contract.
- .3 All electrical products shall be tested, certified and labeled in accordance with a certification program accredited by the Standards Council of Canada. Where a product is not so labeled, provide written approval by the authority having jurisdiction.
- .4 Submit to authority having jurisdiction and Utility Company, necessary number of drawings and specifications for examination and approval prior to commencement of electrical work. Pay associated fees.
- .5 Submit to Owner, copy of electrical permit obtained from authority having jurisdiction.
- .6 If authority having jurisdiction conducts an electrical inspection, submit copy of certificate of acceptance provided by authority having jurisdiction.

2. SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

- .1 Submit shop drawings, product data and samples, as specified, indicating details of construction, dimensions, capacities, weights and electrical performance characteristics of equipment and materials.

3. OPERATION AND MAINTENANCE DATA

- .1 Provide the following for all systems and components:
 - .1 Manufacturer's product data, including performance curves and schematic and wiring diagrams for all electrical control systems.
 - .2 Manufacturer's installation instructions.
 - .3 Manufacturer's operation instructions.
 - .4 Manufacturer's maintenance instructions, including complete parts list for all serviceable components.
- .2 Provide a comprehensive list of Subcontractors, Sub-subcontractors and suppliers who supplied and installed systems and components.
- .3 Provide copies of all inspection certification reports from authorities having jurisdiction.

4. RECORD DRAWINGS

- .1 Record actual locations of all pull boxes, panelboards, luminaires, feeders, electrical equipment and electrical site services.
- .2 Record any changes to circuit designations.
- .3 Indicate on record drawings exact dimensioned locations of buried services and embedded or concealed conduits in floors and masonry walls. Obtain acceptance of this information by Engineer before commencing backfilling or concrete placement.
- .4 Include on record drawings all revisions due to engineering change orders, site alterations, additions and field ordered changes made during construction.

5. COORDINATION

- .1 Coordinate work specified in Division 26 with work specified in other Divisions. Ensure that proper arrangements and provisions are made for work specified in Division 26.

6. SOURCE OF SUPPLY

- .1 All like materials shall be by a single manufacturer.

7. REFERENCE STANDARDS

- .1 Comply with standards of following organizations:
 - .1 Electrical and Electronic Equipment Manufacturers Association of Canada (EEMAC).
 - .2 Institute of Electrical and Electronic Engineers (IEEE).

8. PRODUCT OPTIONS AND SUBSTITUTIONS

- .1 Product Options
 - .1 For products specified by Non–proprietary Specification:
 - .1 Select any product by any manufacturer that meets the requirements of the Contract Documents.
 - .2 For products specified by Proprietary Specification:
 - .1 Select any product or manufacturer named; or

- .2 Select a substitute product or manufacturer in accordance with substitutions.
 - .3 For products specified by Proprietary Specification and accompanied by words indicating that substitutions will not be accepted:
 - .1 Select any product or manufacturer named; Substitutions will not be permitted.
- .2 Substitutions
 - .1 Where Substitute Products are permitted, unnamed products will be authorized by the Owner, subject to the following:
 - .1 Substitute Products shall be the same types as, be capable of performing the same functions as, and meet or exceed the standards of quality and performance of the named product(s). Substitute Products shall not require revisions to the Contract Documents nor to work of Other Contractors.
 - .2 Do not order or install Substitutions without the Owner's authorization.
 - .3 If, in the Owner's opinion, a Substitution does not meet the requirements of the Contract Documents, provide a product that, in the Owner's opinion, does meet the requirements of the Contract Documents.
- .3 Changes to Authorized Products and Manufacturers
 - .1 Do not change products or manufacturers, authorized by the Owner for use in performance of the Work, without the Owner's written authorization.

9. DISCONNECTS

- .1 Disconnects: to CAN/CSA C22.2 No.4-M89, heavy duty, lockable, non-fused, with poles, voltage, amperage, kw ratings and enclosures as indicated on drawings and required by CEC to suit application.

10. SUPPORTING DEVICES

- .1 Provide metal brackets, frames, clamps, channels, straps and related devices to adequately support weight of equipment and raceways.

11. TESTING

- .1 Prior to energizing any portion of the electrical system, perform megger tests on all parts of the distribution system. Results shall meet the requirements of the CEC, authority having jurisdiction and the Contract Documents.

END OF SECTION

1. GENERAL

1.1 RELATED SECTIONS

- | | | |
|----|--|-----------------|
| .1 | Basic Electrical Requirements: | Section 260500. |
| .2 | Electrical Starting and Testing by Contractor: | Section 260800. |

1.2 PRODUCT DATA

- .1 Comply with requirements of Sections 260500.

1.3 COORDINATION

- .1 Coordinate installation with Section - Mechanical Equipment Controls to provide a complete integrated functional system.

2. PRODUCTS

2.1 MODULAR MOTOR CONTROL CENTERS

- .1 Motor control centers to CSA C22.2 No. 14-95 and as follows:
- .1 Bus Characteristics:
 - .1 Capacity: as shown on drawings.
 - .2 Construction: rectangular section copper, tin plated joints.
 - .3 Bracing: 42,000 Amperes symmetrical (minimum).
 - .4 Neutral bus: as shown on drawings.
 - .5 Ground bus: Copper.
 - .2 General Construction:
 - .1 To EEMAC standards for construction of Class I motor control center with type B wiring.
 - .2 Dead front, multi-unit, modular type with assembly of vertical stacks containing cubicles sized to house equipment required.
 - .3 Minimum height per module: 305 mm.
 - .4 Horizontal bussing across top or center and vertical bussing down each stack.
 - .5 Wiring gutter across top and bottom and vertically down each stack. Wiring gutter shall be barriered from busway compartments.

- .6 Each module for motor control shall house disconnect breaker, motor control device, relays, and control transformer as shown on drawings. Modules for feeders will house only one or two feeder breakers. All breakers shall have a door mounted operating handle with lock-off facility. Opening of module is restricted by the used of a defeater screw, unless breaker is in the "Off" position.
- .7 Each combination starter or disconnect switch assembly shall be mounted in tub or rack assembly of removable plug-in type with necessary bus connection stabs.
- .8 Blank combination starter spaces shall have hinged cover section provided with full bussing to receive future rack assemblies.

2.2 CONTROL RELAYS

- .1 Rating: 10 amperes, 300 volts AC.
- .2 Coil: 120 Volts AC.
- .3 Poles: as required.

2.3 SURGE PROTECTION DEVICE

- .1 Manufacturer/Model: As shown on drawings.
- .2 Locate within MCC enclosure as indicated on drawings.

2.4 AUTOMATIC TRANSFER EQUIPMENT

- .1 Locate within MCC enclosure as indicated on drawings. Refer to section 263623.

2.5 POWER QUALITY METER

- .1 Metering of Ia, Ib, Ic, In, Va, Vb, Vc, Vab, Vbc, Vca, PF, Hz, W, var, VA, Wh, varh, Vah.
- .2 Harmonic analysis through 63rd with THD and TIF.
- .3 Event Recorder minimum 100 events.
- .4 Waveform capture.
- .5 Data logger minimum 90,000 events.
- .6 Voltage Disturbance Recorder minimum 500 events.
- .7 Digital and analog I/O for control and alarms.

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.8 Ethernet data communications.

.9 Power to be supplied from customer supplied 120VAC UPS.

2.6 ACCEPTABLE MANUFACTURERS

.1 Eaton, Allen-Bradley/Rockwell, Schneider, or approved equivalent.

3. EXECUTION

3.1 INSTALLATION

.1 Set and secure modular motor control center in place on concrete housekeeping pad.

.2 Make field power and control connections as indicated.

.3 Provide heater elements to suit motors installed.

.4 Provide breakers to suit motors installed.

.5 Tighten bus connections and mechanical fasteners to assure permanent and effective connection.

.6 Adjust operating mechanisms for free mechanical movement.

.7 Touch-up scratched or marred surfaces to match original finish.

.8 Avoid top cable entry. If top entry is necessary, ensure liquid tight.

3.2 PROTECTION OF COMPLETED WORK

.1 Protect motor control centers to prevent entry of duct, paint and other foreign matter.

3.3 TESTING

.1 Comply with requirements of Section 260800.

END OF SECTION

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1. GENERAL

1.1 RELATED SECTIONS

- .1 Start-up and commissioning.

1.2 CODES AND STANDARDS

- .1 Design and construct the VFD in accordance with the applicable sections of the following standards or as modified in the specification.
 - .1 ANSI C84.1982 -- Voltage Ratings for Electric Power Systems and Equipment.
 - .2 CAN/CSA-C22.2 -- Industrial Control Equipment No. 14-M91.
 - .3 ANSI C37-90.1-1989 -- Guide for Surge Withstand Capability Tests.
 - .4 Equipment shall have CSA approval.
 - .5 Equipment shall comply with the electrical bylaws of the local electrical authority.
 - .6 Equipment shall be designed and manufactured in compliance with ISO-9001 quality standards.

1.3 SHOP DRAWINGS

- .1 Submit shop drawings in accordance with Division 01 – Submittals Section.
- .2 Submit full technical data, service and parts facilities complete with manufacturer's published data.
- .3 Full shop drawings to be submitted for VFD equipment, submit as a minimum.
 - .1 Specification and Data Sheets.
 - .2 Manufacturer's published warranty documents.
 - .3 Shop drawings showing plan and elevation views with certified overall and interconnection point dimensions.
 - .4 Interconnection wiring diagrams showing all external connections required; with all field wiring terminals marked in a consistent manner.
 - .5 Manufacturer's installation instructions.

.6 Manufacturer's recommended spare parts.

.7 Complete parts list.

1.4 COORDINATION

- .1 It shall be the responsibility of the Variable Frequency Drive manufacturer to obtain all operating data and operating characteristics of the electric motors and the pump/motor combinations as may be required to ensure that the VFD's will safely and efficiently drive the intended equipment over the full range of intended operating conditions for the expected service life of 25 years.

2. PRODUCTS

2.1 GENERAL

- .1 The Contractor shall ensure full and complete coordination of the drive and motor characteristics which shall include, but not be limited to, the following:
- .1 A guarantee that the drive and motor meet the load demands and acceleration requirements of the driven equipment throughout the speed range when the input voltage varies over a range of 10%; and,
 - .2 Ensuring complete compatibility of the drive's current limit protection with the motor thermal withstand capability.
- .2 The drive shall be 97% efficient at full speed and full load. Fundamental power factor shall be 0.98 at all speeds and loads.
- .3 Controlled acceleration and deceleration times, separately adjustable, shall be provided.
- .4 Separately adjustable minimum and maximum frequency limits shall be provided.
- .5 The drive shall be capable of regulating the frequency to a $\pm 1\%$ of the setpoint over the full input voltage and ambient temperature operating range.
- .6 The vendor data shall indicate the efficiency, power factor, kW output, heat rejection and harmonic distortion of the drive 25%, 50%, 75% and 100% operating points.
- .7 Audible noise levels produced by the drive shall be limited 80 dBA sound pressure at one meter, at any point throughout the operating range of the drive.
- .8 The drive input shall be protected to withstand surges as defined in ANSI Std. (C37.90.1 - 1989, Guide for Surge Withstand Capability (SWC) Tests.
- .9 The drive shall be capable of data communications via Ethernet TCP/IP or Ethernet/IP.

2.2 CONSTRUCTION REQUIREMENTS

- .1 The drive shall be enclosed in the motor control center unless otherwise specified. Hinged, front access doors shall be provided.
- .2 The drive shall be complete with cable compartments for connection of incoming and outgoing cables.
- .3 When auxiliary cooling is required, the drive shall have fans and the required controls for proper operation.
- .4 Front panel interface module with LCD display and entry keypad to provide the following functions as a minimum:
 - .1 Drive setup parameters
 - .2 Diagnostic information
 - .3 Drive operating values
- .5 The drive shall have, as a minimum, hardwired connections as follows:
 - .1 Hand-Off-Auto (HOA) switch. HOA to be mounted on VFD enclosure door.
 - .2 Manual speed adjust device potentiometer for speed control when HOA is in "Hand". Potentiometer to be mounted on VFD enclosure door.
 - .3 Run Status
 - .4 Fault Status
 - .5 Auto Status
 - .6 Run Command
 - .7 Frequency Command
 - .8 Frequency Feedback
- .6 The drive shall provide the following signals via data communications as a minimum:
 - .1 Fault Reset
 - .2 Active Faults
 - .3 Phase Current
- .7 The diagnostic system shall monitor each alarm and shutdown function and shall display the status of each point on the cubicle front panel.
- .8 Terminal blocks for control, alarms, metering and diagnostics shall each be readily accessible, grouped and shall be segregated from power devices, for personnel safety.

- .9 Each terminal block, fuse, control switch, circuit breaker, auxiliary switch, relay, instrument transformer and other auxiliary component shall be permanently labeled to correspond with the schematics and wiring diagrams.
- .10 The shop drawing shall state what corrosion protection is provided.

2.3 PROTECTION SYSTEMS

- .1 All power connections, cables and buswork shall be braced to withstand the available asymmetric short circuit current.
- .2 The drive shall be equipped with a minimum of 15 ms power loss ride-through capability.
- .3 The loss of AC input power longer than 15 ms shall cause the drive to shutdown in an orderly fashion, without causing pulsations in the drive or motor systems.
- .4 The drive shall have the capability of being restarted with a remote signal from the PLC control system.
- .5 The drive shall not be affected by radio frequencies emitted by portable radios/transmitters.
- .6 The drive shall protect itself against the following as a minimum:
 - .1 Under/over voltage
 - .2 Overcurrent
 - .3 Over-temperature
 - .4 Output short circuit
 - .5 Output ground fault
 - .6 Stall

2.4 ACCEPTABLE SUPPLIERS

- .1 Qualifications: service and parts facilities in the Province of Alberta with 24 hour service, experienced in installation and operation of VFD's.
- .2 Drives shall be by Rockwell 753 Series, Eaton DG1 Series, Schneider ATV600 Series, Toshiba AS3 Series.

2.5 WARRANTY

- .1 Warranty shall be 24 months from the date of certified start-up, not to exceed 30 months from the date of shipment.
- .2 The warranty shall include all parts, labor, travel time and expenses.

END OF SECTION

1. GENERAL

1.1 RELATED SECTIONS

- .1 Basic Electrical Requirements: Section 260500.

1.2 SYSTEM

- .1 Unit to be designed for fully automatic operation upon power failure. Unit to sense utility failure, initiate generator start sequence, and transfer load under correct parameters.

2. PRODUCTS

2.1 COMPONENTS

- .1 Automatic transfer switch: Contactor based, 3 pole, fully automatic electrically operated, mechanically held, for all load classes with normal and emergency supply 3 phase, 3 wire, complete with auxiliary engine starting contacts, to operate on disruption of voltage or frequency (user adjustable settings) on any phase of normal power. Amperage and voltage as shown on drawings.
- .2 Provide time delay relays, adjustable from 10 seconds to 5 minutes to delay transfer from normal to standby until standby power source has obtained 90 per cent of rated voltage.
- .3 Provide time delay relays, adjustable from 1 to 5 minutes, to delay transfer from standby to normal source. Engine rundown period of "No-Load" for 5 minutes.
- .4 Fault level to match level of specified equipment fed from transfer switch.
- .5 In cover of transfer switch provide indication of transfer switch position complete with test switch to simulate a power failure.
- .6 Provide four sets of contacts to indicate supply being used. Two sets of contacts to be closed when normal supply is sourced. Two sets of contacts to be closed when standby supply is sourced.
- .7 Provide a feature which will monitor a remote contact (from station control system). Closure of this contact will initiate a transfer to standby power if the transfer switch is in the utility power position. Opening of this contact will initiate a transfer to utility power if the transfer switch is in the generator power position.
- .8 Capability of Ethernet data communication for remote monitoring of equipment. Communication module to have an embedded webpage which can be viewed with a standard Web browser. Webpage to display all information available on local display.

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2.2 ACCEPTABLE MANUFACTURERS

- .1 Asco 7000 Series. No alternates.

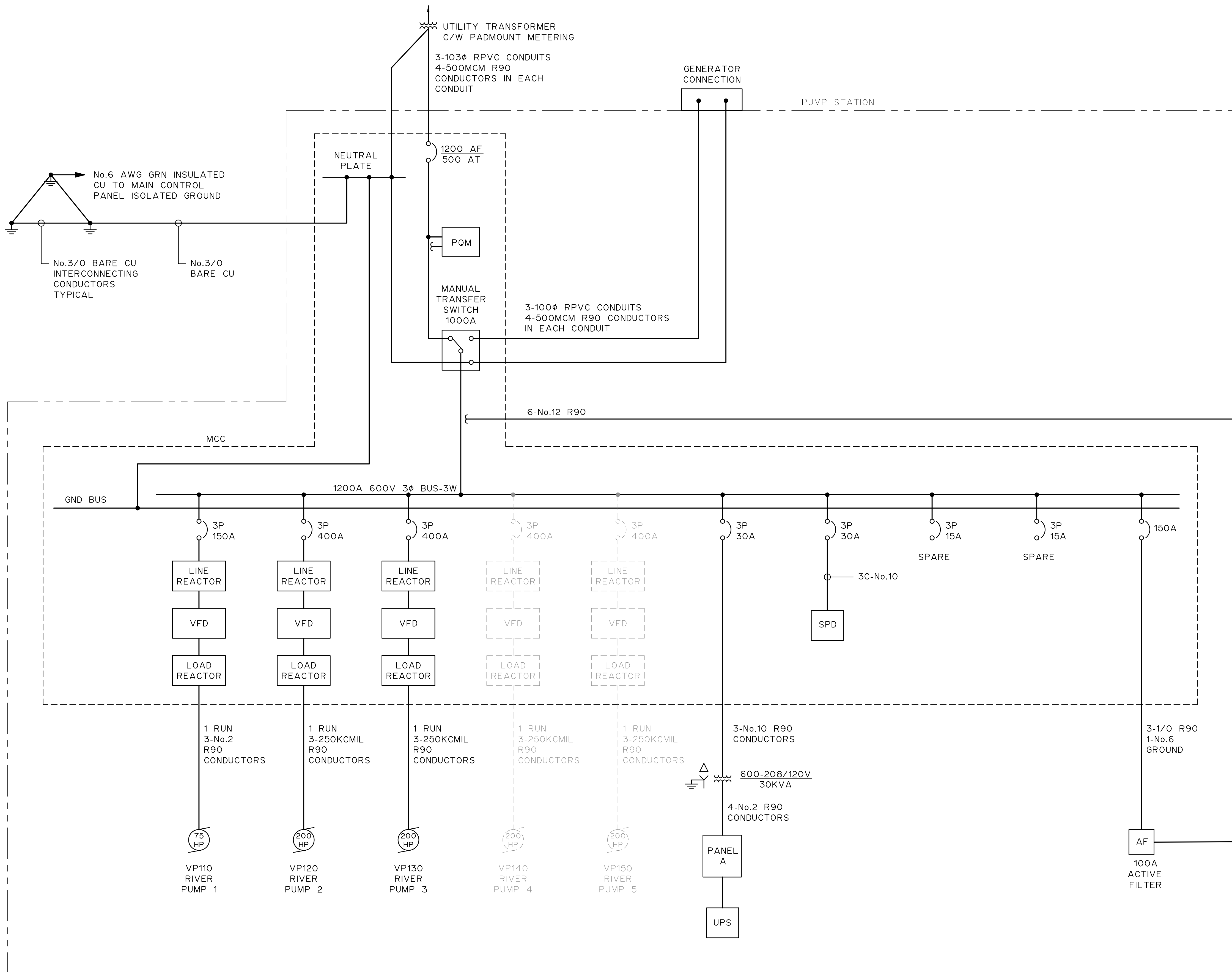
3. EXECUTION

3.1 OPERATION

- .1 Automatic start-up upon normal power failure.
- .2 Transfer when standby unit reaches 90% of rated voltage.
- .3 Retransfer to normal supply after time delay, when normal power is resumed.
- .4 Engine rundown period at "No "Load".
- .5 Engine shutdown/after rundown.
- .6 Operating sequence automatically reset.

END OF SECTION

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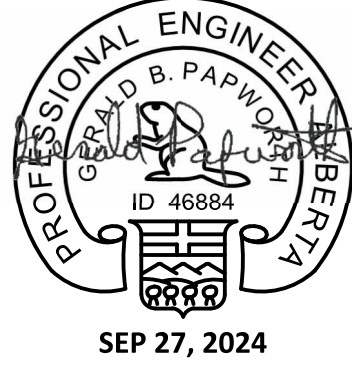
NOTES:
1. FOR INFORMATION REGARDING GENERAL NOTES, ABBREVIATIONS AND SYMBOLS REFER TO THE LEGEND DRAWINGS.

ATTENTION
This drawing is prepared for the sole use of TOWN OF OKOTOKS & FOOTHILLS COUNTY. No representations of any kind are made by Urban Systems Ltd. or its employees to any party with whom Urban Systems Ltd. does not have a contract.

WARNING
Utilities or structures shown on this drawing were compiled from information supplied by various parties and may not be complete or accurate. Expose and conclusively confirm the location in the field all underground utilities and structures indicated on this drawing, all underground utilities in the area of the proposed work and any utilities or structures reasonably apparent from an inspection of the proposed work. Urban Systems Ltd. assumes no responsibility for loss or damage caused by third party negligence or failure to comply with the above.

Professional Seals

PERMIT TO PRACTICE
MPE, a division of Englobe Corp.
Signature: *Grand B. Papworth*
APEGA ID: **46884**
Date: **SEP 27, 2024**
PERMIT NUMBER: P 7841
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)



#	Date	Issue / Revision	App
A	24-09-27	ISSUED FOR QUOTATION	G.B.P.



MPE
a division of Englobe

Scale: NOT TO SCALE

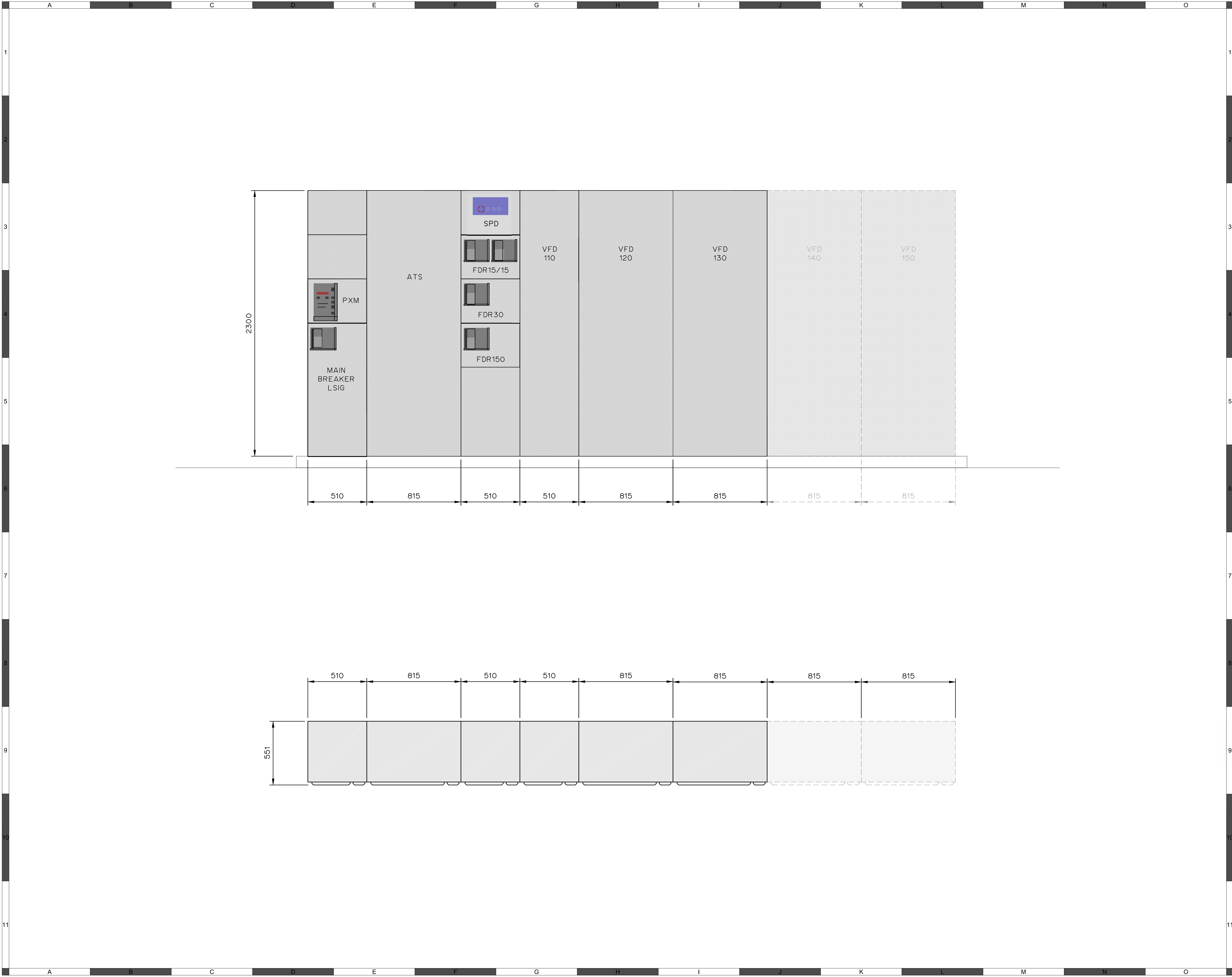
Quality Control by: G.B.P.
Designed by: Y.F.S.
Drawn by:

FOOTHILLS OKOTOKS INTAKE PUMP STATION
SINGLE LINE DIAGRAM

Sheet Number	# of ##
Project Number	
29121-005-09	
Drawing Number	Revision
FORW-01-E-SLD-001	A

NOT FOR CONSTRUCTION

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PROFESSIONAL ENGINEER
GERARD B. PAPWORTH
ID 46884
SEP 27, 2024

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A	24-09-27	ISSUED FOR QUOTATION	G.B.P.

FOOTHILLS COUNTY
Okotoks
Historic Past. Sustainable Future.

MPE
a division of Englobe

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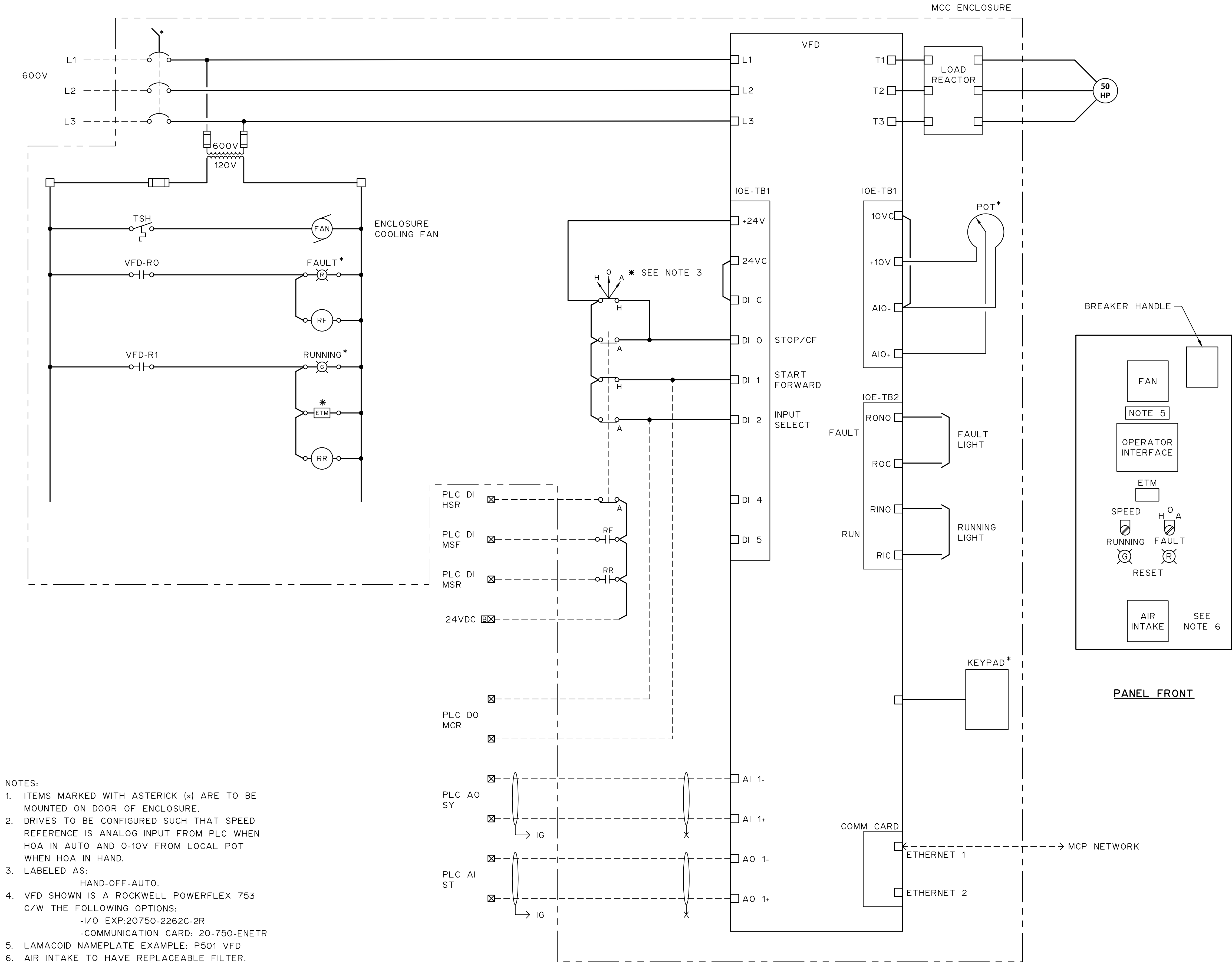
Quality Control by: G.B.P.
Designed by: Y.F.S.
Drawn by: Y.F.S.

FOOTHILLS OKOTOKS
INTAKE PUMP STATION
MCC LAYOUT

Sheet Number	# of ##
Project Number	29121-005-09
Drawing Number	FORW-01-E-LAY-002
Revision	A

NOT FOR CONSTRUCTION

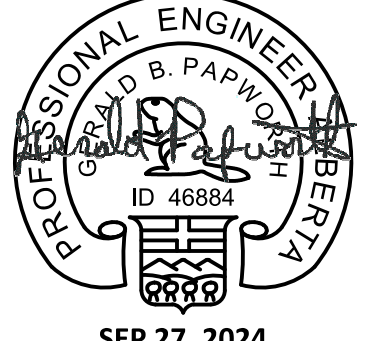
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Professional Seals
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#	Date	Issue / Revision	App
A	24-09-27	ISSUED FOR QUOTATION	G.B.P.

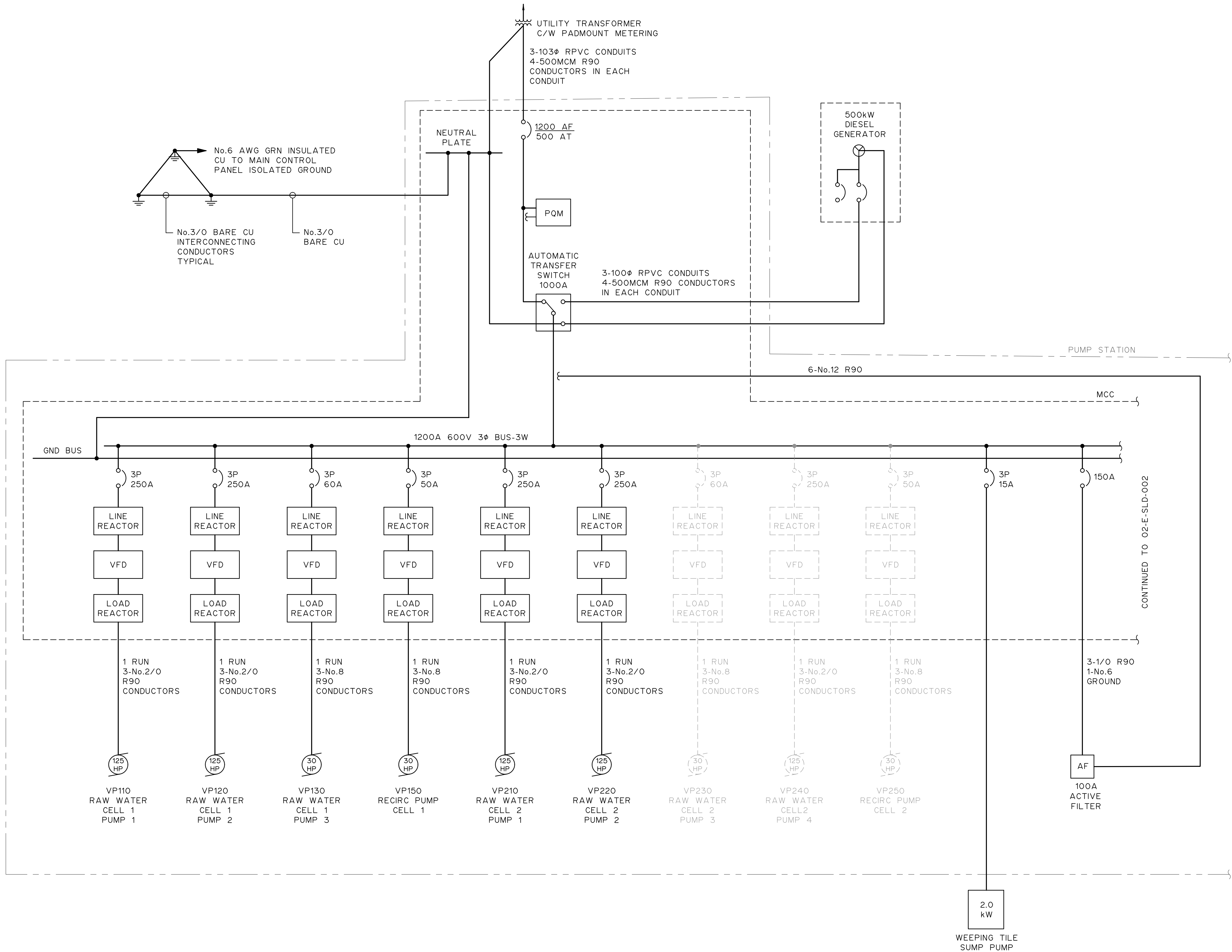


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Scale: NOT TO SCALE
Quality Control by: G.B.P.
Designed by: Y.F.S.
Drawn by:

FOOTHILLS OKOTOKS INTAKE PUMP STATION
PUMP VFD SCHEMATIC TYPICAL
Sheet Number: # of ##
Project Number: 29121-005-09
Drawing Number: FORW-01-E-WD-001
Revision: A

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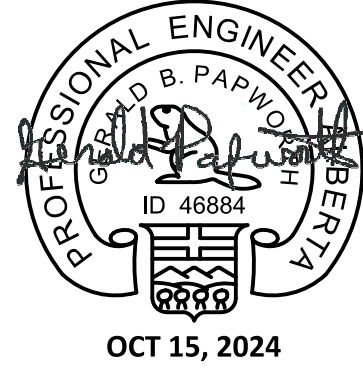


NOTES:
1. FOR INFORMATION REGARDING GENERAL NOTES,
ABBREVIATIONS AND SYMBOLS REFER TO THE
LEGEND DRAWINGS.

ATTENTION
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whom Urban Systems Ltd. does not have a contract.

WARNING
Utilities or structures shown on this drawing were
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and may not be complete or accurate. Expose and
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underground utilities and structures indicated on this
drawing, all underground utilities in the area of the
proposed work and any utilities or structures
reasonably apparent from an inspection of the
proposed work. Urban Systems Ltd. assumes no
responsibility for loss or damage caused by third
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MPE, a division of Englobe Corp.
Signature *Gerald Papworth*
APEGA ID 46884
Date OCT 15, 2024
PERMIT NUMBER: P 7841
The Association of Professional Engineers and
Geoscientists of Alberta (APEGA)



#	Date	Issue / Revision	App
A	24-04-11	ISSUED FOR AGREEMENT	G.B.P.
B	24-10-15	ISSUED FOR QUOTATION REVISED	G.B.P.



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Y.F.S.

FOOTHILLS OKOTOKS
MIDLINE PUMP STATION
SINGLE LINE DIAGRAM 1 OF 2

Sheet Number	# of ##
Project Number 29121-005-12	
Drawing Number FORW-02-E-SLD-001	Revision B

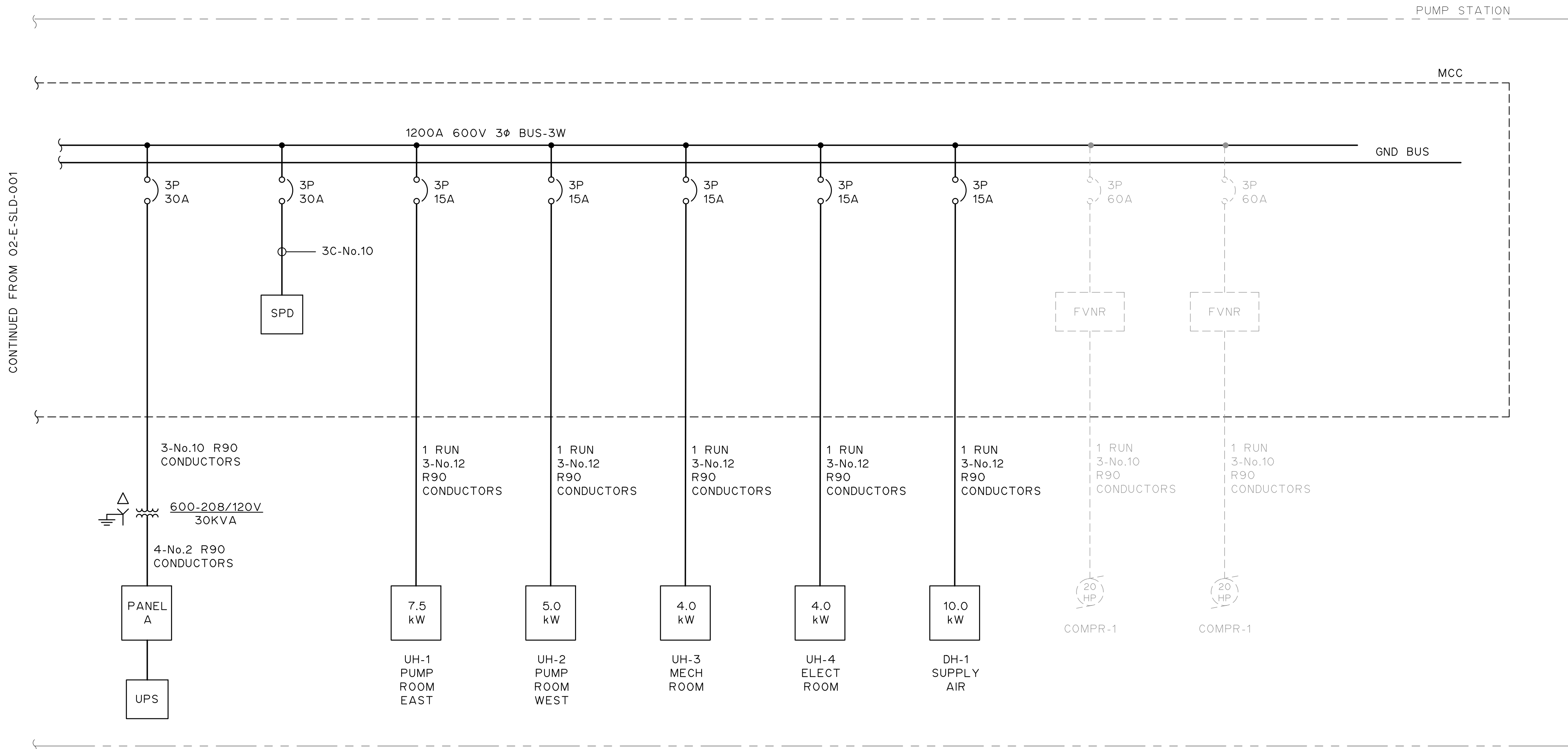
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- NOTES:
- FOR INFORMATION REGARDING GENERAL NOTES, ABBREVIATIONS AND SYMBOLS REFER TO THE LEGEND DRAWINGS.

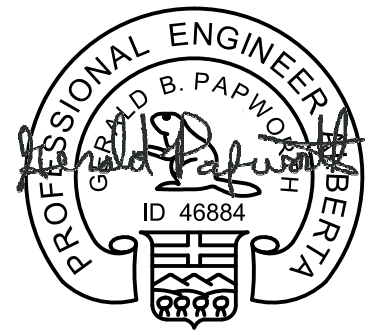
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Signature: *Gerald Papworth*
APEGA ID: **46884**
Date: **OCT 15, 2024**
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The Association of Professional Engineers and Geoscientists of Alberta (APEGA)



#	Date	Issue / Revision	App
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B	24-10-15	ISSUED FOR QUOTATION REVISED	G.B.P.



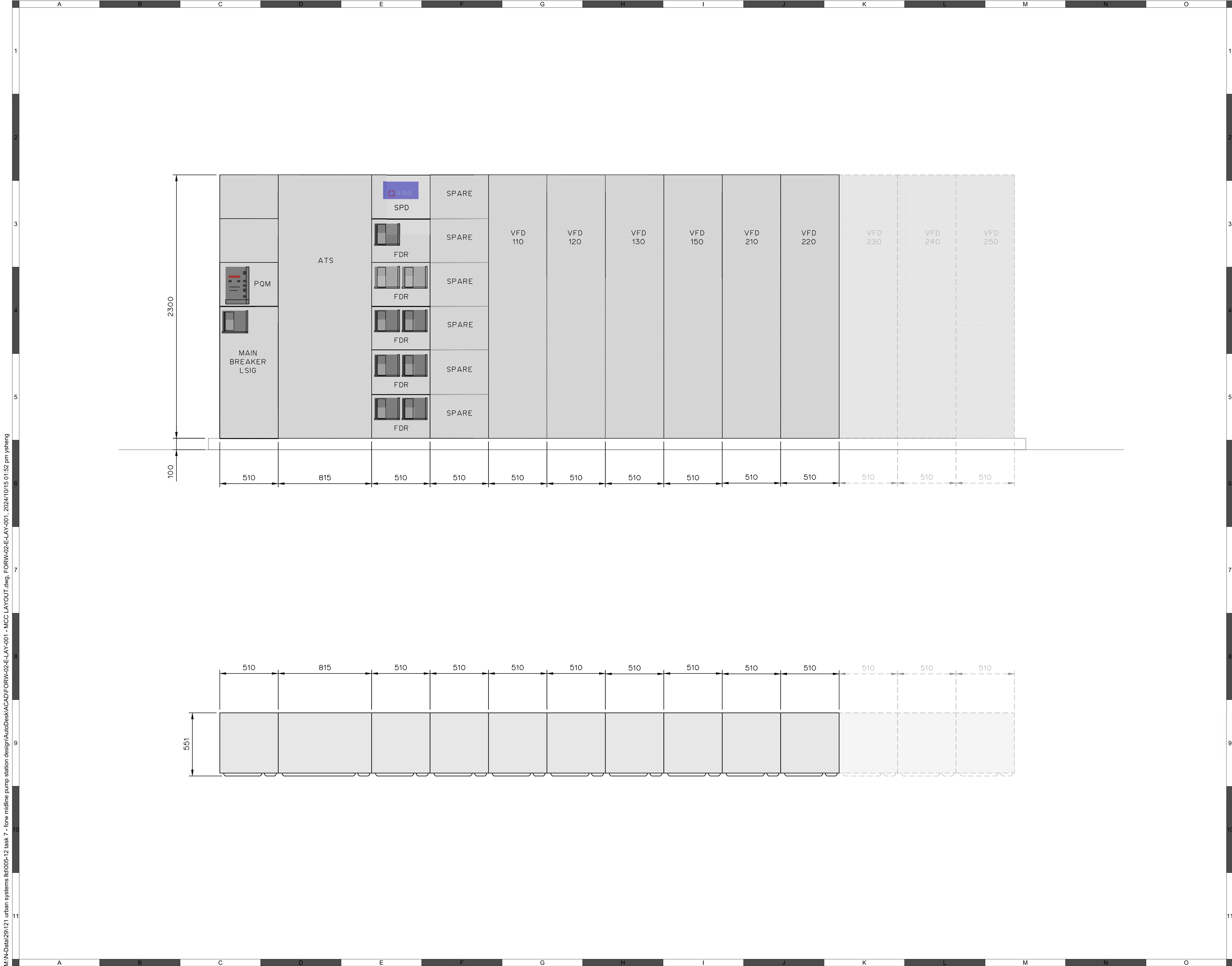
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Quality Control by: G.B.P.
Designed by: Y.F.S.
Drawn by:

**FOOTHILLS OKOTOKS
MIDLINE PUMP STATION
SINGLE LINE DIAGRAM 2 OF 2**

Sheet Number: # of ##
Project Number: **29121-005-12**
Drawing Number: **FORW-02-E-SLD-002** Revision: **B**

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Signature: *Gerald B. Papworth*
APEGA ID: **46884**
Date: **OCT 15, 2024**
PERMIT NUMBER: P 7841
The Association of Professional Engineers and Geoscientists of Alberta (APEGA)

PROFESSIONAL ENGINEER
GERALD B. PAPWORTH
ID 46884
OCT 15, 2024

#	Date	Issue / Revision	App
A	24-10-15	ISSUED FOR QUOTATION REVISED	G.B.P.



Okotoks
Historic Past. Sustainable Future.



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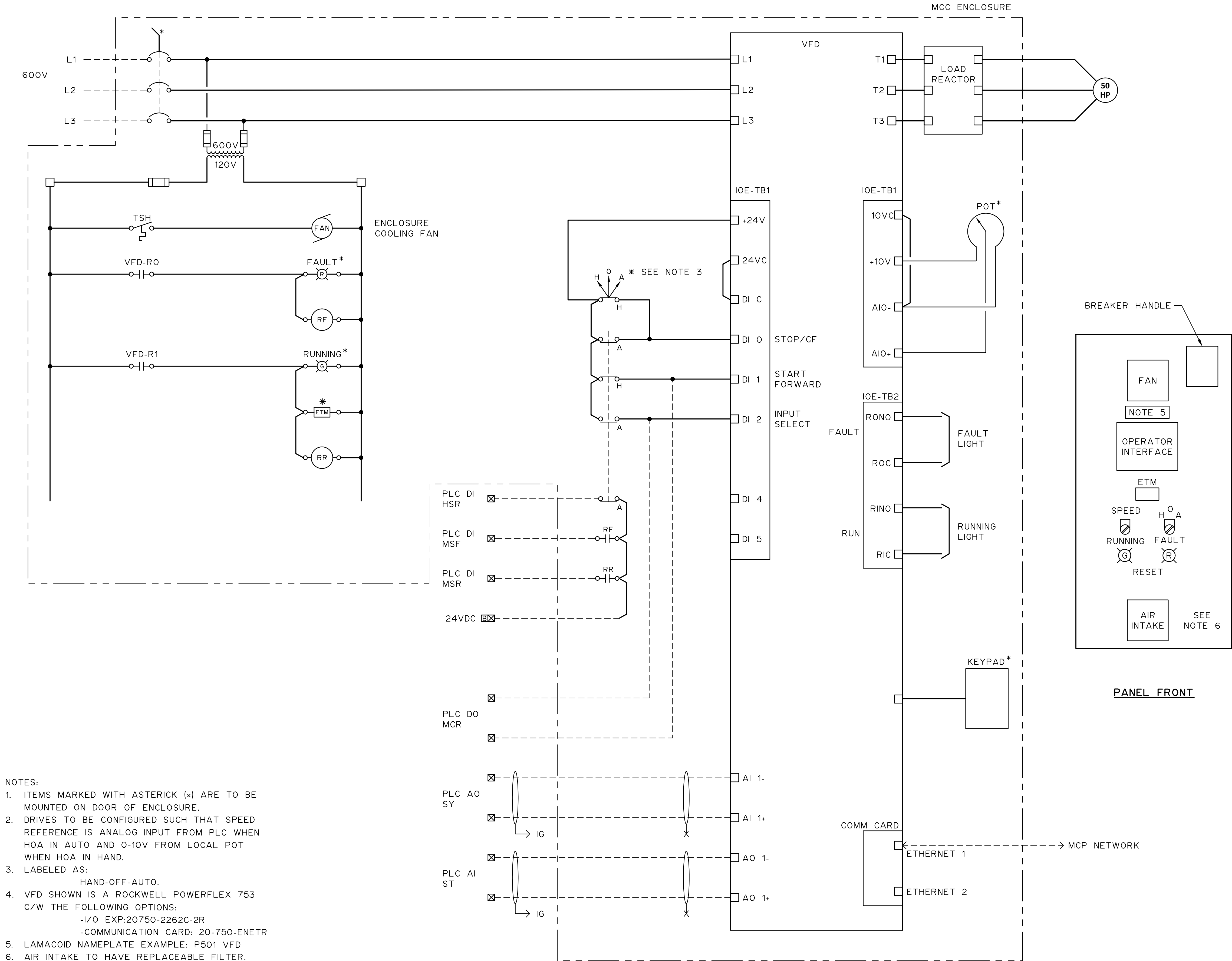
Quality Control by	G.B.P.
Designed by	Y.F.S.
Drawn by	

**FOOTHILLS OKOTOKS
MIDLINE PUMP STATION
MCC LAYOUT**

Sheet Number	# of ##
Project Number	
29121-005-12	
Drawing Number	Revision
FORW-02-E-LAY-001	A

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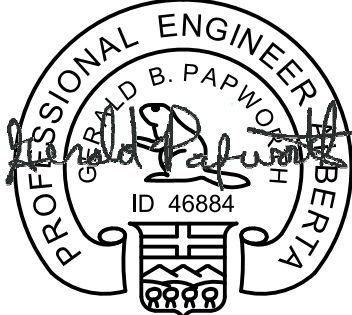


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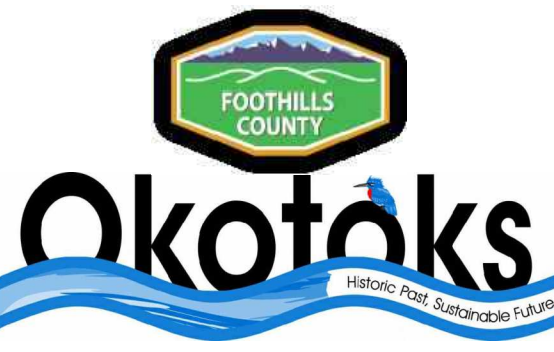
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Scale NOT TO SCALE

Quality Control by
Designed by G.B.P.
Drawn by ??.?.

FOOTHILLS OKOTOKS
MIDLINE PUMP STATION
PUMP VFD SCHEMATIC TYPICAL

Sheet Number	# of ##
Project Number	
29121-005-12	
Drawing Number	Revision
FORW-02-E-WD-001	A

NOT FOR CONSTRUCTION

Schedule B
Ancillary Services

This page is intentionally left blank, refer to the Technical Specifications (Schedule A)

Schedule C
Payment Schedule

The Supplier may deliver invoices to the Town for payment of the Total Lump Sum Equipment Price specified in Section 1 in accordance with the following payment milestones:

- 30% of Total Lump Sum Equipment Price following Town's approval of Supplier's Shop Drawings
- 50% of Total Lump Sum Equipment Price following completion of Delivery DDP at the site of the FORW Midline Pump.
- 20% of Total Lump Sum Equipment Price following satisfactory completion of Equipment Commissioning and Performance Testing in accordance with the Specifications, in the Town's sole opinion.

Schedule D

Performance Schedule

SUPPLY OF MOTOR CONTROL CENTERS (MCC) PERFORMANCE SCHEDULE **FORW INTAKE & MIDLINE PUMP STATION**

File: 1306.0120.07

Task List		Year				2024				2025				2026															
		Quarter				Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4												
		Month				J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
						J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D
		Duration		Duration (Days)		Start		Finish																					
	Midline Pump Station	12 Months		356		November 6, 2024		October 28, 2025																					
	Owner Supplied Equipment Pre-Purchase - RFQ in Market (MCC)	4 Weeks		28		November 12, 2024		December 9, 2024																					
	RFQ Closing Date	0 Days		0		December 9, 2024		December 9, 2024																					
	RFQ Bids Evaluation (MCC)	2 Weeks		14		December 9, 2024		December 18, 2024																					
	Award and Purchase Order Issued (MCC)	3 Weeks		21		December 18, 2024		January 8, 2025																					
	Shop Drawings Sent to Owner's Engineer for Review	3 Weeks		21		January 8, 2025		January 29, 2025																					
	Owner's Engineer Review of Shop Drawings	2 Weeks		14		January 29, 2025		February 12, 2025																					
	Certified Shop Drawings Sent to Owner's Engineer	2 Weeks		14		February 12, 2025		February 26, 2025																					
	Owner Supplied Equipment - Equipment/Material Arrival Onsite (MCC)	35 Weeks		245		February 26, 2025		October 28, 2025																					
	Earliest Delivery Date (32 Weeks from Order)	0 Weeks		0		October 7, 2025		October 28, 2025																					
	Delivery Date	0 Weeks		0		October 28, 2025		October 28, 2025																					

**REFERENCE: FORW - INTAKE PUMP STATION
MILESTONE SCHEDULE**

Last Updated: November 13, 2024
File: 1306.0120.04

File: 1306.0120.04

	Phase Duration
	Field Investigations or Approvals
	Design Progression
	Equipment Pre-Purchase
	Contractor RFP Package
	90% Design - IFT Package
	Construction
	Testing & Commissioning
	Utilities Coordination
