



Legend's Field Lighting Replacement – City of Summerside

Specifications & Tender Documents

Project location:
Summerside, PE

May 6th, 2022
Issued for Tender

Bellcor Engineering Inc.
149 Industrial Cres. Summerside, PEI
T: 902-303-1333
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1. BID CALL

- .1 Offers signed under seal, executed, and dated will be received by the City of Summerside.

City of Summerside – City Hall
Financial Services, First Floor
275 Fitzroy St.
Summerside, PE
C1N 1H9

- .2 Bids shall be submitted in person to the City Hall Tender Deposit Box on or before May 20th, 2022, at 2:00:00 PM local time.
- .3 Bid submissions can be amended if needed by the bidders by email up to but not after the bid submission deadline.
- .4 Potential bidders are advised that they are under no obligation to submit an offer (bid), and those who do, do so at their own economic risk.

2. SUMMARY

- .1 Intent of this bid call is to solicit and receive formal offers from supplier to complete the work for the following project:

**Legend's Field Lighting Review
Summerside, PE**

- .2 Bids shall be prepared and submitted, and the bidding process administered in accordance with these bidding requirements

3. CONTRACT TIME

- .1 Contract Time: To be determined based on submitted project schedule.

4. CUT-OFF TIME FOR REQUESTS FOR INFORMATION

- .1 Last day and time for bidders' questions is 72 hours prior to tender closing time.

5. DEFINITIONS

- .1 The definitions specified in CCDC 2 and the National Building Code of Canada 2015 and referenced documents apply to this project and all bid documents issued.
- .2 Section: "Section" means specification section as developed in accordance with CSI/CSC MasterFormat®, PageFormat® and SectionFormat®.

6. BID SUBMISSION

- .1 Submit offers in an opaque envelope marked "**LEGEND'S FIELD LIGHTING REPLACEMENT – SUMMERSIDE, PE**" and with bidder's name clearly shown:

BID SUBMISSION
Attention: NICK SHARKEY, P.ENG
BELLCOR ENGINEERING

- .2 **Submit completed Section 00 45 00 – Information Submittal Forms.**
- .3 Submit the following documents:
- .1 Bid security.
- .2 Completed Bid Form (Section 00 40 50 - Bid Form).

- .3 Completed Section 00 45 00 - Information Submittal Forms:
 - .1 Information Submittal Form A - List of Subcontractors and Itemized Prices.
 - .2 Information Submittal Form B - Contractor Proposed Substitutions.
 - .3 Information Submittal Form C - Breakout Prices.
 - .4 Information Submittal Form D - Alternate Prices
- .4 Proof of insurance.
- .5 Certificate of account with Workplace Safety and Insurance Board (WSIB).
- .4 Fill in all blank spaces on Bid Form in ink, typewritten or printed, providing the information requested therein and ensure that all forms are signed by an authorized person or persons of the company. Incorporated companies must affix their corporate seal under the signature of their proper officers.
- .5 Information provided by bidders on Bid Form may be amended, if required, provided corrections are initialed by person authorized by bidder. Other modifications, erasures, additions, conditions or qualifications may cause a bid to be declared non-compliant and returned to bidder without further consideration.
- .6 Bid price shall be provided in written and numeric form. In case of discrepancy the written form shall govern.
- .7 Oral, telephoned, telegram, fax, or email bids will not be accepted nor acknowledged.
- .8 Phones and space will not be available for use by the Contractors and Subcontractors at place of bid closing.
- .9 Late or incomplete submissions will not be accepted.

7. SITE LOGISTICS LAYOUT DRAWING

- .1 Successful general contractor shall submit within 14 calendar days of notification of award a proposed 'Site Logistic Layout Drawing'. The following items are to be included in the layout:
 - .1 Site trailer.
 - .2 Contractor parking.
 - .3 Garbage/recycling bins.
 - .4 Temporary toilet facilities.
 - .5 Material layout and staging area.
 - .6 Temporary hoarding.
 - .7 Proposed access routes.

8. EVALUATION OF BIDS

- .1 Bids will be opened and evaluated in private.
- .2 The Owner may, in its sole discretion, request clarification from a Bidder during the evaluation process. In responding to a request for clarification, the Bidder shall not revise, amend, or otherwise alter its Bid.
- .3 The owner will evaluate Bids considering stipulated price (base Bid Price).

9. OWNER'S DISCRETION

- .1 The Owner intends to evaluate Bids in the manner and based on the criteria set forth in these Instructions to Bidders, and the lowest or any Bid will not necessarily be accepted.

- .2 The Owner may, in its sole discretion without explanation, retain for consideration Bids that are non-conforming because they fail to comply with a strict interpretation of these Instructions to Bidders with regard to content, form, submission process or any other matter. The Owner may waive any defects, informalities or irregularities in a Bid and accept a Bid that contains any such defects, irregularities or informalities.

10. BID ACCEPTANCE

- .1 Bids must remain open for acceptance and be irrevocable for a period of 60 (sixty) calendar days after the Bid submission deadline.
- .2 The Consultant will notify the selected Bidder in writing that its Bid has been accepted. The Consultant will then prepare the Contract Documents based on the selected Bid and will deliver the Contract Documents to the selected Bidder for execution. The selected Bidder will be obligated to execute the Contract Documents within 5 working days after receipt of the Contract Documents for execution. Failure to do so may result in the forfeiture of the selected Bidder's Bid Security. Retaining the Bid Security in such cases shall not constitute waiver of any additional rights and remedies that the Owner may have against the Bidder.
- .3 The Bid Security will be returned to the selected Bidder upon execution of the Contract Documents and delivery of the required performance security.

11. QUALIFIED BIDS EXCEEDING BUDGET

- .1 If all qualified Bids (as determined by the Owner in its sole discretion) exceed the amount that the Owner has budgeted for this project, the Owner may reject all bids and **enter** negotiations with one or more qualified Bidders **to** obtain a lower price that is within the Owner's construction budget, with or without adjusting the scope of work.

12. BID DOCUMENTS

- .1 The following documents issued by the Owner form the basis of this bid and shall be examined by bidders:
 - .1 Section 00 21 13 - Instructions to Bidders.
 - .2 Section 00 40 50 - Bid Form.
 - .3 Section 00 45 00 - Information Submittal Forms.
 - .1 Information Submittal Form A - List of Subcontractors and Itemized Prices.
 - .2 Information Submittal Form B - Contractor Proposed Substitutions.
 - .3 Information Submittal Form C - Breakout Prices.
 - .4 Information Submittal Form D - Alternate Prices
 - .4 Section 00 70 00 - General Conditions.
 - .1 Standard Construction Document CCDC 2 (included by reference).
 - .5 Specifications, Divisions 01 and following. Includes the City of Summerside Standard Specifications.
 - .6 Drawings bound separately from the Specifications.
 - .7 Addenda Issued prior to bid closing.
- .2 Bid documents will be supplied electronically to bidders.
- .3 Unsuccessful bidders are required to return their drawings, project manuals, and any CDs provided to the Consultant within 1 week of bid award. PDF files shall not be saved, reproduced, or distributed for any reason other than to complete the bid process.
- .4 Deposit for hard copies of the Bid Documents will be refunded if Bid Documents are returned complete, undamaged, **unmarked**, and reusable within 10 days of Bid submission. Failure to

comply will result in forfeiture of deposit.

13. ELIGIBILITY OF BIDDERS

- .1 In addition to the requirements of GC 3.7 - SUBCONTRACTORS AND SUPPLIERS, and prior to the closing date and time of bids, the Owner reserves the right to restrict the companies bidding the Work to those they may select. Furthermore, they may, in like manner, specifically exclude certain companies from bidding at their sole discretion without explanation.

14. SCHEDULE OF VALUES

- .1 Bidders, if successful, agree to provide a general analysis of their Bid Price, prior toward of contract, in whatever form the Consultant on behalf of the Owner may reasonably request. This analysis will form part of the "Schedule of Values" referred to in GC 5.2 - APPLICATIONS FOR PROGRESS PAYMENT.

15. SITE CONDITIONS

- .1 In submitting a bid, it is mandatory that the bidder carefully examines the site of the proposed work and fully informs themselves regarding existing conditions and limitations and included in the Bid Price the complete cost of the work contemplated by the Drawings and Specifications.

16. ADDENDA

- .1 Bidders finding discrepancies, ambiguities or omissions in the drawings, specifications, or both, or having doubt regarding the meaning or intent thereof, shall immediately notify the Consultant, who may issue instructions, clarifications, or both, in the form of addenda to all bidders. Bidders may also, during the bidding period, be advised by addenda of any additions, deletions or alterations to the drawings, specifications, or both. All such addenda are part of the bid documents.

17. ENQUIRIES

- .1 Direct enquiries by email during the bid period as follows (telephone enquiries not accepted):

Nick Sharkey, P.Eng
Bellcor Engineering Inc.
149 Industrial Cres., Summerside, PE C1N 5P8
T: 902-303-1333
E: nick.sharkey@bellcor.ca

18. OWNER

- .1 The Owner is hereby identified as:

City of Summerside
275 Fitzroy Street
Summerside, PE
C1N 1H9

- .2 Direct communication to the Owner by any bidder will not be answered. All correspondence and communication will be through the Project Manager identified above unless instructed otherwise. Any questions must be submitted in writing.

19. CONTRACTS

- .1 The successful Bidder shall enter into a formal contract with the Owner based on the terms and conditions of the Bid Form, the instructions to bidders and all other bid documents described therein. The bidder shall sign, execute and seal triplicate copies of the contract documents.

20. LIST OF SUBCONTRACTORS

- .1 The bidder shall list in Section 00 45 00 - Information Submittal Forms: Information Submittal Form A - List of Subcontractors and Itemized Prices, the names of all subcontractors proposed to employ along with itemized prices.
- .2 No deviation from this list will be permitted after the acceptance of the Bid without the approval of both the Owner and the Consultant.
- .3 No names, either of subcontractors or own forces, may be changed after submission of Section 00 45 00 - Information Submittal Forms, unless written approval is received from Owner. Such approval will only be considered upon submission by contractor of a letter requesting a change with full explanations or reasons for change and accompanied by a letter from named subcontractor agreeing to withdraw with no consequence to the Owner.

21. SECURITY DEPOSIT

- .1 Bids shall be accompanied by security deposit as follows: Bid Bond in an amount not less than 10 percent of Bid Price; or a certified cheque in amount equivalent to 10% of Bid Price
- .2 Endorse Bid Bond or certified cheque in name of Owner as obligee, signed, and sealed by principal (Contractor) and surety.
- .3 Use latest edition CCDC approved bond forms.
- .4 Security deposit will be returned after delivery to Owner of required Post Award Submittals by accepted bidder.
- .5 If no contract is awarded, all security deposits will be returned.

22. BID OPENING AND ACCEPTANCE

- .1 It shall be understood by all bidders that the bid, including submissions under Section 00 40 50 - Bid Form and Section 00 45 00 - Information Submittal Forms shall be valid and subject to acceptance by the Owner and that no adjustment shall be made to the Bid Price for a period of up to and including sixty (60) calendar days from the date of closing of bids.
- .2 Bid opening is not public; bids will be opened privately.
- .3 A bid may not be withdrawn at or after time and date fixed for receiving bids and that bid shall be held irrevocable and open to acceptance by Owner until:
 - .1 Some other person, firm or corporation has entered into a contract with Owner for performance of the contract or,
 - .2 Sixty (60) days after time and date fixed for receiving Bids, whichever occurs first.
 - .1 60-day period referred to above shall commence at 12:00 AM midnight of the day fixed for receiving bids and shall terminate at 12:00 AM midnight of the 60th day thereafter. If the 60th day falls on Saturday or a Sunday, or on a statutory holiday, such day or days shall be omitted from the computation.

23. TAXES

- .1 Include in the contract price, all applicable provincial taxes and all other customs duties, excise taxes, excluding harmonized sales tax (HST).

24. PERMITS

- .1 The contractor shall obtain all necessary permits for the contract specified, except that the Owner will obtain and pay for the building permit. All other permits required shall be at the expense of the contractor.

25. ALTERNATIVES

- .1 If a Bidder desires to submit alternatives to materials or products specified or indicated, bidder may include proposed alternative in Section 00 45 00 --Information Submittal Forms: Information

Submittal Form B - Contractor Proposed Substitutions in the space provided along with supporting documentation. To withstanding any proposed substitutions, unless accepted by addendum, the specified materials and products found in the Bid Documents shall be included in the Bid Price and are part of Contract.

26. WORKPLACE SAFETY AND INSURANCE BOARD (WSIB)

- .1 Submit certificate of account with Workplace Safety and Insurance Board (WSIB) with bid.

27. INSURANCE

- .1 Submit current proof of insurance with bid.

28. POST AWARD SUBMITTALS

- .1 The successful general contractor to submit within 14 calendar days from the awarding of the contract the following documents to the Consultant:
 - .1 Schedule of Values.
 - .2 Construction Schedule.
 - .3 Submittals schedule (which shall include shop drawings, samples, mock-ups, etc.) as stipulated by the Specifications.
 - .4 Site Logistic Layout Drawing.

29. BID PROTEST PROCESS

- .1 Pre-award bid disputes.
 - i. Bidders should seek a resolution of any pre-award dispute by communicating directly with the Owner's Representative as soon as possible from the time when the basis for the dispute became known to them. The Owner's Representative may delay the outcome of the selection process, or any interim stage of this Tender process, pending the acknowledgement and resolution of any pre-award dispute. For more information, see the Pre-Award and Post-Award Bid Dispute Process.
- .2 Post award disputes
 - i. Any dispute to the outcome of this Tender process must be received in writing by the Owner's Representative no later than 10 days after the date of the notification of the outcome of the selection process, or where a debriefing has been requested, no later than five days after such debriefing is received. Any dispute that is not timely received or in writing will not receive further consideration
- .3 Any written dispute with a procurement value over \$100,000 that cannot be resolved by the Owner's Representative through consultations with the Bidder, shall be referred to the council or his designate(s) for an impartial review, based on the following information
 - i. A specific description of each act or omission alleged to have materially breached the procurement process;
 - ii. A specific identification of the provision in the solicitation or procurement procedure that is alleged to have been breached;
 - iii. A precise statement of the relevant facts;
 - iv. An identification of the issues to be resolved;
 - v. The bidders arguments, including any relevant supporting documentation; and
 - vi. The Bidder's requested remedial action. The Owner or their designate(s), in consultation with the Owner's Solicitor, may:
 1. Dismiss the dispute

2. Accept the dispute and direct the Owner's Representative to take appropriate remedial action, including, but not limited to, rescinding the award and any executed contract, and canceling the solicitation.

30. FAILURE OR DEFAULT OF THE BIDDER

- .1 If the Bidder, for any reason, fails or defaults in respect of any matter or thing which is an obligation of the Bidder under the terms of the Tender Call, the Owner may at its sole discretion:
 - i. Disqualify the Bidder from the Tender Call and/or from competing for future Tender Calls issued by the Owner for a period of one year; and
 - ii. Require the Bidder to pay the Owner the difference between its Bid and any other Bid which the Owner accepts, if the latter is for a greater amount and, in addition, to pay the Owner any cost which the Owner may incur by reason of the Bidder's failure or default.
- .2 Bidder shall be ineligible to submit a new Bid for any Call that the Owner is required to reissue as a result of the Bidder's failure or default or where the Owner deems that the Bidder has abandoned the Agreement.

31. AWARD OF TENDER

- .1 The Tender will be considered Awarded when the successful Bidder has been selected by the Owner, and the decision in relation to the successful bidder has been communicated in writing to the Tenderer by the Owner.

END OF SECTION

Part 1 General

DEFINITIONS

- .1 Information Documents means information of any type and in any form, related to the Project and identified in this Section as such and do not include the Contract Documents.

STATUS OF INFORMATION DOCUMENTS

- .1 Information Documents, or any part thereof, are not part of the Contract unless specifically incorporated into Contract Documents by means of copying, transcribing, or referencing.

USE OF AND RELIANCE UPON INFORMATION DOCUMENTS

- .1 Information Documents are made available to Bidder by Owner for the purpose of providing Bidder with access to information available to Owner.
- .2 Information Documents shall not be considered a representation or warranty that information contained therein is accurate, complete, or appropriate, and do not form a part of the Contract Documents.
- .3 Bidder shall interpret and draw its own conclusions about Information Documents and is encouraged to obtain specialist advice with respect thereto. Prime Consultant assumes no responsibility for such interpretations and conclusions.
- .4 Information contained in Information Documents may be time sensitive and dates shall be considered when interpreting Information Documents.
- .5 Bidder may rely upon the data contained in Information Documents, or parts thereof, which are specifically incorporated into Contract Documents by means of copying, transcribing or referencing, but shall draw his own conclusions from such data and shall not rely on opinions or interpretations contained therein.

INFORMATION DOCUMENTS

- .1 Information Documents, in whole or in part, consist of the following (which are available to Contractors bidding the project electronically upon request):
 - .1 There is no information on the existing lighting system at Legend's Field. Existing site conditions can be reviewed by Contractors, and access to lockable areas at the field can be gained by contacting the consultant during the bid period.

END OF SECTION

SUBMIT TO: City of Summerside – Tender Box
Financial Services, First Floor
275 Fitzroy Street, Summerside, PE
C1N 1H9

On behalf of the Owner

City of Summerside

PROJECT: Legend's Field Lighting Replacement – Summerside, PE

BIDDER: _____

(Legal Name)

(Street Address)

(City, Province, Postal Code)

1. Bid Price

- .1 Having examined the site, the Bid Documents, and addenda numbered _____ to _____ issued by the Consultant. Bidder to fill in blanks for addenda received.
- .2 Confirming that our Bid Price is based on specified provisions only,
- .3 Confirming that our Bid Price excludes HST,
- .4 I/We hereby offer to enter into a Contract to perform the Work required by the Bid Documents, and to furnish all materials, plant and labour necessary for the proper completion of the Work for the Bid Price indicated below in lawful money of Canada.

_____ Dollars

BID PRICE: (Bid Price in words, including allowance if any, excluding HST)

(\$ _____)

BID PRICE: (Bid Price in figures, including allowance if any, excluding HST)

- .5 Submitted this _____ day of _____ 20__.

2. Declarations

- .1 I/We state that no person, firm, or corporation other than the undersigned has any interest, financial or otherwise, in this Bid or in the proposed Contract for which the Bid is made.
- .2 I/We hold that this bid shall be held irrevocable and is open to acceptance by the Owner until 60 days after the bid closing date.
- .3 In submitting this Bid I/We understand that a Bid Revision will not be called if minor changes to the Bid Documents are contemplated by the Owner, or after, Bid Closing.
- .4 I/We agree that all bid form supplements called for by the Bid Documents form an integral part of this Bid.

- .5 I/We hold that our Bid Price includes allowance(s) if any, excluding HST.
- .6 The Owner reserves the right to request a Bid Revision from any or all Bidders where significant modifications to the Bid Documents become apparent at, or after, Bid Closing.
- .7 I/We agree that within 5 working days after notification in writing by the Owner of the acceptance of this Bid, within the time limits of the bid acceptance period stated above, that we will:
 - .1 Execute the Agreement between Owner and Contractor as specified in Section 00 70 00 – General Conditions.
- .8 I/we agree to complete the Work within the following timeframe:
 - .1 Onsite work to be completed in the following number of consecutive construction days. _____

3. Declarations

- .1 We, the undersigned, agree to submit within 24-hours of this Bid submission, the following forms, filled out as required and signed by the same person(s) whose signature(s) appear(s) on this Bid Form.
 - .1 Completed Section 00 45 00 – Information Submittal Forms.
 - .2 Certificate of account with the Workers Compensation Board of Prince Edward Island (WCB).
 - .3 Current proof of insurance, valid in the Province of Prince Edward Island and issued by an insurance company licensed to carry on such business in the Province of Prince Edward Island.

4. Signatures

SIGNED, SEALED AND SUBMITTED for and on the behalf of:

signature of Bidder's authorized representative

name of Bidder's authorized representative

title or status of person signing above
(print or type)

witness's signature or
corporate seal

name and title of witness

END OF SECTION

SUBMIT TO: City of Summerside – Tender Box
Financial Services, First Floor
275 Fitzroy Street, Summerside, PE
C1N 1H9

On behalf of the Owner

City of Summerside

PROJECT: Legend's Field Lighting Replacement – Summerside, PE

BIDDER: _____

(Legal Name)

(Street Address)

(Street Address)

(City, Province, Postal Code)

Part 1 Information Submittal Forms

- .1 Provide the following Information Submittal Forms to the Owner with Bid Submission:
 - .1 Information Submittal Form A – List of Subcontractors and Itemized Prices.
 - .2 Information Submittal Form B – Contractor Proposed Substitutions.
 - .3 Information Submittal Form C – Separate Prices.
 - .4 Information Submittal Form D – Alternate Prices.
- .2 Information contained on these forms will not be used for assessment of conformity of Bids.

INFORMATION SUBMITTAL FORM A – LIST OF SUBCONTRACTORS AND ITEMIZED PRICES

PROJECT: Legend's Field Lighting Replacement

Note: Where the bidder does not intend to employ a subcontractor, insert "Own Forces" in space provided. Price amounts itemized and totaled DO NOT include HST.

ITEM NO.	ITEM	UNIT	QUANTITY	UNIT BID PRICE	TOTAL BID PRICE
1	Supply and Install of All New Electrical and Lighting Equipment, as per the electrical drawings. Includes removal of existing lighting and mounting brackets, and all other work necessary.	LS	1	\$	\$
TOTAL BID PRICE (EXCLUDING HST) (TOTAL OF ALL ITEMS ABOVE)					\$ _____

Abbreviations: m = Lineal Meter m² = Square Meter m³ = Cubic Meter LS = Lump Sum T = Tonnes Ea = Each

SIGNATURE OF AUTHORIZED REPRESENTATIVE _____

Corporate Seal

INFORMATION SUBMITTAL FORM B – CONTRACTOR PROPOSED SUBSTITUTIONS

PROJECT: Legend's Field Lighting Replacement

The following are our prices for proposed Substitution Work listed hereunder. Such proposed Substitution Work and amounts are NOT INCLUDED in our Bid Price and DO NOT include HST.

<u>Specification Section Number</u>	<u>Description of Proposed Substitution</u>	<u>Effects on Bid price (\$)</u>	
		<u>Addition</u>	<u>Deletion</u>
	_____ _____ _____ _____	\$ _____	\$ _____
	_____ _____ _____ _____	\$ _____	\$ _____
	_____ _____ _____ _____	\$ _____	\$ _____
	_____ _____ _____ _____	\$ _____	\$ _____

Attach additional sheets as necessary to complete Contractor's list of substitutions.

INFORMATION SUBMITTAL FORM C – BREAKOUT PRICES

PROJECT: Legend's Field Lighting Replacement

Breakout Prices ARE INCLUDED in our Bid Price are provided below to identify our tender Price associated with each of the identified parts of the Work. The sum of all of the tables equals our Bid Price. If there is no cost associated with a particular item, mark 'NIL' or '0.00' in the related Breakout Price column (prices DO NOT include HST).

Breakout Prices		
Division	Description of Item	Breakout Price

INFORMATION SUBMITTAL FORM D – ALTERNATE PRICES

PROJECT: Legend's Field Lighting Replacement

The following are our prices for Alternate Work listed hereunder. Such Alternate Work and amounts are **NOT INCLUDED** in our Bid Price and **DO NOT** include HST.

Section Number	Description of Work	Effect on Bid Price (\$)	
		Addition	Deletion
		\$ _____	\$ _____
		\$ _____	\$ _____
		\$ _____	\$ _____
		\$ _____	\$ _____

Attach additional sheets as necessary to complete Contractor's List of Alternate Prices.

Bidders' Initials

END OF SECTION

1. GENERAL CONDITIONS

- .1 The Form of Agreement and the General Conditions of the Contract are contained in the Canadian Construction Documents Committee CCDC 2: Stipulated Price Contract and as modified by Section 00 80 00 – Supplementary General Conditions.
- .2 A copy of the CCDC 2: Stipulated Price Contract may be obtained at the Contractor's expense from any Construction Association or directly from the Canadian Construction Documents Committee Website, located at:
 - .1 www.ccdc.org

END OF SECTION

Part 1 General

1.1 WORK COVERED BY CONTRACT DOCUMENTS

- .1 Work of this project involves (but is not limited to):
 - .1 Replacement of 8 outdoor lights around the perimeter of Legend's Field in Summerside, PE, as per the contract drawings. Existing light poles and base structures are to remain.
 - .1 All work is to be completed prior to 5:00 PM, Monday – Friday. At the end of all working days (5:00 pm), all equipment must be removed from the field to allow it to be used.
 - .2 Lighting can be non-operational in the evening hours until the end of July. Past July 30th, if required, all lighting structures must be operational beyond 5:00 PM to allow the field to be used at nighttime, unless coordinated and noted in advance in writing from the City of Summerside. All costs associated with this are considered incidental to the work and shall be included in the contractors bid price.
 - .2 The scope of work is as indicated on the Contract Drawings and in accordance with the Contract Specifications. The Contract Drawings and Specifications shall be read together as a whole to determine the scope of the project and the work required.
 - .3 All completed work shall follow all requirements within the Contract Specifications, including the City of Summerside's Standard Specifications. In case of conflict within the specifications, the more stringent requirement shall apply.

1.2 CONTRACT METHOD

- .1 Construct work under single stipulated price contract in accordance with Section 00 70 00 - General Conditions.

1.3 CONTRACT TIME

- .1 Perform work within times stated as follows:
 - .1 Start and Finish Dates to be determined.
 - .2 Required date of Substantial Performance: per item 1.3.1.2.1 below.
 - .1 'Substantial Performance' means 'Substantial Performance' as defined by the Mechanics' Lien Act of Prince Edward Island.
 - .2 The Contractor shall immediately publish the Certificate of Substantial Performance in the Daily Commercial News (DCN) upon issuance.
 - .3 Required date of **Final Completion**: per item 1.3.1.4.3 below.
 - .4 Milestone Schedule:
 - .1 **Award**: On or before May, 2022
 - .2 **Mobilization**: On or before May, 2022
 - .3 **Final Completion**: On or before July 30th, 2022

1.4 DEFINITIONS

- .1 Notwithstanding definitions specified elsewhere, the following definitions take precedence and govern specification Divisions 01 through 33 inclusive of the Contract Documents. In the event of conflict, the following shall govern.
 - .1 Construction Schedule: as defined in Section 01 32 16 - Construction Schedule.
 - .2 Consultant: the prime consultant and project manager is Bellcor Engineering Inc., and the term 'Consultant' means Bellcor Engineering Inc. and all of their subconsultants, sub-contractors and specialists engaged by them for this project.
 - .3 Contractor: the party having entered into and executed a contract with the Owner to complete the total construction of the Project.
 - .4 Equivalent: means a material or product that has the same or better performance characteristics, physical properties, warranty provisions, and technical support as the specified

- material or product, and has been approved in accordance with the requirements of Section 01 62 00.
- .5 May: 'may' is used to express an option or that which is permissible within the limits of the contract.
 - .6 Must: 'must' is used in the specifications to indicate a requirement that is contractually binding, meaning it is required to be implemented, and its implementation verified; it has the same contractual purpose as 'shall' in the specifications.
 - .7 Place of the Work means the location of the Work identified in the Contract Documents.
 - .8 Product: means material, machinery, equipment, and fixtures forming the Work.
 - .9 Project Team: all the parties involved in the Project, including Owner, Consultant, Contractor, Subcontractors and Suppliers.
 - .10 Project: means the total construction contemplated of which the Work may be the whole or a part.
 - .11 Provide: means to supply and install.
 - .12 Shall: 'shall' is used in the specifications to indicate a requirement that is contractually binding, meaning it is required to be implemented, and its implementation verified.
 - .13 Should: 'should' is used in the specifications to indicate a goal that must be addressed by the Contractor but is not formally verified. The Contractor is required to communicate to the Consultant at progress meetings how they are intending to achieve the goal and what progress they have made.
 - .14 Supplier: means person or entity having direct contract with Contractor, trade contractor or subcontractor, or to supply Products.
 - .15 Trade Contractor, Subcontractor means person or entity having direct contract with Contractor to perform a part or parts of the Work at the Place of the Work.
 - .16 Will: 'will' is used in the specifications to indicate a statement of fact.
 - .17 Work: means the total construction or a part or parts thereof and related services required by the Contract Documents.
 - .18 Other DEFINITIONS as specified in Contract referenced in 1.1 REFERENCES of this Section.

1.5 USE OF DEFINED TERMS

- .1 The parties to the Contract agree that a term found defined in DEFINITIONS of the Contract Documents and used in the Specifications, whether appearing in regular font or in italics or capitalized or not, shall have the meaning of that defined term.

1.6 COORDINATION

- .1 Subcontractors, and Suppliers shall cooperate with each other in carrying out their respective works as required to maintain Construction Schedule and eliminate inefficiencies and carry out instructions of Contractor and Consultant.
- .2 Subcontractors and Suppliers shall coordinate work with that of other Subcontractors and Suppliers as required to maintain Construction Schedule and eliminate inefficiencies. If any part of the Work subcontracted depends for its proper execution or result upon Work of another subcontract, report promptly in writing any constraints that may interfere with proper and timely execution of the Work contracted to Contractor and Consultant.
- .3 Coordination and cooperation between Subcontractors and Suppliers is required.
- .4 Coordinate use of worksite and property under direction of Contractor and Consultant.
- .5 Obtain and pay for use of additional storage or work areas needed for operations under this

Contract.

1.7 CONTRACTOR USE OF PREMISES

- .1 Contractor has full access to the site for the purposes of executing the Work of Contract.
- .2 Site use must comply with approved Site Logistic Layout drawing.

1.8 RECORDS AND SCHEDULES

- .1 Keep a permanent record on site of Work progress, commencement and completion dates, weather conditions, numbers of people engaged on site, and visits to the site by Owner, Consultant, jurisdictional authorities, utilities, and others that may have influence over or impact on the Work.
- .2 If a complaint is received from public and/or neighbors, record complaint and actions and remedies taken. Resolvable complaints shall be remedied within 24-hours of notification and communicated to Consultant immediately if not of the resolvable type in Contractor's judgement.
- .3 Submit copy of the record upon request by Consultant.

1.9 COMMISSIONING

- .1 Cooperate with commissioning processes, and schedule and sequence the Work as required to accommodate commissioning activities in compliance with the Project Schedule.
- .2 Contractor shall perform integrated systems commissioning of interconnected systems:
 - .1 Perform Integrated Systems Tests to confirm that Systems and Subsystems perform and function in concert according to the design intent and requirements of the Contract Documents.
 - .2 Commission Fire Protection Systems: commission fire alarm system and interaction with other systems such as elevators, pull stations, doors, smoke detectors, heat detectors, combination smoke and heat detectors, and electronically supervised sprinkler system, as required to ensure the proper operation and functional interactions between systems in accordance with ULC S1001-11, Standard for Integrated Systems Testing of Fire Protection and Life Safety Systems.
 - .3 Make available the original equipment manufacturer's trained certified representatives familiar with the Systems, combination of Systems, or Subsystems being Commissioned to demonstrate their operation in their entirety, including all control sequences. Owner reserves the right to request additional representation, at no cost to Owner. Consultant and Owner reserve the right to request ad hoc testing beyond the Commissioning procedures, the need for which may become evident during Commissioning.

1.10 SITE DOCUMENTS REQUIRED

- .1 Maintain at job site, one copy of each document as follows:
 - .1 Site Logistic Layout.
 - .2 Project Schedule updated bi-weekly.
 - .3 6-Week Lookahead Schedule, rolling, updated weekly.
 - .4 Weekly Work Plans updated weekly.
 - .5 Schedule of Deliverables: testing, mock-ups, shop drawings, samples.
 - .6 Mock-Up Lessons Learned – Summary of Findings.
 - .7 Drawings.

- .8 Specifications.
- .9 Addenda.
- .10 Quality Plan, and record of corrective and preventative actions taken to address non-conforming Work.
- .11 Reviewed Shop Drawings.
- .12 List of Outstanding Shop Drawings.
- .13 Change Directives.
- .14 Change Orders.
- .15 Field Test Reports.
- .16 Test certificates.
- .17 Warrantees.
- .18 Test and mix designs.
- .19 Health and Safety Plan, COVID-19 Plan, and other safety-related documents.
- .20 Workplace Hazardous Materials Information System (WHMIS) sheets.
- .21 Mechanical and electrical coordination drawings.
- .22 Other documents as specified in the technical sections, including datasheets, installation instructions, installation illustrations, manufacturer's specifications, handling, storage and environmental requirements, and maintenance and operating instructions.

END OF SECTION

1.1 ADMINISTRATIVE

- .1 Schedule and administer project meetings throughout the progress of the work at the call of Consultant.
- .2 Prepare agenda for meetings.
- .3 Distribute written notice of each meeting four working days in advance of meeting date to Consultant.
- .4 Provide physical space and make arrangements for meetings.
- .5 Preside at meetings.
- .6 Record the meeting minutes. Include significant proceedings and decisions. Identify actions by parties.
- .7 Reproduce and distribute copies of minutes within three working days after meetings and transmit to meeting participants, affected parties not in attendance, and Consultant.
- .8 Representative of Contractor, Subcontractor and suppliers attending meetings will be qualified and authorized to act on behalf of party each represents.

1.2 CONSTRUCTION START-UP WORKSHOP

- .1 Within 10-days after award of Contract, or as otherwise specified in Owner's procurement documents, a meeting of project parties shall be called to discuss and resolve administrative procedures and responsibilities.
- .2 Key representatives of the Consultant team, Owner team, and Contractor team shall be in attendance. Attendees shall be authorized to make agreements on behalf of the team they represent.
- .3 Coordinate time and location of the meeting and notify the parties concerned a minimum of 10-days before the meeting.
- .4 Agenda to include:
 - .1 Appointment of official representative of participants in the Work.
 - .2 Health and safety responsibilities and strategy.
 - .3 Electrical and mechanical coordination (interferences) drawings.
 - .4 Schedule of Work: in accordance with Construction Progress Schedules.
 - .5 Schedule of submission of shop drawings, samples, color chips. Submit submittals as specified.
 - .6 Development and implementation strategies of Project six-week look-ahead schedules, trade cross-referenced and coordinated weekly work plans, trade tool-box meetings, and project flow visualizations to maximize production in realizing Owner objectives.
 - .7 Requirements for temporary facilities, site sign, offices, storage sheds, utilities, fences.
 - .8 Delivery schedule of specified equipment.
 - .9 Site security and fencing.
 - .10 Sustainable construction and material selection strategies.
 - .11 Proposed changes, change orders, procedures, approvals required, mark-up percentages permitted, time extensions, overtime, administrative requirements.
 - .12 As-built drawings and record documents.
 - .13 Maintenance manuals.
 - .14 Take-over procedures, acceptance, and warranties.

- .15 Monthly progress claims, administrative procedures, photographs, hold backs.
- .16 Appointment of inspection and testing agencies or firms.
- .17 Insurances, transcript of policies.
- .18 Commissioning requirements.
- .19 Demonstration and training requirements.

1.3 PROGRESS MEETINGS

- .1 During course of Work schedule progress meetings bi-weekly (middle of month and end of month).
- .2 Contractor, major Subcontractors involved in Work and Consultant are to be in attendance.
- .3 Notify parties a minimum 10-days prior to meetings.
- .4 Record minutes of meetings and circulate to attending parties and affected parties not in attendance within 10-days after meeting.
- .5 Agenda to include the following:
 - .1 Review, approval of minutes of previous meeting.
 - .2 Review of Work progress since previous meeting.
 - .3 Six-week look-ahead schedule.
 - .4 Project Coordination.
 - .5 Review opportunities to maximize production through coordinated weekly work plans, trades cross-referencing to enable visualization of potential bottlenecks, and respective solution-finding.
 - .6 Field observations, problems, conflicts.
 - .7 Problems which impede construction schedule.
 - .8 Review of off-site fabrication delivery schedules.
 - .9 Corrective measures and procedures to regain project schedule.
 - .10 Revision to construction schedule.
 - .11 Progress schedule, during succeeding work period.
 - .12 Review submittal schedules: expedite as required.
 - .13 Maintenance of quality standards.
 - .14 Review proposed changes for effect on construction schedule and on completion date.
 - .15 Other business.

1.4 CONTRACTOR'S PRODUCTION PLANNING PROCESSES

- .1 Contractor's field superintendent and trade field supervisors shall meet regularly as needed for the following purposes:
 - .1 To develop internal phase schedules pertaining to the next milestone in the Master Schedule; updated weekly.
 - .2 Six-Week Lookahead Schedule: meet weekly to develop and update a rolling six-week lookahead schedule, together with a rolling Constraint Registry. The Constraint Registry shall capture and present an assessment of how to best remove constraints to what "should" be done over the next six weeks to establish what "can" be done week with a high degree of confidence, which in turn will be incorporated into each trade's Weekly Work Planning. Each constraint shall be assigned to the relevant party to remedy and report back to the Contractor's

field superintendent. Update weekly.

- .3 Weekly Work Schedules (trade- specific): meet each week to develop a list of assignments to be completed by each trade active at the site; that is, work that is going to take place on the first week of the rolling six-week look-ahead schedule and pre-screened for constraints to determine what can be done in the target week with a high degree of confidence. At the end of each week, measure Percent Project Complete (PPC), and identify reasons why tasks were not completed as scheduled to encourage proactive changes to overcome obstacles to performance.

END OF SECTION

1 DEFINITIONS

- .1 Activity: element of Work performed during course of Project. Activity normally has expected duration and expected cost and expected resource requirements. Activities can be subdivided into tasks.
- .2 Bar Chart (GANTT Chart): graphic display of schedule-related information. In typical bar chart, activities or other Project elements are listed down left side of chart, dates are shown across top, and activity durations are shown as date-placed horizontal bars. Generally, Bar Chart should be derived from commercially available computerized project management system.
- .3 Baseline: original approved plan (for project, work package, or activity), plus or minus approved scope changes.
- .4 Construction Schedule: shall mean Project Schedule.
- .5 Construction Work Week: Monday to Friday, inclusive, will provide 5-day work week and define schedule calendar working days as part of Bar (GANTT) Chart submission.
- .6 Duration: number of work periods (not including holidays or other nonworking periods) required to complete activity or another project element. Usually expressed as workdays or workweeks.
- .7 Master Plan: summary-level schedule that identifies major activities and key milestones.
- .8 Milestone: significant event in project, usually completion of major deliverable.
- .9 Project Schedule: planned dates for performing activities and the planned dates for meeting milestones. Dynamic, detailed record of tasks or activities that must be accomplished to satisfy Project objectives. Monitoring and control process involves using Project Schedule in executing and controlling activities and is used as basis for decision making throughout project life cycle.
- .10 Project Planning, Monitoring and Control System: overall system operated by Consultant to enable monitoring of project work in relation to established milestones.

2 REQUIREMENTS

- .1 Ensure Master Plan and Detail Schedules are practical and remain within specified Contract duration.
- .2 Plan to complete Work in accordance with prescribed milestones and time frame.
- .3 Limit activity durations to maximum of approximately 10 working days, to allow for progress reporting.
- .4 Ensure that it is understood that Award of Contract or time of beginning, rate of progress, Interim Certificate and Final Certificate as defined times of completion are of essence of this contract.
- .5 Submit Detail Schedules to Construction Manager and Consultant within 15 working days of Award of Contract in the form of a Bar (GANTT) Chart for purposes of creation of a Master Plan, and Project planning, coordinating, monitoring and reporting Work progress.

3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit a preliminary project Master Plan during the Bid period in accordance with Section 00 21 13 – Instructions to Bidders.
- .3 Submit Project Schedule to Consultant within 15 working days of Award of Contract, including project Master Plan. Update weekly as required for duration of project.

4 PROJECT SCHEDULE

- .1 Develop detailed Project Schedule derived from Master Plan.
- .2 Ensure detailed Project Schedule includes, as minimum, the milestone and activity types as follows:
 - .1 Award.
 - .2 Shop Drawings, Samples.
 - .3 Permits.
 - .4 Mobilization.
 - .5 Inspections by authorities having jurisdiction.
 - .6 Exterior Site:
 - .1 Soil stripping and stockpiling, rough grading.
 - .2 Excavation and backfill.
 - .3 Site services.
 - .4 Foundations, and concrete pads.
 - .5 Site finishes (asphalt, concrete, sod).
 - .7 Exterior construction:
 - .1 Slab-on-grade.
 - .2 Structural steel.
 - .3 Exterior walls.
 - .4 Roofing and roof hatches.
 - .5 Exterior windows and doors.
 - .8 Interior Construction:
 - .1 Partitions.
 - .2 Interior Doors and Screens.
 - .3 Fittings.
 - .9 Interior Finishes:
 - .1 Wall Finishes.
 - .2 Floor Finishes.
 - .3 Ceiling Finishes.
 - .10 Services:
 - .1 Plumbing.
 - .2 HVAC.
 - .3 Fire Protection.
 - .4 Electrical.
 - .5 IT and Security.
 - .11 Fixed Furnishings: millwork and cabinetry.
 - .12 Specialties.
 - .13 Commissioning.

- .14 Demobilization.
- .15 Closeout submissions.
- .16 Supplied equipment long delivery items.
- .17 Required dates for supplied equipment.

5 PROJECT SCHEDULE REPORTING

- .1 Update Project Schedule every two weeks reflecting activity changes and completions, as well as activities in progress.
- .2 Include as part of Project Schedule, narrative report identifying Work status to date, comparing current progress to baseline, presenting current forecasts, defining problem areas, anticipated delays and impact with possible mitigation.

6 PROJECT MEETINGS

- .1 Discuss Project Schedule at regular site meetings, identify activities that are behind schedule and provide measures to regain slippage. Activities considered behind schedule are those with projected start or completion dates later than current approved dates shown on baseline schedule.
- .2 Weather related delays with their remedial measures will be discussed and negotiated.

END OF SECTION

1.1 ADMINISTRATIVE

- .1 Submit to relevant Consultant submittals listed for review using online document management system.
- .2 Submit promptly and in orderly sequence to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .3 Do not proceed with Work affected by submittal until review is complete.
- .4 Present shop drawings, product data, samples, and mock-ups in same unit of measure as the Contract Drawings.
- .5 Review submittals prior to submission to Consultant. This review represents that the necessary requirements have been determined and verified, or will be, and that each submittal has been checked and coordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated, and identified as to specific project will be returned without being examined and considered rejected.
- .6 Notify Consultant in writing at time of submission, identifying deviations from requirements of Contract Documents, stating reasons for deviations.
- .7 Verify field measurements and affected adjacent Work are coordinated.
- .8 Contractor's responsibility for errors and omissions in submission is not relieved by Consultant's review of submittals.
- .9 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Consultant review.
- .10 Keep one reviewed copy of each submission on site.

1.2 SHOP DRAWINGS AND PRODUCT DATA

- .1 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work.
- .2 Submit shop drawings bearing stamp and signature of qualified professional engineer registered or licensed in Province of Prince Edward Island, Canada.
- .3 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes, and other information necessary for completion of Work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been coordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.
- .4 Allow 10 working days for Consultant's review of each submission.
- .5 Adjustments made on shop drawings by Consultant are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Consultant prior to proceeding with Work.
- .6 Make changes in shop drawings as Consultant may require, consistent with Contract Documents. When resubmitting, notify Consultant in writing of revisions other than those requested.
- .7 Accompany submissions with transmittal letter containing:
 - .1 Date.
 - .2 Project title and number.
 - .3 Contractor's name and address.

- .4 Identification and quantity of each shop drawing, product data and sample.
- .5 Other pertinent data.
- .8 Submissions include:
 - .1 Date and revision dates.
 - .2 Project title and number.
 - .3 Name and address of:
 - .1 Subcontractor.
 - .2 Supplier.
 - .3 Manufacturer.
 - .4 Contractor's stamp, signed by Contractor's authorized representative, certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
 - .5 Details of appropriate portions of Work as applicable:
 - .1 Fabrication.
 - .2 Layout, showing dimensions, including identified field dimensions, and clearances.
 - .3 Setting or erection details.
 - .4 Capacities.
 - .5 Performance characteristics.
 - .6 Standards.
 - .7 Operating weight.
 - .8 Wiring diagrams.
 - .9 Single line and schematic diagrams.
 - .10 Relationship to adjacent work.
- .9 Each shop drawing must be accompanied by a completed "CONTRACTOR'S SHOP DRAWING REVIEW FORM, attached following this Section, one form per shop drawing. The forms must be executed by the Contractor's senior project manager assigned to the project and who has authority to sign on behalf of the Contractor. Submissions shall be made electronically in pdf format.
- .10 After Consultant's review, distribute copies.
- .11 Submit electronic copy of shop drawings for each requirement requested in specification Sections and as Consultant may reasonably request.
- .12 Submit electronic copies of product data sheets or brochures for requirements requested in specification Sections and as requested by Consultant where shop drawings will not be prepared due to standardized manufacture of product.
- .13 Submit electronic copies of test reports for requirements requested in specification Sections and as requested by Consultant.
 - .1 Report signed by authorized official of testing laboratory that material, product, or system identical to material, product or system to be provided has been tested in accord with specified requirements.
 - .2 Testing must have been within 3 years of date of contract award for project.
- .14 Submit electronic copies of certificates for requirements requested in specification Sections and as requested by Consultant.
 - .1 Statements printed on manufacturer's letterhead and signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets

- specification requirements.
- .2 Certificates must be dated after award of project contract complete with project name.
 - .15 Submit electronic copies of manufacturer's instructions for requirements requested in specification Sections and as requested by Consultant.
 - .1 Pre-printed material describing installation of product, system, or material, including special notices and Material Safety Data Sheets concerning impedances, hazards, and safety precautions.
 - .16 Submit electronic copies of Manufacturer's Field Reports for requirements requested in specification Sections and as requested by Consultant.
 - .1 Documentation of the testing and verification actions taken by manufacturer's representative to confirm compliance with manufacturer's standards or instructions.
 - .17 Submit electronic copies of Operation and Maintenance Data for requirements requested in specification Sections and as requested by Consultant.
 - .18 Delete information not applicable to project.
 - .19 Supplement standard information to provide details applicable to project.
 - .20 If upon review by Consultant, no errors or omissions are discovered or if only minor corrections are made, copies will be returned, and fabrication and installation of Work may proceed. If shop drawings are rejected, noted copy will be returned and resubmission of corrected shop drawings, through same procedure indicated above, must be performed before fabrication and installation of Work may proceed.
 - .21 The review of shop drawings by the Consultant is for sole purpose of ascertaining conformance with general design concept.
 - .1 This review shall not mean that Consultant approves detail design inherent in shop drawings, responsibility for which shall remain with Contractor submitting same, and such review shall not relieve Contractor of responsibility for errors or omissions in shop drawings or of responsibility for meeting requirements of construction and Contract Documents.
 - .2 Without restricting generality of foregoing, Contractor is responsible for dimensions to be confirmed and correlated at job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for coordination of Work of sub-trades.

1.3 SAMPLES

- .1 Submit for review samples in duplicate as requested in respective specification Sections. Label samples with origin and intended use.
- .2 Deliver samples prepaid to Consultant's business address.
- .3 Notify Consultant in writing, at time of submission of deviations in samples from requirements of Contract Documents.
- .4 Where color, pattern or texture is criterion, submit full range of samples.
- .5 Adjustments made on samples by Consultant are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Consultant prior to proceeding with Work.
- .6 Make changes in samples which Consultant may require, consistent with Contract Documents.
- .7 Reviewed and accepted samples will become standard of workmanship and material against which installed Work will be verified.

1.4 MOCK-UPS

- .1 Erect mock-ups as specified.

1.5 CERTIFICATES AND TRANSCRIPTS

- .1 Prior to Contract start-up and commencement of work onsite, submit Workers' Compensation Board status.
- .2 Prior to Contract start-up and commencement of work onsite, submit transcription of insurance.

END OF SECTION

1.1 SUMMARY

- .1 Delegated Design Submittals shall account for professional engineering responsibility for design, review, and acceptance of components of Work forming a part of permanent Work in accordance with National Building Code of Canada 2015 (NBC) and that has been assigned to a design entity other than Consultant including, but not limited to, the following:
 - .1 Design requiring structural analysis of load bearing components and connections.
 - .2 Design requiring compliance with fire safety regulations.
 - .3 Design requiring compliance with life or health safety regulations.
- .2 Delegated Design Submittals are not required for components of Work requiring engineering for temporary Work (e.g., crane hoisting, engineered lifts, falsework, shoring, concrete formwork, etc.) that would normally form a part of Contractor's scope of Work.
- .3 The requirements of this section do not change or diminish responsibilities of Consultant of Record. Submittals will be used by the Consultant of Record to establish that Work meets or exceeds the requirements of NBC 2015.

1.2 DELEGATED DESIGN

- .1 Performance and Design Criteria: Provide products and systems complying with specific performance and design criteria indicated where professional design services or certifications by a design professional are specifically required of Contractor by Contract Documents.
- .2 If criteria indicated are not sufficient to perform services or certification required, submit a written request for additional information to Consultant.
- .3 Delegated design will be required for elements designed by a specialty professional, all loads as determined in accordance with NBC requirements, which may include but are not necessarily limited to the following:
 - .1 Elements normally fabricated off-site.
 - .2 Elements that require specialized fabrication equipment or a proprietary fabrication process not usually available at job site.
 - .3 Elements requiring civil engineering not normally a part of scope of services performed by architectural, structural, mechanical, or electrical disciplines of Consultant.
 - .4 Specification Sections requiring engineered shop drawings, which include but are not necessarily limited to the following:
 - .1 Structural engineering Sections (e.g., structural steel, cast-in-place concrete, steel joist framing).
 - .2 Section 05 50 00 - Metal Fabrications.
 - .3 Section 06 10 00 - Rough Carpentry.
 - .4 Section 07 42 33 - Insulated Plastic Wall Panels
 - .5 Section 07 42 43 - Insulated Wall Panels
 - .6 Section 07 44 46 - High-Density Fibre-Reinforced Cement Panels
 - .7 Section 08 33 23_00 - Overhead Coiling Doors
 - .8 Section 08 43 10 - Tempered Glass Partitions and Doors
 - .9 Section 08 44 13 - Glazed Aluminum Framing Systems
 - .10 Section 10 28 13 - Toilet Accessories
 - .11 Section 11 13 16 - Loading Dock Equipment

- .12 Divisions 23 and 26: Coordinate with disciplines for items requiring delegated design submittals.
- .13 Other Sections specifying submission of engineered shop drawings.

1.3 LETTER OF COMMITMENT

- .1 Submit a signed and sealed Letter of Commitment on company letterhead addressed to Consultant in accordance with format in Appendix A attached to the end of this Section prior to starting Work requiring design and seal of a professional engineer.

1.4 LETTER OF COMPLIANCE

- .1 Submit a signed and sealed Letter of Compliance on company letterhead addressed to Consultant in accordance with format in Appendix B attached to the end of this Section on completion of Work requiring design and seal of a professional engineer.

1.5 IMPLEMENTATION

- .1 Include summary of Work described in relevant technical specification section as a part of the required Letter of Commitment.
- .2 Prepare required submittals and present to Consultant within sufficient time to allow for Consultant's detailed review and acceptance.

END OF SECTION

APPENDIX A

LETTER OF COMMITMENT

Submit a signed and sealed letter of commitment on company letterhead in the form as follows:

[Date]

[Consultant]

[Consultant's Address]

Attention: [Consultant's Registered Professional of Record]

Re: Letter of Commitment for Delegated Design of [System of Component of Work]
BioScience Manufacturing Incubator
Regis Duffy Lane, Lot 17, Charlottetown, PE
Project Number: 1924.00
[Date of applicable tender package]

As the retained registered professional engineer for design and field review of the above-named component of Work and project, I hereby give assurance I am qualified to perform the following Work as required by Contract Documents:

- .1 [List appropriate design services for System or Component of Work];
- .2 Preparation of shop and erection documents.
- .3 Review fabrication of [structural] [fire rated] [life and health safety] components.
- .4 Review erection of [structural] [fire rated] [life and health safety] components.
- .5 [Modify list to suit System of Component of Work.]

I hereby give assurance that I will be responsible for above noted Work as described in Section [?????] – [Name of Section] of Project Manual, including requirements of addenda, change orders and change directives.

I also undertake to be responsible for field review of fabrication and erection of [structural] [fire rated] [life and health safety] components as required to ascertain substantial compliance with the Contract Documents.

I will notify you in writing if my responsibility is terminated at any time during the course of Work covered by this Letter of Commitment.

Retained Professional Engineer

Signature

Date

(Apply seal)

APPENDIX B

LETTER OF COMPLIANCE

[Date]

[Consultant]

[Consultant's Address]

Attention: [Consultant's Registered Professional of Record]

Re: Letter of Commitment for Delegated Design of [System of Component of Work]
BioScience Manufacturing Incubator
Regis Duffy Lane, Lot 17, Charlottetown, PE
Project Number: 1924.00
[Date of applicable tender package]

I hereby give assurance that I have fulfilled my obligations for field review as outlined by previously submitted Letter of Commitment.

I hereby give assurance that aspects of [structural] [life and health safety] Work as defined by previously submitted Letter of Commitment substantially comply with the Contract Documents.

Retained Professional Engineer

Signature

Date

(Apply seal)

1.1 REFERENCES

- .1 Observe construction safety measures of the following, including applicable Regulations made under the referenced documents whether expressly listed or otherwise applying to any aspect of the Contract:
- .2 Federal Legislation:
 - .1 National Building Code 2015, Part 8.
 - .2 National Fire Code of Canada.
 - .3 Dangerous Goods Transportation Act.
 - .4 Other Acts and Regulations applicable to the Work.
- .3 P.E.I. Provincial Legislation:
 - .1 Provincial Building Code Act.
 - .2 Latest edition of the Occupational Health & Safety Act Statutes of Prince Edward Island (including any amendments to and regulations).
 - .3 Occupational Health and Safety Act Scaffolding Regulations.
 - .4 Occupational Health and Safety Act Fall Protection Regulations.
 - .5 Workers' Compensation Act.
 - .6 Fire Prevention Act.
 - .7 Dangerous Goods Transportation Act.
 - .8 Industrial Best Practices for Equipment Isolation and Lockout Policy.
 - .9 Prince Edward Island Environmental Protection Act.
 - .10 Other Acts and Regulations applicable to the Work.
- .4 Standards:
 - .1 CSA S269.1-16, Falsework and Formwork.
 - .2 CSA S269.2-16, Access Scaffolding for Construction Purposes.
 - .3 CAN/CSA S269.3-M92 (R2013), Concrete Formwork.
 - .4 Other safety standards applicable to the Work.
- .5 In case of conflict or discrepancy within the cited references above, the more stringent requirement shall apply.
- .6 Where reference is made to jurisdictional authorities or authorities having jurisdiction, it shall mean all authorities who have within their constituted powers the right to enforce the laws of the place of the building.
- .7 Where reference is made to an Act, Regulations made under the Act applicable to the Work apply to this Contract.
- .8 Maintain clear emergency exit paths.
- .9 Ensure that employees working on this specific project have met training requirements as legislated by the Prince Edward Island Occupational Health and Safety Act and its regulations.

1.2 CONSTRUCTOR

- .1 Responsibility for Work Site Safety - this Contractor Is "Constructor":
 - .1 The Contractor shall, for the purposes of the Occupational Health and Safety Act (Province of Prince Edward Island), and for the duration of the Work of this Contract:

- .1 Be the "Constructor" for the "Work Site", and
 - .2 Meet all requirements of the Occupational Health and Safety Act and Regulations, Workers Compensation Board legislation, the Fire Code legislation and all other applicable laws that govern workplace safety.
- .2 The Contractor shall employ or engage the services of a safety officer who has one of the recognized safety certifications or designations listed in "Guide to OH&S Certifications & Designations", produced by the Canadian Society of Safety Engineering. The safety officer shall oversee site safety on behalf of the Contractor, and shall have the authority to stop dangerous work, direct the correction of safety deficiencies, offer site-specific safety training, and manage the Contractor's safety procedures for the duration of the Contract

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Make submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit site-specific Health and Safety Plan: Within 7 days after date of Notice to Proceed and prior to commencement of Work. Health and Safety Plan must include:
 - .1 Results of site-specific safety hazard assessment.
 - .2 Results of safety and health risk or hazard analysis for site tasks and operation found in work plan.
- .3 Submit 2 copies of Contractor's authorized representative's work site health and safety inspection reports to Consultant and authority having jurisdiction, weekly.
- .4 Submit copies of reports or directions issued by Federal and Provincial health and safety inspectors.
- .5 Submit copies of incident and accident reports.
- .6 Submit WHMIS MSDS - Material Safety Data Sheets.
- .7 Consultant will review Contractor's site-specific Health and Safety Plan and provide comments to Contractor within 7 days after receipt of plan. Revise plan as appropriate and resubmit plan to Consultant within 7 days after receipt of comments from Consultant.
- .8 Consultant's review of Contractor's final Health and Safety plan should not be construed as approval and does not reduce the Contractor's overall responsibility for construction Health and Safety.
- .9 Medical Surveillance: where prescribed by legislation, regulation, or safety program, submit certification of medical surveillance for site personnel prior to commencement of Work, and submit additional certifications for any new site personnel to Consultant
- .10 On-site Contingency and Emergency Response Plan: address standard operating procedures to be implemented during emergency situations.

1.4 OVERLOADING

- .1 Ensure no part of Work is subjected to loading that will endanger its safety or will cause permanent deformation.

1.5 FALSEWORK AND FORMWORK

- .1 Design and construct falsework and formwork in accordance with CSA S269.1 and CAN/CSA S269.3.

1.6 HOISTS AND CRANES

- .1 Operate such equipment only by qualified hoist or crane operators, and maintain current inspection certificate.

1.7 SCAFFOLDING AND FALL ARREST

- .1 Design and Construct Scaffolding in accordance with CSA S269.2.
- .2 Each user of scaffolding shall examine scaffolding for sufficiency before using it. He or she shall make it secure or shall notify the Contractor in Writing that he or she will not commence work until it is made secure.
- .3 Comply with the requirements of Province of Prince Edward Island OHS Act Fall Protection and Scaffolding Regulations.

1.8 EQUIPMENT AND TOOLS

- .1 Each user of equipment or tools shall be appropriately trained and be responsible to examine for sufficiency before use. Make equipment and tools safe if necessary or notify the Contractor in writing that user will not commence work with such tools until it is made safe.

1.9 WHMIS

- .1 Comply with the requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and comply regarding labeling and provision of material safety data sheets.
- .2 Have a copy of WHMIS data sheets available at the workplace on delivery of materials.

1.10 HAZARDOUS MATERIALS

- .1 Should materially resembling hazardous materials [other than those identified with the Contract Documents], including but not limited to spray or trowel applied asbestos, be encountered in course of work; stop work immediately. Do not proceed until written instructions have been received from Consultant.
- .2 Any material which contains asbestos that is disturbed or removed during construction work (see Asbestos content Report), shall be removed in accordance with the regulations set out by the Occupational Health and Safety Act. All costs for proper cutting, removal, and disposal of all asbestos on this contract shall be included in Tender.
- .3 Where work entails use, storage, or disposal of toxic or hazardous materials, chemicals and/or explosives, or otherwise creates a hazard to life, safety, health, or the environment; work shall be in accordance with the Jurisdictional Authority.

1.11 SITE CLEANING

- .1 Maintain public right-of -ways, easements, paths, sidewalks, roads, and the like, free of construction debris, dirt and any harmful material originating from construction activities.
- .2 Protect sewerage from accumulation of dirt and other material. Clean sewers walk and roads as frequently as required to ensure that they are clear of materials, debris and excavated material.
- .3 Remove snow and ice from public rights-of way within the boundaries of the construction site.

1.12 FIRE SAFETY REQUIREMENTS

- .1 Enforce fire protection methods, good housekeeping and adherence to local and underwriter's fire regulations including, but not limited to, Fire Protection Act and the Provincial Building Code Act. Provide UL approved fire extinguishers, and other firefighting services and equipment, except where more explicit requirements are specified as the responsibility of individual Sections.

- .2 Hot Work will not be permitted on or within the building structure, tanks, or confined spaces, except as outlined herein. Prior to conducting hot work, a hot work permit shall be prepared and submitted. An example format for a hot work permit shall be included in the Safety document submission. The permit shall describe compliance with the following procedures. After tank or confined space interiors or building areas have been decontaminated, hot work may be conducted only when the tank or confined space is inverted. Hot work shall not be performed unless monitoring indicates atmospheres within and immediately surrounding are less than eight percent (8%) oxygen inside less than ten percent (10%) of the LFL outside; continuous monitoring shall continue until the hot work is completed. The hot work prohibition includes welding, cutting, grinding, sawing, or other similar operations which could be expected to potentially generate combustion- producing temperatures or sparks, or which could produce potentially hazardous fumes or vapours. An individual at each hot work site shall be designated as a fire watch. This person's sole responsibility shall be to monitor the hot work and have immediate access to at least two (2) twenty (20) pound fire extinguishers located at each hot work site. All extinguishers shall be currently inspection tagged, approved safety pin and tamper resistant seal. A new permit shall be obtained at the start of each work shift during which hot work will be conducted.
- .3 Smoking permitted in designated areas only. Exercise care in the use of smoking materials.
- .4 Advise the Fire Chief in Work of any work that would impede fire apparatus response, including but not limited to violation of minimum overhead clearance prescribed by the fire chief, erecting of barricades and digging of trenches.
- .5 Fire Separations:
 - .1 Ensure that fire separations are installed to maintain total integrity and that they are not breached by Work following their installation.
 - .2 Replace fire separations which have suffered a lessening of their required rating during construction.
- .6 Ensure nothing subverts the integrity of fire protection provided for the building structure.
- .7 Coordinate work of all sections so that they do not encroach on space required for fire protection and its installation. Ensure that fire protection damage during construction is totally replaced.

1.13 REPORTING FIRES

- .1 Know the location of the nearest fire alarm box and telephone, including the emergency phone number.
- .2 Report immediately all fire incidents to the fire department as follows:
- .3 Activate nearest fire alarm box, or Telephone 911.
- .4 Where fire alarm box is exterior to building, the person activating the fire alarm box shall remain at the box to direct Fire Department to scene of the fire.
- .5 When reporting a fire by telephone, give location of fire, name or number of building and be prepared to verify the location.

1.14 ENVIRONMENTAL PROTECTION

- .1 Ensure that pollution and environmental control of construction activities are exercised during the Work to requirements of the federal and provincial environmental acts; including, but not limited to, the Prince Edward Island Environmental Protection Act.

1.15 SAFETY DOCUMENT SUBMISSION

- .1 Ensure Safety Document Submission applies to Work of this specific project and site.
- .2 Submit two copies of Safety Document at the Pre-Construction Meeting. Do not commence Work nor deliver material on-site prior to submission.
- .3 Included in Safety Document submission specific information detailing the methods and procedures to be implemented ensuring adherence to the acts, regulations, codes and policies specified in this section and to:
- .4 Ensure the health and safety of persons at or near the Work; including, but not limited to, the Public.
- .5 Ensure the measures and procedures of the regulatory agencies specified are carried out.
- .6 Ensure every employee, self-employed person and employer performing Work under this contract complies with the regulatory agencies specified.
- .7 Where changes to the methods and procedures in the execution of work change submitted safety methods and procedures, modify submitted Safety Documentation and submit modifications, in writing to the Consultant prior to implementation.

1.16 SAFETY DOCUMENT ORGANIZATION

- .1 Organize information in the form of an instructional manual as follows:
- .2 Place in binders of commercial quality, 8-1/2" x 11" x 3" maximum ring size.
- .3 Cover: Identify binder with typed or printed title "Project Safety Document" and list the title of the project.
- .4 Provide tabbed fly leaf for each separate heading, with typed heading on tab.
- .5 Where drawings are within the safety document, provide with reinforced punched binder tab. Bind in with text, fold in larger drawings to size text pages.
- .6 Arrange content under Safety Document headings specified herein.

1.17 SAFETY DOCUMENT ORGANIZATION

- .1 Employee Safety Training:
 - .1 Place, under this heading, a statement indicating employees working on this specific project have met specified training requirements.
- .2 Company Safety Policy:
 - .1 Place, under this heading, information pertaining to the company's policy and commitment to Occupational Health and Safety, including the responsibilities of management, supervisors and works.
- .3 Company Safety Rules in General Terms:
 - .1 Place, under this heading, information of a general, global nature, applying to every work environment where the company has staff pertaining to rules directing compliance to policy. For example, state company safety rules with respect to use of hard hats, safety glasses, safety footwear, CSA approval on such items, use of alcohol or non-prescription drugs.
- .4 Hazard Assessment:
 - .1 Place, under this heading, information identifying possible hazards specific to this project and identify safe methods and procedures for the execution of work to ensure safety in the workplace.

- .2 Arrange contents of this heading by technical section number on the project manual.
- .5 COVID-19 Action Plan:
 - .1 Methods and processes for keeping workers and visitors safe.
- .6 Emergency Action Plan:
 - .1 Place, under this heading, information detailing action to be taken in the event of various emergencies.
 - .2 Arrange content under the following sub-headings:
 - .1 First Aid:
 - (1) Include information concerning establishment of a First Aid Station, related supplies, staff awareness of location and staff training in First Aid Care of Casualties.
 - .2 Contact Emergency Support Groups:
 - (1) Include relative information including phone location for emergency use, the emergency telephone numbers (and their location) for the various organizations which must be contacted in case of an emergency, and staff training in procedures.
 - .3 Cessation of Work:
 - (1) Include relative information how work cessation during emergencies is handled and communicated to persons present on site.
 - .4 Joint Occupational Health and Safety Committee Representative:
 - (1) Place under this heading information detailing membership and terms of reference.

END OF SECTION

1.1 REFERENCES AND CODES

- .1 The following documents are part of Contract and Work must meet or exceed the requirements specified by each:
- .2 Perform Work in accordance with Charlottetown Building Code, National Building Code of Canada (NBC) 2015, NECB, and the provisions of the Building Code Act and Regulations of Prince Edward Island, including amendments up to tender closing date, and other Codes of federal, provincial, or local jurisdiction that govern the Work of this Project, latest editions including amendments.
- .3 Building must meet the requirements of the National Energy Code of Canada for Buildings 2017 (NECB).
- .4 City of Charlottetown Building Code Bylaw (PH-BC.2), and Amendment PH-BC.2-001, March 28, 2019.
- .5 Contract Documents.
- .6 Specified standards, codes, and referenced documents found in individual specification sections.
- .7 City of Charlottetown, P.E.I., by-laws, ordinances, regulations, and directives that apply to the contracted work and place of the work.

1.2 HAZARDOUS MATERIAL DISCOVERY

- .1 Asbestos: Demolition of friable, or spray or trowel-applied, asbestos is hazardous to health. Should material resembling friable, or spray or trowel-applied, asbestos be encountered in course of demolition work, immediately stop work and notify Consultant.

1.3 BUILDING SMOKING ENVIRONMENT

- .1 No smoking of any kind is permitted on or immediately adjacent to the building under construction.
- .2 Smoking restrictions always apply to all persons without exception.

1.4 NOISE

- .1 Comply with City of Summerside Noise and Nuisance Bylaw.

1.5 OFFENSIVE LANGUAGE AND HARASSMENT POLICY

- .1 Contractor shall ensure all workers are made aware of this policy. Individuals not abiding by this policy will be dismissed from the property.
 - .1 Foul language is not tolerated on the property.
 - .1 Foul language is language that is strongly impolite, rude, or offensive by the average person, and includes bad language, strong language, coarse language, bad words, vulgar language, lewd language, swearing, cursing, cussing, or use of expletives.
 - .2 Harassment of anyone on the property is not tolerated.
 - .1 Harassment includes physical and emotional abuse. Freedom from abuse is a fundamental human right, and any form of discomfort or discrimination perpetrated upon another by any means or method is prohibited.

1.6 LABOUR STANDARDS

- .1 Comply with the provisions of the P.E.I. Employment Standards Act and Regulations.

1.7 WORKERS' COMPENSATION

- .1 Comply with the provisions of the P.E.I. Workers Compensation Act and Regulations.

END OF SECTION

ASSOCIATIONS AND ORGANIZATIONS

- .1 Refer to the National Building Code of Canada, 2015: abbreviations and acronyms found in that document apply to this Project.
- .2 The following are typical abbreviations and acronyms frequently used in the Contract Documents when referencing associations and organizations.
 - .1 AA - Aluminum Association, 900 19th Street N.W., Washington, D.C., U.S.A. 20006 URL <http://www.aluminum.org>.
 - .2 ACEC Association of Consulting Engineers of Canada, 130 Albert Street, Suite 616, Ottawa, ON. K1P 5G4 URL <http://www.acec.ca>.
 - .3 AHA - American Hardboard Association, 1210W Northwest Hwy., Palatine, Illinois, U.S.A. 60067 URL: <http://www.hardboard.org>
 - .4 AITC - American Institute of Timber Construction, 7012 S. Revere Parkway, Suite 140, Englewood, Colorado, U.S.A. 80112 URL <http://www.aitc-glulam.org>.
 - .5 AMCA - Air Movement and Control Association Inc., 30 West University Drive, Arlington Heights, Illinois, U.S.A. 60004-1893 URL <http://www.amca.org>.
 - .6 ANSI - American National Standards Institute, 25 West 43rd Street, 4th Floor, New York, New York, U.S.A. 10036 URL <http://www.ansi.org>.
 - .7 APA - The Engineered Wood Association, P.O. Box 11700, Tacoma, Washington, U.S.A. 98411-0700 URL <http://www.apawood.org>.
 - .8 ARI - Air Conditioning and Refrigeration Institute, 4100 N Fairfax Drive, Suite 200, Arlington, Virginia, U.S.A. 22203 URL <http://www.ari.org>.
 - .9 ASHRAE - American Society of Heating, Refrigeration and Air-Conditioning Engineers, 1791 Tullie Circle NE, Atlanta, Georgia, U.S.A. 30329 URL <http://www.ashrae.org>.
 - .10 ASME - American Society of Mechanical Engineers, ASME Headquarters, 3 Park Avenue, New York, New York, U.S.A. 10016-5990 URL <http://www.asme.org>
 - .11 ISAP - International Society for Asphalt Paving, 400 Selby Avenue, Suite 1, St. Paul, MN 55102 U.S.A. URL <http://www.asphalt.org>.
 - .12 ASTM - American Society for Testing and Materials, 100 Barr Harbor Drive West, Conshohocken, Pennsylvania 19428-2959 URL <http://www.astm.org>.
 - .13 AWMAC - Architectural Woodwork Manufacturers Association of Canada, 516-4 Street West, High River, Alberta T1V 1B6 URL <http://www.awmac.com>.
 - .14 AWPA - American Wire Producer's Association, 801 N Fairfax Street, Suite 211, Alexandria, VA U.S.A. 22314-1757 URL <http://www.awpa.org>.
 - .15 AWPA - American Wood Preservers' Association, P.O. Box 5690, Granbury Texas, U.S.A. 76049-0690 URL <http://www.awpa.com>.
 - .16 AWS - American Welding Society, 550 N.W. LeJeune Road, Miami, Florida
.17 U.S.A. 33126 URL <http://www.amweld.org>.
 - .18 CCA Canadian Construction Association, 75 Albert St., Suite 400 Ottawa, Ontario, K1P 5E7 URL <http://www.cca-acc.com>.
 - .19 CCDC Canadian Construction Documents Committee, Refer to ACEC, CCA, CSC or RAIC.
 - .20 CGA - Canadian Gas Association, 20 Eglinton Avenue West, Suite 1305, Toronto, Ontario M4R 1K8 URL <http://www.cga.ca>.
 - .21 CGSB - Canadian General Standards Board, Place du Portage, Phase III, 6B1, 11 Laurier Street, Hull, Quebec K1A 0S5 URL <http://w3.pwgsc.gc.ca/cgsb>.
 - .22 CISC - Canadian Institute of Steel Construction, 201 Consumers Road, Suite 300, Willowdale,

- Ontario M2J 4G8 URL <http://www.cisc-icca.ca>.
- .23 CLA - Canadian Lumbermen's Association, 27 Goulburn Avenue, Ottawa, Ontario, K1N 8C7
URL <http://www.cla-ca.ca>.
- .24 CNLA - Canadian Nursery Landscape Association, RR #4, Stn. Main, 7856 Fifth Street, Milton,
Ontario. L9T 2X8 URL <http://www.canadanursery.com>.
- .25 CRCA - Canadian Roofing Contractors Association, 155 Queen Street, Suite 1300, Ottawa,
Ontario K1P 6L1 URL <http://www.roofingcanada.com>.
- .26 CSA - Canadian Standards Association International, 178 Rexdale Blvd., Toronto, Ontario
M9W 1R3 URL <http://www.csa-international.org>.
- .27 CSC - Construction Specifications Canada, 120 Carlton Street, Suite 312, Toronto, Ontario
M5A 4K2 URL <http://www.csc-dcc.ca>.
- .28 CSDMA - Canadian Steel Door Manufacturers Association, One Yonge Street, Suite 1801,
Toronto, Ontario M5E 1W7.
- .29 CSPI - Corrugated Steel Pipe Institute, 652 Bishop Street N, Unit 2A, Cambridge, Ontario N3H
4V6 URL <http://www.cspi.ca>.
- .30 CSSBI - Canadian Sheet Steel Building Institute, 652 Bishop St. N., Unit 2A, Cambridge,
Ontario N3H 4V6 URL <http://www.cssbi.ca>.
- .31 CUFCA Canadian Urethane Foam Contractor's Association, Box 3214, Winnipeg, Manitoba,
R3C 4E7 URL <http://www.cufca.ca>.
- .32 CWC - Canadian Wood Council, 1400 Blair Place, Suite 210, Ottawa, Ontario K1J 9B8 URL
<http://www.cwc.ca>.
- .33 EC - Environment Canada, Conservation and Protection, Inquiry Centre, 351 St. Joseph Blvd,
Hull, Québec K1A 0H3 URL <http://www.ec.gc.ca>.
- .34 EFC - Electro Federation of Canada, 5800 Explorer Drive, Suite 200, Mississauga, Ontario
L4W 5K9 URL <http://www.electrofed.com>
- .35 EIMA EIFS Industry Manufacturer's Association, 3000 Corporate Center Drive, Suite 270,
Morrow, Georgia U.S.A. 30260 URL <http://www.eima.com>
- .36 FCC - Fire Commissioner of Canada, Place du Portage, Phase II, 165 rue Hotel de Ville, Hull,
Quebec K1A 0J2 [http://info.load-otea.hrdc-drhc.gc.ca/fire-
prevention/standards/commissioner.shtml](http://info.load-otea.hrdc-drhc.gc.ca/fire-prevention/standards/commissioner.shtml).
- .37 IEEE - Institute of Electrical and Electronics Engineers, IEE Corporate Office, 3 Park Avenue,
17th Floor, New York, New York U.S.A. 10016-5997
- .38 URL <http://www.ieee.org>.
- .39 MPI - The Master Painters Institute, 4090 Graveley Street, Burnaby, BC V5C 3T6 URL
<http://www.paintinfo.com>.
- .40 MSS - Manufacturers Standardization Society of the Valve and Fittings Industry, 127 Park
Street, N.E., Vienna, Virginia U.S.A. 22180-4602 URL [http://www.mss-
hq.com](http://www.mss-hq.com).
- .41 NAAMM - National Association of Architectural Metal Manufacturers, 8 South Michigan
Avenue, Suite 1000, Chicago, Illinois U.S.A. 60603 URL <http://www.naamm.org>.
- .42 NABA - National Air Barrier Association, PO Box 2747, Winnipeg, Manitoba R3C 4E7 URL
<http://www.naba.ca>.
- .43 NBC - National Building Code of Canada 2015, including errata and amendments.
- .44 NEMA - National Electrical Manufacturers Association, 1300 N. 17th Street, Suite 1847,
Rosslyn, Virginia 22209 URL <http://www.nema.org>
- .45 NFPA - National Fire Protection Association, 1 Batterymarch Park, P.O. Box 9101 Quincy,

- Massachusetts, U.S.A. 02269-9101 URL <http://www.nfpa.org>
- .46 NFSA - National Fire Sprinkler Association, P.O. Box 1000, Patterson, New York, U.S.A. 12563
URL <http://www.nfsa.org>.
- .47 NHLA - National Hardwood Lumber Association, 6830 Raleigh-La Grange Road, Memphis,
TN, U.S.A 38184-0518 URL <http://www.natlhardwood.org>
- .48 NLGA - National Lumber Grades Authority, 406-First Capital Place, 960 Quayside Drive, New
Westminster, B.C. V3M 6G2.
- .49 NRC - National Research Council, Building M-58, 1200 Montreal Road, Ottawa, Ontario K1A
0R6 URL <http://www.nrc.gc.ca>.
- .50 NSPE National Society of Professional Engineers, 1420 King Street, Alexandria, VA U.S.A.
22314-2794 URL <http://www.nspe.org>.
- .51 PCI - Prestressed Concrete Institute, 209 W. Jackson Blvd., Suite 500, Chicago, Illinois, U.S.A.
60606-6938 URL <http://www.pci.org>.
- .52 PEI - Porcelain Enamel Institute, PO Box 920220, Norcross, GA U.S.A. 30010, URL
<http://www.porecelainenamel.com>.
- .53 QPL - Qualification Program List, c/o Canadian General Standards Board, Place du Portage,
Phase III, 6B1, 11 Laurier Street, Hull, Quebec K1A 1G6 URL <http://www.pwgsc.gc.ca/cgsb>.
- .54 RAIC Royal Architectural Institute of Canada, 55 Murray Street, Suite 330, Ottawa, Ontario,
K1N 5M3 URL <http://www.raic.org>.
- .55 SCC - Standards Council of Canada, 270 Albert Street, Suite 2000, Ottawa, Ontario K1P 6N7
URL <http://www.scc.ca>.
- .56 SSPC - The Society for Protective Coatings, 40 24th Street, 6th Floor, Pittsburgh,
Pennsylvania 15222-4656 URL <http://www.sspc.org>.
- .57 TPI - Truss Plate Institute, 583 D'Onofrio Drive, Suite 200, Madison, WI, U.S.A. 53719 URL
<http://www.tpinst.org>.
- .58 TTMAC - Terrazzo, Tile and Marble Association of Canada, 30 Capston Gate, Unit 5 Concord,
Ontario L4K 3E8 URL <http://www.ttmac.com>.
- .59 UL - Underwriters' Laboratories, 333 Pfingsten Road, Northbrook, Illinois, U.S.A. 60062-2096
URL <http://www.ul.com>.
- .60 ULC - Underwriters' Laboratories of Canada, 7 Crouse Road, Toronto, Ontario M1R 3A9 URL
<http://www.ulc.ca>.

END OF SECTION

1.1 TERMS AND DEFINITIONS

- .1 Corrective Actions: Steps that are taken to remove the causes of an existing non-conformity or undesirable situation. The Corrective Action Process is designed to prevent the recurrence of non-conformities or undesirable situations. It tries to make sure that existing non-conformities and situations do not happen again. It tries to prevent recurrence by eliminating causes. Corrective Actions address actual problems. Because of this, the corrective action Process can be thought of as a problem-solving Process.
- .2 Hold Point: A mandatory verification point beyond which a Work Process shall not proceed without authorization by Consultant. Hold Points may be nominated by Consultant. The issuance of a Non-Conformance or Corrective Action report by Consultant automatically creates a Hold Point for the Work Processes affected.
- .3 Inspection and Testing Plan (ITP): A document that records the inspection and testing requirements of the Contract. The Inspection and Testing Plan identifies the items of materials and Work to be inspected or tested, by whom and at what stage or frequency, Hold and Witness Points, references to relevant standards, acceptance criteria, and the records to be maintained.
- .4 Mock-up: a full-size model of a portion of the Work made with the same construction techniques and materials that will be used to meet the requirements of the Contract Documents and constructed by the same personnel that will be performing the Work at the Site.
- .5 Non-conforming Product: When one or more characteristics of a Product fail to meet specified requirements, it is referred to as a Non-Conforming Product. When a Product deviates from specified Product requirements, it fails to conform. Non-conforming Products must be identified and controlled to prevent unintended use or delivery.
- .6 Preventative Actions: Steps that are taken to remove the causes of potential non-conformities or potential undesirable situations. The preventive action Process is designed to prevent the occurrence of non-conformities or situations that do not yet exist. It tries to prevent occurrence by eliminating causes. While Corrective Actions prevent recurrence, Preventive Actions prevent occurrence. Both types of actions are intended to prevent non-conformities. In general, the preventive action Process can be thought of as a risk analysis Process.
- .7 Process: An integrated set of activities that uses resources to transform inputs into outputs. A system exists whenever several Processes are interconnected using such input-output relationships. Processes are interconnected because the output from one Process becomes the input for another Process.
- .8 Product: A Product is the output of a Process. Products can be tangible or intangible.
- .9 Quality: Is a set of features or properties of a Product, Process, or system compared with a set of requirements. If those features or properties meet all requirements, 'High Quality' is achieved; if those features or properties do not meet all requirements, 'Low Quality' is achieved.
- .10 Quality Assurance (QA): Proactive activities used to provide confidence that Quality requirements will be fulfilled. Quality Assurance activities are determined before Work begins and these activities are performed while the Work is being executed. Examples of Quality Assurance include, but are not limited to, the following:
- .11 Process checklists.
- .12 Quality system audits.
- .13 Methodology and standards development.

- .14 Quality Control (QC): Activities used to evaluate Products for conformance to Contract requirements. Example of Quality Control activities include, but are not limited to, inspection and testing.
- .15 Quality Management (QM): Includes all the activities used to direct, control, and coordinate Quality. These activities include formulating a Quality policy and setting Quality objectives. They also include Quality planning, Quality Control, Quality Assurance, and Quality improvement.
- .16 Quality Management System (QMS): Is a set of interrelated or interacting elements used to direct and control how Quality policies are implemented, and Quality objectives are achieved.
- .17 Quality Plan: A document that is used to specify the procedures and resources that will be needed to carry out a specific contract, perform a Process, realize a Product, or manage a contract. Quality Plans also specify who will do what and when.
- .18 Witness Point: An identified point in a Process where Consultant may review, witness, inspect or undertake tests on any component, method, or Process of the Work. Consultant may or may not take the opportunity. Notification of Witness Points must be provided to Consultant no less than 7 calendar days in advance so that attendance may be scheduled if elected.

1.2 CONTRACTOR'S QUALITY MANAGEMENT SYSTEM

- .1 The Contractor shall establish, document, implement and maintain a Quality Management System in a manner consistent with the ISO 9001:2008 Quality Management System Requirements, using a Process approach.
- .2 The Contractor shall provide a Quality Plan describing the Quality Management System as it applies to this Contract. The Contractor shall attach, at minimum, the following procedures to the Quality Plan:
 - .1 Control of documents: A documented procedure shall be established to define the controls needed:
 - .1 To approve documents for adequacy prior to issue.
 - .2 To review and update as necessary and re-approve documents.
 - .3 To ensure that changes and the current revision status of documents are identified.
 - .4 To ensure that relevant versions of applicable documents are available at points of use.
 - .5 To ensure that documents remain legible and are readily identifiable.
 - .6 To ensure that documents of external origin necessary for the planning and operation of the QMS are identified and distribution controlled.
 - .7 To prevent the unintended use of obsolete documents, and to apply suitable identification to them if they are retained for any purpose.
 - .2 Control of records: A documented procedure to define the controls needed for the identification, storage, protection, retrieval, retention, and disposition of records. Records shall remain legible, readily identifiable, and retrievable.
 - .3 Internal audit: A documented procedure to define the responsibilities and requirements for planning and conducting audits, establishing, and maintaining records, and reporting results.
 - .4 Control of Non-Conforming Product: A documented procedure to define the controls and related responsibilities and authorities for dealing with Non-Conforming Product.

- .5 Corrective Actions: Establish a documented procedure to define requirements for:
 - .1 Reviewing non-conformities (including Owner or Consultant complaints).
 - .2 Determining the causes of non-conformities.
 - .3 Evaluating the need for action to ensure that non-conformities do not recur.
 - .4 Determining and implementing the actions needed.
 - .5 Recording the results of the actions taken.
 - .6 Reviewing the effectiveness of the Corrective Actions taken.
- .6 Preventive Actions: Establish a documented procedure to define requirements for:
 - .1 Determining potential non-conformities and their causes.
 - .2 Evaluating the need for action to prevent occurrence of non-conformities.
 - .3 Determining and implementing the actions needed.
 - .4 Recording the results of the actions taken.
 - .5 Reviewing the effectiveness of the Preventative Actions taken
- .3 Submit Quality Plan to Consultant for review and approval in accordance with the requirements of Section 01 33 00; submit within 15-days of award of Contract and allow 10-days for Consultant's review.

1.3 REVIEW AND INSPECTION

- .1 Do not cover work by other work until inspected and accepted. Generally, no Work shall be covered or otherwise made difficult or impossible to review prior to review.
- .2 Notify Consultant minimum 1 week in advance of Hold Points and Witness Points, or in ample time as required to maintain Construction Schedule, whichever period is longer.
- .3 Allow Owner and Consultants access to Work. If part of Work is in preparation at locations other than Place of Work, allow access to such Work whenever it is in progress.
- .4 Give timely notice requesting inspection if Work is designated for special tests, inspections or approvals by Consultant instructions, or law of Place of Work.
- .5 If Contractor covers or permits to be covered Work that has been designated for special tests, inspections, or approvals before such is made, uncover such Work, have inspections or tests satisfactorily completed and make good such Work.
- .6 Consultant may order any part of Work to be examined if Work is suspected to be not in accordance with Contract Documents. If, upon examination such work is found not in accordance with Contract Documents, correct such Work and pay cost of examination and correction.

1.4 INDEPENDENT INSPECTION AGENCIES

- .1 Independent Inspection/Testing Agencies will be engaged by Owner for purpose of inspecting and/or testing portions of Work. Cost of such services will be borne by Owner.
- .2 Employment of inspection/testing agencies does not relax responsibility to perform Work in accordance with Contract Documents.

- .3 If defects are revealed during inspection and/or testing, appointed agency will request additional inspection and/or testing to ascertain full degree of defect. Correct defect and irregularities as advised by Consultant at no cost to Owner. Pay costs for retesting and re-inspection.

1.5 ACCESS TO WORK

- .1 Allow inspection/testing agencies access to Work, off site manufacturing and fabrication plants.
- .2 Cooperate to provide reasonable facilities for such access.

1.6 PROCEDURES

- .1 Notify appropriate agency and Consultant in advance of requirement for tests, in order that attendance arrangements can be made.
- .2 Submit samples and/or materials required for testing, as specifically requested in specifications. Submit with reasonable promptness and in an orderly sequence so as not to cause delay in Work.
- .3 Provide labour and facilities to obtain and handle samples and materials on site. Provide sufficient space to store and cure test samples.

1.7 REJECTED WORK

- .1 Remove defective Work, whether result of poor workmanship, use of defective products or damage and whether incorporated in Work or not, which has been rejected by Consultant as failing to conform to Contract Documents. Replace or re-execute in accordance with Contract Documents.
- .2 Make good other Contractor's work damaged by such removals or replacements promptly.
- .3 If in opinion of Consultant it is not expedient to correct defective Work or Work not performed in accordance with Contract Documents, Owner may deduct from Contract Price difference in value between Work performed and that called for by Contract Documents, amount of which shall be determined by Consultant.

1.8 REPORTS

- .1 Submit 4 copies of inspection and test reports to Consultant.
- .2 Provide copies to Subcontractor of work being inspected or tested, or manufacturer or fabricator of material being inspected or tested.

1.9 TESTS AND MIX DESIGNS

- .1 Furnish test results and mix designs as directed by Consultant, as specified in the technical Sections, and/or as required by authorities having jurisdiction; refer to Section 01 29 83 - Payment Procedures Testing Laboratory Services.

1.10 MOCK-UPS

- .1 Prepare mock-ups for Work specifically requested in specification Sections. Include for Work of all Sections required to provide mock-ups.
- .2 Construct in all locations acceptable to Consultant and as specified in specific Section.
- .3 Prepare mock-ups for Consultant's review with reasonable promptness and in an orderly sequence, so as not to cause any delay in Work.

- .1 Allow 10 working days in construction schedule for the review of mock-ups after they have been prepared.
- .2 Provide 10 working days' notice for mock-up review to Consultant in advance of preferred review date(s).
- .4 Failure to prepare mock-ups in ample time is not considered sufficient reason for an extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .5 Mock-Ups Required by Specific Technical Specification Sections:
 - .1 If noted in the technical section, remove mock-up at conclusion of Work, or when acceptable to Consultant.
 - .2 Mock-up(s) may remain as part of Work if so stated in the technical specification section.
 - .3 Specification sections identify whether mock-up may remain as part of Work or if it is to be removed and when.

1.11 MILL TESTS

- .1 Submit mill test certificates as required of specification Sections.

1.12 EQUIPMENT AND SYSTEMS

- .1 Submit adjustment and balancing reports for mechanical, electrical, and building equipment systems.
- .2 Refer to technical Sections for requirements.

END OF SECTION

1.1 SECTION INCLUDES

- .1 Temporary utilities.

1.2 INSTALLATION AND REMOVAL

- .1 Provide temporary utilities controls in order to execute work expeditiously.
- .2 Remove from site all such work after use.

1.3 DEWATERING

- .1 Provide temporary drainage and pumping facilities to keep excavations and site free from standing water.

1.4 WATER SUPPLY

- .1 Owner is able to provide a continuous supply of potable water for construction use from the neighboring apartment building 24 Water St. Contractor to coordinate with Owner use.
- .2 Arrange for connection with appropriate utility company and pay all costs for installation, maintenance, and removal.
- .3 Pay for utility charges at prevailing rates.

1.5 TEMPORARY HEATING AND VENTILATION

- .1 Execute implementation of Indoor Air Quality Management Plan.
- .2 Provide temporary heating required during construction period, including attendance, maintenance, and fuel.
- .3 Construction heaters used inside building must be vented to outside or be non-flameless type specifically designed for indoor use. Solid fuel salamanders are not permitted.
- .4 Provide temporary heat and ventilation in enclosed areas as required to:
 - .1 Facilitate progress of Work.
 - .2 Protect Work and products against dampness and cold.
 - .3 Prevent moisture condensation on surfaces.
 - .4 Provide ambient temperatures and humidity levels for storage, installation and curing of materials.
 - .5 Provide adequate ventilation to meet health regulations for safe working environment.
- .5 Maintain temperatures of minimum 10 degrees C in areas where construction is in progress.
- .6 Ventilating:
 - .1 Meet Indoor Air Quality requirements.
 - .2 Prevent accumulations of dust, fumes, mists, vapours or gases in areas occupied during construction.
 - .3 Provide local exhaust ventilation to prevent harmful accumulation of hazardous substances into atmosphere of occupied areas.
 - .4 Dispose of exhaust materials in manner that will not result in harmful exposure to persons.
 - .5 Ventilate storage spaces containing hazardous or volatile materials.
 - .6 Ventilate temporary sanitary facilities.
 - .7 Continue operation of ventilation and exhaust system for time after cessation of work process to assure removal of harmful contaminants.

- .7 Permanent heating system of building may be used when available. Be responsible for damage to heating system if use is permitted.
- .8 On completion of Work for which permanent heating system is used, replace filters, and vacuum clean ducts. Thoroughly clean permanent equipment used during construction.
- .9 Ensure Date of Substantial Performance and Warranties for heating system do not commence until entire system is in as near original condition as possible and is certified by Consultant.
- .10 Pay costs for maintaining temporary heat.
- .11 Maintain strict supervision of operation of temporary heating and ventilating equipment to:
 - .1 Meet specified Indoor Air Quality.
 - .2 Conform with applicable codes and standards.
 - .3 Enforce safe practices.
 - .4 Prevent abuse of services.
 - .5 Prevent damage to finishes.
 - .6 Vent direct-fired combustion units to outside.
- .12 Be responsible for damage to Work due to failure in providing adequate heat and protection during construction.

1.6 TEMPORARY POWER AND LIGHT

- .1 Provide and pay for temporary power during construction for temporary lighting and operating of power tools.
- .2 Arrange for connection with appropriate utility company and installation of temporary meters. Pay costs for installation, maintenance and removal.
- .3 Provide and maintain temporary lighting throughout project. Ensure level of illumination on all floors and stairs is not less than 162 lx.
- .4 Electrical power and lighting systems installed under this Contract may be used for construction requirements only with prior approval of Owner, provided that guarantees are not affected. Make good damage to electrical system caused by use under this Contract. Replace lamps that have been used for more than 3 months.

1.7 TEMPORARY COMMUNICATION FACILITIES

- .1 Provide and pay for temporary telephone, fax, computer, Wi-Fi system (password secured), data lines and equipment necessary for own use and use of Consultant.
- .2 Ensure that there is a computer on site for own use and use of Consultant, with connection to the internet available and functional, and capable of viewing PDF documents and CAD drawings, with copy of current edition of Microsoft Office installed.

1.8 FIRE PROTECTION

- .1 Provide and maintain temporary fire protection equipment during performance of Work required by insurance companies having jurisdiction and governing codes, regulations, and bylaws.
- .2 Burning rubbish and construction waste materials is not permitted on site.

END OF SECTION

1.1 INSTALLATION AND REMOVAL

- .1 Prepare site plan indicating proposed location and dimensions of area to be fenced and used by Contractor, avenues of ingress/egress to fenced area and details of fence installation.
- .2 Indicate use of supplemental or other staging area.
- .3 Provide construction facilities in order to execute work expeditiously.
- .4 Provide perimeter site fencing as required for security of site works, and safety of the project team (Owner, Consultant and Contractor), and the general public, including both adults and children.
- .5 Remove from site all such work after use.

1.2 SCAFFOLDING

- .1 Scaffolding in accordance with CAN/CSA S269.2-16.
- .2 Provide and maintain scaffolding, ramps, ladders, platforms, temporary stairs and other means as necessary to expedite work safely.

1.3 HOISTING

- .1 Provide, operate, and maintain hoists cranes as required for moving of workers, materials and equipment.
- .2 Hoists cranes shall be operated by qualified operator.

1.4 SITE STORAGE, LOADING, AND PARKING

- .1 Refer to CCDC 2, GC 3.11.
- .2 Confine work and operations of employees by Contract Documents. Do not unreasonably encumber premises with products.
- .3 Do not load or permit to load any part of Work with weight or force that will endanger Work.

1.5 CONSTRUCTION PARKING

- .1 Parking is permitted on site provided it does not disrupt performance of Work.
- .2 Provide and maintain adequate access to project site.

1.6 SECURITY

- .1 Maintain security of construction area by control of access through enclosing fences, barricades, and hoardings during time Work is in progress and by locking hardware otherwise.
- .2 After building is enclosed, maintain its security by adequate barriers to entry, and by temporary doors equipped with locking hardware.
- .3 Maintain security at all times construction is shut down because of a strike or a lockout.

1.7 OFFICES

- .1 Provide office heated to 22 degrees C, lighted 750 lx and ventilated, of sufficient size to accommodate site meetings and furnished with drawing laydown table.
- .2 Provide marked and fully stocked first-aid case in a readily available location.

- .3 The site has limited space available for staging area and offices. Subcontractors to Provide their own offices as necessary offsite.
- .4 Contractor's Site office:
 - .1 Provide temporary site office for own use and Consultant's use.
 - .2 Inside dimensions minimum 3.6 m long x 3 m wide x 2.4 m high, with floor 0.3 m above grade, complete with 4 - 50% opening windows and one lockable door.
 - .3 Insulate building and provide heating system to maintain 22 degrees C inside temperature at - 20 degrees C outside temperature.
 - .4 Finish inside walls and ceiling with plywood, hardboard or wallboard and paint in selected colours. Finish floor with 19 mm thick plywood.
 - .5 Install electrical lighting system to provide min 750 lx using surface mounted, shielded commercial fixtures with 10% upward light component.
 - .6 Provide private washroom facilities adjacent to office complete with flush or chemical type toilet, lavatory and mirror and maintain supply of paper towels and toilet tissue.
 - .7 Equip office with 1 x 2 m table, 4 chairs, 6 m of shelving 300 mm wide, one - 3 drawer filing cabinet, one plan rack and one coat rack and shelf.
 - .8 Maintain in clean condition.

1.8 EQUIPMENT, TOOL AND MATERIALS STORAGE

- .1 Provide and maintain, in a clean and orderly condition, lockable weatherproof sheds for storage of tools, equipment and materials.
- .2 Locate materials not required to be stored in weatherproof sheds on site in a manner to cause least interference with work activities.

1.9 SANITARY FACILITIES

- .1 Provide sanitary facilities for workforce in accordance with governing regulations and ordinances. Existing washrooms may not be used.
- .2 Post notices and take such precautions as required by local health authorities. Keep area and premises in sanitary condition.
- .3 Once operational, permanent facilities may not be used.

1.10 CONSTRUCTION SIGNAGE

- .1 Provide and erect a project sign within three weeks of signing Contract in a location designated by Consultant.
- .2 Provide project identification site sign comprising foundation, framing, and one 1200 x 400 mm signboard painted with exhibit lettering produced by a professional sign painter, as detailed and described below.
 - .1 Foundations: 15 MPa concrete to Division 03 Cast-in-Place Concrete, minimum 200 mm x 900 mm deep.
 - .2 Framework and battens: SPF, pressure treated minimum 89 x 89 mm to Section 06 10 10 – Rough Carpentry.
 - .3 Signboard: 19 mm Medium Density Overlaid Douglas Fir Plywood to Section 06 10 10 – Rough Carpentry.
 - .4 Paint: alkyd enamel to Section 09 91 00 – Painting over exterior alkyd primer to Section 09 91 00 – Painting.

- .5 Fasteners: hot-dip galvanized steel nails and carriage bolts.
- .6 Vinyl sign face: printed project identification, self-adhesive, vinyl film overlay, supplied by Consultant.
- .7 Indicate on sign, name of Owner, Consultant, and Contractor, of a design style established by Consultant.
- .3 No other signs or advertisements, other than access, building entry, and warning signs are permitted on site.
 - .1 Locate project identification sign as directed by Consultant and construct as follows:
 - .2 Build concrete foundation, erect framework, and attach signboard to framing.
 - .3 Paint surfaces of signboard and framing with one coat primer and two coats enamel. Color white on signboard face, black on other surfaces.
 - .4 Apply vinyl sign face overlay to painted signboard face in accordance with installation instruction supplied.
- .4 Direct requests for approval to erect a Consultant/Contractor signboard to Consultant. For consideration general appearance of Consultant/Contractor signboard must conform to project identification site sign. Wording shall be in English.
- .5 Signs and notices for safety and instruction shall be in English; Graphic symbols shall conform to CAN/CSA Z321-96(R2006), Signs and Symbols for the Occupational Environment.
- .6 Maintain approved signs and notices in good condition for duration of project and dispose of offsite on completion of project or earlier if directed by Consultant.

1.11 PROTECTION AND MAINTENANCE OF TRAFFIC

- .1 Provide access and temporary roads as necessary to maintain traffic.
- .2 Maintain and protect traffic on affected roads during construction period except as otherwise specifically directed by Consultant.
- .3 Provide measures for protection and diversion of traffic, including provision of watchpersons and flag-persons, erection of barricades, placing of lights around and in front of equipment and work, and erection and maintenance of adequate warning, danger, and direction signs
- .4 Protect travelling public from damage to person and property.
- .5 Contractor's traffic on roads selected for hauling material to and from site to interfere as little as possible with public traffic.
- .6 Verify adequacy of existing roads and allowable load limit on these roads. Contractor: responsible for repair of damage to roads caused by construction operations.
- .7 Construct access and haul roads necessary.
- .8 Haul roads: constructed with suitable grades and widths; sharp curves, blind corners, and dangerous cross traffic shall be avoided.
- .9 Provide necessary lighting, signs, barricades, and distinctive markings for safe movement of traffic.
- .10 Dust control: adequate to ensure safe operation at all times.
- .11 Location, grade, width, and alignment of construction and hauling roads: subject to approval by Consultant.
- .12 Lighting: to assure full and clear visibility for full width of haul road and work areas during night work operations.
- .13 Provide snow removal during period of Work.
- .14 Remove, upon completion of work, haul roads designated by Consultant.

1.12 CLEAN-UP

- .1 Remove construction debris, waste materials, packaging material from work site daily.
- .2 Clean dirt or mud tracked onto paved or surfaced roadways.
- .3 Store materials resulting from demolition activities that are salvageable.
- .4 Stack stored new or salvaged material not in construction facilities.

END OF SECTION

1.1 INSTALLATION AND REMOVAL

- .1 Provide temporary controls in order to execute Work expeditiously.
- .2 Remove from site all such work after use.

1.2 TEMPORARY SITE ENCLOSURE

- .1 Erect temporary site enclosure using minimum 1.8 m to 2.4 m high fence, or as otherwise indicated on Drawings. Provide lockable truck and personnel gates, as necessary. Maintain fence in good repair.
 - .1 Provide Modu-Loc perimeter site fencing, or equivalent, with anti-climb rails, security clamps and locking hardware.
 - .2 Anchor securely in place as required to resist loads and prevent toppling, falling or collapsing in the event that one or more parties try to scale the fence.
 - .3 Site Security fencing shall be provided as required to secure the site. Contractor shall estimate the quantity and extents required to reasonably secure and enclose site, materials, equipment and prevent public access.
- .2 Provide barriers around trees and plants designated to remain. Protect from damage by equipment and construction procedures.

1.3 GUARD RAILS AND BARRICADES

- .1 Provide secure, rigid guard rails and barricades around deep excavations, open shafts, open stair wells, open edges of floors and roofs, and at all locations where a vertical fall of more than 1.2 m is possible.

1.4 WEATHER ENCLOSURES

- .1 Provide weather tight closures to unfinished door and window openings, tops of shafts and other openings in floors and roofs.
- .2 Close off floor areas where walls are not finished; seal off other openings; enclose building interior work for temporary heat.
- .3 Design enclosures to withstand wind pressure and snow loading.

1.5 DUST TIGHT SCREENS

- .1 Provide dust tight screens or partitions, fire rated as required, to localize dust-generating activities, and for protection of workers, finished areas of Work and public.
- .2 Maintain and relocate protection until such work is complete.

1.6 ACCESS TO SITE

- .1 Provide and maintain access roads, sidewalk crossings, ramps, and construction runways as may be required for access to Work.

1.7 PUBLIC TRAFFIC FLOW

- .1 Provide and maintain competent signal flag operators, traffic signals, barricades and flares, lights, or lanterns as required to perform Work and protect the public.

1.8 FIRE ROUTES

- .1 Maintain access to property including overhead clearances for use by emergency response vehicles.

1.9 PROTECTION FOR OFF-SITE AND PUBLIC PROPERTY

- .1 Protect adjacent private and public property from damage during performance of Work.
- .2 Be responsible for damage incurred.

1.10 PROTECTION OF BUILDING FINISHES

- .1 Provide protection for finished and partially finished building finishes and equipment during performance of Work.
- .2 Provide necessary screens, covers, and hoardings.
- .3 Confirm with Consultant locations and installation schedule 3 days prior to installation.
- .4 Be responsible for damage incurred due to lack of or improper protection.

END OF SECTION

1.1 SECTION INCLUDES

- .1 Product quality, availability, storage, handling, protection, and transportation.
- .2 Manufacturer's instructions.
- .3 Quality of Work, coordination, and fastenings.
- .4 Existing facilities.

1.2 REFERENCE STANDARDS

- .1 Within text of each specifications section, reference may be made to reference standards. Conform to these reference standards, in whole or in part as specifically requested in specifications.
- .2 If there is question as to whether any product or system is in conformance with applicable standards, Consultant reserves right to have such products or systems tested to prove or disprove conformance.
- .3 Cost for such testing will be borne by Owner in event of conformance with Contract Documents or by Contractor in event of non-conformance.
- .4 Conform to latest date of issue of referenced standards in effect on date of submission of Tenders, except where specific date or issue is specifically noted.

1.3 QUALITY

- .1 Products, materials, equipment and articles (referred to as products throughout specifications) incorporated in Work shall be new, not damaged or defective, and of best quality (compatible with specifications) for purpose intended. If requested, furnish evidence as to type, source, and quality of products provided.
- .2 Defective products, whenever identified prior to completion of Work, will be rejected, regardless of previous inspections. Inspection does not relieve responsibility but is precaution against oversight or error. Remove and replace defective products at own expense and be responsible for delays and expenses caused by rejection.
- .3 Should any dispute arise as to quality or fitness of products, decision rests strictly with Consultant based upon requirements of Contract Documents.
- .4 Unless otherwise indicated in specifications, maintain uniformity of manufacture for any particular or like item throughout building.
- .5 Permanent labels, trademarks and nameplates on products are not acceptable in prominent or easily noticeable locations, except where required for operating instructions, or when located in mechanical or electrical rooms.

1.4 AVAILABILITY

- .1 Immediately upon signing Contract, review product delivery requirements and anticipate foreseeable supply delays for any items. If delays in supply of products are foreseeable, notify Consultant of such, in order that substitutions or other remedial action may be authorized in ample time to prevent delay in performance of Work.
- .2 In event of failure to notify Consultant at commencement of Work and should it subsequently appear that Work may be delayed for such reason, Consultant reserves right to substitute more readily available products of similar character, at no increase in Contract Price or Contract Time.

1.5 STORAGE, HANDLING AND PROTECTION

- .1 Handle and store products in manner to prevent damage, adulteration, deterioration, and soiling and in accordance with manufacturer's instructions when applicable.
- .2 Store packaged or bundled products in original and undamaged condition with manufacturer's seal and labels intact. Do not remove from packaging or bundling until required in Work.
- .3 Store products subject to damage from weather in weatherproof enclosures.
- .4 Store cementitious products clear of earth or concrete floors, and away from walls.
- .5 Keep sand, when used for grout or mortar materials, clean and dry. Store sand on wooden platforms and cover with waterproof tarpaulins during inclement weather.
- .6 Store sheet materials, lumber on flat, solid supports and keep clear of ground. Slope to shed moisture.
- .7 Store and mix paints in heated and ventilated room. Remove oily rags and other combustible debris from site daily. Take every precaution necessary to prevent spontaneous combustion.
- .8 Remove and replace damaged products at own expense and to satisfaction of Consultant.
- .9 Touch-up damaged factory finished surfaces to Consultant's satisfaction. Use touch-up materials to match original. Do not paint over nameplates.

1.6 TRANSPORTATION

- .1 Pay costs of transportation of products required in performance of Work.
- .2 Transportation cost of products supplied by Owner will be paid for by Owner. Unload, handle and store such products.

1.7 MANUFACTURER'S INSTRUCTIONS

- .1 Unless otherwise indicated in specifications, install or erect products in accordance with manufacturer's instructions. Do not rely on labels or enclosures provided with products. Obtain written instructions directly from manufacturers.
- .2 Notify Consultant in writing, of conflicts between specifications and manufacturer's instructions, so that Consultant may establish course of action.
- .3 Improper installation or erection of products, due to failure in complying with these requirements, authorizes Consultant to require removal and re-installation at no increase in Contract Price or Contract Time.

1.8 QUALITY OF WORK

- .1 Ensure Quality of Work is of highest standard, executed by workers experienced and skilled in respective duties for which they are employed. Immediately notify Consultant if required Work is such as to make it impractical to produce required results.
- .2 Do not employ anyone unskilled in required duties. Consultant reserves right to require dismissal from site, workers deemed incompetent or careless.
- .3 Decisions as to standard or fitness of Quality of Work in cases of dispute rest solely with Consultant, whose decision is final.

1.9 COORDINATION

- .1 Ensure cooperation of workers in laying out Work. Maintain efficient and continuous supervision.
- .2 Be responsible for coordination and placement of openings, sleeves, and accessories.

1.10 CONCEALMENT

- .1 In finished areas, conceal pipes, ducts and wiring in floors, walls, and ceilings, except where indicated otherwise.
- .2 Before installation, inform Consultant if there is interference. Install as directed by Consultant.

1.11 REMEDIAL WORK

- .1 Perform remedial work required to repair or replace parts or portions of Work identified as defective or unacceptable. Coordinate adjacent affected Work as required.
- .2 Only specialists familiar with the materials affected shall perform remedial work. Perform in a manner to neither damage nor put at risk any portion of Work.

1.12 LOCATION OF FIXTURES

- .1 Consider location of fixtures, outlets, and mechanical and electrical items indicated as approximate.
- .2 Inform Consultant of conflicting installation. Install as directed.

1.13 FASTENINGS

- .1 Provide metal fastenings and accessories in same texture, colour, and finish as adjacent materials, unless indicated otherwise.
- .2 Prevent electrolytic action between dissimilar metals and materials.
- .3 Use non-corrosive hot dip galvanized steel fasteners and anchors for securing exterior work, unless stainless steel or other material is specifically requested in affected specification Section.
- .4 Space anchors within individual load limit or shear capacity and ensure they provide positive permanent anchorage. Wood, or any other organic material plugs are not acceptable.
- .5 Keep exposed fastenings to a minimum, space evenly and install neatly.
- .6 Fastenings which cause spalling or cracking of material to which anchorage is made are not acceptable.

1.14 FASTENINGS - EQUIPMENT

- .1 Use fastenings of standard commercial sizes and patterns with material and finish suitable for service.
- .2 Use heavy hexagon heads, semi-finished unless otherwise specified. Use No. 304 stainless steel for exterior areas.
- .3 Bolts may not project more than one diameter beyond nuts.
- .4 Use plain type washers on equipment, sheet metal, and soft gasket lock type washers where vibrations occur. Use resilient washers with stainless steel.

1.15 PROTECTION OF WORK IN PROGRESS

- .1 Prevent overloading of any part of building. Do not cut, drill, or sleeve any load bearing structural member, unless specifically indicated without written approval of Consultant.

1.16 EXISTING UTILITIES

- .1 When breaking into or connecting to existing services or utilities, execute Work at times directed by local governing authorities, with minimum of disturbance to Work and pedestrian and vehicular traffic.
- .2 Protect, relocate, or maintain existing active services. When services are encountered, cap off in manner approved by authority having jurisdiction. Stake and record location of capped service.

END OF SECTION

1.1 DEFINITIONS

- .1 **Acceptable Materials:** The term 'Acceptable Materials' (or 'Acceptable materials') is used to specify products by trade name, manufacturer, catalogue number, model number, or similar reference, and is used within the Project Manual as follows:
 - .1 Acceptable Materials listings are based on Consultant's determination that materials meet specified requirements and opinion of applicability to the project requirements.
 - .2 Acceptable Materials listings are deemed to establish the standard of acceptance that Consultant will consider appropriate for the Work.
 - .3 Any product listed in the Acceptable Materials listing may be used to establish the Bid Price.
- .2 **Basis-of-Design:** The term 'Basis-of-Design' is used to specify a specific material name, manufacturer, catalogue number, model number or similar reference and is used as follows:
 - .1 Basis-of-Design establish the minimum criteria for acceptance and any product submitted as a substitution or alternate must at the very least match or exceed the physical properties and performance characteristics of the basis-of-design product. The onus of proof lies with the Contractor who must submit ample evidence of compliance with these criteria; any application for a substitution or alternate may be rejected by the Owner and/or Consultant at their sole discretion without explanation.
 - .2 Basis-of-Design are used to establish Consultant's preference for a single source product listing based on performance, physical properties, appearance, warranty, and/or configuration.
 - .3 Use the Basis-of-Design to establish the Bid Price unless an Addendum is issued adding additional Acceptable Materials.
 - .4 Schedules or labels on the Drawings that indicate materials or products by proprietary name or manufacturer, and possibly also listing a specific color or finish, are Basis-of-Design, and subject to the requirements of this specification Section 01 62 00.
- .3 **Standard of Acceptance:** 'Standard of Acceptance' means 'Basis-of-Design'.
- .4 **Non-proprietary specification** means a specification that includes descriptive, reference standard or performance requirements, or any combination thereof, but does not include proprietary names of products or manufacturers.
- .5 **Substitution** means a proposal from Contractor to provide a product, material, or item of equipment not specified in the Contract documents but functionally equivalent and readily exchangeable to a specified item; for consideration by Consultant.

1.2 ACTION AND INFORMATIONAL SUBMITTALS

- .1 When requested by Consultant, submit complete data substantiating compliance of a product with requirements of Contract Documents. Include the following:
 - .1 Product identification, including manufacturer's name and address.
 - .2 Written verification that the substitute products can be obtained, meet the performance required for the project, and meet requirements of the Building Code.
 - .3 Manufacturer's literature providing product description, applicable reference standards, and performance and test data.
 - .4 Samples, as applicable.

- .5 Name and address of projects on which product has been used and date of each installation.
- .6 For substitutions and requests for changes to accepted products, include in addition to the above, the following:
 - .1 Itemized comparison of substitution with named product(s). List significant variations.
 - .2 Designation of availability of maintenance services and sources of replacement materials.
- .2 Submit requests for review by filling out and submitting the attached "Substitution Request Form" (attached following this Section), together with all required technical datasheets and other information that supports and clarifies the request for a substitution or alternate product to that specified.

1.3 PRODUCT OPTIONS

- .1 For products specified by non-proprietary specification:
 - .1 Select any product, assembly, or material that meets or exceeds the specified standards for products specified only by referenced standards and performance criteria.
 - .2 Acceptable Materials: Select any named product, assembly, or material contained in the listing of Acceptable Materials.
 - .3 Basis-of-Design: Use the named product contained in the Basis-of-Design listing unless an addendum is issued indicating acceptance of additional Acceptable Materials.

1.4 SUBSTITUTIONS

- .1 Contractor will assemble requests for substitutions requested by subcontractors and submit to Consultant for review.
- .2 Consultant will review proposed substitute products for acceptability only when submitted by Contractor; Consultant will not review requests submitted independently by Subcontractors.
- .3 No substitutions will be permitted without Consultant's written acceptance; Contractor will be required to remove products and replace with specified materials or provide a credit to the value of the contract at Consultant's joint discretion where substitutions are found in the Work that have not been formally accepted by Consultant.
- .4 Consultants are not obliged to accept any Proposed Substitution offered by Contractor and reserves the right to dismiss any item with no further explanation.
- .5 Substitute Products: Where substitute products are permitted, unnamed products may be accepted by Consultant, subject to the following:
 - .1 Substitute products shall be the same type as, be capable of performing the same functions as, and meet or exceed the standards of quality and performance of the named product(s). Substitutions shall not require revisions to Contract Documents nor to work of Other Contractors.
- .6 Substitute Manufacturers: Where substitute manufacturers are permitted, unnamed manufacturers may be accepted by Consultant, subject to the following:
 - .1 Substitute manufacturers shall have capabilities comparable to those of the named manufacturer(s). Substitutions shall not require revisions to Contract Documents nor to work of Other Contractors.

- .7 In making a proposal for substitution the Contractor represents:
 - .1 That they have investigated the proposal and (unless the proposal explicitly states otherwise) determined that it performs in a similar way or is superior to the product or method specified and does not have a negative impact on other trades.
 - .2 That the same guaranty / warranty will be furnished as for the originally specified product or construction method.
 - .3 That they will coordinate installation of the accepted substitute into the Work, making such changes in the Work as may be required to accommodate the change.
 - .4 That they will bear costs and waives claims for additional compensation for costs and time that subsequently become apparent arising out of the substitution.
- .8 All requests for substitutions must be made using the Substitution Request Form attached following this Section, and accompanied with a comparison chart listing physical properties, warranty, and other pertinent data allowing an applies-to-apples assessment of the information presented to confirm that the proposed substitution is in fact equivalent or better. Unless there is a significant advantage to the Contract in Contract time, price, or product quality in accepting proposed substitution, the proposed substitution will be rejected. All proposed substitutions must be equivalent to or better than the specified product to be considered, and not have an adverse impact on the project schedule or downstream Work.

END OF SECTION

1.1 REFERENCES

- .1 Owner's identification of existing survey control points and property limit.

1.2 QUALIFICATIONS OF SURVEYOR

- .1 Contractor shall contract the services of a Professional Land Surveyor licensed to practice in Prince Edward Island.
- .2 Surveyor shall be a member in good standing of The Association of Prince Edward Island Land Surveyors and have a current Certificate of Authorization.

1.3 SURVEY REFERENCE POINTS

- .1 Existing base horizontal and vertical control points are designated on drawings.
- .2 Locate, confirm, and protect control points prior to starting site work. Preserve permanent reference points during construction.
- .3 Make no changes or relocations without prior written notice to Consultant.
- .4 Report to Consultant when reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations.
- .5 Require surveyor to replace control points in accordance with original survey control.

1.4 SURVEY REQUIREMENTS

- .1 Establish two permanent benchmarks on site, referenced to established benchmarks by survey control points. Record locations, with horizontal and vertical data, in Project record and as-built documents.
- .2 Establish lines and levels, locate, and lay out, by instrumentation.
- .3 Stake for grading, fill and topsoil placement and landscaping features.
- .4 Stake slopes and berms.
- .5 Establish pipe invert elevations.
- .6 Stake batter boards for foundations.
- .7 Establish foundation column locations and floor elevations.
- .8 Establish lines and levels for mechanical and electrical work.

1.5 EXISTING SERVICES

- .1 Before commencing work, establish location and extent of service lines in area of Work and notify Consultant of findings.
- .2 Remove abandoned service lines within 2 m of structures. Cap or otherwise seal lines at cut-off points as directed by Consultant.

1.6 LOCATION OF EQUIPMENT AND FIXTURES

- .1 Location of equipment, fixtures and outlets indicated or specified are to be considered as approximate.
- .2 Locate equipment, fixtures and distribution systems to provide minimum interference and maximum usable space and in accordance with manufacturer's recommendations for safety, access and maintenance.
- .3 Inform Consultant of impending installation and obtain approval for actual location.

- .4 Submit field drawings to indicate relative position of various services and equipment when required by Consultant.

1.7 RECORDS

- .1 Maintain a complete, accurate log of control and survey work as it progresses.
- .2 On completion of foundations and major site improvements, prepare a certified survey showing dimensions, locations, angles and elevations of Work.
- .3 Record locations of maintained, re-routed and abandoned service lines.

1.8 SURVEYOR'S REAL PROPERTY REPORT (SRPR)

- .1 At Substantial Performance have Surveyor complete and certify a Real Property Report and submit original to Owner with copy to Consultant.
- .2 Submit an electronic copy of SRPR to Owner and Consultant on USB Flashdrive in Revit, AutoCAD and SketchUp formats.

1.9 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit name and address of Surveyor to Consultant.
- .2 On request of Consultant, submit documentation to verify accuracy of field engineering work.
- .3 Submit certificate signed by surveyor certifying and noting elevations and locations of completed as-built Work, identifying elements not in conformance with Contract Documents.
- .4 Submit final as-built survey on USB Flashdrive in Revit, AutoCAD and SketchUp formats.

1.10 SUBSURFACE CONDITIONS

- .1 Promptly notify Consultant in writing if subsurface conditions at Place of Work differ materially from those indicated in Contract Documents, or a reasonable assumption of probable conditions based thereon.
- .2 After prompt investigation, should Consultant determine that conditions do differ materially, instructions will be issued for changes in Work as provided in Changes and Change Orders.

END OF SECTION

1.1 ACTION AND INFORMATION SUBMITTALS

- .1 Submittals: in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit written request in advance of cutting or alteration which affects:
 - .1 Structural integrity of elements of project.
 - .2 Integrity of weather-exposed or moisture-resistant elements.
 - .3 Efficiency, maintenance, or safety of operational elements.
 - .4 Visual qualities of sight-exposed elements.
 - .5 Work of Owner or separate contractor.
- .3 Include in request:
 - .1 Identification of project.
 - .2 Location and description of affected Work.
 - .3 Statement on necessity for cutting or alteration.
 - .4 Description of proposed Work, and products to be used.
 - .5 Alternatives to cutting and patching.
 - .6 Effect on Work of Owner or separate contractor.
 - .7 Written permission of affected separate contractor.
 - .8 Date and time work will be executed.

1.2 MATERIALS

- .1 Required for original installation.
- .2 Change in Materials: Submit request for substitution in accordance with Section 01 62 00 - Product Options and Substitutions.

1.3 PREPARATION

- .1 Inspect existing conditions, including elements subject to damage or movement during cutting and patching.
- .2 After uncovering, inspect conditions affecting performance of Work.
- .3 Beginning of cutting or patching means acceptance of existing conditions.
- .4 Provide supports to assure structural integrity of surroundings; provide devices and methods to protect other portions of project from damage.
- .5 Provide protection from elements for areas which are to be exposed by uncovering work; maintain excavations free of water.

1.4 EXECUTION

- .1 Execute cutting, fitting, patching, excavation and fill as required to complete Work.
- .2 Fit several parts together, to integrate with other Work.
- .3 Uncover Work to install ill-timed Work.
- .4 Remove and replace defective and non-conforming Work.
- .5 Remove samples of installed Work for testing.
- .6 Provide openings in non-structural elements of Work for penetrations of mechanical and electrical Work.

- .7 Execute Work by methods to avoid damage to other Work, and which will provide proper surfaces to receive patching and finishing.
- .8 Employ original installer to perform cutting and patching for weather-exposed and moisture-resistant elements, and sight-exposed surfaces.
- .9 Cut rigid materials using masonry saw or core drill. Pneumatic or impact tools not allowed on masonry work without prior approval.
- .10 Restore work with new products in accordance with requirements of Contract Documents.
- .11 Fit Work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
- .12 At penetration of fire rated wall, ceiling, or floor construction, completely seal voids with firestopping material in accordance with Section 07 84 00 - Firestopping and Smoke Seals, full thickness of the construction element.
- .13 Refinish surfaces to match adjacent finishes: Refinish continuous surfaces to nearest intersection. Refinish assemblies by refinishing entire unit.
- .14 Conceal pipes, ducts and wiring in floor, wall and ceiling construction of finished areas except where indicated otherwise.

END OF SECTION

1.1 ENVIRONMENTAL CONTROLS

- .1 Conduct cleaning and disposal operations to comply with local ordinances and anti-pollution laws.
- .2 Store volatile wastes in covered metal containers and remove from Place of the Work daily.
- .3 Prevent accumulation of wastes which create hazardous conditions.
- .4 Provide adequate ventilation during use of volatile or noxious substances.

1.2 MATERIALS

- .1 Use only cleaning materials recommended by manufacturer of surface to be cleaned and as recommended by cleaning material manufacturer.

1.3 CLEANING DURING CONSTRUCTION

- .1 Maintain Work in tidy condition, free from accumulation of waste products and debris.
- .2 Remove waste materials from site at regularly scheduled times or dispose of as directed by Consultant. Do not burn waste materials on site.
- .3 Clear snow and ice from access to building, bank/pile snow in designated areas only.
- .4 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .5 Provide on-site containers for collection of waste materials and debris.
- .6 Provide and use clearly marked separate bins for recycling.
- .7 Remove waste material and debris from site and deposit in waste container at end of each working day.
- .8 Dispose of waste materials and debris off site.
- .9 Clean interior areas prior to start of finishing work and maintain areas free of dust and other contaminants during finishing operations.
- .10 Store volatile waste in covered metal containers and remove from premises at end of each working day.
- .11 Provide adequate ventilation during use of volatile or noxious substances. Use of building ventilation systems is not permitted for this purpose.
- .12 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.
- .13 Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces nor contaminate building systems.

1.4 FINAL CLEANING

- .1 When Work is Substantially Performed, remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .2 Remove waste products and debris other than that caused by others and leave Work clean and suitable for occupancy.
- .3 Prior to final review, remove surplus products, tools, construction machinery and equipment.
- .4 Remove waste products and debris.
- .5 Remove waste materials from site at regularly scheduled times or dispose of as directed by Consultant. Do not burn waste materials on site.
- .6 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.

- .7 Clean and polish glass, mirrors, hardware, wall tile, stainless steel, chrome, porcelain enamel, baked enamel, plastic laminate, and mechanical and electrical fixtures. Replace broken, scratched, or disfigured glass.
- .8 Remove stains, spots, marks, and dirt from decorative work, electrical and mechanical fixtures, furniture fitments, walls, floors and ceilings.
- .9 Clean lighting reflectors, lenses, and other lighting surfaces.
- .10 Vacuum clean and dust building interiors, behind grilles, louvres and screens.
- .11 Wax, seal, shampoo, or prepare floor finishes, as recommended by manufacturer.
- .12 Inspect finishes, fitments, and equipment and ensure specified workmanship and operation.
- .13 Broom clean and wash exterior walks, steps, and surfaces; rake clean other surfaces of grounds.
- .14 Remove dirt and other disfiguration from exterior surfaces.
- .15 Clean and sweep roofs, gutters, areaways, and sunken wells.
- .16 Sweep and wash clean paved areas.
- .17 Clean equipment and fixtures to a sanitary condition; clean or replace filters of mechanical equipment.
- .18 Clean roofs, downspouts, and drainage systems.
- .19 Remove debris and surplus materials from crawl areas and other accessible concealed spaces.
- .20 Remove snow and ice from access to building.

END OF SECTION

1.1 WASTE MANAGEMENT REQUIREMENTS

- .1 Construction Waste Management Requirements: comply with Province of Prince Edward Island and City of Summerside requirements for construction waste diversion, transportation and management.
- .2 Reduce solid waste produced by Work in accordance with CCA 81-2001: A Best Practices Guide to Solid Waste Reduction.
- .3 Comply with applicable City of Summerside Bylaws and Regulations.

1.2 STORAGE, HANDLING AND PROTECTION

- .1 Store, materials to be reused, recycled and salvaged in locations as directed by Consultant.
- .2 Unless specified or indicated on Drawings otherwise, materials for removal become Contractor's property.
- .3 Protect, stockpile, store and catalogue salvaged items.
- .4 Separate non-salvageable materials from salvaged items. Transport and deliver non-salvageable items to licensed disposal facility.
- .5 Protect structural components not removed for demolition from movement or damage.
- .6 Support affected structures. If safety of building is endangered, cease operations and immediately notify Consultant.
- .7 Protect surface drainage, mechanical and electrical from damage and blockage.
- .8 Separate and store materials produced during dismantling of structures in designated areas.
- .9 Prevent contamination of materials to be salvaged and recycled and handle materials in accordance with requirements for acceptance by designated facilities.
 - .1 On-site source separation is recommended.
 - .2 Remove comingled materials to off-site processing facility for separation.
 - .3 Provide waybills for separated materials.

1.3 DISPOSAL OF WASTES

- .1 Do not bury rubbish or waste materials.
- .2 Do not dispose of waste, volatile materials, mineral spirits, oil, and paint thinner into waterways, storm, or sanitary sewers.
- .3 Remove materials from deconstruction as deconstruction/disassembly Work progresses.

1.4 USE OF SITE AND FACILITIES

- .1 Execute work with least possible interference or disturbance to normal use of premises.
- .2 Maintain security measures established by existing facility, and also provide temporary security measures approved by Consultant when required to assure continuity of security.

1.5 SCHEDULING

- .1 Coordinate waste management activities with other activities at site to ensure timely and orderly progress of Work, and lawful collection, transportation, recycling and disposal and construction/demolition waste product.

1.6 APPLICATION

- .1 Handle waste materials not reused, salvaged, or recycled in accordance with governing regulations and codes.

1.7 CLEANING

- .1 Remove tools and waste materials on completion of Work and leave work area in clean and orderly condition.
- .2 Clean-up work area as work progresses.
- .3 Source separate materials to be reused/recycled into specified sort areas.

END OF SECTION

1.1 INSPECTIONS AND DECLARATIONS

- .1 Contractor's Inspection: Contractor and all Subcontractors shall conduct an inspection of Work, identify deficiencies and defects, and repair as required to conform to Contract Documents.
 - .1 Notify Consultant in writing of satisfactory completion of Contractor's Inspection and that corrections have been made.
 - .2 Request Consultant's Inspection.
- .2 Consultant's Inspection: Consultant and Contractor will perform inspection of Work to identify defects or deficiencies. Correct defective and deficient Work accordingly.
- .3 Completion: Submit written certificate that following have been performed:
 - .1 Work has been completed and inspected for compliance with Contract Documents.
 - .2 Defects have been corrected and deficiencies have been completed.
 - .3 Certificates required by authorities having jurisdiction have been submitted.
 - .4 Work is complete and ready for Final Inspection.
- .4 Final Inspection: When items noted above are completed, request final inspection of Work by Owner, Consultant, and Contractor. If Work is deemed incomplete by Owner and or Consultant, complete outstanding items and request reinspection.
- .5 Declaration of Substantial Performance: When Consultant consider deficiencies and defects have been corrected and it appears requirements of Contract have been substantially performed, make application for Substantial Performance of the Work.
- .6 Commencement of Warranty Periods: The date of Substantial Performance of the Work shall be the date for commencement of the warranty period.
- .7 Commencement of Lien Periods: The date of publication of the certificate of Substantial Performance of the Work shall be the date for commencement of the lien period, unless required otherwise by the lien legislation applicable at the Place of the Work.
- .8 Final Payment: When Consultant consider final deficiencies and defects have been corrected and it appears requirements of Contract have been completed, make application for final payment.
- .9 Payment of Hold-back: After issuance of certificate of Substantial Performance of the Work, submit an application for payment of hold-back amount.

1.2 CLOSEOUT SUBMITTALS

- .1 Prepare instructions and data using personnel experienced in maintenance and operation of described Products.
- .2 Copy will be returned after final inspection, with Consultant's comments.
- .3 Revise content of documents as required prior to final submittal.

1.3 RECORDING ACTUAL SITE CONDITIONS

- .1 Record information on set of black line opaque drawings provided by Consultant.
- .2 Annotate with colored felt tip marking pens, maintaining separate colors for each major system, for recording changed information.
- .3 Record information concurrently with construction progress. Do not conceal Work of the Project until required information is accurately recorded.

- .4 Contract drawings and shop drawings: legibly mark each item to record actual construction, including:
 - .1 Measured depths of elements of foundation in relation to finish first floor datum.
 - .2 Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - .3 Measured locations of internal utilities and appurtenances, referenced to visible and accessible features of construction.
 - .4 Field changes of dimension and detail.
 - .5 Changes made by change orders.
 - .6 Details not on original Contract Drawings.
 - .7 References to related shop drawings and modifications.
- .5 Specifications: legibly mark each item to record actual construction, including:
 - .1 Manufacturer, trade name, and catalogue number of each product actually installed particularly optional items and substitute items.
 - .2 Changes made by Addenda and change orders.
- .6 Other Documents: maintain inspection certifications, field-test records required by individual specifications sections.

1.4 RECORD (AS-BUILT) DOCUMENTS AND SAMPLES

- .1 In addition to requirements in General Conditions, maintain at the site for Consultant one record copy of:
 - .1 Contract Drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Change Orders and other modifications to the Contract.
 - .5 Reviewed shop drawings, product data, and samples.
 - .6 Field test records.
 - .7 Inspection certificates.
- .2 Store as-built documents and samples in field office apart from documents used for construction. Provide files, racks, and secure storage.
- .3 Label as-built documents and file in accordance with section number listings in List of Contents of the Project Manual. Label each document AS-BUILT DOCUMENTS in neat, large, printed letters.
- .4 Maintain as-built documents in clean, dry and legible condition. Do not use as-built documents for construction purposes.
- .5 Keep as-built documents and samples available for inspection by Consultant.

1.5 FINAL SURVEY

- .1 Submit final site survey certificate, performed by a Professional Land Surveyor who is a member in good standing of APEILS, certifying that elevations and locations of completed Work are in conformance or non-conformance with Contract Documents.
- .2 Inaccurate or neglectful information shall be the liability of the Contractor.

1.6 EQUIPMENT AND SYSTEMS

- .1 Each Item of Equipment and Each System: include description of unit or system, and component parts. Give function, normal operation characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and commercial number of replaceable parts.
- .2 Panel board circuit directories: provide electrical service characteristics, controls, and communications.
- .3 Include installed color-coded wiring diagrams.
- .4 Operating Procedures: include start up, break in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shut down, and emergency instructions. Include summer, winter, and any special operating instructions.
- .5 Maintenance Requirements: include routine procedures and guide for trouble shooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- .6 Provide servicing and lubrication schedule, and list of lubricants required.
- .7 Include manufacturer's printed operation and maintenance instructions.
- .8 Include sequence of operation by controls manufacturer.
- .9 Provide original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- .10 Provide installed control diagrams by controls manufacturer.
- .11 Provide Contractor's co-ordination drawings, with installed color-coded piping diagrams.
- .12 Provide charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- .13 Provide list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- .14 Include test and balancing reports as specified in Section 01 45 00 - Quality Control and Section 01 91 00 Commissioning.
- .15 Additional requirements: as specified in individual specification sections.

1.7 MATERIALS AND FINISHES

- .1 Building Products, Applied Materials, and Finishes: include product data, with catalogue number, size, composition, and color and texture designations. Provide information for reordering custom manufactured products.
- .2 Instructions for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- .3 Moisture Protection and Weather Exposed Products: include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- .4 Additional Requirements: as specified in individual specifications sections.

1.8 SPARE PARTS

- .1 Provide spare parts, in quantities specified in individual specification sections.
- .2 Provide items of same manufacture and quality as items in Work.

- .3 Deliver to site, location as directed, place and store.
- .4 Receive and catalogue items. Submit inventory listing to Consultant. Include approved listings in Maintenance Manual.
- .5 Obtain receipt for delivered products and submit prior to final payment.

1.9 MAINTENANCE MATERIALS

- .1 Provide maintenance and extra materials, in quantities specified in individual specification sections.
- .2 Provide items of same manufacture and quality as items in Work.
- .3 Deliver to site, location as directed, place and store.
- .4 Receive and catalogue items. Submit inventory listing to Consultant. Include approved listings in Maintenance Manual.
- .5 Obtain receipt for delivered products and submit prior to final payment.

1.10 SPECIAL TOOLS

- .1 Provide special tools, in quantities specified in individual specification section.
- .2 Provide items with tags identifying their associated function and equipment.
- .3 Deliver to site, location as directed, place and store.
- .4 Receive and catalogue items. Submit inventory listing to Consultant. Include approved listings in Maintenance Manual.

1.11 STORAGE, HANDLING AND PROTECTION

- .1 Store spare parts, maintenance materials, and special tools in manner to prevent damage or deterioration.
- .2 Store in original and undamaged condition with manufacturer's seal and labels intact.
- .3 Store components subject to damage from weather in weatherproof enclosures.
- .4 Store paints and freezable materials in a heated and ventilated room.
- .5 Remove and replace damaged products at own expense and to satisfaction of Consultant.

1.12 WARRANTIES AND BONDS

- .1 Develop warranty management plan to contain information relevant to Warranties.
- .2 Submit warranty management plan, 30 days before planned pre-warranty conference, to Consultant approval.
- .3 Warranty management plan to include required actions and documents to assure that Owner receives warranties to which it is entitled.
- .4 Provide plan in narrative form and contain sufficient detail to make it suitable for use by future maintenance and repair personnel.
- .5 Submit, warranty information made available during construction phase, to Consultant for approval prior to each monthly pay estimate.
- .6 Assemble approved information in binder and submit upon acceptance of work. Organize binder as follows:
 - .1 Separate each warranty or bond with index tab sheets keyed to Table of Contents listing.

- .2 List subcontractor, supplier, and manufacturer, with name, address, and telephone number of responsible principals.
- .3 Obtain warranties and bonds, executed in duplicate by subcontractors, suppliers, and manufacturers, within ten days after completion of applicable item of work.
- .4 Verify that documents are in proper form, contain full information, and are notarized.
- .5 Co-execute submittals when required.
- .6 Retain warranties and bonds until time specified for submittal.
- .7 Except for items put into use with Owner's permission, leave date of beginning of time of warranty until Date of Substantial Performance is determined.
- .8 Conduct joint 4 month and 9-month warranty inspection, measured from time of acceptance, by Consultant.
- .9 Include information contained in warranty management plan as follows:
 - .1 Roles and responsibilities of personnel associated with warranty process, including points of contact and telephone numbers within the organizations of Contractors, subcontractors, manufacturers or suppliers involved.
 - .2 Listing and status of delivery of Certificates of Warranty for extended warranty items, to include roofs, HVAC balancing, pumps, motors, transformers, and commissioned systems such as fire protection, alarm systems, sprinkler systems, lightning protection systems.
 - .3 Provide list for each warranted equipment, item, feature of construction, or system indicating:
 - .1 Name of item.
 - .2 Model and serial numbers.
 - .3 Location where installed.
 - .4 Name and phone numbers of manufacturers or suppliers.
 - .5 Names, addresses and telephone numbers of sources of spare parts.
 - .6 Warranties and terms of warranty: include one-year overall warranty of construction. Indicate items that have extended warranties and show separate warranty expiration dates.
 - .7 Cross-reference to warranty certificates as applicable.
 - .8 Starting point and duration of warranty period.
 - .9 Summary of maintenance procedures required to continue warranty in force.
 - .10 Cross-Reference to specific pertinent Operation and Maintenance manuals.
 - .11 Organization, names, and phone numbers of persons to call for warranty service.
 - .12 Typical response time and repair time expected for various warranted equipment.
- .10 Contractor's plans for attendance at 4-month and 9-month post-construction warranty inspections.
- .11 Procedure and status of tagging of equipment covered by extended warranties.
- .12 Post copies of instructions near selected pieces of equipment where operation is critical for warranty and/or safety reasons.

- .13 Respond in a timely manner to oral or written notification of required construction warranty repair work.
- .14 Written verification will follow oral instructions. Failure to respond will be cause for the Consultant to proceed with action against Contractor.

1.13 PRE-WARRANTY CONFERENCE

- .1 Meet with Consultant, to develop understanding of requirements of this section. Schedule meeting prior to contract completion, and at time designated by Consultant.
- .2 Consultant will establish communication procedures for:
 - .1 Notification of construction warranty defects.
 - .2 Determine priorities for type of defect.
 - .3 Determine reasonable time for response.
- .3 Provide name, telephone number and address of licensed and bonded company that is authorized to initiate and pursue construction warranty work action.
- .4 Ensure contact is located within local service area of warranted construction, is continuously available, and is responsive to inquiries for warranty work action.

1.14 EQUIPMENT WARRANTY TAGS

- .1 Tag, at time of installation, each warranted item. Provide durable, oil and water-resistant tag approved by Consultant.
- .2 Attach tags with copper wire and spray with waterproof silicone coating.
- .3 Leave date of acceptance until project is accepted for occupancy.
- .4 Indicate following information on tag:
 - .1 Type of product/material.
 - .2 Model number.
 - .3 Serial number.
 - .4 Contract number.
 - .5 Warranty period.
 - .6 Inspector's signature.
 - .7 Contractor.

END OF SECTION

1.1 DESCRIPTION

- .1 Demonstrate operation and maintenance of equipment and systems to Owner's personnel two weeks prior to date of substantial performance.
- .2 Owner will provide list of personnel to receive instructions and will coordinate their attendance at agreed-upon times.
- .3 The requirements of this Section govern the technical Sections and take precedence; whether a technical Section expressly specifies training and demonstration or not, training and demonstration is a requirement of the Contract and shall be delivered in accordance with this Section.

1.2 QUALITY CONTROL

- .1 When specified in individual Sections require manufacturer to provide authorized representative to demonstrate operation of equipment and systems, instruct Owner's personnel, and provide written report that demonstration and instructions have been completed.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit schedule of time and date for demonstration of each item of equipment and each system two weeks prior to designated dates, for Consultant's approval. Submit reports within one week after completion of demonstration, that demonstration and instructions have been satisfactorily completed.
- .2 Give time and date of each demonstration, with list of persons present.

1.4 CONDITIONS FOR DEMONSTRATIONS

- .1 Equipment has been inspected and put into operation.
- .2 Testing, adjusting, and balancing has been performed, and equipment and systems are fully operational.
- .3 Provide copies of completed operation and maintenance manuals for use in demonstrations and instructions.

1.5 PREPARATION

- .1 Verify that conditions for demonstration and instructions comply with requirements.
- .2 Verify that designated personnel are present.

1.6 DEMONSTRATION AND INSTRUCTIONS

- .1 Demonstrate start-up, operation, control, adjustment, troubleshooting, servicing, and maintenance of each item of equipment at scheduled times, at the designated location.
- .2 Instruct personnel in phases of operation and maintenance using operation and maintenance manuals as basis of instruction.
- .3 Review contents of manual in detail to explain aspects of operation and maintenance.
- .4 Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instructions.

1.7 INSTRUCTION OF OPERATING STAFF

- .1 Provide trained personnel to instruct operating staff on maintenance, adjustment, and operation of mechanical equipment. Instruct staff on changes or modification in equipment made under terms of guarantee.

- .2 Timing and Objective of Training: training should be scheduled for after the Owner's tenants have moved into their respective spaces and are nearing readiness to begin operations; coordinate with Owner to determine the dates applicable. Train each tenant's designated staff as required in accordance with the requirements of this Section.
- .3 Provide instruction during regular work hours prior to acceptance and turnover to operating staff for regular operation.
- .4 Use operation and maintenance data manual for instruction purposes. On completion of instruction, turn one manual over to chief operating engineer, the balance to Consultant.
- .5 Time allocated for Instruction:
 - .1 Exterior wall panels and siding: 1/2-hour each type.
 - .2 Roofing: 1-hour.
 - .3 Doors with automatic operators: 1-hour.
 - .4 Finishes (floor, wall, ceiling): 1/2-hour per finish.
 - .5 Division 10: 2-hours overall.
 - .6 Pumps: 1-hour.
 - .7 Tanks: 1-hour.
 - .8 Plumbing: 2-hours.
 - .9 Chemical: 1-hour plus monthly visits.
 - .10 Fire Protection: 1-hour.
 - .11 Boilers: 1-hour.
 - .12 Heat pumps and Condensing Units: 20 hrs (overall) instruction and support as required during the first year following certificate of Substantial Performance.
 - .13 Glycol: 1/2-hour.
 - .14 Air Handling: 1-hour.
 - .15 Controls: 40 hours (overall) instruction and support as required during the first year following certificate of Substantial Performance.

END OF SECTION

1.1 General

- .1 It is intended that these General Instructions apply to all City of Summerside Projects. See Specific Instructions for information specific to each project.

1.2 Documents Required

- .1 Maintain at job site, one copy of each of the following:
 - .1 Contract Drawings
 - .2 Specifications
 - .3 Addenda
 - .4 Reviewed Shop Drawings
 - .5 Other Modifications to Contract
 - .6 Copy of approved Work Schedule
 - .7 Manufacturers' Installation and Application Instructions.
 - .8 Copy of OHAS Regulations of P.E.I.

1.3 Work Schedule

- .1 Prior to contract award and based on information provided in the contract documents provide a detailed schedule showing anticipated progress stages and final completion of work within the time period required by Contract documents.
- .2 Interim reviews of work progress based on work schedule will be conducted as decided by Engineer and Schedule updated by Contractor in conjunction with and to the approval of the Project Engineer.
- .3 All costs incurred by the Owner as a result of delays and schedule overruns caused by the Contractor and not previously approved will be at the Contractor's expense.
- .4 The City reserves the right to adjust the schedule of work so as not to conflict with special events taking place within the City.
- .5 Once work has started at each site the contractor shall maintain work personnel on the site until work is completed in an orderly and continuous manner.
- .6 The City reserves the right to limit/ or increase the project scope of work or remove / add entire project sections due to project costs and budget constraints.
- .7 The City reserves the right to remove or replace sections of the project, with other approved areas, due to other capital work or new development in the listed project areas or entirely due to budget constraints.

1.4 Measurement for Payment

- .1 Notify Engineer sufficiently in advance of operations to permit required measurements for payment.
- .2 All measurements to be taken with City representative to verify all measurements before submission to Engineer for payment.

1.5 Change orders / Extra work

.1 Change Orders

- .1 If a situation occurs that the Contractor believes should result in an extra payment and/or extension of schedule he is to notify the Engineer or designate immediately. The Contractor is to record time and materials used and when the work is complete, review the time and materials with the Engineer or designate.
- .2 Within 10 working days the Contractor is to submit a Requested Change Order including costs and schedule adjustment if applicable. The Engineer will review the request and notify the Contractor of the decision. If approved, the Contractor is to include this change order in the next invoice.
- .2 No extra work will be allowed to proceed without the execution of a change order signed by the City or City's representative and the Contractor, specifying work to be conducted and a fixed cost for said work.

1.6 Traffic Control

- .1 The Contractor is to be responsible to provide traffic control for all sites and costs in all unit price items.
- .2 It is the City of Summerside's intention to maintain traffic flow through all project sites.
- .3 The City of Summerside (Technical Services and Police Services Departments) will permit the **temporary closure of some local streets**, with low traffic volume, to permit construction activities which require more street area and are unsafe to pedestrian or vehicular traffic.

This closure is conditional upon all of the following:

- .1 The street being open to signaller controlled one-way traffic after each construction activity is completed. Unless prior approval or authorized by the Engineer and notification of the Police Services Department.
- .2 The Street being open at the end of each workday.

- .3 Allowances being made for local traffic including prior individual notification if vehicles will not be able to leave a property.
 - .4 Even with a complete street temporary closure, enough personnel, including signalers, must be on site to control “local” traffic, pedestrian or vehicular, within the closure site and to permit safe entrance and exit of equipment and vehicles.
 - .5 Every effort must be made to keep the length of time of each closure to a minimum.
 - .6 Every effort must be made to keep traffic safe. All adjusted Structures and construction areas must be marked if left overnight before final seal coat is placed and the contractor is responsible for any damage occurring due to raised structures. The construction area must be pyloned or barricaded off each night for pedestrian and vehicle safety.
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- .3 Collector streets and high-volume local streets, the contractor must maintain two-way traffic-controlled flow, with weighted traffic posts /pylons, to delineate each lane thru the project construction area.
 - .4 The City will permit with a prior notice of a minimum of 48 hours, and with a written traffic control plan from the contractor, the reduction of Collector streets or High-Volume Local Street to signal lane traffic, pyloned, with signaler traffic control.
 - .5 Traffic control as required at all locations must be provided by qualified traffic control signalers to the satisfaction of PEI DOT and OH& S.

1.7 Contractor’s Use of Site

- .1 Do not unreasonably encumber site with materials or equipment.
- .2 Move stored products or equipment which interferes with operations of Engineer or other Contractors.
- .3 Obtain and pay for use of additional storage or work areas needed for operations.
- .4 Bidders are advised that due to the nature of the job, all work must be conducted within the boundaries of the right of ways shown. Any damage done to the property outside the provided right of ways will be the Contractor’s responsibility and repaired to the owners and city’s satisfaction at full cost to the contractor.

1.8 Codes and Standards

- .1 Perform work in accordance with National Building Code of Canada (NBC) (latest edition) and any other code of provincial or local application provided that in any case of conflict or discrepancy, more stringent requirements shall apply.
- .2 Meet or exceed requirements of specified standards, codes and referenced documents.

1.9 Layout of Work

- .1 For projects with supplied drawings and specifications:
 - .1 Set grades and lay out work in detail from control points indicated in the contract documents.
 - .2 Assume full responsibility for and execute complete layout of work to locations, lines and elevations indicated.
 - .3 Supply such devices as straight edges and templates required to facilitate Engineer's inspection of work.
 - .4 Provide devices needed to layout and construct work.
 - .5 Supply stakes and other survey markers required for laying out work.
 - .6 The contractor is responsible to confirm cad or coordinated layout meets engineering drawing dimensions and cross sections.
 - .7 Notify City of Summerside Project Engineer to review potential conflicts and any required changes.
- .2 For projects with Specifications only:
 - .1 After award of the Contract, the Engineer or his representative will tour each site with a representative of the Contractor to mark locations for start and end of work, asphalt cuts on streets and driveways, private walks that require adjustment and any cuts or fills and to review the layout and note any other related work required on each site.
 - .2 The Engineer's representative and the contractor representative

will record the information and this list will be referred to as the project progresses.

- .3 The Contractor's representative must be the person who will oversee the project and must pass on the information to all the contractor's personnel involved.

1.10 Location of Fixtures

- .1 Location of equipment, fixtures and outlets indicated or specified are to be considered as approximate.
- .2 The Contractor is to perform exploratory excavations in all areas where the new mains or laterals cross existing sewer mains, storm mains, water mains and force mains prior to commencement of any work. If a conflict occurs between the new main and the existing main, the Engineer will make the appropriate changes to the design grades and alignments. No extras will be allowed for minor changes. All costs to be included in the per unit measure of the applicable mainline being placed.
- .3 Inform Engineer of impending installation and obtain his approval for actual location.
- .4 Submit field drawings to indicate relative position of various services and equipment when required by Engineer.
- .5 Bidders are advised that the issued project drawings are to be considered as a reasonable reflection of existing surface conditions only, and that underground conditions will vary and that non-detected or un-foreseen items are to be expected (i.e., unexpected buried pipes, excessive groundwater or rock, utilities lines, etc.). If existing conditions vary in such a manner as to severely impede progress or cause a complete halt to construction activities, notify the Engineer immediately for further direction.
- .6 If it is deemed by the Engineer that alterations to existing features or revisions to the design are required, then the appropriate direction will be given to the Contractor and the required Change Orders are to be signed. The above process is expected to be completed within a time period of 48 hours, per occurrence, after notification to the Engineer (excluding weekends). The Contractor will be required to continue construction activities in other areas of the project site, to minimize the amount of down time. Costs related to down time will not be considered as an extra to the project under any circumstances. If approved down time occurs, the Contractor's construction schedule will be extended to reflect the appropriate time.

1.11 Existing Services

- .1 Where work involves breaking into, or connecting to existing services, carry out work at times directed by governing authorities.
- .2 Before commencing work, establish location and extent of service lines in area of work and notify Engineer of findings. The Contractor shall be responsible for all damages as a result of these lines being damaged during construction. Be aware that underground telephone, electrical and television lines are present at various locations where excavation is required to permit construction activities to be carried out.
- .3 Submit schedule to and obtain approval from Engineer for any shut-down or closure of active service or facility. Adhere to approved schedule and provide notice to affected parties.
- .4 Where unknown services are encountered, immediately advise Engineer.
- .5 All existing utilities damaged during construction shall be repaired by the contractor to the satisfaction of the Engineer.
- .6 Where an excavation is near existing utility poles, these poles must be maintained while construction is proceeding. All costs associated with this work should be incorporated into Contractor's price. No extra will be allowed.
- .7 Tenderers are advised that no extras will be allowed for minor grade changes required due to conflicts exposed during excavation.

1.12 Inspection/Takeover Procedures

- .1 Prior to application for Letter of Substantial Completion of Work, carefully inspect the work and ensure it is complete, that major and minor construction deficiencies are complete, defects are corrected.
- .2 Notify Engineer in writing of satisfactory completion of the work and request an inspection.
- .3 During the Engineer's inspection, a list of deficiencies and defects will be tabulated. Correct same.
- .4 When Engineer considers deficiencies and defects have been corrected and it appears requirements of Contract have been performed, make application for Letter of Substantial Completion of Work.
- .5 The Contractor must have submitted all final invoicing to the Engineer prior to date of substantial being approved by the Engineer.
- .6 The Contractor must have supplied his red line construction drawings to the Engineer or designate.

- .7 The contractor must have all project testing completed before applying for Substantial Completion.

1.13 Warranty Period / Maintenance Period

- .1 The one-year project maintenance period starts at the date of Substantial Completion is obtained.
- .2 Contractors are advised that eleven months following the project completion, the City of Summerside's Engineer will carry out a site visit to identify any deficiencies for all project items. All identified deficiencies shall be repaired by the Contractor at no costs to the Owner. Referred to as a Deficiency list supplied to the contractor.
- .3 All identified deficiencies shall be repaired by the Contractor at no costs to the Owner prior to release of the contractors Maintenance holdback. Maintenance hold back as per specification Supplementary General Conditions section 12.3.8 and the instructions to Tenderers section 14 Guaranteed Maintenance Period
- .4 If the contractor does not complete any identified deficiency list to the Engineer's satisfaction, within **30 days of notification**, the Engineer will hold back enough monies to cover costs of the deficiency(s) not completed.

1.14 Materials

- .1 All materials to be incorporated into the work will be new and shall comply with the Acceptable Materials sections of the Standard Specifications unless otherwise approved of the Engineer in writing.
- .2 At all locations where new lines are installed into an existing system, all repair sleeves, etc., that may be required for a complete finished product to the Engineer's approval are to be incorporated into the work and will be considered incidental to fittings being installed. No extras will be allowed.

1.15 Materials Testing

- .1 Testing will be conducted by the City according to Section 01410 - Material Testing.

1.16 Protection of Asphalt/Concrete Surfaces

- .1 Bidders are advised that all equipment shall be properly equipped to not damage new and existing asphalt or concrete surfaces during the project. All outriggers must have rubber pads. Any damage to existing surfaces will be reinstated to original condition at the Contractor's expense.
- .2 All asphalt surfaces which require excavation are to be saw cut prior to excavation.

1.17 Maintenance, Re-instatement & Clean Up

- .1 The Contractor is advised that extra care must be taken at the end of every day worked and during weekends or shut down periods to maintain dust control and site clean-up. This requirement will be strictly enforced.
- .2 Unless instructed otherwise, bidders are advised that all grassed areas disturbed during construction must have grass reinstated to original condition to the Engineer's approval. Work required will include topsoil placement, fine grading, fertilizer, seed (DOT & PW mix), mulch (if required), and maintenance (i.e., water, mowing, etc.) to full development of reinstated area as per Section 02650 Topsoil, Seeding and Sodding. All grassed areas will require at least three cuttings as part of the maintenance during reinstatement. All costs associated with reinstatement is considered incidental to the work. No pay item has been detailed and no extra will be allowed.
- .3 As each area is 100% completed, including all reinstatement, a complete high-pressure water washing of all streets, walks, driveways etc in the affected areas will be required.
- .4 These clean-up items will be strictly enforced. No extra costs will be allowed by the Owner.

1.18 Surplus Material

- .1 All material that is excavated as part of this work is the property of the Contractor and shall be disposed of by the Contractor.
- .2 All existing City infrastructure that is removed as a part of a project and is reusable by the Municipal Services Department is the property of the City of Summerside and will be delivered to the City Municipal Works Department compound located on Ottawa Street. That Infrastructure deemed not usable is to be disposed of by the contractor.

1.19 Limitation of Operations

- .1 Except for such work as may be required to maintain the travelled roadway in a safe and satisfactory condition for traffic, the Contractor shall not carry out operations under the Contract between a half hour before sunset and a half hour after sunrise on any working day, or at any time on Saturday, Sunday or statutory holidays.
- .2 The Engineer may require the Contractor to work on Saturdays, Sundays or Statutory holidays to assure the safety of the travelling public. In addition, the Engineer may, with written request from the contractor the Contractor, approve to work on Saturdays, Sundays or Statutory holidays in order to complete the work on schedule and at no extra cost to the City.

- .3 The Engineer may in writing require the Contractor to cease or limit operations under the Contract, on any working day or days, if the operations are of such nature, or if the work is so located, or if the traffic is of such volume that the Engineer deems it necessary or expedient to do so.

1.20 Insurance

- .1 The Contractor must furnish the following insurance policies to the satisfaction of the City of Summerside prior to commencement of work.

- .1 The Contractor shall, without limiting its obligation or liabilities herein and at its own expense, provide and maintain the following insurances in forms and amounts acceptable to the City.

- .2 Comprehensive General Liability in an amount not less than \$5,000,000 inclusive per occurrence against bodily injury and property damage. The City of Summerside is to be added as an additional insured under this policy. Such insurance shall include, but not be limited to:

- i. Products and Completed Operations Liability;
 - ii Owner's and Contractor's Protective Liability;
 - iii Blanket Written Contractual Liability;
 - iv Contingent Employer's Liability;
 - v Personal Injury Liability;
 - vi Non-owned Automobile Liability;
 - vii Cross Liability;
 - viii Employees as Additional Insureds;
 - ix Broad Form Property Damage; and
 - x Operation of Attached Machinery.

- .3 Automobile Liability on all vehicles owned, leased, operated, or licensed in the name of the Contractor in an amount not less than \$5,000,000.

- .4 All the foregoing insurance shall be primary and not require the sharing of any loss by any insurer of the City and preclude subrogation by the insurer against the City of Summerside.

- .5 Proof of Insurance; certified copies of the required insurance, as mentioned, must be presented to the City at the time of signing of the contract and shall be subject to the City's approval for adequacy of protection. Approval by the City of any policy filed by the Contractor shall in no way relieve the Contractor of its obligations to provide the insurance referred to in the contract, nor shall it imply that the policies are in accord with the terms of this agreement.

- .5 continued

- i. All required insurance shall be endorsed to provide the City 60 days advance written notice of cancellation or material change.
- ii. Unless otherwise stipulated, the duration of each insurance policy shall be from the date of commencement of the work until the date of the "Certificate of Total Performance of Work".
- iii. The Contractor hereby waives all rights of recourse against the City with regards to the Contractor's property.
- iv. The Contractor shall require and ensure that each subcontractor maintain liability insurances comparable to that required above.

1.21 Additional Insurance Funding Partner Requirements

.1 contractor is to include as per the following.

"SECTION 6 OF THE FUNDING AGREEMENT DEALING WITH INSURANCE "

PLEASE ENSURE THAT YOU HAVE THE CORRECT INSURANCE IN PLACE AND PROVIDE THE CORRECT PAPERWORK REQUIRED.

6.0 Insurance

6.1 Prior to the signing of this Agreement, and on each anniversary date thereof and on the anniversary date of the insurance policy if different from the anniversary of the beginning construction of the Project(s) until the Agreement has been fulfilled, the Ultimate Recipient shall provide evidence sufficient to the Project Review Committee of Commercial General Liability Insurance in the minimum amount shown, with the specifics as outlined in Section 6.2:

(a) For Projects with total Eligible Costs of less than Five Hundred Thousand (\$500,000.00) Dollars, a limit of Two Million (\$2,000,000.00) Dollars; or

(b) For Projects with total Eligible Costs of Five Hundred Thousand (\$500,000.00) Dollars or more, a limit of Five Million (\$5,000,000.00) Dollars.

6.2 The Ultimate Recipient shall provide and maintain the following insurance policies in force during this Agreement. All policies shall be issued by insurers maintaining a minimum A.M. Best "A-" rating licensed to carry on business in Canada and shall be subject to approval by the Province, acting reasonably.

a) Commercial General Liability insurance with an insured limit as shown in Paragraph 6.1 (a) or 6.1 (b) for the limit of not less than the amount shown on a per occurrence basis covering bodily injury, death and damage to property, including loss of use, and not less than the same limit required in 6.1(a) or 6.1 per occurrence and in the annual aggregate for products liability and completed operations. All coverages as noted below shall be included but not limited to the Commercial General Liability coverage:

- i. premises, property and operations liability;
- ii. products liability and completed operations;
- iii. blanket contractual liability;
- iv. contingent employers' liability;
- v. personal injury liability;
- vi. non-owned licensed motor vehicle (automobile) liability;
- vii. sudden and accidental pollution liability;
- viii. watercraft coverage (if applicable); and
- ix. firefighting expense liability.

This insurance shall be in the name of the Ultimate Recipient, and name the Province and their respective Ministers, elected and appointed officials, officers, employees and agents, as an additional named insured to the extent of the Ultimate Recipient's legal liability for claims for property damage, bodily injury, including death and personal injury, arising from the operations of the Ultimate Recipient, its employees, agents and contractors, and shall include both cross liability and severability of interest clauses;

b) If the Project consists of or involves in any way work or a professional nature, such as engineering, engineering design, construction management, architectural work or any other professional service identified, then Professional (Errors & Omissions) Liability Insurance with an insured limit of not less than two million dollars (\$2,000,000.00) per claim and in the annual aggregate covering legal liability for economic losses arising from the performance of work provided under this Agreement shall be secured. The policy will be maintained for a period of not less than six (6) years following the expiration or early termination of this Agreement if required by the type of work performed in the opinion of the Project Review Committee;

- c) Automobile liability insurance in respect to owned or leased licensed motor vehicles with an insured limit of not less than two million dollars (\$2,000,000.00) per accident covering bodily injury, death and damage to property including loss of use thereof;
- d) If the Project consists of or involves in any way work in or on boats or marine craft of any type, whether powered or not powered, or if the Project involves any use of aircraft, then the Ultimate Recipient shall provide evidence of such insurance particulars and amount and with an insurer all as required by the Province designed specifically for marine and water exposures or those related to airports or aviation. Said requirements shall be no less in terms of overall limits, based on the size of the contracts. The Province specifically reserves the right to modify this paragraph should such work be contracted and prior to the start of any work under the agreement.

6.3 In addition to the insurance requirements contained in paragraphs 6.1 and 6.2 herein, the Ultimate Recipient shall also provide evidence sufficient to the Province of the following insurance, as in the opinion of the Project Review Committee is applicable to the Project(s), and which evidence shall be provided by the Ultimate Recipient prior to the signing of this Agreement, and on each anniversary date thereof until the Agreement has been fulfilled:

- a) If the Project consists of a renovation to an existing building or structure, then the Ultimate Recipient shall provide evidence of Course of Construction Property Insurance, that is all risk, replacement cost blanket limit, with an agreed amount endorsement and includes boiler and machinery coverage where applicable in the opinion of the Project Review Committee. Said coverage will include completed operations coverage for 24 months after completion to the full value of the building or structure as required by the Project Review Committee. Coverage for explosion, collapse and underground exposure shall be included along with loss of use.
- b) If the Project consists of construction of a new building or structure, then the Ultimate Recipient shall provide evidence of Course of Construction Property Insurance, that is all risk, replacement cost blanket limit, with an agreed amount endorsement and includes boiler and machinery coverage where applicable in the opinion of the Project Review Committee. Said coverage will include completed operations coverage for 24 months after completion to the full value of the building or structure as required by the Project Review Committee.

- 6.4** In all insurance policies required under paragraphs 6.1, 6.2 and 6.3 herein:
- a) There shall be an endorsement stating that the insurer will provide 30 days' notice to the Province's Risk Manager (or the acting or assistant) of cancellation or material change in coverage;
 - b) The insurer shall acknowledge that the policy is primary and any other insurance policies that may be in effect or any other sources of recovery the including the Government of Prince Edward Island's Self Insurance and Risk Management Fund shall not contribute in any way to any judgments, awards, payments, or cost or expenses of any kind whatsoever made as a result of actual or alleged claims. The Ultimate Recipient shall provide the Province with current certificates of insurance, in a form and content reasonably acceptable to the province, evidencing the required insurance policies hereunder within ten (10) days of the Effective Date and on each renewal of the insurance policies thereafter. Umbrella or Excess insurance may be used to achieve the required insured limits above. Default of delivery or receipt by the Province shall not be construed as acknowledgement or concurrence that there has been compliance with the terms of this agreement. The Province shall have the right, but not the obligation to review the originals of any insurance required by this Agreement at reasonable time in an office of its choice.
- 6.5** For each Contract entered into with a Third Party, the Ultimate Recipient must require the Third Party to maintain during the term of the Contract the insurance coverage as is required of the Ultimate Recipient under this section 6.0 Insurance, according to the scope of work and terms and conditions of the contract. For greater certainty, the ultimate Recipient must also require the Third Party to comply with all the requirements applicable to such insurance coverage as are set out in this section 6.0 Insurance.
- 6.6** If the Ultimate Recipient fails to maintain the required insurance described herein, the Province may, but has no obligation to, pay the premium therefore and obtain reimbursement from the Ultimate Recipient. The Ultimate Recipient's required insurance shall be primary except to the extent of claims arising from the negligence of the Province.
- 6.6** Nothing in this Section 6.0 Insurance shall be construed to limit the liability of any insurer of any insurance required under Section 6.0 Insurance. For further clarification, Ultimate Recipient shall waive any limitation of rights of recovery where an insurer of any policy listed in Section 6.0 Insurance is responding, is expected, or is waiting to respond to a claim and the insurer shall not be limited in its liability by reason of this section 6.0 Insurance, except to the limit established.

1. Construction Safety

Measures

- .1 Observe and enforce construction safety measures as required by the National Building Code (latest edition) Part 8, the laws of the Province of Prince Edward Island, the laws of the Dominion of Canada, Prince Edward Island Worker's Compensation Board and all Municipal Bylaws, Policies and Authorities.

2. Safety

Requirements

Construction Safety Measures:

- .1 The work performed by any contractor or subcontractor must comply with the Occupational Health and Safety Act and its Regulations. This Act and the Regulations are available from:

Island Information Service

P.O. Box 2000

Charlottetown, P.E.I.

C1A 7N8

Telephone: 1-(800) 236-5196

- .2 The Owner or the Owner's Representative reserves the right to order changes in construction methods or stoppages of work if work does not comply with the Act. Any cost due to these changes or stoppages shall be the responsibility of the Contractor.
- .3 The Contractor agrees to indemnify and save harmless the Owner and the Owner's Representative from any and all costs, charges or expenses howsoever arising out of any breaches in the Occupational Health and Safety Act and its Regulations.
- .4 The Contractor must have personnel trained and certified for work in confined spaces.
- .5 The Contractor must submit to the Engineer a copy of the company's health and safety policy.
- .6 The Contractor must submit to the engineer the name of the Contractor's representative designated to be responsible for health and safety on site.

3.1 Traffic Warning Requirements:

- .1 Traffic warning and control devices shall be utilized to meet requirements as set out by the Department of Transportation and Public Works.
- .2 Traffic warning and control devices for all work carried out within the City of Summerside right-of-ways and other easements shall also be to the satisfaction of the Engineer and the City of Summerside Police Department.
- .3 Traffic warning and control devices for all work carried out along a Provincial Government right-of-way shall be to the satisfaction of the Engineer and the PEI Department of Transportation and Public Works.

3.2 Street blockages

- .1 It is the City of Summerside's intention to have no street blockages during construction and maintain traffic during construction on this Project. All traffic control will be the responsibility of the Contractor from the point of view of contact, coordination and cost.
- .2 The successful contractor is to provide contact information in the form of the name and cellular number of the contractor's emergency contact person, Project name, and area /street location the contractor is responsible for to the Summerside Police Services.
- .3 This person will be contacted in the event of any problems arising at the site after hours or on the weekends during the construction period.
- .4 This is to be documented by submitting in writing to the respective emergency services and the cities Engineer.
- .5 This is also to be updated immediately if the contractor changes the contact information. No extras will be allowed for this, include all costs associated with this work in the associated item quantities.

The Contractor shall comply with the Environmental Protection Act and its Regulations.

The Provincial Department of Transportation and Public Works has distributed a document titled, "Environment Protection Plan" dated March, 2000. The Contractor will be required to follow all items included in the above Document in the course of the work.

At no time shall the contractor be permitted to discharge of wastewater to the environment.

Not so as to limit the generality of the foregoing, the Contractor agrees as follows:

- 1 **Fires**
 - .1 Fires and burning of rubbish on site will not be permitted.
- 2 **Disposal of Waste**
 - .1 Do not bury rubbish and waste materials on site. Dispose of waste materials as directed by the Engineer.
 - .2 All garbage must be stored and handled in conformance with local authorities regulations. Maintain site in tidy condition, free from accumulation of waste products, debris and litter.
 - .3 Disposal of waste or volatile materials, such as mineral spirits, oil or paint thinner into waterways, storm or sanitary sewers is prohibited. Dispose of all waste materials at waste disposal site approved by Engineer outside boundary. Littering is prohibited.
- 3 **Drainage**
 - .1 Provide temporary drainage and pumping as necessary to keep excavations and site free from water.
 - .2 Do not pump water containing suspended materials into waterways, sanitary sewer or drainage system.
 - .3 Construct temporary silt traps or silt fences with sufficient surface areas as directed by the Engineer, prior to commencing excavation of any nature.
 - .4 Dispose of water containing silt in suspension in accordance with local authority requirements. Water from work areas must be pumped a minimum of 50 m from the waterways into sediment traps or tank trucks.
- 4 **Work Adjacent To Waterways**
 - .1 The Contractor is required to install, inspect and maintain in working order temporary erosion, siltation and pollution control features as directed by the Engineer. These devices are to be removed in the proper manner.

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- .2 Do not dump excavated fill, waste materials or debris in waterways.
 - .3 Any and all sand, powdered cement wastes or materials that are to be washed down/off are to be contained by coffer dams, berms, sand bagging or any approved method that will totally contain any and all debris.
 - .4 Do not skid logs or construction equipment across waterways.
 - .5 Do not operate construction equipment in waterways.
 - .6 Extreme care must be taken to prevent entry of cement, lime, fresh concrete, kerosene, boiled linseed oil, etc., into waterway.
 - .7 Works performed in and around waterways will be carried out in accordance with regulations of authorities having jurisdiction.
 - .8 All sawing of wood and other materials is not to be done over the waterway unless total containment of any sawdust etc., is undertaken.
 - .9 Cuts and fills adjacent to waterways are to be stabilized, and ditch run-outs constructed to prevent entry of silt into waterway.
 - .10 On conclusion of construction, debris must be disposed of to prevent its entry into waterways and stream bed returned to his original configuration.
- 5 **Pollution**
Control
- .1 Cover or wet down dry materials and rubbish to prevent blowing dust and debris. Provide dust control for temporary roads.
 - .2 Provide dust control on all streets affected by the work and clean street and sidewalk surfaces at the end of each work day.
 - .3 Maintain temporary erosion and pollution control features installed under this contract or as directed by the Engineer on site.
- 6 **Erosion**
Controls
- .1 Contractor is required to install, inspect and maintain in proper working order temporary erosion, siltation and pollution control features as directed and approved by Engineer. These devices are to be removed in the proper manner.

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- .2 Cuts and fills carried out by Contractor adjacent to waterways are to be properly stabilized using handseeding, hydroseeding, sodding, or other approved methods to prevent entry of silt into waterway. Short term erosion control devices approved by Engineer will be utilized in interim until long-term stabilization is established.
- .3 To minimize runoff, work on slopes adjacent to water bodies will be curtailed during periods of heavy rainfall, as directed by the Engineer.
- 7 **Vehicle**
Movements
- .1 Restrict movement of vehicles and equipment to existing disturbed areas (access roads, borrow pits, disposal areas, and future right-of-ways).
- 8 **Storage and Handling of Fuels**
and Dangerous
Chemicals
- .1 Fuel storage facilities will not be permitted on site.
- .2 Exercise care in handling of fuels or dangerous materials to minimize potential for spills. Report immediately any spills to Engineer. Contractor is responsible for clean up, repair or rehabilitation resulting from spills to satisfaction of the Engineer.
- .3 Equipment use will be restricted to the existing travelling right-of-way or contract limits. Use in order areas to be approved by the Engineer.
- 9 **Relics and**
Antiquities
- .1 Give immediate notice to Engineer if evidence of historical or archaeological finds are encountered during construction, and await written instructions from Engineer before proceeding with the work.
- .2 Relics, antiquities and items of historical interest found on site shall remain the property of the City of Summerside.
- 10 **Sanitary**
Facilities
- .1 Temporary sanitary facilities will be required and permitted in designated areas only.
- .2 Hours for servicing or cleaning of temporary sanitary facilities will be restricted, and timing for such activities must be approved by the Engineer.

- 11 **Discharge to Environment** .1 The Contractor shall under no circumstances discharge any waste water to the environment.
- 12 **Indemnity** .1 The Contractor agrees to indemnify and save harmless the Owner and the Owner's Representative from any and all costs, charges or expenses, however so arising out of any breaches of the Environmental Protection Act and its Regulations.
- 13 **Measurement for Payment** .1 Items under Section 01560 will not be measured for payment, but are considered to be incidental to the contract.

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1. General
 - .1 Use new material and equipment unless otherwise specified.
 - .2 Provide material and equipment of specified design and quality, performing to published ratings and for which replacement parts are readily available.

 - .2 Submittals
 - .1 Shop Drawings
 - .1 On shop drawings clearly show in detail dimensions, materials of construction, installation requirements and other pertinent information.
 - .2 Check all shop drawings prior to submission. Determine and verify all field measurements, field construction criteria, materials, catalogue numbers and similar data and check and coordinate each shop drawings with the requirements of the Work and the Contract Documents. Sign and date each shop drawing to confirm compliance with above requirements.
 - .3 Engineer will not review shop drawings where it is evident that they do not meet the requirements of 7.1.1 and 7.1.2 above.
 - .4 Submit for review six copies of shop drawings or as indicated in the Project Documents.
 - .5 After review, Engineer will return four copies of shop drawings or as indicated in the Project Documents.
 - .6 Make any corrections as noted, and resubmit.
 - .7 Do not proceed with work involving relevant products until completion of shop drawing review.
 - .2 Samples
 - .1 Submit samples for review as required in Specific Instructions. Indicated locations of sources.
 - .2 Do not deliver relevant products to site until completion of review.
 - .3 Mix Design
 - .1 Submit mix design for concrete and asphalt materials as required in Specific Instructions.

- .4 Operating and Maintenance Data
- .1 Submit three (3) copies of the following, or as indicated in the Project Documents, prior to application for Final Payment:
- .1 General description, list of equipment including nameplate information, installation, operation and maintenance instructions and parts list.
- .2 Type lists and notes. Use clear drawings, diagrams and manufacturer's literature.
3. Manufacturer's Instructions
- .1 Unless otherwise specified, comply with manufacturer's latest printed instructions for materials and installation methods.
- .2 Notify the Engineer in writing of any conflict between these specifications and manufacturer's instructions. The Engineer will designate which document is to be followed.
4. Delivery and Storage
- .1 Deliver, store and maintain packaged material and equipment with manufacturer's seals and labels intact.
- .2 Prevent damage, adulteration and soiling of material and equipment during delivery, handling and storage. Immediately remove rejected material and equipment from site.
- .3 Store material and equipment in accordance with supplier's instructions.
5. Conformance
- .1 When material or equipment is specified by standard or performance specifications, upon request of the Engineer, obtain from manufacturer an independent testing laboratory report, stating that material or equipment meets or exceeds specified requirements.
6. Substitution
- .1 Proposals for substitution may be submitted only after award of contract. Such requests must include statements of respective costs of items originally specified and proposed substitutions.
- .2 Proposals may be considered by the Engineer if:
- .1 Products selected by tenderer from those specified are not available, or

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- .2 Delivery date of products selected from those specified would unduly delay completion of contract, or
- .3 Alternative products to those specified, which are brought to the attention of, and considered by the Engineer as equivalent to those specified and will result in a credit to the Contract Price.
- .3 Should proposed substitution be accepted either in part or in whole, assume responsibility and costs when substitution affects other work on the project. Pay for design or drawing changes required as a result of substitution.
- .4 Amounts of all credits arising from approval of substitutions will be determined by the Engineer and the Contract Price will be reduced accordingly. No substitutions will be permitted without prior written approval of the Engineer.
7. Construction Equipment and Plant
- .1 On request, prove to the satisfaction of the Engineer that the construction equipment and plant are adequate to manufacture, transport, place and finish work to quality and production rates specified. If inadequate, replace or provide additional equipment or plant as directed.
- .2 Maintain construction equipment and plant in good operating order.

PART 1.0 - GENERAL

- 1.1 **Description** .1 This section specifies requirements for laying out the work and assistance with the collection of Record Drawing information.
- 1.2 **Qualified Surveyor** .1 The Contractor must use a qualified surveyor and appropriate equipment to perform layout for the Work. The level of qualification and type of equipment necessary will vary with the type and complexity of the Work.
- .2 Prior to award, the low bidder shall submit to the Engineer a written proposal containing the following:
- .1 Name, qualifications and experience of the proposed surveyor(s).
- .2 Description of equipment to be used for necessary calculations and layout.
- .3 Description of the method proposed for the layout of the Work.
- .4 The proposal may include a two tiered system in which a more qualified person does the more complex tasks and a lesser qualified person does less complex tasks.
- .3 The Engineer will review the submission and determine if the proposal is acceptable for the Work. If the Engineer determines the submission is not acceptable, the Contractor must provide an alternate proposal that is acceptable to the Engineer. This alternate may include contracting with a surveyor to perform all or some of the layout. No additional payment will be made due to any change required in survey methods.
- .4 All contractors are to use competent layout personnel with a minimum of GPS layout equipment or a licensed surveyor to supplement their own forces to accurately lay out all project structures, sidewalk and curbs etc...**
- .5 No Taped layout from drawings will be allowed as a replacement for a qualified surveyor. Only measurements from a qualified surveyor's layout by surveying equipment or contractors personnel qualified to operate GPS equipment will be acceptable unless approved by the City Engineer.**

- 1.3 **Information Provided** .1 The Engineer will provide a digital copy of the construction drawings in Auto Cad format if requested by the Contractor.
- .2 The contract documents indicate the control points and survey monuments used for the design survey.
- .3 If the City deems the edge of ROW is required to be verified it will be performed by the City.
- .4 The Contractors Qualified Surveyor is responsible to perform any calculations needed for all layout of the project work from the construction drawings provided by the Engineer. Any costs associated with this are to be considered incidental to the project.
- 1.4 **Project Layout** .1 When street construction is involved, the surveyor shall provide the following additional services:
- .1 Centrelines and shoulder grades in grid format at ten meter intervals outlining top of subgrade, top of sandstone and top of gravel grades.
- .2 Take elevations at 10 meter intervals at centreline, 3.0 m off centreline and at edge of pavement location for top of sandstone and top of gravel. Submit typed reports indicating variance from design grades. Repeat process until fine grading has been carried out to specified tolerance.
- .2 When Street Widening is involved, the surveyor shall provide the following additional services:
- .1 Elevations taken at centreline, 3m offset from centreline, and shoulder in grid format at 2 meter intervals outlining top of existing asphalt grade; to provide existing roadway slope to calculate top of gutter and top of curb elevations for placement of concrete curb/concrete Type 2 sidewalk elevations.

- .2 Elevations taken above are to be tabulated and checked to provide for positive longitudinal and cross slope roadway drainage.

These checks are to be done on site with the Project Engineer. Repeat process until suitable grades are established to the Project Engineer's satisfaction.

- .3 When Storm Main, Water Main, and Force/Pressure Main construction is involved, the surveyor shall provide the following additional services:**

- .1 Existing invert elevations must be confirmed prior to start of construction if any conflicts occur notify the Engineer for direction.**
- .2 The surveyor must layout and confirm location of all structures to ensure proper alignment with other infrastructure such as sidewalk or curbing. Notify Engineer of any conflicts so the Engineer can give direction prior to start of construction.**
- .3 Lay out all main line structures/services tees and valves prior to start of construction and report any conflicts to the Engineer for direction.**

1.5 Project Record
Drawings

- .1 The Contractor shall assist City staff in obtaining data necessary to prepare record drawings and provide this information to the City when obtained. This shall include but not be limited to:
 - .1 Determining the elevation, material, size and location of the underground infrastructure being installed.
 - .2 Determining the elevation, material, size and location of all existing underground infrastructure encountered during construction.
 - .3 Record the obtained information on Project mark-up drawings and notifying the Engineer of any information which conflicts with the project drawings.**
- .2 Do not bury pipe work and appurtenances or other portions of the work until Engineer has advised that necessary measurements have been taken.

- .3 The Contractor shall keep an on-site copy of the project construction drawings as a mark-up set. This set of project mark-up drawings is to contain all the contractors on site project changes marked in red ink to denote the change. These project mark-up drawings shall be supplied to the City Project Engineer on completion of project as part of Substantial Completion requirements.**

PART 2.0 - PAYMENT

- .1 Layout and Project Record Drawings shall be considered incidental to the work and no separate payments will be made for project layout.**

1 General

1.1 GENERAL CONDITIONS

- .1 The Executed Agreement including General Conditions, Supplementary Conditions and applicable Sections, Drawings and Amendments are part of and to be read in conjunction with this Section.
- .2 “Provide” shall mean “supply and install”.
- .3 “Install” shall mean “mount and wire”.
- .4 “Wire and/or Connection” shall mean “supply and install all required raceways, fittings, wire and the like, and make all final connections”.

1.2 INTENT

- .1 These specifications together with the drawings are intended to provide complete supply and installation of the complete electrical systems as further described and as indicated on the drawings. There shall be no omission of the items necessary or required to make a finished, workmanlike, first class installation, even though each and every item of labour and material may not be mentioned or shown on plans and specifications.

1.3 CONTRACT MATERIALS

- .1 Contract materials shall be new, of best available quality, and C.S.A. approved for their specific use.

1.4 CONTRACT DRAWINGS

- .1 No omissions in the drawings or specifications are intended and the Contractor shall give due consideration to this matter. Any work or material referred to in the drawings and not in the specifications, or vice versa, shall be furnished and performed as though fully covered in both.
- .2 Runs of conduit indicated on the drawings are diagrammatic and exact locations must be determined by the Contractor as the work proceeds, with due regard to the structure and the work of other trades. The Engineer reserves the right to alter locations of conduit up to 10' without extra cost, provided that the Contractor is advised prior to roughing in. The Contractor shall make any changes dictated by structural requirements, or conflicts with other trades, without charge to the Owner.
- .3 Any error or omission shall be referred to the Engineer whose decision shall be final.
- .4 Construction dimensions shall not be scaled from the electrical drawings.

1.5 EXAMINATION OF THE SITE

- .1 Prior to Tender, the Contractor shall visit the site and familiarize himself with all matters which may effect his work. No consideration will be given to items arising from the Contractors failure to do so.

1.6 PROPOSED CHANGES, SUBSTITUTIONS, ETC.

- .1 Wherever it is proposed to make a change or changes in the design arrangement or type of equipment as called for in this specification, and upon written request by the Engineer, the Contractor shall estimate the cost of same and submit in triplicate detailed itemized estimates of the costs of all apparatus, material and labour entering into the change or substitution.

1.7 SHOP DRAWINGS

- .1 The Contractor shall prepare shop drawings showing in detail the design and construction of all equipment, etc.. Six (6) copies of all such drawings shall be submitted to the Engineer for review, and the work shall not be executed until such review has been obtained.
- .2 All shop drawings, other than standard manufacturers dimensions and data sheets shall bear the stamp of a registered professional Engineer who shall be fully responsible for the Engineering content of such drawings.
- .3 Prior to submission the Contractor shall carefully check all shop drawings to ensure that they comply with the drawings and specifications in both intent and detail. No consideration will be given to shop drawings submitted without this review and review from the Contractor (i.e., Contractor's Signature upon the Company Stamp/or Seal).
- .4 All shop drawings must be first quality reproductions with all details, lettering, etc. distinct and legible. Faxed copies are not acceptable.
- .5 The Engineers review of these drawings is general and is not intended to serve as a check and shall not release the Contractor from responsibility for errors or from the necessity of checking the drawings himself, or of furnishing the materials and performing the work as required by the plans and specifications.

1.8 UNIFORMITY

- .1 For the purposes of uniformity similar materials shall be of one manufacturer.
- .2 To avoid the possibility of the work being delayed, the Contractor shall order all materials as soon as the Contract is awarded.

1.9 OTHER TRADES

- .1 The Contractor shall co-operate and investigate with other trades to make maximum use of the spaces and avoid conflict with pipes, equipment, etc..
- .2 The Contractor shall co-operate with other Contractors.
- .3 The Contractor shall consult with other Contractors, where their respective installations conflict and shall re-route conduits, equipments, etc., as required, subject to the approval of the Engineer.

1.12 GROUNDING

- .1 All equipment and exposed non-current-carrying metal, conduits and parts shall be permanently and effectually grounded to meet minimum requirements of the C.E.C..

1.13 SUPERVISION

- .1 The Contractor shall provide supervision and sufficiently qualified foreman to ensure that the job proceeds in a proper and efficient manner.

1.14 MINIMUM STANDARDS

- .1 All work shall be performed in accordance with Canadian Electrical Code, National Building Code, and CAN/ULC-S524-M91, as minimum standards. These standards together with all Local or Municipal Rules, Regulations, and Ordinances shall be considered as the Latest Approved Editions at the time of Bid Closing. In no instance, shall the standard established by the drawings and specifications, be reduced by any codes.
- .2 "Approved Manufacturers" catalogue designations are included in portions of this specification. Manufacturers and equipments not listed, are not acceptable. Requests for approval of alternatives to the equipment specified, may be submitted to the Engineer for consideration ten (10) days prior to Bid closing.

1.15 PERMITS AND FEES

- .1 The Contractor shall obtain all inspections and permits required by all laws, ordinances, rules, and regulations by public authority having jurisdiction in this district, and shall obtain certificates of such inspections and submit same and shall pay all charges in connection therewith. The final certificate of inspection shall be obtained before final payment for work shall be considered due. In no instance shall the standard established by the drawings and specification be reduced by any codes, etc..

1.16 COMPLETION

- .1 On completion of this project, the Contractor shall remove all debris and leave the site neat and tidy. Equipment shall be checked for proper fitting and alignment, adjusted, cleaned, repainted where necessary, and left in first class condition.

1.17 IDENTIFICATION

- .1 Identify each conduit run at each end as directed by the City of Summerside.

1.18 RECORD DRAWINGS

- .1 One (1) set of white prints and one (1) set of reproducibles will be provided for record drawing purposes. Maintain project "as-built" record drawings and accurately record significant deviations from the Contract documents, caused by site condition or Contract change. Mark changes on white prints in "RED". At the completion of the project, and prior to final inspection, neatly transfer "As-Built" corrections and notations to reproducible transparencies, and submit to the Engineer for review.

1.19 GUARANTEE

- .1 The Contractor shall guarantee all work, under this Division, free from defects, for a period of one (1) year, after final acceptance of the work. The Contractor shall make good all defects, other than normal wear and tear, during the life of the guarantee. Notwithstanding the above, longer guarantees may be required for specific installations or equipments, as indicated in other sections of the specifications.

1.20 RENOVATION WORK

- .1 Co-ordinate removal or shutdown of existing services with the Owner or the Owners' representative. Indicate intent to remove, disconnect, or shutdown services in writing, and receive an affirmative written reply, prior to the start of such work.