

NOTICE

- **To further the City of Ottawa’s commitment to health and safety best practices and pursuant to the technical bulletin ISTB-2020-01 dated 10 January 2020, the City has begun phasing in Occupational Health and Safety Management System (OHSMS) requirements in construction contracts. The health and safety certification requirements are generally applicable to projects valued over \$10 million. Bidders are advised to review the documents carefully to verify project-specific requirements. The City will be reviewing and defining the next phase throughout 2026 for an anticipated rollout in 2027.**
- **The City of Ottawa is seeking to learn more about the diversity of its suppliers and encourages all bidders who are owned by a member(s) of a diverse group to explore becoming certified as a diverse-owned vendor as defined by one of the following organizations:**

Women Business Enterprises Canada (<https://wbecanada.ca/>)

Canadian Aboriginal and Minority Supplier Council (<https://camsc.ca/>)

Canadian Gay and Lesbian Chamber of Commerce (<https://www.cglcc.ca/>)

Inclusive Workplace Supply Council of Canada (<https://iwscc.ca/>)

Canadian Council for Aboriginal Business (<https://www.ccab.com/>)

Note that certification will not impact the outcome of this solicitation.



The City of Ottawa

Infrastructure & Water Services Department

Design and Construction Water Facilities Branch

SPECIFICATIONS

For

RICHMOND WEST PUMP STATION – ADDITION OF WELL#3 & HL PUMP#6

1045 Showman Street, Ottawa, ON K0A 2Z0

City of Ottawa Project No. CP000902

**Issued for Tender
RFT No. 34526-91360-T02**

*****Open by invitation only to the prequalified contractors
of
Pre-Qualification Stage
34525-91360-Q01*****

<u>OWNER:</u> City of Ottawa 110 Laurier Avenue Ottawa, Ontario K1P 1J1	
Contracting Authority: Dyhanna Hall, City of Ottawa 100 Constellation Drive, 3 rd Floor East Ottawa, Ontario K2G 6J8 Phone:(613) 580-2424 Ext 22656 E-mail: dyhanna.hall@ottawa.ca	Project Authority: Eric Ouimet, City of Ottawa 800 Green Creek Drive, Ottawa Ottawa Ontario Email: eric.ouimet@ottawa.ca
<u>CONSULTANTS</u>	
Civil /Process Engineering Consultant: Gregory Chochlinski Stantec, 300 - 1331 Clyde Avenue Ottawa ON K2C 3G4 Phone: (613) 290-2322 E-mail: gregory.chochlinski@stantec.com	Structural Engineering Consultant: Thomas Miller Stantec, 300 - 1331 Clyde Avenue Ottawa ON K2C 3G4 Phone: (613) 617-4090 E-mail: thomas.miller@stantec.com
Electrical and Instrumentation Consultant: Omar Jan Stantec, 300 - 1331 Clyde Avenue Ottawa ON K2C 3G4 Phone: (613) 218-2235 E-mail: Omar.Jan@stantec.com	Mechanical Consultant: Yusuke Irokawa Stantec, 300 - 1331 Clyde Avenue Ottawa ON K2C 3G4 Phone: (613) 862-0356 E-mail: Yusuke.Irokawa@stantec.com

END OF SECTION

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APPENDICES

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END OF SECTION

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- I811 INSTRUMENTATION CHLORINE MONITORING STATION-
CMS2 FIELD INTERFACE CONTROL SCHEMATICS (3 OF 3)
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CMS2 PAC CONTROL PANEL CP-03 I/O LIST
- I813 INSTRUMENTATION CHLORINE MONITORING STATION-
CMS2 NETWORK DIAGRAM

END OF DOCUMENT

1 Tender Call

- .1 The City of Ottawa, hereinafter called the "City" invites Tenders for Contract Number:

Request for Tender (“RFT”) Number: 34526-91360-T02

The key scope of this project is to install a new well pump and a new high lift pump to the existing Richmond West Pump Station. Refer to **Section 01010 Summary of Work** for the detailed description of work.

2 Accuracy of Request for Tender and Receipt of Addenda

- .1 This RFT is available from the MERX Distribution Unit at www.merx.com. MERX is the official and sole distributor of this RFT and any issued Addenda. Accessible formats and communication supports are available, upon request. The MERX online system is also the official and sole Tender submission platform. If a Tenderer obtains this RFT by any means other than through MERX, ensuring the accuracy of the RFT and the receipt of any Addenda is the sole responsibility of the Tenderer. It is the responsibility of the Tenderer to regularly check www.merx.com for any Addenda that may be issued prior to the RFT Closing Date. Addenda issued by the City prior to the RFT Closing Date form part of this RFT and must be acknowledged by Tenderers in the space provided in Section 00 40 00 – Form of Tender. Failure to acknowledge all issued Addenda may result in the Tender being deemed non-compliant and rejected.
- .2 The City relies on MERX’s electronic advertisement to provide public notice of this business opportunity and is not obligated to notify past or present suppliers in any other manner.

3 Site Visit / Tenderers' Briefing

- .1 A site visit will be available to all interested Tenderers at **1045 Showman Street, Ottawa, ON K0A 2Z0**. Refer to subsection 4 – Schedule of Events below, for date and time.

Personal Protective Equipment (PPE) Requirement:

****Site Visit attendees are required to wear appropriate PPE at the site visit, including work safety boots, hard hat and high-visibility vest.****

4 Schedule of Events

- .1 The following dates could be subject to change at the City’s sole discretion.

Event	Date and Local Time
RFT release date	Friday, 13 March 2026
Site Visit	Wednesday, 25 March 2026 – 10:30am
Deadline to submit questions	Tuesday, 31 March 2026

RFT Closing Date	Thursday, 09 April 2026 – 3:00pm
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5 Evaluation and Selection Methodology

- .1 By submitting a Tender, the Tenderer agrees to be bound by the process set out in this solicitation regarding the conduct of this solicitation and the evaluation of Tenders, as further described in Section 00 40 00 – Form of Tender.
- .2 The City reserves the right to conduct steps of the evaluation consecutively or concurrently. That is, the fact that the City has proceeded to a later step shall not imply that the City has conclusively determined that the Tenderer has passed all of the preceding steps.

Step	Evaluation Stage Description	Weighting
1	Compliance Assessment	Pass/Fail
2	Financial Evaluation	75 evaluation points
3	Vendor Performance Management (VPM) Evaluation	25 evaluation points
4	Due Diligence	N/A
5	Basis of Award	N/A
6	Debriefing	N/A
	Total points available	100 evaluation points

Step 1 – Compliance Assessment

Tenders will be evaluated to determine if the Tender is responsive to the requirements of this solicitation. Tenders deemed by the City to be non-responsive at Step 1 will not be evaluated in accordance with Steps 2 through 6 below.

Step 2 – Financial Evaluation

The award of financial points shall be based on the percentage difference between a Tenderer’s price and the lowest responsive Tender. The lowest responsive Tender will be calculated based on the Total Tender Price (HST excluded), minus any prompt payment discount offered. The lowest responsive Tender will receive the maximum number of available points and other Tenders will be allocated points pro-rata to the extent they exceed the lowest responsive Tender.

$$\text{Full Points} - \left[\frac{(\text{Financial Bid}) - (\text{Low Responsive Tender})}{(\text{Lowest Responsive Tender})} \right] \times \text{full points} \\ = \text{Total Financial Points}$$

Example:

Tenderer A's Tender is \$95. Tenderer A would receive 75.00 out of 75.00 available financial points

$$75 - \left(\frac{(\$95.00 - \$95.00)}{\$95} \right) \times 75 = 75.00 \text{ financial points}$$

Tenderer B's Tender is \$100. Tenderer B would receive 71.05 out of 75.00 available financial points.

$$75 - \left(\frac{(\$100.00 - \$95.00)}{\$95} \right) \times 75 = 71.05 \text{ financial points}$$

If the application of this formula results in a negative score, the negative points will be deducted from the bidder's overall points total at the conclusion of Step 3.

Step 3 – Vendor Performance Management (VPM) Evaluation

In its evaluation and selection process, the City will be taking into consideration the overall vendor scores (OVS) of Tenderers as calculated in the City's VPM System.

The VPM points will be determined by multiplying a Tenderer's OVS, as recorded in the City's VPM System on **March 11, 2026 (6:13am)** (the "Calculation Date"), by 0.25 (25%).

Example:

Tenderer A's OVS is 80 – Tenderer A would receive 20.00 out of 25.00 available VPM points.

$$80 \times 0.25 = 20.00 \text{ VPM points}$$

Tenderer B's OVS is 79 – Tenderer B would receive 19.75 out of 25.00 available VPM points.

$$79 \times 0.25 = 19.75 \text{ VPM points}$$

Tenderers Without an Overall Vendor Score

Where a Tenderer does not have an OVS recorded in the VPM System, its Tender will be evaluated using the construction industry average OVS as recorded in the VPM System on the Calculation Date. The applicable industry average OVS is **81.51**.

VPM Bypass Exceptions

A Bid will bypass the lowest responsive Bid based on the strength of its VPM score in accordance with Step 5 – Basis of Award, except in the following circumstances:

Where the construction industry average OVS has been used to evaluate a Tender, that Tender shall not bypass a Tender whose Tenderer has a VPM vendor score recorded in the VPM System and has submitted the lowest responsive Tender; or

Where the bypassing Bidder's VPM score is within two points of the lowest responsive Bidder's VPM score, that Bid shall not Bypass the lowest responsive Bid.

Joint Ventures

If a Tender is submitted as a joint venture, that Tender will be evaluated using the average of the individual OVSs of the members comprising the joint venture as of the Calculation Date.

If one or more members of the joint venture do not have an OVS recorded in the VPM System, the construction industry average score will be used in combination with the OVS of those members who have an OVS in the VPM system to calculate the total average OVS of the joint venture.

Tenderers should note that where the construction industry average has been used to calculate a joint venture's OVS, that Tender shall not bypass a Tender whose Tenderer has a VPM vendor score recorded in the VPM System and has submitted the lowest responsive Tender.

Step 4 – Due Diligence

The City, in its sole discretion, may conduct a due diligence phase to review the certainty, reasonableness and comprehensiveness of a Tenderer's submission. The City may seek clarification of any of the elements contained in the submission. Tenderers are expected to cooperate in providing clarification on any of the components of their Tender. Tenders that fail to satisfy the due diligence phase will not be given any further consideration.

Tenderers may be required to provide supplemental information concerning their Tenders if requested by the City. Generally, such information should be provided within twenty-four (24) hours of the City's request.

Step 5 – Basis of Award

The City intends to award a contract on the basis of "best overall value" to the City as determined by the Tender which:

1. Is compliant with the terms, conditions and specifications of the RFT; and
2. Achieves the highest combined score in the evaluation of the Financial Score and VPM Score: 75 points for financial evaluation + 25 points for VPM evaluation = 100 points for combined score, provided that the VPM Bypass Exceptions do not apply, and
3. Satisfies all of the requirements identified during the due diligence phase.

Step 6 – Debriefing

Tenderers are entitled to request a debriefing from the City of how their Tender was evaluated. Debriefing sessions should be requested within 10 days following the conclusion of Step 5 of the evaluation process.

6 Submission of Tenders

The City follows the Government of Canada’s Interim Policy on Reciprocal Procurement, which means a foreign supplier’s eligibility to compete or be awarded a contract will depend on whether the procurement is subject to a trade agreement between Canada and the supplier's jurisdiction. If a supplier is from a jurisdiction that does not have an applicable government procurement agreement with Canada, they will no longer be eligible to compete or be awarded the contract, subject to certain exceptions. Canadian suppliers will continue to be eligible for all City procurement opportunities. Tenderers unsure of their status should contact the Contracting Authority in accordance with the Inquiries section below. Tenderers seeking an exception to the policy must contact the Contracting Authority in accordance with the Inquiries section below.

Tenderers must:

- .1 download this document, complete the required fields in the Form of Tender found in Section 00 40 00, and attach it to their electronic Tender.
- .2 use the following naming conventions when submitting their electronic Tender documents:

00 40 00 – Form of Tender:

34526-91360-T02 FOT BidderCompanyName

e.g. 34526-91360-T02 FOT ABCCompany

Price Schedule: 34526-91360-T02 PS BidderCompanyName

- .3 ensure Electronic Tenders submitted are complete; without the Form of Tender found in 00 40 00, the Tender will not be accepted and will be deemed non-compliant. Tenders must be signed by an authorized official of the Tenderer. Should there be a discrepancy between the wording contained in this RFT and any issued Addenda and the wording contained in the MERX online system, the wording contained in this RFT and issued Addenda shall prevail. Should there be a discrepancy between the information provided by the Tenderer in the RFT,

including but not limited to the Form of Tender, and the electronic fields in the MERX online system, the information provided by the Tenderer in the RFT shall prevail;

- .4 ensure that all sections of the Form of Tender are fully and accurately completed. Under no circumstances will a Tenderer be permitted to revise its Tender after the RFT Closing Date;
- .5 ensure Tenders are legible. Any form of erasure, strikeout or overwriting must be initialed by the Tenderer's authorized signing officer; and
- .6 ensure that any supplementary information and literature, either as requested by the City or as deemed by a Tenderer to be relevant to their Tender, should be included in a Tender submission. However, should such additional information in any way qualify or restrict the Tender, it may result in the Tender being deemed non-compliant and rejected.

7 Time for Receiving Tenders

- .1 All Tender submissions must be received no later than 3:00 P.M. local time on the date outlined in Subsection 4 – Schedule of Events. Late Tender submissions will not be accepted. Tenders submitted physically, by email, or by facsimile will not be accepted.
- .2 Unofficial results shall be published by MERX as soon as possible after that time.
- .3 Tenderers should note that the pricing information published by MERX is unofficial and preliminary in nature, only, and should not be construed as an indication of which Tenderer is being awarded the contract. All documentation is subject to review for mathematical accuracies, compliance with the specifications and compliance with the terms and conditions of the contract, the completion of which will ultimately determine the successful Tenderer.

8 Questions

- .1 All inquiries regarding this RFT are to be directed to the Contracting Authority specified herein. Inquiries must be received in writing via MERX no later than the date specified in Subsection 4 – Schedule of Events. Should the MERX system not accept the inquiry, it is Tenderers' responsibility to contact the Contracting Authority by email prior to 3pm on the RFT Closing Date. Both the questions and answers will be distributed to all potential tenderers by way of written addendum, published in MERX, without identifying the source(s) of the inquiry. The City is not obligated to respond to an inquiry or question received after this time period has elapsed. The Tenderer shall not be entitled to

rely on any response or interpretation received from the City unless that response or interpretation is provided by the Contracting Authority by way of addendum.

9 Electronic Bid Bond

- .1 An electronic bid bond with a value of ten percent (10%) of the Tender Price is required with this RFT. The electronic bid bond must meet the requirements set out in 9.1.2 below. The Tenderer agrees that should it withdraw its Tender within the stated Tender Acceptance Period, the City may enforce the bond. No interest shall be payable on any bid bond.
- .2 Electronic bid bonds shall be issued by an established surety company satisfactory to the City and be irrevocable for the entire Tender Acceptance Period and thereafter, if the Tender is accepted, until such time as the performance security has been provided. Electronic bid bonds must meet all of the following criteria:
 - .1 The bid bond submitted by the Tenderer must be verifiable by the City with respect to the totality and wholeness of the bond form, including: the content (project name, bond number, Tenderer's name, total Tender price, Tender closing date and Tender number); all digital signatures; all digital seals; with the surety company, or an approved verification service provider of the surety company;
 - .2 The bid bond must be viewable, printable and storable in standard electronic file formats compatible with the City's requirements. Allowable formats include PDF. Hard copy original, fax and scanned PDF are not acceptable;
 - .3 The bid bond must be capable of verification by the City immediately upon submission and at any time during the Tender Acceptance Period and thereafter, if the Tender is accepted, until such time as the performance security has been provided, at the discretion of the City with no requirement for passwords or fees. An electronic bid bond which fails the verification process will be considered non-compliant and the Tender will be rejected. An electronic bid bond which passes the City's verification process will be treated as original and authentic; and
 - .4 The results of the verification must provide a clear, immediate and printable indication of pass or fail regarding the above requirements.

10 Irregular Tenders

- .1 The City shall be the sole judge of whether a Tender is irregular. This RFT shall be governed by the City of Ottawa Procurement By-law No. 50 of 2000. Tender irregularities will be dealt with in accordance with Schedule "A" of the Procurement By-Law. The Procurement By-law can be accessed at:

<http://ottawa.ca/en/business/procurement#procurement-law>

11 Unbalanced Tenders

- .1 The Tenderer shall not submit an unbalanced Tender.
- .2 The City shall have the right to:
 - .1 deem a Tender to be unbalanced; and
 - .2 reject a Tender, which it deems to be unbalanced.
 - .3 In the sole opinion of the City, prices that are unbalanced, unrealistic, or where the disproportionate component costs of material and labour are deemed unrealistic or not truly reflective of current market levels will be disqualified.

12 Preparation of Tender

- .1 Under no circumstances shall the City be responsible for any costs incurred by any Tenderer related in any way to its Tender submission, including costs of preparation, negotiation and/or provision of any additional information respecting its Tender.

13 Collusion

- .1 The Tenderer shall not engage in collusion of any sort and, in particular, shall:
 - .1 ensure that no person or other legal entity, other than the Tenderer, has any undisclosed interest in the Tenderer's Tender; and
 - .2 prepare its Tender without any knowledge of, comparison of figures with or arrangement with any other person or firm preparing a Tender for the same work.

14 Conflict of Interest

- .1 Tenderers are required to disclose to the City any potential conflict of interest prior to submitting a Tender. If a conflict of interest does exist the City may, at its sole discretion, reject a Tender until the matter is resolved to the satisfaction of the City.

15 Municipal Freedom of Information and Protection of Privacy Act

- .1 The City is subject to the Municipal Freedom of Information and Protection of Privacy Act (MFIPPA) with respect to information under its custody and control. Accordingly, all information provided to the City in relation to this solicitation are subject to MFIPPA and may be available to the public notwithstanding a request to keep information confidential.

16 No Lobbying

- .1 Tenderers, any members of the Tenderer's team or advisors must not engage in any form of political or other lobbying whatsoever with respect to this RFT or seek to influence the outcome of the RFT process. In the event of any such lobbying, the City may at any time and at its sole discretion, disqualify and/or reject any Tender without further

consideration. All correspondence or communication by Tenderers must be directed to the Contracting Authority.

17 Tender Acceptance

- .1 Acceptance of the Tender shall occur at the time the City awards the Tender and not necessarily at the time the award is communicated to the successful Tenderer.

18 Reserved Rights

- .1 Notwithstanding anything to the contrary in this RFT and without limiting any rights the City may reserve elsewhere in this RFT or may otherwise have at law, in equity or otherwise, the City reserves the following rights, any or all of which the City may elect to exercise in appropriate circumstances at the City's reasonable and considered discretion:
 - .2 The City may accept any Tender, whether it is the lowest or not, or may reject any or all Tenders.
 - .3 Without limiting the generality of Item 18.1, the City shall have the right to:
 - .1 accept an irregular Tender; and
 - .2 accept a Tender which is not the lowest Tender; and
 - .3 reject a Tender, even if it is the only tender received by the City.
 - .4 Without further limiting the generality of subsection 18.1, the City may reject a Tender if any of the following circumstances is present:
 - .1 the Tenderer's privileges are suspended or are in the process of being suspended;
 - .2 the bidding privileges of any employee or subcontractor included as part of the Tender are suspended or are in the process of being suspended, which suspension or pending suspension would render that employee or subcontractor ineligible to bid on the Work, or the portion of the Work the employee or subcontractor is to perform;
 - .3 the Tenderer is bankrupt, or where for whatever reason, its activities are rendered inoperable for an extended period;
 - .4 evidence, satisfactory to the City, of fraud, bribery, fraudulent misrepresentation or failure to comply with any law protecting individuals against any manner of discrimination, has been received with respect to the Tenderer, any of its employees or any subcontractor included as part of its Tender;
 - .5 with respect to current or prior transactions with the City, the City has exercised, or intends to exercise, the contractual remedy of taking the work out of the contractor's hands with respect to a contract with the Tenderer, any of its employees or any subcontractor included as part of its Tender; or

- .6 with respect to current or prior transactions with the City, the City determines that the Tenderer's performance on other contracts is sufficiently poor to jeopardize the successful completion of the Work.
- .5 In assessing the Tenderer's performance on other contracts pursuant to subsection 18.1.6, the City may consider, but is not limited to, such matters as:
 - .1 the quality of workmanship in performing the Work;
 - .2 the timeliness of completion of the Work;
 - .3 the overall management of the Work and its effect on the level of effort demanded of the City and its representative; and
 - .4 the completeness and effectiveness of the contractor's safety program in effect during the performance of the Work.
- .6 Without limiting the generality of subsections 18.1, 18.2 and 18.3, the City may reject any Tender based on an unfavourable assessment of the:
 - .1 adequacy of the Tender price to permit the Work to be carried out and, in the case of a Tender providing prices per unit, whether each such price reasonably reflects the cost of performing the part of the Work to which that price applies;
 - .2 Tenderer's ability to provide the necessary management structure, skilled personnel, experience and equipment to perform the Work competently; or
 - .3 Tenderer's performance on other contracts.
- .7 The City may waive informalities and minor irregularities in Tenders received if the City determines that the variation of the Tender from the exact requirements set out in the Contract Documents can be corrected or waived without being prejudicial to other Tenderers.

19 Contract Documents

- .1 The Tenderer shall obtain and review all Contract Documents as listed in the Form of Tender and all Addenda issued by the City pertaining to this Contract.
- .2 Tender Documents are made available only for the purpose of obtaining offers for this project. Their use does not confer licence or grant for other purposes.

20 Errors, Omissions and Discrepancies in the Contract Documents

- .1 If the Tenderer finds any errors or omissions in or discrepancies among the Contract Documents, it shall immediately notify the Contracting Authority identified in Section 00 00 60 Project Directory.
- .2 No oral explanation or interpretation by any person shall modify any of the Contract Documents.

21 Tender Acceptance Period

- .1 The Tenderer shall not revoke its offer until after the expiration of sixty (60) days after the RFT Closing Date (the “Tender Acceptance Period”).
- .2 If the Tenderer revokes its offer prior to the expiration of sixty (60) days after the Tender opening, the Tenderer shall forfeit its Tender deposit but this shall not prohibit the City from pursuing any other legal remedy which it may have.
- .3 While the City will attempt to award the Contract as expeditiously as possible, the Tenderer shall make allowance in the Construction Schedule for the full Tender Acceptance Period noted above. Such allowance shall include all financial obligations required to complete the project as specified.

22 Substitutions

- .1 The Contract is based on the Contract Documents.
- .2 Specific materials, products and systems are specified to provide a standard of acceptance. Equivalent materials, products or systems by other manufacturers are acceptable as substitutions only when approved by an Addendum.
- .3 Substitutions, which do not satisfy the above requirements, will be rejected by the Consultant.
- .4 In the event that, prior to closing of tenders, the Tenderer wishes to offer a substitution or a proposal of work, materials or methods as an alternative to those described in the Contract Documents, it shall submit a request in writing at least 7 calendar days prior to the RFT Closing Date.
- .5 The request shall include:
 - .1 a description of the proposed substitutions; and
 - .2 in the case of materials, products or systems, a direct comparison between the properties and compliances of the specified materials, products or systems with the properties and compliances of the proposed substitution, arranged in tabular form in the same sequence as specified herein or in the sequence listed in the specified manufacturer's published literature, as applicable; and
 - .3 in the case of materials or products, country of manufacture.
 - .4 if requested by the Director, a list of no less than five projects of comparable size where the proposed substitution has been used in a similar application. Such projects shall have been completed prior within the last ten years and, where applicable, shall have been subject to climatic conditions similar to those experienced in Ottawa. The list shall include the name and current telephone number of the Architect and the Owner for each project.

- .6 In the event that the Consultant deems the information provided with the request for approval of a substitution to be inadequate, the request may be rejected.
- .7 Approval of alternative proposals of work, materials or methods will be signified by the issue of an addendum.
- .8 The cost of additional work and/or modification to the design due to the use of alternative materials, products or systems shall be borne by the Contractor.
- .9 Where the terms "or equal", "or equivalent" or terms of similar meaning are used in the specifications, this shall not be construed as acceptance of any alternative material, product or system to those specified. The use of these terms does not relieve the Contractor from their responsibility to follow the procedures for approval of substitutions specified herein (during tender period) or the procedures described in Section 01 00 50 "General Instructions" (after award of Contract).
- .10 No substitutions will be permitted after award of the Contract except in accordance with General Conditions GC 6.1 "CHANGES" and as described in Section 01 10 00 "General Instructions". For procedures regarding substitutions after the award of the Contract, refer to General Conditions GC 6.1 "CHANGES".

23 Examinations of Documents and Site

- .1 Each Tenderer, before submitting its Tender, shall carefully examine the drawings and specifications to establish the extent of the work and shall visit and examine the site and fully inform itself of all the existing conditions, limitations and difficulties which may arise and include in its Tender the cost of all labour, materials, equipment and services required to complete the Work.
- .2 Carefully examine existing conditions prior to submitting a Tender. No extras will be authorized for work which could have been determined by a thorough, careful examination of site conditions by an experienced person.
- .3 Drawings and Specifications are complementary. Items shown or mentioned in one and not in the other are deemed to be included as part of the contract.
- .4 In the event of any discrepancy between the Drawings and the Specifications, the Specifications shall apply. If any item is shown on the Drawings but not in the Specifications, this does not mean that the items shown on the Drawings only are not in the Contract. See 23.6 below.
- .5 In the event of any discrepancy between one drawing and another, the larger scale drawing shall apply. If an item is shown on a smaller scale Drawing but not on the larger it is part of the Contract.
- .6 Where an item is shown on the Drawings but not in the Specifications, the Contractor shall supply and install to standard institutional quality.
- .7 The sequence and numbering of the drawings and details and the organization of the specifications into Divisions and Sections are established for convenient ordering of

information. It must not be assumed that such ordering of information is intended to define or limit the scope of extent of the work of any particular subcontractor or supplier. The drawings and specifications as a whole must be fully read, in detail, to determine the extent of any portion of the Work. It is the responsibility of the Contractor to coordinate subcontractors and suppliers prices such that the stipulated Tender Price is all-inclusive as specified herein.

- .8 Sub-Contractors are responsible to familiarize themselves with the Contract Documents and the work of all trades therein. Sub-Contractors must base their quotations to the General Contractor on a thorough review of the entire Contract Drawings and Specifications.

24 Amendments to Tenders

- .1 Tenders submitted in accordance with these instructions are irrevocable. Requests for withdrawals or revisions for whatever reason will be allowed only if unequivocal, submitted in writing, and received by the Contracting Authority prior to Tender Closing Date.

25 Successful Tenderer - Bonds

- .1 Performance security will be required from the successful Tenderer prior to the execution of a Contract. The performance security must be electronic in form and comply with s. 85.1 of the Construction Act, R.S.O. 1990 c.30. For greater certainty and without limiting the application of s. 85.1, the Tenderer shall provide to the City an electronic labour and material payment bond in the amount of fifty percent (50%) in the form prescribed by the Construction Act that complies with s. 85.1(4) of the Act and an electronic performance bond in the amount of fifty percent (50%) in the form prescribed by the Construction Act that complies with s. 85.1(5) of the Act. The performance security will be retained until completion of the Contract to the satisfaction of the City.
- .2 Failure of a Tenderer to provide performance security within seven business days of being requested to do so may result in the rejection of the Tender, at the sole and absolute discretion of the City.
- .3 The above noted bonds must be electronic in form and meet the following requirements:
 - .1 Electronic bonds shall be issued by an established surety company satisfactory to the City and be irrevocable until the warranty period has expired.
 - .2 Each bond must be verifiable by the City with respect to the totality and wholeness of the bond form, including: the content; all digital signatures; all digital seals; with the surety company, or an approved verification service provider of the surety company;
 - .3 Each bond must be viewable, printable and storable in standard electronic file formats compatible with the City's requirements. Allowable formats include PDF. Hard copy original, fax and scanned PDF are not acceptable;

- .4 Each bond must be capable of verification by the City immediately upon submission and at any time during the life of each bond and at the discretion of the City with no requirement for passwords or fees. Each bond which passes the City's verification process will be treated as original and authentic. The results of the verification must provide a clear, immediate and printable indication of pass or fail.
- .3 The performance security amount may be reduced at various stages of the project, at the discretion of the City.

26 Successful Tenderer - Workplace Injury Summary Report (“WISR”)

- .1 The successful Tenderer must provide a current copy of its Workplace Injury Summary Report (“WISR”) as provided by the Ontario Workplace Safety and Insurance Board.
- .2 The City will review the WISR and assess the overall health and safety rating of the Tenderer. Tenderers whose rating indicates an increased risk to the City will be required to provide further information regarding the Tenderer's health and safety programs and practices currently in place.
- .3 Failure of a Tenderer to provide WISR within seven (7) Days of being requested to do so may result in the rejection of the Tender, at the sole and absolute discretion of the City.

27 Successful Tenderer - Execution of Form of Agreement

- .1 The successful Tenderer shall execute, in triplicate, signed and sealed copies of the Agreement between City and Contractor that forms part of the Contract Documents.
- .2 The successful Tenderer shall forward the three copies of the executed Agreement to the City.

28 Time for Completion of Contract / Work

- .1 The successful Tenderer shall acknowledge that time is of the essence, and as such, shall allocate the appropriate resources, manpower, as is required in the project construction schedule and shall achieve **Substantial Performance** of the Contract by **05 October, 2027**
- .2 The Contractor shall achieve **Final Completion** and obtain Final Occupancy Permit by **16 November 2027**. Note requirements listed in Section 00 40 00 FORM OF TENDER.

29 Successful Tenderer - Submission of Documentation

- .1 The successful Tenderer shall submit the documentation as required by the subsection 25 "Successful Tenderer - Bonds", subsection 26 "Successful Tenderer - Workplace Injury Summary Report (“WISR”)", subsection 27 "Successful Tenderer - Execution of Form of Agreement" and "Successful Tenderer – Insurance" as required in CCDC 41, CCDC Insurance Requirements, dated January 21, 2008, and Section 00 82 50 “Amendments to the CCDC 41 2008 Insurance Requirements” within seven working days from the day the

City notifies the successful Tenderer that the documentation must be submitted to the City.

- .2 If the successful Tenderer fails to comply with the above requirements, the City may, in its sole discretion, withdraw its acceptance of the Tender and the Tenderer shall have no recourse whatsoever against the City.

30 Successful Tenderer - Commencement of the Work

- .1 The successful Tenderer shall not commence the Work until it has received a Commence Work Order issued by the City.

31 Vendor Performance Management

- .1 The City of Ottawa will evaluate the performance of contractors and consultants on the delivery of construction related contracts for design, construction and contract administration services. The results of such evaluations will be recorded in the City's Vendor Performance Management (VPM) System. The goals of the City's VPM System are to improve communication between the City and its contractors and consultants and to encourage better performance.
- .2 The Contract resulting from this RFT will be subject to a performance evaluation conducted by the City's Project Manager and recorded in the City's VPM System.
- .3 The City reserves the right to consider the Contractor's performance on City contracts, as recorded in the VPM System, in the award of future contracts. The City will support all evaluations in the VPM System with documentation recorded by the City's Project Manager in accordance with the City's "Contract Administration and Reporting on Supplier Performance Procedures."

32 SAP Business Network

- .1 Invoices for this contract must be submitted electronically through the SAP Business Network. Upon contract award, successful Tenderer will be required to register and maintain an SAP Business Network account and process all transactional documents, including but not limited to: purchase orders, service sheets and invoices, through the SAP Business Network.
- .2 The SAP Business Network offers two account options: a no cost "Standard" account or an upgraded "Enterprise" account, which is subject to fees. Suppliers may transact with the City using either type of account but must maintain an active account in order to transact with the City. For additional details please visit SAP Ariba Subscriptions and Pricing.
- .3 By submitting a Tender, the Tenderer hereby agrees to transact with the City using the SAP Business Network.

END OF SECTION

This Section 00 21 15 references applicable reports. These reports and information form part of and must be read in conjunction with the Contract Documents including Specifications and Drawings. These reports contain specific instructions and recommendations supporting the Contract Documents for which the Tenderer is responsible:

1. Geotechnical Report

Tenderer's Name			
Address			
Phone		Cell	
Contact Name			
Title			
Phone		Email	

1 Contract Documents

- .1 The Contract Documents for **Request for Tender Number 34526-91360-T02** are listed below. Should there be a discrepancy between the wording of one document and the wording of any other documents, the wording of the document that appears first on the list shall prevail:
 - Section 00 80 50 – AMENDMENTS TO THE CCDC 2-2008 AGREEMENT as amended by any Addenda;
 - The Agreement between the City and Contractor, CCDC 2-2008;
 - Section 00 81 50 - SUPPLEMENTARY CONDITIONS CCDC 2–2008 as amended by any Addenda;
 - Definitions to the CCDC 2-2008;
 - GENERAL CONDITIONS CCDC 2-2008 – Stipulated Price Contract;
 - Section 00 82 50 – AMENDMENTS TO THE CCDC 41–2008 INSURANCE REQUIREMENTS, as amended by any Addenda;
 - CCDC 41-2008 INSURANCE REQUIREMENTS;
 - The City of Ottawa General Terms and Conditions, 26 February 2021;
 - Section 00 40 00 - FORM OF TENDER, as amended by any Addenda;
 - SPECIFICATIONS DIVISION 00 as listed in Section 00 01 10 - Table of Contents, as amended by any Addenda;
 - SPECIFICATIONS DIVISION 01 as listed in Section 00 01 10 - Table of Contents
 - SPECIFICATIONS DIVISIONS 2 to 16 as listed in Section 00 01 10 - Table of Contents, as amended by any Addenda;
 - Material and Finishing Schedule
 - DRAWINGS as listed Section 00 01 15 - List of Drawings, as amended by any Addenda;
 - CCDC 40 Rules for Mediation

2 Tenderer's Declarations

- .1 The Tenderer declares that it has obtained and read the Contract Documents.
- .2 The Tenderer declares that it understands and agrees to be bound by the Contract Documents.

- .3 Without limiting the generality of Item 2.2 of this Tender Form, the Tenderer declares that it has, at the time of tendering, fulfilled all of those obligations under the Contract, which are required to be fulfilled by the time of tendering.
- .4 The Tenderer declares that all information, which it has provided or will provide to the City, is true.
- .5 The Tenderer declares that this tender is made without knowledge, comparison of figures or arrangement with any other company, firm or person submitting a Tender for the same Work.
- .6 The Tenderer declares that no member of the City of Ottawa Council or any officer of the Corporation of the City of Ottawa is, or will become, interested directly or indirectly as a contracting party, partner, surety or otherwise or in the performance of the Contract, or in the supplies, Work or business to which it relates or in any portion of profits thereof, or of any such supplies to be used therein, or in any of the moneys to be derived therefrom.
- .7 The Tenderer agrees to provide, within 24 hours after close of Tender, a complete list of all Subcontractors and manufacturers that will be retained for the duration of the Contract. **The Subcontractors indicated must be from the prequalified list of subcontractors obtained under RFQ No. 34525-91360-Q01. Failure to use prequalified subcontractors may disqualify the Tender.** The Tenderer shall provide Section 00 43 00 – List of Subcontractors and Manufacturers that will be retained for the duration of the Contract as part of this Tender. Failure to provide Section 00 43 00 may disqualify the Tender.
- .8 The Tenderer agrees that as a condition of and prior to Contract award, the Tenderer shall submit a detailed breakdown of the Tender Price within 24 hours of close of Tender. Failure to provide a detailed price breakdown to the City's satisfaction may disqualify the Tender.
- .9 The Tenderer agrees that, within seven consecutive calendar days after the issuance of an official commence work order; the Tenderer will commence the work, assembling all necessary labour forces and equipment on the site and will continue the work with the utmost diligence until completion.
- .10 The Successful Tenderer shall complete the Work on or before the City's Date of Completion as set out in the article "Time for Completion of Contract / Work" in Section 00 20 00 "Instructions to Tenderers".
- .11 The Tenderer has put forth all of its comments and/or questions with respect to this RFT, including with respect to the use of VPM scores in the evaluation process, over the period that inquiries were permitted and affirms that its Tender has taken into consideration all responses provided by the City through published Addenda.
- .12 The Tenderer acknowledges and accepts the incorporation and use of VPM Scores in Tender evaluations, as defined in 00 20 00 – Instructions to Tenderers, Section 5 – Evaluation and Selection Methodology, including the use of the industry average OVS for Tenderers who do not have a Vendor Score in the VPM system.

3 Tenderer's Offer

- .1 The Tenderer offers to do the Work in accordance with the Contract Documents.
- .2 The Tenderer offers to do the Work and to accept payment at the stipulated price specified in this Tender Form, in accordance with the Contract Documents.

4 Addenda

- .1 The Tenderer acknowledges that it has received, reviewed and provided in its Tender Price for all work and costs associated with the following addenda:

Addendum No. _____ dated _____

Addendum No. _____ dated _____

Addendum No. _____ dated _____

Addendum No. _____ dated _____

Addendum No. _____ dated _____

Addendum No. _____ dated _____

Addendum No. _____ dated _____

5 Payment Terms and Prompt Payment Discount

- .1 In the absence of a prompt payment discount, the City will pay all invoices on a Net 28 basis meaning payments will be made by the City within twenty-eight (28) calendar days of receipt of a proper invoice.
- .2 Tenderers are encouraged to offer a cash discount for prompt payment which WILL be taken into consideration in the award of contract provided that **the minimum number of calendar days for payment is fifteen (15)**. Should a prompt payment discount be offered that is not in accordance with this condition, the discount will not be taken into consideration in the award of contract however the discount may be claimed by the City in return for processing payment within the stated time frame.
- .3 Where prompt payment terms are offered, the following conditions apply:
 - .1 The discount must be included in the Contract and shown on the vendor's invoice;
 - .2 The invoice must be received by the City on the invoice date. Invoices cannot be backdated.

- .3 The City may require that the amount of the discount be honoured by the vendor should any of the above-noted conditions not be met.
- .4 **The Tenderer hereby offers a prompt payment discount of _____ % if payment is made within _____ calendar days following receipt by the City of a proper invoice.**
- .5 Invoices for this contract must be submitted electronically through the SAP Business Network. Upon contract award, Contractors are required to register and maintain an SAP Business Network account and process all transactional documents, including but not limited to: purchase orders, service sheets and invoices, through the SAP Business Network.
- .6 The SAP Business Network offers two account options: a no cost “Standard” account or an upgraded “Enterprise” account, which is subject to fees. Suppliers may transact with the City using either type of account but must maintain an active account in order to transact with the City. For additional details please visit [SAP Ariba Subscriptions and Pricing](#).
- .7 By submitting a tender, the Tenderer hereby agrees to transact with the City using the SAP Business Network.

6 Stipulated Price

- .1 Total Stipulated Tender Price is the price for all work as shown and specified including the Cash Allowances (if applicable).
- .2 The prices entered by the Tenderer shall include all required labour, materials and equipment for execution of the provisional items and will be used by the Owner to determine payments for alterations, extras and deductions to the original Contract quantities. The prices entered by the Tenderer shall exclude HST but shall be inclusive of all other taxes and the Contractor/Subcontractor’s mark-ups for all administration, supervision, insurance and bonding premiums, record documentation, overheads and profits. **These prices shall remain valid throughout the Contract, inclusive of Provisional Items (see below).**
- .3 The attached protected electronic **Price Schedule “A”** forms part of this RFT and is available through MERX. Failure to submit the electronic Price Schedule “A” in the same format it was provided may result in rejection of the Bid. Price Schedule “A” must be completed in its entirety, including the Provisional Items, with no zero values.
- .4 **Bidders shall complete Price Schedule “A” in its entirety.** Failure to do so may deem their Bid submission non-responsive. Price Schedule “A” is incorporated by reference to this Form of Tender. In the event of any discrepancy between the unit price and the extension in Price Schedule “A”, the unit price shall govern.
- .5 In the event of any discrepancy between the Total Tender Price submitted in Price Schedule “A” and the MERX system, the price submitted in Price Schedule “A” shall prevail.
- .6 The Contractor shall provide a detailed breakdown of prices if and as requested by the City. The breakdown must be acceptable to the Owner and Consultant. Resubmit with more details, if requested. The breakdown must be acceptable to the Owner and Consultant.

- .7 The Contractor shall provide a detail breakdown of prices for **Division 2** that would include at least: 100 mm diameter raw water line (all inclusive per meter); fire hydrant (each), 150 mm gate valve (each), 150 mm diameter lead (per meter); asphalt (per tonne); fence (per meter) and others.
- .8 Breakdown of Items and Prices schedules will form the basis of the monthly progress payments. All work is to be completed in accordance with the Contract Documents.
- .9 Payment will be for all work to complete the items as specified herein and detailed on the contract drawings.
- .10 **The bid price for Mobilization and Demobilization Item (Item 1.1 of Schedule of Items and Prices) shall be limited to a maximum of 5% of the Total Stipulated Price** entered by the Tenderer. Of the bid price for this item, a maximum of 75% will be paid for the mobilization and the remaining of the bid price for this item will be paid for demobilization.
- .11 **The bid price for Other General Requirements and Misc. Works (item 1.4 in the Schedule of Items and Prices) shall not exceed 2% of the Total Stipulated tender Price.** This lump sum is intended to cover works that are necessary to fulfill the requirements of the contract or are implied by good industry practices and are considered to be incidental and minor. Each progress payment will include a portion of this pay item as a percentage of the actual work progress, unless agreed otherwise with the Contract Administrator.
- .12 Any Contingency Allowance issued with Purchase Order shall be used only for work authorized by change orders.
- .13 **Provisional Items**
 - a) Items of work that may be required during the course of construction but the exact quantities or requirements of which will depend on ground conditions or other uncertain factors encountered, are shown in the Schedule of Items and Prices under the heading “Provisional Items”. The Tenderer acknowledges that the work in Provisional Items may or may not be executed in the Contract at the absolute discretion of the Owner.
 - b) The Tenderer agrees that the Tenderer is not entitled to payment of the provisional items except for provisional item work carried out in accordance with the Contract as directed by the Owner in writing and only to the extent of such work.
 - c) Work done under such provisional items may not require an individual Contract Change Order, but will be authorized by the Owner in writing prior to proceeding the Work and will be measured for payment.
 - d) At the discretion of the Owner, the work under the provisional items may or may not be included in the Contract and may or may not be taken into account by the Owner in comparing tenders and awarding a contract.

- e) The unit prices inserted in the above Schedule of Items and Prices for provisional quantities are not to be revised (adjusted) even if the actual quantities vary significantly from the quantities entered in the table.
- f) Amounts for extras or deductions based on the Schedule of Prices will be added or deducted from the Total Stipulated Price.
- g) Payment for deductions or additions of items not listed will be made in accordance with the General Conditions and Supplementary General Condition.
- h) Unless approved by the Owner in writing, execution of the provisional items shall not delay the substantial performance date set forth in Section 00 00 60 – Instructions to Tenderers.
- i) The prices listed herein shall include all required labour, materials and equipment for execution of the provisional items and will be used by the Owner to determine payments for alterations, extras and deductions to the original Contract quantities and the prices are excluding HST but inclusive of all other taxes and the Contractor/Subcontractor's mark-ups for all administration, supervision, bonding premiums, record documentation, overheads and profits. These prices shall remain valid throughout the Contract.

7 Liquidated Damages:

- .1 This Part 7, "Liquidated Damages" shall be read in conjunction with Section 00 20 00 Instructions to Tenderers Part 28, Time for Completion of Contract / Work, whereas the date of Substantial Performance is required to be achieved by **[05/October/2027]**.
- .2 The overall Work of this entire project shall achieve **Substantial Performance by [05/October/2027]**. Time is of essence to ensure the **RICHMOND WEST PUMP STATION – ADDITION OF WELL#3 & HL PUMP#6** project is completed on time.
- .3 Should scope of Work for the full project not achieve Substantial Performance by **[05/October/2027]**, the Contractor shall credit the City of Ottawa **\$1,662.35 per working day** for administrative costs incurred by the City until the full project is Substantially Complete.

SIGNATORIES

This offer is made this _____ day of _____, 20_____.

CONTRACTOR (TENDERER)

Signature

Name and title of person signing. The signee has the authority to bind the Tenderer.

Signature

Name and title of person signing. The signee has the authority to bind the Tenderer.

END OF SECTION

**TO BE SUBMITTED WITHIN TWENTY-FOUR (24) HOURS OF CITY’S REQUEST
WILL BE REQUIRED PRIOR TO CONTRACT AWARD**

Herewith is the List of Sub-Contractors referred to in Item 2.7 of the Tender Form

Tender submitted by: _____

TO: City of Ottawa

FOR: The **RICHMOND WEST PUMP STATION – ADDITION OF WELL#3 & HL PUMP#6, RFT No. 34526-91360-T02.** I/WE agree that this list will not be revised or substituted except as negotiated with the City in accordance with the General Conditions and relevant Supplementary Conditions of the Contract. We have ascertained that these subcontractors are capable of executing the work to the kind and quality specified and within the time and other limitations required.

Where the specifications call for minimum experience or other qualifications for the installer and/or the Manufacturer of a product, we confirm that we have verified that those listed below meet this qualification. **Certification verifying the required qualifications shall be attached to this list of Sub-Contractors and Manufacturers.**

****Tenderer shall identify approved Sub-trades provided under RFQ No. 34525-91360-Q01 CP000902 Richmond West Pump Stn. – Addition of Well & High Lift Pumps**

Scope of Work	Sub-Contractor
1. Division 1	
2. Division 2	
3. Division 3	
4. Division 4	
5. Division 5	
6. Division 6	
7. Division 7	
8. Division 8	
9. Division 9	
10. Division 10	
11. Division 11	

12. Division 13	
13. Division 14	
14. Division 15	
15. Division 16	
16. Others (Specify)	
17. Division 1	
Component	Manufacturer
1.	
2.	
3.	
4.	
5.	
6.	
7.	
8.	
9.	
10.	

Tenderer's Signature

Signature

Name
has the authority to bind the corporation.

END OF SECTION

**WORKPLACE SAFETY AND INSURANCE
BOARD DECLARATION CANADA**

IN THE MATTER OF THE annexed
Agreement made between

THE PROVINCE OF ONTARIO

and the CITY OF OTTAWA dated the
_____ day of _____

20 ____, respect of

TO WIT:

I, _____ of the _____

of _____ in the County of _____

do solemnly declare as follows:

1. That I am _____ and as such have knowledge of the matters hereinafter declared to.
2. That _____ paid all assessments compensation payable to the Workplace Safety and Insurance Board, as provided for by Section GC10.4 of the General Conditions attached to and forming part of the said Agreement.
3. That _____ paid all taxes and/or penalties imposed on it by the Corporation Tax Act of the Province of Ontario.

AND I MAKE this solemn Declaration conscientiously believing it to be true knowing that it has the same force and effect as if made under oath and by virtue of the Canada Evidence Act.

DECLARED before me at the _____

of _____ in the County

of _____

this _____ day of _____ 20 ____

A COMMISSIONER, etc.

END OF SECTION

1 Form of Contract

- .1 The form of contract is the agreement as defined by the Canadian Construction Documents Committee, CCDC 2 - Stipulated Price Contract 2008 and as amended by Section 00 80 50, Section 00 81 50 and Section 00 82 50.

2 Article A-3 - Contract Documents

- .1 *DELETE* paragraph 3.1 and *SUBSTITUTE* the following:

"3.1 The following are the Contract Documents referred to in Article A-1 of the Agreement - THE WORK. Should there be a discrepancy between the wording of one document and the wording of any other documents, the wording of the document that appears first on the list shall prevail:

- Section 00 80 50 – AMENDMENTS TO THE CCDC 2-2008 AGREEMENT as amended by any Addenda;
- The Agreement between the City and Contractor, CCDC 2-2008;
- Section 00 81 50 - SUPPLEMENTARY CONDITIONS CCDC 2–2008 as amended by any Addenda;
- Definitions to the CCDC 2-2008;
- GENERAL CONDITIONS CCDC 2-2008 – Stipulated Price Contract;
- Section 00 82 50 – AMENDMENTS TO THE CCDC 41–2008 INSURANCE REQUIREMENTS, as amended by any Addenda;
- CCDC 41-2008 INSURANCE REQUIREMENTS;
- The City of Ottawa General Terms and Conditions, 26 February 2021;
- Section 00 40 00 - FORM OF TENDER, as amended by any Addenda;
- SPECIFICATIONS DIVISION 00 as listed in Section 00 01 10 - Table of Contents, as amended by any Addenda;
- SPECIFICATIONS DIVISION 01 as listed in Section 00 01 10 - Table of Contents
- SPECIFICATIONS DIVISIONS 2 to 16 as listed in Section 00 01 10 -Table of Contents, as amended by any Addenda;
- Materials and Finishing Schedule
- DRAWINGS as listed Section 00 01 15 - List of Drawings, as amended by any Addenda;

- CCDC 40 Rules for Mediation.

3 Article A-5 - Payment

- .1 *In paragraph A-5.3.1 (1), **DELETE** “2% per annum” and **REPLACE** with “0% per annum”.*
- .2 *In paragraph A-5.3.1 (1), **DELETE** “4% per annum” and **REPLACE** with “0% per annum”.*
- .3 *In paragraph A-5.3.2: In the first line, **DELETE** “and in the manner prescribe by paragraph 5.3.1 of this article”, And **REPLACE** with “of Prime plus 1% for”.*

4 Article A-7 – Language of Contract

- .1 *In paragraph A-7.1: At the end of the first line, **DELETE** “French”.*

5 Definitions

- .1 *Paragraph 9, Contractor: **ADD** after the last sentence “The Contractor shall be the constructor as defined within the Occupational Health and Safety Act, R.S.O. 1990, c.O.1, as amended, (“the Act”) subject to sub-clause GC 3.2.1 – Construction by Owner or other Contract.”*
- .2 *Paragraph 24, Value Added Taxes: In the first and second lines, **DELETE** "or any Provincial". In the third line **DELETE** "the Quebec Sales Tax".*

END OF SECTION

1 GC 1.1 Contract Documents

.1 **DELETE** paragraph 1.1.7.1 and **SUBSTITUTE** the following:

"1.1.7. The Contract Documents are listed below:. Should there be a discrepancy between the wording of one document and the wording of any other documents, the wording of the document that appears first on the list shall prevail:

- Section 00 80 50 – AMENDMENTS TO THE CCDC 2-2008 AGREEMENT as amended by any Addenda;
- The Agreement between the City and Contractor, CCDC 2-2008;
- Section 00 81 50 - SUPPLEMENTARY CONDITIONS CCDC 2–2008 as amended by any Addenda;
- Definitions to the CCDC 2-2008;
- GENERAL CONDITIONS CCDC 2-2008 – Stipulated Price Contract;
- Section 00 82 50 – AMENDMENTS TO THE CCDC 41–2008 INSURANCE REQUIREMENTS, as amended by any Addenda;
- CCDC 41-2008 INSURANCE REQUIREMENTS;
- The City of Ottawa General Terms and Conditions, 26 February 2021;
- Section 00 40 00 - FORM OF TENDER, as amended by any Addenda;
- SPECIFICATIONS DIVISION 00 as listed in Section 00 01 10 - Table of Contents, as amended by any Addenda;
- SPECIFICATIONS DIVISION 01 as listed in Section 00 01 10 - Table of Contents
- SPECIFICATIONS DIVISIONS 2 to 16 as listed in Section 00 01 10 - Table of Contents, as amended by any Addenda;
- Materials and Finishing Schedule
- DRAWINGS as listed Section 00 01 15 - List of Drawings, as amended by any Addenda;
- CCDC 40 Rules for Mediation

.2 **DELETE** paragraph 1.1.8 and **SUBSTITUTE** the following:

"1.1.8 The City shall provide the Contractor up to twenty-five (25) copies of the Contract Documents to perform the Work. Should the Contractor require additional sets, the contract documents will be made available to the contractor at their own expense."

2 GC 2.2 Role of the Consultant

.1 *In paragraph 2.2.3, **AMEND** the second sentence by adding the following phrase to the end of the sentence:*

"... upon the request of the Contractor."

.2 *At paragraphs 2.2.7; **DELETE** the words: "Except with respect to GC 5.1 - FINANCING INFORMATION REQUIRED OF THE OWNER..." appearing in the first line of 2.2.7."*

.3 *At paragraph 2.2.15, **ADD** the following sentence:*

"The Consultant is hereby authorized to approve and sign a Change Directive on behalf of the City."

3 GC 3.2 Construction by Owner or Other Contractors

.1 *At paragraphs 3.2.2 and 3.2.3; **DELETE** the words: "When separate contracts are awarded for other parts of the Project, or..." and between the words "...performed by..." **ADD** "...on Site..."*

.2 *At paragraphs 3.2.2.2; **ADD** the words to the end of the sentence: "...upon notifying the contractor in writing accordingly."*

4 GC 3.5 Construction Schedule

.1 ***ADD** to end of 3.5.2 "...and the owner reserves the right to request more frequent schedule updates of the project, where the project does not appear to be capable of being completed within the defined time frames of the contract."*

5 GC 3.6 Supervision

.1 ***ADD** to end of 3.6.1 "...and the owner shall be notified in writing for consideration by the Consultant prior to changing the Supervisor"*

6 GC 3.9 Document on Site

.1 *At GC 3.9, **ADD** the following subsections:*

"3.9.2 Record drawings:

- .1 The Contractor shall be required to produce and demonstrate to the Architect on a monthly basis that Contractor has kept the records of the adjustments of the work on a set of Record drawings kept on site.
- .2 The contractor shall on a monthly basis issue a certificate with their monthly progress draw that the Record drawings are complete and up to date as reflected in the work certified to date.
- .3 As part of the project breakdown, the contractor will identify a schedule of values associated with the monthly Record drawing update with a value of a 0.5% of the project and billed on a monthly basis.
- .4 When the contractor requests for substantial performance, the contractor shall submit the mark-up Record drawings.
- .5 The Contractor will submit operation and maintenance instruction manuals updated and revised to show construction revisions.”

7 GC 5.1 Financing Information Required of the Owner

- .1 *DELETE* paragraph 5.1.1.

8 GC 5.2 Applications For Progress Payment

- .1 *ADD* 5.2.8 as follows: “The Contractor shall include an updated work schedule with each progress billing submission as required in Section 01005, General Instructions otherwise payment of progress billing shall be held back until the updated schedule is submitted.”
- .2 *ADD* 5.2.9 as follows: “The Contractor shall include an original signed Statutory Declaration and valid WSIB Certificate of Clearance with all progress payments (note: a statutory declaration is not required on the 1st Progress Draw).”

9 GC 5.3 Progress Payment

- .1 *In paragraph 5.3.3. DELETE* "20 days" *in the second line of paragraph 5.3.3 and SUBSTITUTE* "30 calendar days".
- .2 *In paragraph 5.3.3. DELETE* last bullet “- the last day....for payment is made.”

10 GC 5.5 Payment of Holdback Upon Substantial Performance of The Work

- .1 *DELETE* paragraph 5.5.3 in its entirety.
- .2 *In paragraph 5.5.4; DELETE* the first sentence in paragraph 5.5.4 and *SUBSTITUTE* the following:

" In a common law jurisdiction, the holdback amount authorized by the certificate for payment of the holdback amount is due and payable ten (10) days following the

expiration of the holdback period stipulated in the lien legislation applicable to the Place of Work."

- .3 **DELETE** paragraph 5.5.5 in its entirety.

11 GC 5.6 Progressive Release of Holdback

- .1 **DELETE** the third and fourth lines in paragraph 5.6.1 and **SUBSTITUTE** the following:

"the City may pay the Contractor the holdback amount retained for such subcontract work, or the Products supplied by such Supplier, ten (10) days following the expiration of the holdback period for such work"

- .2 **DELETE** paragraph 5.6.2 in its entirety

12 GC 5.7 Final Payment

- .1 **DELETE** in the second line of paragraph 5.7.4 "5 days" and **SUBSTITUTE** "30 days".

13 GC 6.2 Change Order and GC 6.3 Change Directive

- .1 **ADD** the following paragraph:

"6.2.3 All Quotations submitted for Changes to the Contract must include all associated cost impacts on time and shall not be qualified"

"6.2.4 All approved change orders must account for revisions to added or credited time to the Contract Schedule. Change Orders approved without the indication of a Change in time period of Contract cannot be contested at a later date. Additional or credit of time to contract must be represented with financial credit/extra associated with extension/reduction of contract time or overtime hours worked".

"6.2.5 This does not prevent the contractor from addressing a claim for cumulative time impact associated with multiple changes.

- .1 Should it be demonstrated that the cumulative impact of multiple individual Change Orders and should the claim be supported with demonstrated documentation of the variation on the approved schedule, then the Contractor is entitled to submit costs to the Architect within 15 days of notifying the Owner of the change to the schedule."

"6.2.6 The adjustment in the Contract Price for a change carried out by way of a Change Order or a Change Directive as provided in GC 6.2 CHANGE ORDER and CG 6.3 CHANGE DIRECTIVE, shall be in accordance with the rates and conditions stipulated in this Supplementary Condition.

- .1 All labour, equipment, rental of equipment or tools, materials,

subcontracts and outside services to be charged as a result of changes to the scope of the Work will be subject to prior authorization by the City.

- .2 For the determination of the costs associated with Change Orders and Change Directive, the following provisions will apply:
 - .1 The City will reimburse the contractor for "Field Labour Costs" as the actual direct wages or salaries of the workers, up to and including working foremen, plus actual payroll burdens, but not including additional cost for full time site superintendent unless it is clearly demonstrated that additional time above and beyond the extent of the "Time for Completion of Contract / Work".
 - .1 "Payroll Burden" means the payments in respect of workers compensation, vacation pay, unemployment insurance, public liability, and property damage insurance, sickness and accident insurance, pension fund and such other welfare and benefit payments as form part of the Contractor's normal labour costs and will include any applicable cost or expense which has been incurred by the Contractor for food, lodging and similar items.
 - .2 The Contractor will provide the City with the information required to calculate Field labour rates within 14 days of the date of Contract Award.
 - .3 Field Labour rates for premium portion overtime will be fixed and remain firm for the duration of this Contract and will not be subject to escalation unless prior written approval is obtained from the City, and such approval will not be unreasonably withheld.
 - .4 Only labour personnel up to and including working foremen will be chargeable on additional work and then only to the extent such personnel are directly engaged on the additional work. The City will not pay for supervision beyond the working foreman level, nor will it pay for administration or management time spent on additional work.
 - .2 The City will pay the Contractor for the actual cost of materials installed or used directly in connection with the Work (excepting materials supplied by the City) will be the actual cost to the Contractor delivered at the site. Copies of invoices from delivery companies or transporters' must accompany the Contractor's billing.

- .3 The City will pay for the cost of rentals for Contractor's owned equipment already on site will be based on the actual time such equipment is used beyond the period the equipment was expected to be on site, exclusive of operators time, and on the following basis:
 - .1 At established hourly, daily, weekly or monthly rental rates.
 - .2 The stipulated rental rates will apply when the number of hours the equipment is operated does not exceed 175 hours in any one month, or does not exceed 40 hours in any one week, or does not exceed 8 hours in any one day.
 - .3 For rental rates quoted, no differentiation will be made between equipment owned by Contractor or rented by Contractor from third parties.
 - .4 For equipment not already on site, rental agreements and copies of invoices from equipment Rental Company must accompany the Contractor's billing.
- .3 Where the Contractor arranged for Work to be carried out by a Subcontractor or its own forces and has received prior approval from the City prior to the commencement of the Work, the City will pay the Contractor the approved cost of the Subcontractor's work, plus a 10% mark-up to the Contractor for all administration, supervision, bonding premiums, record documentation, overheads and profits.
- .4 The City will reimburse the Subcontractor via the contractor or the contractor's own forces for actual Field Labour, material and equipment costs of work performed plus 15% a mark-up to cover the cost of small tools, expendables and consumables, field overhead, supervision above working foreman level and all other indirect labour and materials costs not defined as reimbursable. Expendables and consumables includes all items which are consumed in the performance of the Work whether or not such materials are incorporated in the permanent works.
- .5 The City will provide for an additional 5% mark-up to the Subcontractor via the contractor for the profit and overhead associated with Change Orders and Change Directives that are a result of the of a Subcontractor's necessity to subcontract out a portion of the work.
- .6 Maximum mark-up permitted on any Change Order or Change Directive will not exceed an aggregate total of 35%.
- .7 When Change Orders or Change Directives are agreed by the owner to

proceed on a time and material basis or the contractor is preparing a claim against the work, the contractor must:

- .1 Daily work records prepared by the Contractor and reporting the labour and equipment employed and the material used on any specific portion of the Work, to be reconciled with and signed by the Consultant each day, whenever, in the opinion of the Consultant, such records are required.
- .2 The Contractor will maintain and keep sufficiently complete and accurate books, payrolls, accounts and records relating to the Work or any extensions or additions thereto or claims arising there from to permit the verification and audit thereof and the contractor will have no claim for repayment or any nature and kind whatsoever therefore, unless such books, payrolls, accounts and records have been so maintained and kept.
- .3 The Contractor will submit to the City, at the end of each Working Day a detailed report showing the names, occupations and hours worked of all personnel employed that performed work on a time and material basis, the material supplied and the description and hours of use for equipment and tools employed.
- .4 The City, its Consultant or their agents may inspect and audit the books, payrolls, accounts and records of the Contractor at any time during the period of the Contract and at any time thereafter as deemed necessary, and the Contractor will supply payrolls and any other records required whenever requested by the City.

14 GC 6.5 Delays

- .1 ***ADD*** the following paragraph:

"6.5.6 The costs which the Contractor may, from time to time, be entitled to pursuant to the provisions of paragraphs 6.5.1, 6.5.2 or 6.5.3 shall not include loss of profit or consequential damages and "reasonable costs" shall be specifically defined as documented, itemized costs directly attributable to delay and categorized as follows:

- extended job supervision
- extended site office overhead
- extended use of construction equipment
- wage and material cost escalation

- extended head office overhead and profit for the work at a reasonable rate demonstrated by the Contractor.

.2 **ADD** the following paragraph:

"6.5.7 Upon notice of Delay, the contractor shall demonstrate the impact of the delay clearly identified on each subsequent schedule update."

15 GC 6.6 Claims for Change in Contract Price

.1 **CHANGE** the following paragraph:

"6.6.1 **ADD** to the first sentence after the first word claim "...other than covered by GC 6.5 Delays..."

16 GC 7.1 Default Notice

.1 At paragraphs 7.1.2, **ADD** the following subsections:

"1 If, in the opinion of the Owner or Owner's Agent, the Contractor fails to satisfactorily carry out the obligations and duties of an employer and/or constructor as required under the Occupational Health and Safety Act, the Owner reserves the right to immediately notify the contractor in writing of the alleged default.

.2 Upon issuance, the notice of alleged default shall be signed off by both the Contractor and the Owner or Owner's Agent."

.2. At paragraphs 7.1.3, **ADD** the following subsections

"4 In the case of an alleged default under GC 7.1.2.1, upon receipt of written notice, the Contractor shall take action forthwith to correct the default to the satisfaction of the Owner, or Owner's Agent."

.3 At paragraphs 7.1.4.2, **ADD** the following subsections:

"3 In the case of an alleged default under GC 7.1.2.1, and should the Contractor disagree with the alleged default, the Owner or the Owner's Agent reserves the right to terminate all or part of the work and immediately contact the Ontario Ministry of Labour to render a decision.

.4 In the case of an alleged default under GC 7.1.2.1, should it be determined by the Ontario Ministry of Labour that a default did not occur, the Owner will reimburse all expenses to the Contractor for the termination of all or part of the work."

17 GC 7.2 Contractor's Right to Stop the Work or Terminate the Contract

.1 **DELETE** paragraph 7.2.3.1 in its entirety.

- .2 *In paragraph 7.2.3.4 **DELETE** in the first and second lines the words "except for GC 5.1 - FINANCING INFORMATION REQUIRED OF THE OWNER".*

18 GC 8.3 Retention of Rights

- .1 ***DELETE** paragraph 8.3.1 and **SUBSTITUTE** the following:*

"8.3.1 It is agreed that no act by either party shall be construed as a renunciation or waiver of any rights or recourses."

19 GC 9.1 Protection of Work and Property

- .1 ***ADD** the following sentence at the end of paragraph 9.1.2:*

"In addition, the Contractor is responsible to call all Utilities for service locates prior to commencing the work. Should the Contractor fail to call the necessary Utilities for locates, the Contractor will be responsible for all costs associated with the remedial measures to reinstate the existing service."

20 GC 9.2 Toxic and Hazardous Substances and Materials

- .1 ***DELETE** paragraph 9.2.1 in its entirety.*

- .2 ***DELETE** paragraph 9.2.3 in its entirety.*

- .3 ***ADD** the following paragraph:*

"9.2.5.5 The reporting requirements of this provision do not relieve the Contractor from its legal responsibilities pursuant to any municipal, provincial or federal legislation."

- .4 ***DELETE** paragraph 9.2.8 in its entirety.*

- .5 ***DELETE** paragraph 9.2.9 in its entirety.*

- .6 ***ADD** the following sentence to the end of paragraph 9.2.6:*

"The costs which the Contractor may, from time to time, be entitled to shall not include loss of profit or consequential damages."

21 GC 10.1 Taxes and Duties

- .1 ***ADD** a new paragraph 10.1.3 as follows:*

"GC 10.1.3 To the extent that the Contractor is importing Products, and any taxes, Custom Duties and/or tariffs are placed upon such Products after bid closing, then the following shall apply:

- .1 **Notification of Price Impact of New Taxes, Customs Duties and/or Tariffs.** The Contractor shall notify the Owner of the price impact of new taxes, Customs Duties and/or tariffs (whether imposed directly by Canada or indirectly by another Country on the necessary supply chain imports prior to coming into Canada). “Customs Duties” are defined as Any duty imposed on imported goods under Canadian customs laws. This includes duties levied under the Customs Tariff Act, as well as duties arising from special import measures and excise taxes applicable to goods entering Canada. Such notice shall include:
 - .1 A detailed description of the taxes, Customs Duties and/or tariffs, including the rates, amounts, and specific Products affected; and
 - .2 Supporting documentation demonstrating the direct impact of the taxes, Customs Duties and/or tariffs on the Contract.
- .2 **Efforts to Mitigate New Taxes, Customs Duties and/or Tariffs.** The Contractor shall take reasonable measures to mitigate the impact of the new taxes, Customs Duties and/or tariffs, including but not limited to:
 - .1 Identifying and recommending cost-effective alternatives available in Canada or other jurisdictions that comply with the Contract Documents (the “Alternative Products” defined as a product, material, or system proposed by the Contractor to replace a required product when unforeseen changes in tariffs, duties, or trade restrictions significantly affect the cost, availability, or feasibility of the originally required product);
 - .2 Advancing importation of the Products across the border prior to the enactment of the taxes, Customs Duties and/or tariffs, where reasonably feasible; and
 - .3 Exploring and implementing other reasonable measures to avoid or minimize related costs.

If no Alternative Products are available, the Contractor shall provide a written explanation to the Owner, supported by evidence of the Contractor’s efforts to source alternatives.
- .3 **Proposal Submission of New Taxes, Customs Duties and/or Tariff Proposal.** The “Tariff Proposal” is defined as a formal submission by a Contractor or supplier setting out proposed rates, fees, or charges related to goods, services, or work subject

to customs duties, import tariffs, or other governmental levies imposed by federal, provincial, or municipal authorities imposed after tender closing. The new taxes, Customs Duties and/or Tariff Proposal shall include:

- .1 Documentation of the direct costs reasonably incurred solely due to the taxes, Customs Duties and/or tariffs;
 - .2 A proposed adjustment to the Contract Price, limited to such documented costs, if the Contractor continues with the imported Products;
 - .3 A cost-benefit analysis comparing the use of imported Products with Alternative Products, if available; and
 - .4 Any additional information reasonably requested by the Owner.
- .4 Owner's Decision. On receipt of the Tariff Proposal submission, the Owner shall promptly provide written direction to the Contractor to:
- .1 Proceed with the imported Products or the Alternative Products, as recorded in a Change Order; or
 - .2 Submit additional information or clarification to facilitate the Owner's decision.

The Contractor shall provide any additionally requested information to the Owner.

- .5 Limitations on Contract Price Adjustment. Any adjustment to the Contract Price on account of new Taxes, Customs Duties and/or Tariffs shall:
- .1 Be strictly limited to the actual, demonstrable, substantiated, and auditable direct costs reasonably incurred by the Contractor due to the new taxes, Customs Duties and/or tariffs. Such documentation must include but is not limited to:
 - .1 A breakdown of the direct costs being claimed, including a detailed breakdown of the components of such costs and their specific application to the contract deliverables.
 - .2 Official documentation from relevant government authorities or recognized sources to substantiate tariff, tax, or duty changes.

.3 Copies of invoices to verify the addition of any tariffs or change in taxes.

.2 If initial documentation is deemed insufficient or inconclusive, the Owner may request additional information or reject the proposed adjustment to the contract price. Please note that the Contractor is not entitled to any mark-up for overhead or profit on contract price increases related to tariffs. Additionally, the burden of proof lies with the Contractor to demonstrate the direct impact of new taxes, Customs Duties and/or tariffs on the project costs.”

22 GC 10.2 Laws, Notices, Permits and Fees

.1 *ADD the following to the end of the first sentence in paragraph 10.2.3:*

"...which were in force at the date of bid closing."

23 GC 11.1 Insurance

.1 *ADD the following sentence at the end of paragraph 11.1.1.1:*

"If the Contractor is to engage in (underpinning), and (soldier piling and lagging) operations, it shall ensure that it obtains an endorsement to its general liability insurance which overrides the (underpinning) and (soldier piling and lagging), or exclusion in that general liability insurance so that the Contractor is insured for its (underpinning) and (soldier piling and lagging) operations until the date of acceptance of the entire work by the City. If the Contractor employs Subcontractors for (underpinning) and (soldier piling and lagging) operations, the Contractor shall ensure that its subcontract includes the requirements for (underpinning) and (soldier piling and lagging) coverage as provided herein and the additional insureds required by this Contract".

.2 *ADD the following paragraph:*

"11.1.9 The Contractor shall provide the City with an original Certificate of Insurance and shall ensure that the City at all times is in receipt of a valid Certificate of Insurance for all the policies required by GC 11.1. The Contractor shall ensure that the Certificate of Insurance states that thirty (30) days prior written notice shall be given to all the named insureds in the event of any changes, cancellation or termination of the policies. The City's receipt and acceptance of a Certificate of Insurance is in no way an approval of the Contractor's policy or policies of insurance, and does not affect the obligations to insure set out in this GC 11.1 -INSURANCE.

The City may withhold payment of any monies due to the Contractor under this or any other contract until the Contractor has provided the City with a valid Certificate of Insurance as required by this condition."

24 GC 13 Changes in the Work

.1 ADD the following General Condition:

"GC 13 CHANGES IN THE WORK

13.1 The Contractor shall inform the Surety Company or Companies who have issued Performance Bonds or Labour and Material Payment Bonds for this Contract, if any change to the Contract requires adjustments of the bonds, the Contractor shall initiate and pay for such adjustments.

13.2 The Contractor shall advise the Consultant if the schedule is affected by any change and obtain authorizations from the Consultant before proceeding with related work which may affect contemplated changes. The Contractor shall advise the Consultant of the effect on the overall schedule, if any, due to changes required by a Change Directive".

25 GC 15 Municipal Freedom of Information and Protection of Privacy

.1 ADD the following:

"GC 15 MUNICIPAL FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY

15.1 The Contract, including all Contract Documents, shall become public information, unless the Contractor specifically requests that certain parts of the Form of Tender remain confidential subject to the Municipal Freedom of Information and Protection of Privacy Act".

26 GC 16 Retail Sales Tax-Non-Resident Contractors

.1 ADD the following General Condition:

"GC 16 RETAIL SALES TAX - NON-RESIDENT CONTRACTORS

16.1 If the Contractor is a non-resident Contractor, as defined in the Retail Sales Tax Act, R.S.O. 1990, c.R.31 as amended, it will obtain and provide the City with a duplicate copy of a valid certificate issued by the Minister of Revenue indicating that the Contractor has fulfilled its obligation to deposit funds or a guarantee bond with the Treasurer of Ontario to secure payment of the tax payable in respect of tangible personal property consumed or used pursuant to or in the carrying out of the Contract.

16.2 The non-resident Contractor will provide the certificate within seven (7) Working Days of the date the City requests it. If the non-resident Contractor fails to provide the appropriate certificate within the time limit specified by this condition, the City may, in addition to any other remedies which it might have, withhold from payment to the non-resident Contractor, an administration fee, to be determined by the City, to cover costs incurred by the City to comply with the

requirements of the Retail Sales Tax Act."

27 General Terms and Conditions

The City's General Terms and Conditions (dated 26 February 2021) are incorporated by reference into this RFT. By Submitting a Tender, Tenderers confirm that they have read the City's General Terms and Conditions and agree to be bound by them in any resulting Contract. A copy of the City's General Terms and Conditions can be accessed on the Procurement page on Ottawa.ca at:

<http://ottawa.ca/en/business/procurement#terms-and-conditions>

END OF SECTION

CONTRACT NO. CP000902

Section 1, General Liability Insurance, **REPLACE** with

The Successful Tenderer shall provide and maintain continuously from commencement of the project until the issuance of the Certificate of Final Acceptance/Completion the following insurance and certificate requirements:

Wrap-Up Liability insurance issued on an occurrence basis for an amount of not less than \$5,000,000. per occurrence for all sums which the Successful Tenderer shall become obligated to pay by reason of liability imposed by law upon the Successful Tenderer for damages arising out of/or in connection with all operations of the Successful Tenderer, its agents, officers, employees or other persons for whom the Successful Tenderer is legally responsible relating to their obligations with the project. Such insurance shall include, but is not limited to bodily injury and property damage including loss of use; broad form products, broad form completed operations; premises, property & operations; personal injury; blanket contractual liability; non-owned automobile; broad form property damage; owners & contractors protective; occurrence property damage; medical payments; employees as additional insured(s); contingent employers liability; cross liability and severability of interest clause

Such insurance shall also include:

- 24 month completed operations
- Shall not contain any exclusions or limitations in respect of shoring, underpinning, raising or demolition of any building or structure, pile driving, caisson work, collapse of any structure or land from any cause
- Cover the use of explosives if applicable. The Successful Tenderer shall be solely responsible for all damage loss or costs resulting directly or indirectly from such use.
- The deductible shall not exceed ten thousand (\$10,000.) dollars and shall be the sole responsibility of the Successful Tenderer.

Such insurance shall include all contractors, sub-contractors, architects, engineers, project and construction managers as additional insured.

Such insurance shall add the City of Ottawa, their elected officials, agents, officers and employees as additional insured with respect to the operations of the Successful Tenderer. This insurance shall be non-contributing with and apply as primary and not as excess of any insurance available and shall contain a waiver of subrogation in favor of the City of Ottawa.

Section 2, Automobile Liability Insurance, **REPLACE** with

Automobile liability insurance with respect to owned or leased vehicles used directly or indirectly in the performance of the project covering liability for bodily injury, death and damage to property with a limit of not less than \$5,000,000. inclusive for each and every loss.

Section 3, Aircraft and Watercraft Liability Insurance, **REPLACE** with

The Successful Tenderer shall ensure its professional consultants, engineers, planners and architects providing a professional service in connection with the project provide and maintain **Professional**

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Liability (Errors and Omissions) insurance coverage shall be obtained to a limit of not less than \$2,000,000. If such insurance is written on a claim made basis, the coverage shall contain a 24 month extended reporting period or be maintained for a period of two years subsequent to conclusion of services provided under this Agreement. The Deductible shall be no greater than \$10,000. and will be the sole responsibility of the Successful Tenderer.

Section 4, “Broad Form” Property Insurance, **REPLACE** with

Broad Form Builders Risk insurance coverage including Earthquake and Flood for the full replacement cost of the project. Such insurance shall include hard costs; soft costs; expediting expenses; debris removal; transit; unnamed locations; professional fees; fire fighting expenses; blanket bylaws, delayed opening and testing and commissioning. The policy will be issued in the name of the Successful Tenderer and the City of Ottawa.

The Deductible shall be no greater than \$10,000 for Direct Damage. The Deductible for Flood shall be no greater than \$25,000. The Deductible for earthquake shall be 3% of the total loss subject to a minimum of \$100,000. All Deductibles shall be the sole responsibility of the Successful Tenderer.

Section 5, Boiler and Machinery Insurance, **REPLACE** with

Equipment Breakdown coverage issued on a Comprehensive Form including production machinery (if applicable) for the replacement cost of such project. Such insurance shall include soft costs; expediting expenses; water damage; hazardous substances; delayed opening, testing and commissioning and professional fees. The policy will be issued in the name of the Successful Tenderer and the City of Ottawa.

The Deductible shall be no greater than \$10,000 for Direct Damage and shall be the sole responsibility of the Successful Tenderer.

ADD additional Section prior to Section 7 Standard Exclusions as follows

Environmental Impairment Liability with a limit of not less than \$2,000,000. Per Incident /Annual Aggregate. Coverage shall include Third Party Bodily Injury and Property Damage including on-site and off-site clean-up and a separation of insurance clause. If such insurance is issued on a claims made basis, such insurance shall contain a 24 month extended reporting period or be maintained for a period of two years subsequent to conclusion of services provided under this Agreement.

The Deductible shall be no greater than \$10,000. and will be the sole responsibility of the Successful Tenderer.

Such insurance shall include all contractors, sub-contractors, architects, engineers, project and construction managers as additional insured.

Such insurance shall add the City of Ottawa, their elected officials, agents, officers and employees as additional insured with respect to the operations of the Successful Tenderer. This insurance shall be non-contributing with and apply as primary and not as excess of any insurance available and shall contain a waiver of subrogation in favor of the City of Ottawa.

ADD another additional Section prior to Section 7 Standard Exclusions as follows

All contractors performing work under this Agreement shall maintain **Commercial General Liability** insurance issued on an occurrence basis for an amount of not less than \$5,000,000. per occurrence for any negligent acts or omissions by the contractors. Such insurance shall include, but is not limited to bodily injury and property damage including loss of use; personal injury; blanket contractual liability; premises, property & operations; non-owned automobile; broad form property damage; owners & contractors protective; occurrence property damage; products, broad form completed operations; employees as Additional Insured(s); contingent employers liability; cross liability and severability of interest clause. Such insurance shall be in the name of the contractors and shall name the Successful Tenderer and the City of Ottawa as additional insured. Evidence of such insurance policies shall be on file with the Successful Tenderer.

ADD additional Section after Section 7 Standard Exclusions as follows

All the above insurance policies shall contain an endorsement to provide all Named Insured and Additional Insured with 30 days advance written notice of termination of the insurance coverage.

Prior to the commencement of work, the Successful Tenderer shall provide the City with certificates of insurance and upon the anniversary date(s) of such policies.

END OF SECTION

1 Description of Work

- .1 The Work includes but is not limited to:

See Section 01010 Summary of Work – Description of Work.

- .2 The specifications are not a detailed description of installation methods but serve to indicate particular requirements of the completed Work.
- .3 It is the intention of the drawings and specifications to provide finished work. Any items omitted, which are clearly necessary for the completion of the Work, are part of the Work.

2 Documents Required

- .1 Maintain at job site, one copy each of following:
- .1 Addenda
 - .2 Specifications
 - .3 Contract Documents
 - .4 Reviewed Shop Drawings
 - .5 Contemplated Change Orders
 - .6 Change Orders
 - .7 Change Directives
 - .8 Site Instructions
 - .9 Other modifications to Contract
 - .10 Field Test Reports
 - .11 Building Permit and other required permits and certificates
 - .12 Inspection Reports
 - .13 Site Review Reports
 - .14 Job Meeting Minutes
 - .15 Approved Project Schedule
 - .16 Copies of referenced codes and standards
 - .17 Material Safety Data sheets

- .18 Manufacturers' installation and application instructions
- .19 Any other reference documents as and when required by the Consultant and the Director
- .20 Set of Drawings for as-built records.

3 Tax

- .1 The H.S.T. shall be excluded from the Total Stipulated Price.

4 Codes and Standards

- .1 Perform work in accordance with The 2012 Ontario Building Code Compendium, O.R. 332/12, or latest amended version.
- .2 Work to conform to referenced standards and codes as reaffirmed or revised to date of specifications.

5 Site Visit and Examination

- .1 Each tenderer shall examine the site and the local conditions affecting the Work under this Contract, and satisfy themselves that the work can be satisfactorily carried out without changes to the drawings and specifications. No allowances will be made later for any expense incurred by the Contractor through their failure to make this examination.
- .2 Every Subcontractor and the Contractor shall examine the Contract Documents, the conditions on site and the work in place prior to commencing the various portions of his work.
- .3 Each Subcontractor and the Contractor shall report in writing to the Consultant and the Contractor, any defects affecting the Work of that trade.
- .4 Commencement of Work shall be construed as evidence of acceptance of underlying surfaces, conditions, arrangement and location as satisfactory.
- .5 Each sub-contractor shall base their quotations to the General Contractor on a thorough review of the entire Drawings and Specifications for the project.

6 Additional Drawings

- .1 The Consultant may furnish additional drawings to assist proper execution of work. These drawings will be issued for clarification only. Such drawings shall have same meaning and intent as if they were included with plans referred to in the Contract Documents.

7 Work Schedule

- .1 Upon award of Contract, an on-site meeting shall be held to review work schedule, payment procedure, etc.

- .2 Schedules required:
 - .1 Construction Progress Schedule
 - .2 Submittal Schedule for Shop Drawings, Product Data and Samples
 - .3 Cash Flow Schedule.
- .3 An updated work schedule must accompany each billing submission - including commentary with respect to the schedule regardless of whether there is a change in scheduled completion date. If there is no change in work schedule from previously issued update, the Contractor is still required to re-issue the schedule with updated issuing dates.
- .4 Within 5 days of on-site meeting, submit 5 copies, plus 1 electronic copy, for the Director's approval, of the schedules required as noted above, indicating the timing of the Work including the sequence of all operations involved therein, in order to meet the completion date. Cooperate with the City in scheduling and phasing the Work. The Director will review the schedule within 5 working days and provide review comments. Resubmit the revised finalized schedule within 5 working days after return of reviewed copy.

NOTE: The completion date of the approved work schedule shall not be deemed as the date upon which an application for a delay claim may be made. The date upon which a delay claim application may be made is that date as established in Section 00 20 00, "Instructions to Tenderers", paragraph 22.2 and 22.3, "Time for Completion of Contract/Work", and as stipulated in paragraph 1.3 of Article A-1 "The Work" of the Agreement.

- .5 Format:
 - .1 Prepare schedule in form of professional horizontal bar chart using Microsoft Project Software or equivalent scheduling software program approved by the Consultant.
 - .2 Provide separate bar for each trade or operation.
 - .3 Provide horizontal time scale identifying first workday of each week.
 - .4 Format for listings: Chronological order of start of each item of work.
 - .5 Include critical path in schedule format.
 - .6 Each updated revised construction progress schedule shall show date of issue and revision number.
 - .7 The Work Schedule shall also include the following:
 - .1 Preparations of shop drawings and submittal of samples
 - .2 Review periods of shop drawings (see 7.7.5 below)
 - .3 Ordering, manufacturing and delivery of materials

- .4 Installation timelines.
- .8 Submit 4 copies of the Schedule and 1 electronic copy. The Schedule will be legible and printed on paper no larger than 11” x 17” size in landscape horizontal print format. Width of 11” shall remain constant while the length may be folded in 17” increments.
- .6 Schedule of Values: Itemize separately, individual sections of specifications, different phases of the work, bonds and permits, mobilization field supervision and layout, temporary facilities and controls, major equipment, material costs delivered, installation costs, each allowance, clean up, hand over and commissioning.
- .7 Submittal Schedule:
 - .1 Prepare a separate submittal schedule for shop drawings, samples and mock-ups. Include all shop drawings, samples and mock-ups on the list and incorporate the review time and delivery time required within the schedule.
 - .2 If requested provide documentation to confirm that delivery times allowed in the schedule are realistic.
 - .3 Include within the submittal schedule the coordination and interference drawings specified in Section 01 04 00, 1.10, “Coordination” and Sleeve drawings specified in Section 01 04 00, 1.11. “Coordination”
 - .4 Updating the Schedule
 - .1 The schedule will be reviewed at each project site meeting.
 - .2 With each progress draw the Contractor shall attach a signed statement and two (2) copies of the updated schedule, which shows actual progress by the original schedule. Failure to submit this schedule will delay processing of Certificates for Payment.
 - .3 Where the project falls behind schedule a description of what remedial action is being taken by the Contractor to retain the project onto the original schedule shall be included.
 - .5 Schedule submittals so that materials and equipment are ordered and therefore on site well in advance of scheduled installation date.
 - .1 In planning submittals use the following minimum times: General Contractor’s review and transfer to consultant: 10 days.
 - .2 Logging by Prime-Consultant and transfer to Sub-Consultant: 5 days.
 - .3 Consultants review and return to Contractor: 10 days.
 - .4 Contractors’ review and return to Sub-Contractor: 5 days.

- .5 Revisions and resubmittal: 10 days.
- .6 Contractors' review and transfer to Consultant: 5 days.
- .7 Second review by Consultant team: 10 days.
- .8 All days referred to above are working days.
- .6 While it may be possible in certain circumstances to reduce the above times, they are the minimum time to be allowed in planning the project schedule.
- .7 For more complex shop drawings the Consultant will require a reasonable amount of additional time. Make allowances for this in the project schedule.
- .8 The schedule of submittals shall list each specification section, the submittals required, the above time frames (as a minimum) and the key dates required to meet the project schedule.

8 Coordination and Cooperation

- .1 Execute the Work with least possible interference or disturbance to occupants of adjacent buildings. Arrange with the Director to facilitate the execution of the Work.
- .2 Supervise and direct all persons engaged in the Work, including all tradesmen and suppliers. Become familiar with the requirements of each trade. Coordinate delivery and work operations. Examine the Work of all trades during work operations to ensure compliance with Contract requirements. Expedite all work to maintain the Contract schedule. The Contractor shall be solely responsible for all construction means, methods, techniques, sequences and procedures for coordinating all portions of the Work.
- .3 All trades shall cooperate and Work together, so that the Work will fit together and make a complete and satisfactory job in every detail. Coordinate so that work is executed in proper sequence, items to be built-in are built-in on time, erected work is protected against damage from the work of other trades and defective Work is removed and made good to the satisfaction of the Consultant. Subcontractors shall give timely instructions and information to the Contractor concerning their requirements as they relate to other parts of the Work.
- .4 Check and verify all dimensions referring to the Work and the interfacing of all services. Verify with the trade concerned, all dimensions pertaining to the Work of other trades.
- .5 Any errors, discrepancies, or trade conflicts arising during construction shall, when necessary, be referred to the Consultant for clarification and/or decision. Allow the Consultant time for deliberation as required.
- .6 Study all documents, which describe, or are related to, any operation before commencement of that operation. Report discrepancies discovered between elements of documentation and obtain a ruling on the required interpretation before beginning Work. Allow the Consultant time to make a ruling as required.
- .7 Ensure that material, equipment, services and operatives are brought to site at proper times,

in sufficient quantity and quality and in accordance with the requirements of the Work.

- .8 The Contractor shall ensure that each Subcontractor informs him of requirements for site conditions and surfaces necessary for the execution of the Work and that he provides setting drawings, templates and all other information necessary for the location and installation of material, holes, sleeves, inserts, anchors, accessories, fastenings, connections and access panels. The Contractor shall inform other Subcontractors whose Work is affected by these requirements and preparatory Work. Commencement of Work shall imply complete acceptance of all Work done by other Subcontractors.
- .9 Cooperate with the Consultant and other contractors employed by the City, such as Information Technology Subcontractor. Coordinate the supply and installation of equipments and whatever as required for communication and security systems with Work on site. Provide access to the site for these trades in accordance with the Occupational Health and safety Act.
- .10 Each trade shall report to the Contractor defects in surface or work prepared by other trades, which affect their own and ensure that conditions are appropriate for carrying out of work. Commencement of work shall imply acceptance of conditions.

9 Construction Safety Measures

- .1 Refer to Section 01 54 50, "Safety Requirements".

10 Contractor's Use of Site

- .1 Use of site: Exclusive and complete for execution of the work within the site boundaries indicated on the drawings.
- .2 Move stored products or equipment, which interfere with operations of the City. Do not unreasonably encumber site with materials or equipment.
- .3 The Contractor is responsible for provision of parking on site.
- .4 Obtain and pay for use of additional storage or work areas needed for operations.
- .5 Maintain project grounds and public properties free from accumulation of waste materials and rubbish.
- .6 Refer to the article "Construction Facilities and Temporary Controls".

11 Project Meetings

- .1 The Contractor shall schedule project progress meetings weekly or more frequently at the direction of the City's Project Manager, as determined at the Pre-Construction Meeting
- .2 The Consultant or his designate shall chair each meeting, distribute written notice of each meeting, four days in advance of the meeting date, to the City, and all consultants.
- .3 The Contractor shall provide clean, heated and lit space with adequate seating for all

participants and shall make arrangements for meetings requirements.

- .4 The Consultant or his designate shall record minutes. Include significant proceedings and decisions. Identify "action by" parties. The minutes will arrive within 3 working days of the meeting date.
- .5 The Consultant shall reproduce and distribute copies of minutes within three days after each meeting and transmit to meeting participants, affected parties not in attendance, Consultants and owner. The Contractor shall distribute to sub trades as required.
- .6 Copies of the minutes will be distributed on the understanding that objection to the contents of the said minutes can be received up to and including the time of the next scheduled meeting. The participants of the next scheduled meeting shall review and approve minutes with any corrected changes and then they will be deemed to be a true and accurate record of the meeting. Any participant unable to attend the next scheduled meeting, shall submit in writing any objections to the contents of said minutes prior to that next meeting.

12 Submittals

- .1 Administrative:
 - .1 Submit to the Consultant, in accordance with the Submittal Schedule described in Part 7 of this Section, submittals listed for review. Submit with reasonable promptness and in an orderly sequence so as to not cause delay in the Work.
 - .2 Work affected by a submittal shall not proceed until review is complete.
 - .3 Review submittals prior to submission to the Consultant: This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and co-ordinated with requirements of the Work and Contract Documents. Each submittal shall contain Contractor's stamp identifying that this review has occurred.
 - .4 Verify field measurements and coordinate with adjacent and/or affected areas of Work.
 - .5 Submittals shall include but not be limited to shop drawings, cut sheets, mock-ups, colour samples and schedules.
- .2 Shop Drawings and Product Data:
 - .1 "Shop Drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data, which are to be provided by the Contractor to illustrate details of a portion of the Work.
 - .2 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connection, explanatory notes and other information necessary for completion of the Work.
 - .3 Adjustments made on shop drawings by Consultant are not intended to change the

Contract Price. If Contractor disagrees they must notify the Consultant before ordering the material or starting the work otherwise any claim for additional costs or schedule will not be accepted.

- .4 Make such changes in shop drawings as the Consultant may require.
- .5 Submit six prints of shop drawings for each requirement requested in the Specification Sections and as the Consultant may reasonably request. All drawings must be in a scale to match associated drawings.
- .6 Submit six copies of product data sheets or brochures for requirements requested in Specification Sections and as the Consultant may reasonably request where shop drawings will not be prepared due to standardized manufacture of the product.
- .7 The Consultant's review pertains to general design only. Errors in dimensions and quantity or inaccuracies will be marked if noticed, however, this does not relieve the Contractor from responsibility to complete the work to the Consultant's satisfaction.
- .8 When the Contractor submits shop drawings that are not required in the Contract Documents, the Consultant will return them to the Contractor with no action taken by the Consultant.
- .9 For shop drawings, which are within the engineering disciplines, the Contractor shall forward all but one copy directly to the Engineer. At the same time forward a copy of the transmittal and 1 copy of the submittal to the Architect and the City. The Engineer will review and return the shop drawings to the Architect who will forward to the Contractor.
- .10 Review of shop drawings by the Consultant is for the sole purpose of ascertaining conformance with the general design concept for architectural features only, and does not in any way, constitute review of the design of engineering elements which form part of the Contract Documents prepared by others. This review shall not mean that the Consultant approves the detail design inherent in the shop drawings or relieve the Contractor of his responsibility for meeting of all requirements of the Contract Documents. The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes, or to techniques of construction and installation and for coordination of the work of all trades. Prior to submission to the Consultant, the Contractor shall review all shop drawings. By this review, the Contractor represents that he has determined and verified all field measurements, field construction criteria, materials, catalogue numbers and similar data, and that he has checked and co-ordinated each shop drawing with the requirements of the Work and of the Contract Documents. The Contractor's review of each shop drawing shall be indicated by affixing a "Reviewed Stamp" to each shop drawing showing the data and signature of responsible person. Shop drawings submitted to the Consultant from the Contractor without the Contractor's "Reviewed Stamp" affixed to them, will be returned to the Contractor with no action taken by the Consultant.
- .11 For all shop drawings which are rejected by the Consultant or a sub-consultant because they do not meet the requirements of the Contract Documents, the Consultant

will bill the Contractor his administration cost to reprocess the same shop drawings the second time by issuing a Change Order to credit time costs to the project for time caused for re-submittal.

Billing Rate:

.1	Partner in Charge	\$100.00/hr
.2	Project Architect	\$ 90.00/hr.
.3	Senior Technician	\$ 75.00/hr.
.4	Secretary	\$ 40.00/hr.

- .12 Do not commence manufacture nor order materials before shop drawings (and samples if requested) are returned with a stamp indicating “Reviewed” or “Reviewed as Noted”.

.3 Samples

- .1 Submit samples in duplicate as requested in various sections of the specifications and as may be reasonably required by the Consultant.
- .2 Submit samples of adequate size and range of colours or textures to represent material in intended use on the Project.
- .3 Resubmit if required by the Consultant.
- .4 Unless the precise colour and pattern is specifically described in the Contract Documents, wherever a choice of colour or pattern is available in a specified product, submit accurate colour and pattern charts to the Consultant for selection.
- .5 Material used on project shall match approved samples for quality, colour and texture, finish and performance. Do not proceed with work until samples are approved.
- .6 Deliver samples prepaid to the Consultant's business address.
- .7 Upon successful review, a reviewed sample will be returned and the other sample will be retained by the Consultant.
- .4 Operation and Maintenance Manuals: Refer to Section 01781 "Close Out Submittals".
- .5 Record Drawings: Refer to Section 01780 "Close Out Submittals".
- .6 Progress Photographs:
- .1 On commencement of the Work and at monthly intervals thereafter, supply the Consultant and the Owner with two (2) copies of colour digital photographs from three (3) different views to indicate progress of the Work. Colour digital photographs are to be taken by the site superintendent. Take digital photographs from locations

selected by the Consultant.

- .2 The Contractor shall have on site at all times a digital camera with a minimum resolution of 3 mega pixels. Use the digital camera to record areas of Work when requested by Consultant as an aid for discussion and resolution of site conditions.
- .7 Request for Information (RFI):
 - .1 Contractor shall thoroughly review Contract Documents in advance of the progress of the construction to provide within their schedule a minimum of 10 working days to allow for the Consultant to answer any Requests for Information.
 - .2 We recognize that from time to time emergencies will occur and the Consultant Team will make their best effort to provide faster answers when this occurs. However, the schedule cannot be set up to depend on answers to RFIs faster than 10 working days.
 - .3 Should RFI's result in more than a simple clarification or interpretation of the Contract Documents, further time shall be allotted to the Consulting Team for preparation of revised drawings, specifications or supplementary instructions.
 - .4 Should the Contractor issue an RFI which is clearly evident in the Contract Documents, and considered frivolous in nature, the Consultant reserves the right to be compensated by the Contractor at the billing rates defined in Paragraph 12.11 of this Section.
- .8 Mock-Ups:
 - .1 Where specified or where requested by the Consultant, complete a mock-up of a designated portion of the work.
 - .2 Mock-up shall be complete in all respects incorporating all items required in finished work.
 - .3 Review with Consultant and revise as required by Consultant.
 - .4 Final reviewed mock-up will be the project standard. All remaining work shall conform to the reviewed mock-up

13 Setting Out of Work

- .1 The Contractor shall obtain the services of a registered Ontario Land Surveyor (OLS) to establish and layout in the field all grid lines, exterior walls and other main lines and levels, verify known geodetic elevation, establish bench marks and coordinate geodetic elevations with public utility elevations.
- .2 Assume full responsibility for and execute complete layout of the Work to locations, lines and elevations indicated.
- .3 Provide devices needed to lay out and construct the Work.

- .4 Supply such devices as straight edges and templates required to facilitate the Director's inspection of the Work.
- .5 Verify and record on the record drawings, elevations of footing bearing surfaces, top of footings, new services and existing utilities encountered, all related to finished floor or geodetic elevations.
- .6 Sub-surface Conditions:
 - .1 Promptly notify the Consultant in writing if sub-surface conditions at the Place of the Work differ materially from those indicated in the Contract Documents, or a reasonable assumption of probable conditions based thereon.
 - .2 After prompt investigation, should the Consultant determine that conditions do differ materially, instructions will be issued for changes in the Work as provided in the General Conditions of the Contract Part 6 "Changes in the Work".

14 Workmanship

- .1 Workmanship shall be the best quality, executed by workers experienced and skilled in the respective duties for which they are employed. Immediately notify the Director if required Work is such as to make it impractical to produce required results.
- .2 Do not employ any person unfit or unskilled in their required duties. The Director reserves the right to require the dismissal from the site, workers deemed incompetent, careless, insubordinate or otherwise objectionable.
- .3 Decisions as to the quality or fitness of workmanship in cases of dispute rest solely with the Director, whose decision will be final.
- .4 Where required by local or other bylaws or regulations, tradespersons shall be licensed in their trades.

15 Protection

- .1 Protect the Work and all surrounding structures, walls, abutting properties, etc. from damage.
- .2 Make good, at no cost to the City, any damage caused.
- .3 Special measures shall be taken for dust control. Erect dust barriers as required.
- .4 Protect any services, which are uncovered during repair work.
- .5 Protect work from damage. Securely plug or cap open ends of conduits, pipes, ducts or equipment to prevent entry of dirt, dust, debris, water, snow or ice. Clean all piping and equipment inside and outside before testing.
- .6 Material stored on site shall be protected from weather and kept dry and clean at all times. Take care to avoid corrosion of metal parts. Protect all bearings and motors from damage

due to moisture and dust. Equipment not yet in operation shall be turned over at least at monthly intervals to prevent bearing deterioration.

- .7 Protect existing building and site environment from oils resulting from machinery, vehicles or equipment used for foundation work.

16 Substitutions

- .1 For substitutions during the tendering process refer to Section 00 20 00 "Instructions to Tenders".
- .2 After award of contract, no substitutions will be permitted, except for the following reasons:
 - .1 Products have been discontinued and/or are no longer available.
 - .2 Excessively long delivery periods which will unreasonably delay the Project. Failure to order the product in a timely fashion in accordance with the Submittals Schedule shall not be grounds for a substitution. When failure to order in a timely fashion results in acceptance of a substitution the Contractor may be required to provide a credit Change Order for an amount determined by the Consultant.
 - .3 Substituted products benefit the City of Ottawa.
- .3 No substitution will be permitted without prior written request from the Contractor and approval by the Consultant and the City of Ottawa.

17 Warranties

- .1 Provide written extended guarantees/ warranties as set out in individual specification sections. Refer to individual Specification Sections for extended warranties.
- .2 The Contractor, at own expense, shall correct any defects in the Work due to faulty products and/or workmanship appearing within one year and the extended guarantee/warranty periods set out in the individual specification sections from the date of Substantial Performance.

18 Cost Breakdown

- .1 Before submitting first progress claim, submit a breakdown of the Contract Price, in detail, as directed by the Director and aggregating the Contract Price.
- .2 After approval by the Director the cost breakdown will be used as basis for progress payment.

19 Construction Facilities and Temporary Controls

- .1 Contractual Responsibility:
 - .1 Review of construction by the Consultant and inspection and testing by an independent Inspection and Testing Agency, are precautions against oversight or error. They do not relieve the Contractor of his contractual responsibilities. Review,

inspection, and testing, are based on representative samples of the Work and do not relieve the Contractor from the responsibility of carrying out his own quality control and for completing all Work in accordance with the Contract Documents.

.2 Hoarding:

- .1 Erect hoarding where indicated on the drawings and where required as determined by the Contractor to carry out their responsibility for safety both on site and for the public, to protect the public, workers, public and private property from injury or damage.
- .2 Provide hoarding with chain link fence (and solid fencing where specified) 1.8 m high, protecting the public and private property from injury or damage. Provide lockable gates within the hoarding for access to the Site by workers and vehicles.
- .3 Provide safe protection for public use of existing **work site**. The Work zone shall be separated from ongoing operation of the existing building by providing safe passageways for pedestrians entering and exiting the building. Hoarding shall include enclosed and lit passageways with structural protection overhead and to the sides.
- .4 Required exits as per the Ontario Building Code must be maintained in the existing building during the construction phase **[of the addition. The most easterly exit door from the existing main corridor is required to be removed to allow for the new construction addition. The Contractor is responsible to provide temporary required exit to comply with the Ontario Building Code and the Ontario Health and Safety Act & Regulations and with the approval of the City's Building Inspector and the Consultant.]**

.3 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 area for temporary heat.

.4 Dust and Air Tight Screens:

- .1 Provide dust and airtight screens or partitions 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.
- .3 Locations to be determined by review on site with Consultants. As a minimum, provide where directed by Consultant and where required to keep dust and dirt generated by this Contract from affecting the existing building which remains in operation.

- .5 Site Storage/Loading:
 - .1 Confine the Work and operations of employees to limits indicated by Contract Documents. Do not unreasonably encumber premises with Products.
 - .2 Do not load or permit to be loaded any part of the Work with a weight or force that will endanger the Work.
 - .3 Signage is only permitted in locations where directed by Consultant.
- .6 Fire Protection:
 - .1 Provide and maintain temporary fire protection equipment during work to suit regulation and by-laws.
 - .2 Refer to Section 01 70 60, “City of Ottawa Fire Safety Requirements” and Section 01 54 50, “Safety Requirements”.
- .7 Equipment/Tool/Materials Storage:
 - .1 Provide and maintain, in 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 manner to cause least interference with work activities.
- .8 Ventilating:
 - .1 Prevent hazardous accumulations of dust, fumes, mists, vapours or gases in areas occupied during construction.
 - .2 Provide local exhaust ventilation to prevent harmful accumulation of hazardous substances into atmosphere of occupied areas.
 - .3 Dispose of exhaust materials in manner that will not result in harmful exposure to persons.
 - .4 Ventilate storage spaces containing hazardous or volatile materials.
 - .5 Continue operation of ventilation and exhaust system for time after cessation of work process to assure removal of harmful elements.
 - .6 Maintain strict supervision of operation of temporary heating and ventilating equipment.
 - .1 Enforce conformance with applicable codes and standards.
 - .2 Enforce safe practices.
 - .3 Prevent abuse of services.

- .4 Prevent damage to finishes.
- .5 Vent direct-fired combustion units to outside.
- .7 Permanent heating systems may be used on the written approval of the City, the mechanical engineer, and the Consultant, and provided provisions relating to guarantee, operation, and maintenance are satisfactory to the City and the Consultant. Be responsible for damage thereto.
- .8 Activate permanent heating system under direction of the mechanical engineer to provide temporary heat after taking precautions to assure proper operation of system.
- .9 Protect duct system with filters, replace as necessary. Finally, vacuum clean entire duct system and renew filters.
- .10 Security: Ensure equipment material and construction on site are protected from theft and vandalism. Provide site security to ensure no delay in the completion of the work, and no additional costs are incurred by the City as a result of such theft or vandalism.
- .11 Scaffolding:
 - .1 Provide scaffolding for access to the Work as required and specified by the Contract Documents to complete the Work.
 - .2 Construct and maintain scaffolding in rigid secure and safe manner independent of wall and in accordance with applicable legislation and requirements of authorities having jurisdiction.
- .12 Sanitary Facilities
 - .1 The Contractor is to provide temporary sanitary facilities for workers in accordance with local health authorities.
 - .2 Maintain in clean condition.
- .13 Water Supply
 - .1 A continuous supply of potable water for construction use will be permitted to be drawn from the existing facility. In doing so the General Contractor shall ensure that level of service and water pressure to the existing facility, which will continue to operate during the Construction Phase, will not be altered in any way. All costs to connect a temporary water supply for the Construction Zone are the responsibility of the Contractor.
- .14 Temporary Heating
 - .1 Provide temporary heating required during construction period, including attendance, maintenance and fuel.
 - .2 The Contractor shall provide temporary heating during the construction period to

provide a properly heated interior environment as required by technical standards for various installations and applications. The General Contractor shall not use the existing facility natural gas service during the construction period. The General Contractor shall arrange for separate heating requirements for the Construction of the new addition. No open flame appliances shall be used to the interior of the Construction Zone. The central fuel used for temporary heating, shall be distributed internally only through a hydronic heating system. All costs related to temporary heating supply for the Construction Zone is the responsibility of the General Contractor.

- .3 Construction heaters used inside building must be vented to outside and shall not be of an open flame type. Solid fuel salamanders are not permitted.
- .4 Maintain temperatures of minimum 10⁰C in areas where construction is in progress, unless indicated otherwise in specifications.
- .5 Ventilate heated areas and keep building free of exhaust or combustion gases.
- .6 Heating for the Construction Zone shall not utilize existing electrical supply from the existing facility.
- .15 Temporary Power
 - .1 Provide temporary power required during the construction period for temporary lighting and operating of power tools, voltage to suit equipment needs.
 - .2 The Contractor shall not use the Hydro service from the existing building during the construction period. The General Contractor shall make arrangements to install temporary power required during the construction period. All costs related to temporary power supply for the Construction Zone is the responsibility of the Contractor.
- .16 Temporary Telephone / Fax
 - .1 Provide and pay for temporary telephones and facsimile machines necessary for own use and use of Consultant and Owner.
- .17 Related Sections: “01 50 00 Temporary Facilities and Controls

20 Project Cleanliness

- .1 Remove waste materials and debris from the site at the end of each day. Do not burn waste materials on site.
- .2 Dispose of rubbish and surplus material off site. Except is expressly stated otherwise, materials indicated for removal become the Contractor's property and shall be taken from the site. Dispose of rubbish and waste in accordance with governing regulations.
- .3 Do not dispose of volatile or corrosive materials in sewers and drains.

- .4 Ensure site is clean, orderly and neat.
- .5 At the end of the project, vacuum clean contract area, remove dirt and other disfigurations from surfaces.
- .6 Refer to Section 01355 Waste Management and Disposal

21 Existing Services

- .1 Before commencing Work, establish location and extent of service lines in area of Work and notify the Consultant of findings. Coordinate with all applicable utilities as required.
- .2 Submit schedule to and obtain approval from Director for any shut-down or closure of active service or facility. Adhere to approved schedule and provide notice to affected parties.
- .3 Where unknown services are encountered, immediately advise Director and confirm findings in writing.
- .4 Record locations of maintained, re-routed and abandoned service lines.

22 Telephone Communication and Security Devices Conduit Installations

- .1 In areas with suspended ceiling, the contractor shall install conduit for Voice and IT cabling from each recessed wall box to 150 above ceiling. The conduit shall be complete with polypropylene pull string. Voice and IT cable installation by others. Refer to drawings for specific instructions and locations. Conduits to terminate in room specified in drawings as required. Refer to drawings

23 Details & Measurements

- .1 Check and verify all dimensions wherever referring to Work. Verify all dimensions when pertaining to the work of other trades with the subcontractor concerned. Check dimensions and the actual material to be used on the Work with the various drawings and details prior to commencement of the Work and report any variations to the Consultant for adjustment if necessary.
- .2 In the event that revised drawings are used after the commencement of the Work, superseded drawings are to be removed from the site. The Contractor is responsible to maintain current documentation on site.
- .3 It shall be understood that wall thickness shown on the drawings may be nominal only, and the actual sizes shall, in all cases, be ascertained at the Work.
- .4 Each Subcontractor shall verify the dimensions of all shop fabricated portions of the Work on the site before commencing shop drawings and fabrication.
- .5 Each Sub-Contractor shall fabricate all items fitting to structural parts from measurements taken on the Work or verified and be fully responsible for co-ordination of this respect.

24 Location of Equipments and Fixtures

- .1 Location of equipments, fixtures and outlets indicated or specified are to be considered as approximate. Where conflicts are found in the drawings of various disciplines, request clarification from the Consultant prior to installation.
- .2 Location of equipments, 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 his approval for actual location.
- .4 Submit field drawings to indicate relative positions of various services and equipments when required by Consultant.
- .5 Conceal all pipes, ducts, conduits and wiring in floor, wall and ceiling construction of finished areas except where indicated otherwise. No exposed services are permitted without approval of Consultant.

25 Public and Private Utilities and Services

- .1 Verify limitations imposed on project work by presence of existing utilities and services, and ensure no damage occurs to them. Contact all utilities to determine extent of utilities on site, and have utilities mark out locations of all their underground services. Utilities shown on the site plan are not necessarily a complete record of utilities on site nor are they necessarily an accurate record of their location.
- .2 Notify service authorities concerned so that they protect, remove, relocate, or disconnect them as they may require.
- .3 Make arrangements and pay for connection charges for services required for project work.
- .4 Where unknown services are encountered, immediately advise Consultant and confirm findings in writing.
- .5 Make arrangements to protect personnel and equipment from danger from utilities and services.

26 Cutting, Fitting and Patching

- .1 Submit written request in advance of cutting or alteration which affects:
 - .1 Structural integrity of any element of Project.
 - .2 Integrity of weather-exposed or moisture-resistant elements.
 - .3 Efficiency, maintenance, or safety of any operational element.
 - .4 Visual qualities of sight-exposed elements.

- .5 Work of City or separate contractor.
- .2 Inspection:
 - .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.
- .3 Execution:
 - .1 Perform cutting, fitting, and patching including excavation and fill, to complete the Work.
 - .2 Remove and replace defective and non-conforming Work.
 - .3 Provide openings in non-structural elements of Work for penetrations of mechanical and electrical work.
 - .4 Perform work to avoid damage to other work.
 - .5 Prepare proper surfaces to receive patching and finishing.
 - .6 Employ original installer to perform cutting and patching for weather-exposed and moisture-resistant elements, and sight-exposed surfaces.
 - .7 Cut rigid materials using power saw or core drill. Make cuts with clean, true, smooth edges. Pneumatic or impact tools not allowed.
 - .8 Restore work with new products in accordance with Contract Documents. Make patches inconspicuous in final assembly.
 - .9 Fit work airtight to pipes, sleeves, ducts, conduit, and other penetrations through surfaces.
 - .10 At penetration of fire-rated wall, ceiling, or floor construction, completely seal voids with fire-rated material, full thickness of construction element. Refer to Section 07 84 00 "Fire Stopping".
 - .11 Refinish surfaces to match adjacent finishes; for continuous surfaces refinish to nearest intersection; for an assembly, refinish entire unit.
- .4 All cutting, fitting and patching including that required by Division 11, 13, 15 and 16 shall be carried out by the Contractor. The Contractor shall coordinate the requirements of all subcontractors.

27 Supervision

- .1 The overall superintendence of the Project, ensuring the complete performance of all subcontractors and suppliers, is the responsibility of the Contractor. A fully competent site Superintendent acceptable to Consultant shall be in charge and in attendance of the work at all times throughout the Contract. The superintendent shall study the drawings and specifications and all other related documents in detail and be completely familiar with the project in total. Once conversant with the documents, they shall relate them to the existing conditions. **Any errors or discrepancies in dimensions, details, etc., in the drawings and specifications or their relationship to the existing conditions shall be reported to the Consultant for clarification and or correction prior to beginning of the Work. Allow the Consultant a reasonable time for clarification or correction as required. Should such discrepancies not be brought to the Consultant's attention, and the Contractor proceeds to perform Work, which may be deemed to be additional to the Contract Price, the Contractor shall be responsible for any additional costs incurred to correct the Work not authorized by the Consultant and the City in advance.**
- .2 Ensure that all necessary job dimensions are taken and all trades are coordinated for the proper execution of the Work. Assume complete responsibility for the accuracy and completeness of such dimensions and for coordination.
- .3 Verify that all the work, as it proceeds, is executed in accordance with dimensions and positions indicated, which maintain levels and clearances to adjacent work as set out by the requirements of the drawings and specifications. Ensure that work installed in error is rectified before any other construction continues.
- .4 The site superintendent must be on site full time from the start of the project until completion of the deficiencies. The superintendent may not be changed except because of death or severe illness.

28 Inspections, Tests and Approvals

- .1 At least forty eight (48) hours notice shall be given to the Consultant in order that all inspections and tests called for, from time to time, by the specifications may be implemented. Failure to give such notices will result in complete redoing the work if deemed necessary by the Consultant. No work shall be covered-up and or concealed until inspection and written approval is obtained from the Consultant and/or Inspector.

29 Quality Control

- .1 Inspection:
 - .1 City and Consultant shall have access to the Work.
 - .2 Give timely notice requesting inspection if Work is designated for special tests, inspections or approvals by Consultant instructions, or law of Place of the Work.
 - .3 If Contractor (including it's sub-contractors) 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 at Contractors expense.

.2 Independent Inspection Agencies:

- .1 Independent Inspection/Testing Agencies will be engaged by the City for purpose of inspecting and/or testing portions of Work. Cost of such services will be paid directly by the City of Ottawa.
- .2 Provide equipment required for executing inspection and testing by appointed agencies.
- .3 Cost of reinspection of unacceptable work to be borne by Contractor.

.3 Reports:

- .1 Testing company will promptly issue test reports simultaneously and directly to Contractor (1 copy), City (1 copy), Consultant (1 copy), Engineer (1 copy), and City Inspection Branch (1 copy).

30 Contractual Responsibility

- .1 Review of construction by the Consultant and inspection and testing by an independent Inspection and Testing Agency, are precautions against oversight or error. They do not relieve the Contractor of his contractual responsibilities. Review, inspection, and testing, are based on representative samples of the work and do not relieve the Contractor from the responsibility to carry out his own quality control and for completing all Work in accordance with the Contract Documents.

31 Inspection and Testing by the City

- .1 Refer to 01 45 00 “Quality Control” for Quality Control, Inspection, Testing and Report Procedures and Requirements
- .2 The Contractor shall include inspection and testing requirements in the Construction Schedule including regular monthly updates. The Contractor shall coordinate with the Inspection and Testing Consultant retained by the City for scheduling and notification as required in Section 01400 “Quality Control”.
- .3 As a minimum testing will be done by the City in the following areas:
 - .1 Subgrade and footing base evaluation including acceptance of bearing substrate
 - .2 In-place density testing (compaction testing) on subgrade material, pipe bedding, cover and backfill material, on roadway granular base, sub-base and asphalt concrete.
 - .3 Field and laboratory testing of concrete..
 - .4 4 Field and laboratory testing of masonry mortar and grout

- .5 Supervision of asphalt placement and sampling.
- .6 Structural steel welding, torque and plumpness inspection.
- .7 Roofing inspection including vapour barrier, and insulation
- .8 Waterproofing, including continuous air and vapour barrier
- .9 Ice slab flatness testing

32 Recycling

- .1 Follow the instructions as stated in Section 01355 Waste Management and Disposal.

33 Relics and Antiquities

- .1 Relics and Antiquities and items of historical or scientific interest such as cornerstones and contents, commemorative plaques, inscribed tablets and similar objects on Site and or findings in and or on Site shall remain the property of the City of Ottawa and must be immediately reported to the Director. Protect all such articles and request and request directives from the Director.
- .2 Give immediate notice to Consultant if evidence of archaeological finds are encountered during construction, and await Consultant's written instructions before proceeding with the Work in this Section.

34 Progress Reports

- .1 Contractor shall prepare daily reports of his operations. Daily report shall contain at least the following information:
 - .1 Weather conditions.
 - .2 Manpower on the job in each trade.
 - .3 Major items of equipment on the job.
 - .4 A brief summary of work accomplished that day.
 - .5 Materials, equipment, or owner-furnished items arriving or leaving site.
 - .6 Inspection reports.
 - .7 Significant events.
 - .8 Any tests made and their final results, if known.
 - .9 Any oral instructions received.
 - .10 Visitors to the job.

- .2 Contractor shall maintain a file of copies of all daily reports on the site and provide a complete copy of all such reports to the Consultant or City upon request.

35 Material and Equipment

- .1 Product and Material 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, will be rejected regardless of previous review. Review 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 rejections.
 - .3 Should any dispute arise as to quality or fitness of products, decision rests strictly with the Consultant based upon requirements of Contract Documents.
 - .4 Products:
 - .1 Products which are specified by their proprietary names or by part or catalogue number form the basis of this contract. The Bid shall be based only on named products or any approved alternates named by Addenda.
 - .2 Substitutes to these will only be considered for a credit or if manufacturer states in writing that the specified material cannot be delivered to meet the schedule. The Contractor shall determine at the beginning of the project the order times required for delivery of the specified products and include this time within the submittal schedule. Failure to carry out this activity or to order the material in time shall not be a reason to permit substitution.
 - .3 Requests for proposed substitutions must be made in accordance with Paragraph 16 of this Section prior to ordering any alternate materials. The Consultant and the City reserve the right to reject such materials so ordered.
- .2 Inserts, Anchors and Fasteners
 - .1 Use only factory made, threaded or toggle type inserts as required for supports and anchors, properly sized for load to be carried. Place inserts only in members of main structure and not in any finishing material.
 - .2 Where inserts cannot be placed use factory made expansion shields for lightweights only.
 - .3 Supply and locate all inserts, holes, anchor bolts and sleeves in time when walls, floors and roofs are erected.

- .4 Fasteners stressed in withdrawal are not acceptable, except where otherwise specifically shown.
 - .5 Ensure that metal fastenings are of same material as metal components being anchored or of a metal which will not set up a galvanic action causing damage to the fastening or metal component under moist conditions.
 - .6 Fastenings for prefinished materials shall be of concealed type unless otherwise indicated.
 - .7 Ensure that metal fastenings and accessories are of same texture, colour and finish as material on which they occur.
- .3 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 seals and labels intact.
 - .3 Store Products subject to damage from weather in weatherproof enclosures.
- .4 Concealment
- .1 In finished areas, conceal pipes, ducts and wiring in floors, walls and ceiling, except where indicated otherwise.
 - .2 Before installation, inform Consultant if there is a contradictory situation. Install as directed by the Consultant.
 - .3 Failure to carry out .2 will require Contractor to relocate the services as required at no cost to the Owner.
- .5 Coordination: Relocate equipment and/or material installed but not coordinated with work of other Sections as directed, at no additional cost.
- .6 Manufacturer's Instructions
- .1 Unless otherwise indicated in specifications, install or erect Products in accordance the manufacturer's printed instructions. Do not rely on labels or enclosures provided with Products. Obtain written instructions directly from manufacturers.
 - .2 Obtain current copies of these and make available on site. Review with respective sub-trades well in advance of the start of the work of all Sections.
 - .3 Notify Consultant in writing, of conflicts between specifications and manufacturer's instructions, so that Consultant may establish proper course of action.

- .4 Improper installation or erection of Products, due to failure in complying with these requirements, authorizes Consultant to require removal and reinstallation at no increase in Contract Price.

36 Project Close-out

- .1 Refer to Section 01780 Closeout Submittals.

37 Occupancy Permit

- .1 Prior to declaration of Substantial Performance of Work obtain and submit to the Director an Occupancy Permit from the Building Construction Permit Department of the City of Ottawa for the Work.
- .2 Provide certificates of acceptance from the concerned authorities for all the fire alarm systems, sprinklers, emergency lights, power systems, fire separation assemblies and closures, as well as other items required by the authorities having jurisdiction on the related fields. Fire alarm system to be fully tested and operational three weeks prior to scheduled occupancy.

38 Year End Warranty Inspection

- .1 The City, the Contractor and the Consultants at the end of the first year, and prior to the anniversary of substantial performance of the Project will conduct a review of the buildings and record deficiencies that have occurred for correction by the Contractor.

39 Construction Facilities and Services

- .1 No Smoking Policy: No smoking is permitted within the new construction and within the exterior hoarding of the Construction Zone. The City of Ottawa no-smoking By-law does not permit any smoking on City property. Smoking is only permitted on a public sidewalk at street outside of City Property.

40 Temporary or Trial Usage

- .1 Temporary or trial usage shall not be construed as evidence of acceptance of same and no claim for damage shall be made for injury to or breaking of any part of such work which may be so used.

41 Future Connections

- .1 In every place where there is indicated space reserved for future or other equipment, leave such space clear, and install piping and other work so that necessary installation and connections can be made for any such apparatus. Obtain instructions whenever necessary for this purpose.

42 Air Barrier

- .1 It is critical that the air barrier system be continuous in all locations.

- .2 Plan and coordinate construction sequence to ensure that a continuous effective air barrier system is constructed.
- .3 Arrange all coordination sessions as required with Consultant and all applicable trades.
- .4 Where requested by Consultant provide mock-ups of areas of the work. This will be requested in area where two or more trades are required to coordinate their work in order to provide an effective continuous air barrier.
- .5 Assign supply and installation of membranes to sub-trades or own forces as required to ensure continuous effective air barrier.

43 Traffic Regulations

- .1 Where work impacts streets and public rights of way, carry out notification, controls and procedures in accordance with requirements of municipal and other applicable regulations.

END OF SECTION

1.1 Contractor's Responsibilities

- .1 Ensure that Work erected is in compliance with Contract Documents. Be responsible for any delays or costs resulting from failure to inspect or coordinate, and for any replacement or corrective Work required.

1.2 Identification of Systems

- .1 Ensure that Identification of electrical and mechanical system installations and other automated systems or equipment is provided in compliance with Contract Documents.

1.3 Commissioning

- .1 Ensure that testing, adjusting, balancing and certification and commissioning of mechanical and electrical installations and other automated systems or equipment are executed in compliance with the Contract Documents.

1.4 Systems Demonstrations

- .1 Ensure that the Owner's representatives are adequately instructed in all aspects of operation and maintenance of mechanical and electrical installations and other automated systems or equipment, in compliance with Contract Documents.

1.5 Superintendence

- .1 Provide at Site at all times while Work is being performed, qualified personnel and supporting staff with proven experience in erecting, supervising, testing and adjusting projects of comparable nature and complexity.
- .2 The site superintendent shall be full time on site with overall authority to speak for Contractor and represent Contractor.
- .3 The superintendent shall be on site from start up to completion of all deficiencies. The superintendent may not be changed except through death or disability.

1.6 Cooperation

- .1 Take field dimensions relative to Work. Fabricate and erect Work to suit field dimensions and field conditions in an acceptable manner.
- .2 Provide all forms, templates, anchors, sleeves, inserts and accessories required to be fixed to or inserted in the Work and set in place or instruct separate Sections as to their location.
- .3 Supply all items to be built in, as and when required together with templates, measurements, shop drawings and other related information and assistance.
- .4 Pay the cost of extra Work and make up the time lost as the result of failure to provide necessary information and items to be built in, in adequate time.

1.7 Coordination

- .1 Subcontractors shall cooperate with each other to ensure that Work will be carried out expeditiously and will be satisfactory in all respects at completion.
- .2 Subcontractors shall examine Contract Documents with particular emphasis to Work of other Subcontractors which may affect performance of their own Work.
- .3 Regularly examine the Site Work of Subcontractors and report any defects or deficiencies.
- .4 Subcontractors shall cooperate with other Subcontractors whose Work attaches to or is affected by their own Work, and ensure that minor adjustments are performed to allow adjustable Work to fit with fixed Work.
- .5 Ensure that Subcontractors requiring foundations or openings to be left for installation of their Work furnish necessary information to Subcontractors concerned in ample time so that proper provision can be made.
- .6 Ensure that items to be built in are supplied as and when required by Subcontractors building in the items together with templates, measurements or shop drawings and other related information and assistance.
- .7 Ensure that equipment and/or material installed but not coordinated with the Work of other Subcontractors is relocated as directed by Consultant, without increasing contract price.
- .8 Ensure each Subcontractor maintains its own quality assurance program.
- .9 It is important to be aware that services have been detailed and laid out to preserve ceiling heights. The principles of the distribution are shown on the mechanical and electrical drawings. In certain areas services run through the structure. Coordinate the placement of these openings with affected subtrades. The interference and coordination drawings referred to in Section 01 04 00, 1.10 must be completed before start of the fieldwork.

1.8 Cutting and Remedial Work

- .1 Where they are not doing the work with their own forces, subcontractors shall inform other trades in time to provide holes and openings, or failing to do so, bear the cost of all cutting and remedial Work.
- .2 Ensure that holes through walls, floors and roof are provided and are complete with sleeves, packing insulation, firestopping and sealant as required for each particular condition.

- 3 See further requirements under “Cutting, Fitting and Patching” of Section 01 00 50, General Instructions, Paragraph 26

1.9 Building Dimension and Coordination

- 1 Ensure that all necessary job dimensions are taken and all trades are coordinated for the proper execution of the Work. Assume complete responsibility for the accuracy and completeness of such dimensions, and for coordination.
- .2 Verify that all Work, as it proceeds, is executed in accordance with dimensions and positions indicated which maintain levels and clearances to adjacent Work, as set out by requirements of the Drawings, and ensure that Work installed in error is rectified before construction resumes.
- .3 Check and verify all dimensions referring to the Work and the interfacing of all services. Verify with the trade concerned all dimensions, when pertaining to the Work of other trades. Be responsible to see that Subcontractors for various trades cooperate for the proper performance of the Work.
- .4 Do not scale directly from the Drawings. If there is ambiguity or lack of information, immediately inform the Consultant. Any change through the disregarding of this clause shall be the responsibility of the Contractor.
- .5 Site measure for all details and measurements of any Work which is to fit or to conform with Work previously installed.
- .6 Advise Consultant of discrepancies and omissions on Drawings, particularly reflected ceiling plans and jointing patterns for surface finishes, which affect aesthetics, or which interfere with services, equipment or surfaces. Do not proceed with Work affected by such items without direction from the Consultant.
- .7 Ensure that each subcontractor communicates requirements for site conditions and surfaces necessary for the execution of the subcontractor’s Work and that he provides setting drawings, templates and all other information necessary for the location and installation of material, holes, sleeves, inserts, anchors, accessories, fastenings, connections and access panels. Inform other Subcontractors whose Work is affected by these requirements and preparatory Work.
- .8 Ensure that other Subcontractors are assisted in the execution of required preparatory Work by Subcontractors whose own Work is dependent on this preparatory Work.
- .9 Prepare interference drawings to properly coordinate the work where necessary.

1.10 Coordination and Interference Drawings

- .1 Coordinate placement of equipment to ensure that all components will be properly accommodated within the spaces provided prior to commencement of work.
- .2 Take complete responsibility for any remedial work that results from failure to coordinate any aspect of the Work prior to its fabrication/installation.

- .3 Ensure that accesses and clearances required by jurisdictional authorities and/or for easy maintenance of equipment are provided in the layout of equipment and services.
- .4 Interference drawings shall be prepared by the contractor before any orders for equipment and/or materials are released to suppliers in all cases where there is any uncertainty regarding means and methods of properly accommodating required elements of the Work. Pay costs for this work and issue such drawings for review to all parties involved in the installation work.
- .5 Prepare interference drawings to properly coordinate the work.
- .6 Interference drawings shall contain requirements of Divisions 11 and 15, for Mechanical Specification, **Section 21 05 01 Common Work Results for Mechanical**; and Electrical Specification, Divisions 13 and 16, for Electrical Specification, **Section 26 05 00 Common Work Results for Electrical**.
- .7 Drawings shall contain information based on actual shop drawings.
- .8 Show ducts as two lines. Show cross sections in key areas (as defined by Consultant).
 - .1 This section does not relieve Mechanical Specifications in Divisions 11 and 15; and Electrical Specifications in 13 and 16 of providing interference drawings called for in their specifications.
 - .2 Mechanical Specifications in Divisions 11 and 15 and Electrical Specification in Divisions 13 and 16 are also to provide any information required by 01 04 00 which is specific to their trade.
 - .3 Section 01 04 00 is to assemble and co-ordinate information provided by Mechanical Specifications in Divisions 11 and 15 and Electrical Specifications in Divisions 13 and 16
 - .4 Mechanical Specifications in Divisions 11 and 15; and Electrical Specifications in Divisions 13 and 16, are to provide drawings on as PDF or in AutoCAD to allow overlays to be assembled by Section 01 04 00.
 - .5 Section 01 04 00 is to establish scales to allow coordination of Mechanical Specifications in Divisions 11 and 15; and Electrical Specifications in Divisions 13 and 16, information.

1.11 Sleeve Drawings

- .1 Prepare sleeve drawings. Show all openings through poured concrete floors and structural elements and through structural steel beams, columns, bracing and decks.
- .2 Prepare large-scale detail plans of key areas. Indicate reinforcing. Comply with structural details provided for service openings through structural components.
- .3 Schedule drawings to allow time for consultant's review and any required revisions. Refer to Section 01 00 50 for minimum time requirements.

END OF SECTION

Part 1 General

1.1 GENERAL

- .1 Safety in the Contractor's area of Work is the sole responsibility of the Contractor. The Contractor shall determine and carry out all policies, practices and Work required to comply with all applicable health and safety requirements within the area of Work. Area of Work is any area where construction activity occurs. The Contractor shall also carry out all policies, practices and procedures and Work required to protect health and safety of the public and City of Ottawa employees in area adjacent to the area of Work. The following is provided to assist the Contractor in planning and carrying out appropriate safety measures. It is not a complete list of the applicable requirements.

1.2 SCOPE

- .1 The City of Ottawa is committed to ensuring a clean and safe environment for its employees and for the employees of the construction companies that build the infrastructure that makes Ottawa a great place to live, to work and to play. The requirements outlined in this section are provided to ensure that the principals, owners, and management of the companies who have won tenders with the City accept this commitment completely.

1.3 RELATED WORK

- .1 Part 19 Construction Facilities and Temporary Controls - Section 01 00 50
- .2 City of Ottawa Fire Safety Requirements – Section 01 70 60.
- .3 Submittal Procedures - Section 01330

1.4 REFERENCES

- .1 CSA S269.1-1975 Falsework for Construction Purposes.
- .2 CAN/CSA-S269.2-M87 Access Scaffolding for Construction Purposes.
- .3 FCC No. 301-1982 Standard for Construction Operations.
- .4 Ontario Occupational Health and Safety Act–R.S.O. 2012, Reg. 851 Online at <http://www.e-laws.gov.on.ca>.
- .5 Construction Safety Association of Ontario B026 – Joint Health and Safety Committee
The purpose of these guidelines is to provide a simplified, concise, consistent, and enforceable procedure for implementing that portion of the Occupational Health and Safety Act R.S.O. 2012 that deals exclusively with the Joint Health and Safety Committee throughout Ontario.
- .6 Construction Safety Association of Ontario B030 – Emergency Response Planning for Construction Projects.

http://www.csa.org/images/pfiles/278_EmergencyResponsePlanning.pdf Advice on how to develop Emergency Response Procedures for construction projects.

- .7 Construction Safety Association of Ontario B037 – Contractor's Guide: Effective Health and Safety Programs. A comprehensive guide geared to mid- to large-sized contractors for developing and implementing an effective health and safety program.
- .8 “Health and Safety Program Planning for Construction”, Construction Safety Association of Ontario, document (DS 030), ISBN 0-919465-60-9 Online at http://www.csa.org/images/pfiles/38_DS030.pdf.

1.5 GUIDANCE

- .1 Ministry Of Labour, Construction Safety Association of Ontario, Electrical Safety Authority of Ontario, Industrial Accident Prevention Association.

1.6 CONSTRUCTION

- .1 Safety Measures
 - .1 Observe construction safety measures of National Building Code 1990 Part 8, Provincial Government, Workplace Safety and Insurance Board and municipal authority provided that in any case of conflict or discrepancy more stringent requirements shall apply.
 - .2 Comply with requirements of FCC No. 301.

1.7 OVERLOADING

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

1.8 FALSEWORK

- .1 Design and construct falsework in accordance with CSA S269.1.

1.9 SCAFFOLDING

- .1 Design and construct scaffolding in accordance with CSA S269.2.

1.10 WHMIS

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labeling and provision of material safety data sheets as required by applicable legislation such as the Occupational Health and Safety Act.
- .2 Deliver copies of WHMIS data sheets to Owner’s representative on delivery of materials.

Part 2 Products

2.1 GENERAL

- .1 In general, all work must comply with applicable health and safety legislation, including the Ontario Occupational Health and Safety Act (OHSA) R.S.O. 2012, c.0.1, Ontario Regulation 213/91 (which regulates Construction Projects) and any other regulation under the OHSA that may affect the performance of the Work.
- .2 The Contractor shall acknowledge their role as Constructor, and take complete control of all works to ensure conformity with the Contract Documents. The Contractor shall be responsible for construction means, methods, techniques, sequences, and procedures and for coordinating the various parts of the Works.

2.2 PROJECT HEALTH AND SAFETY PLAN

- .1 The Contractor will be required to prepare and submit to the Project Manager representing the City a Project Health and Safety Plan, herein PHSP, prior to the commencement of any works and within 2 weeks of receipt of Purchase Order. The PHSP must contain, as a minimum, the information as outlined in Section 3.0 Preparation and Submission of Site Health and Safety Plan.
- .2 The Contractor shall provide to the City of Ottawa through the Project Manager a copy of all notices or other written correspondence provided to or received by the Ontario Ministry of Labour, for the duration of the contract. The security of the project site is the responsibility of the General Contractor. He is responsible to maintain security of the site at all times. No one is to be admitted to the site without proper attire and training to perform the task required.
- .3 Prevent unauthorized access to site.
- .4 Provide security hoarding around entire site.

2.3 ADEQUATE TRAINING

- .1 It is the responsibility of the Contractor to ensure that all necessary training has been provided prior to commencement of the Work.

Part 3 Execution

3.1 PREPARATION AND SUBMISSION OF SITE

- .1 Health and Safety Plan
 - .1 The PHSP shall as a minimum contain the following information
 - .1 Introduction:
 - .1 Scope of work, purpose of plan

- .2 Name and address of Contractor and senior supervisory personnel and company officers
 - .3 Identification of applicable legislation
 - .4 Contractors Health and Safety Policy Statement
- .2 Organizational Detail:
- .1 Acknowledgement of Contractor as Constructor and City as Owner.
 - .2 Hierarchy of authority including Constructor through to sub contractors and other persons.
 - .3 Identifying Competent Supervisory Personnel and JHSC Representatives.
 - .4 Telephone numbers or other contact mechanisms.
- .3 Identifying a comprehensive work plan which:
- .1 Identifies the required work tasks and activities necessary to fulfill the contract.
 - .2 Identifies and assesses hazards that may arise when performing required tasks.
 - .3 Identifies the method of Hazard Control to be implemented for recognized hazards. (i.e. Engineering controls, administrative (such as work methods, procedures) and Personal Protective Equipment controls, etc.).
 - .4 Identifies the resources required to complete such tasks and activities safely.
- .4 The following items have been identified as hazards/risks that will form a part of the works. (This list should not be taken as inclusive but should serve as a starting point for the completion of section .3 above.):
- .1 Traffic management plan and public way protection.
 - .2 Site access control.
 - .3 Noise and odour control.
 - .4 Excavation.
 - .5 Working at heights/falls.
 - .6 Scaffolding.
 - .7 Falsework and formwork.
 - .8 Hot work.

- .9 Cranes, hoisting.
- .10 Other heavy equipment use.
- .5 Hazard Reporting and Accident Investigation:
 - .1 Identify hazard-reporting procedure.
 - .2 Identify accident investigation procedure and reporting process to the Project Manager of the City of Ottawa.
- .6 Orientation and Training Requirements:
 - .1 Identify hazards and PHSP communication protocol for on site staff, visitors or other affected parties.
 - .2 Identify means of accomplishing legislative training requirements.
 - .3 Identify methods of ongoing site training, hazard communication strategies. (Safety Talks, On-site training, etc.).
 - .4 Identify means of accomplishing legislative posting requirements. (OHS Policy, MOL Orders, NOP, JHSC members, etc.).
- .7 Monitoring and Administering Program:
 - .1 Identify means of enforcement and progressive discipline for non-compliance.
 - .2 Identify procedure for changes, modification or amendments to PHSP.
- .8 Emergency procedures for site personnel:
 - .1 Identify Site security and control.
 - .2 Identify Evacuation and safe refuge procedures.
 - .3 Identify means of providing first aid and medical treatment.
 - .4 Identify suitable means of communication for on site staff with supervisors and off-site emergency response providers (Police, Fire, Ambulance).
 - .5 Identify means of emergency response training for affected parties.
 - .6 Identify Emergency Response procedures for site specific hazards, such as:
 - .1 Confined space entry.
 - .2 Working at heights/ fall protection and retrieval.
 - .3 Fire.

- .4 Gas leak.
- .5 Contaminant Spill.
- .9 The City of Ottawa through the Project Manager will accept the PHSP, and review it to identify any errors, omissions, or improvements that the City staff is aware of. The acceptance and review of the PHSP by the City will make no representation and/or warranty that the document is accurate, complete, or compliant with all applicable legislation. Any error or omissions within the PHSP will remain the sole responsibility of the contractor. The contract shall not commence, until the City has reviewed the PHSP to the satisfaction of the City's Project Manager has addressed all comments.
- .10 The Contractor will be required to periodically review and modify the PHSP if errors or omissions are identified, or because of any new hazards identified and not previously addressed within the document.
- .11 The Project Manager for the City of Ottawa reserves the right to conduct periodic inspections to ensure that the PHSP is carried out.
- .12 The contractor shall be notified by written Notice of Default, by the Project Manager or his representative, if the works are deemed to be non-compliant with applicable legislation. The contractor shall immediately repair, replace or otherwise make good the practice deemed unsafe or non-compliant.
- .13 Should the contractor disagree, the Ministry of Labour will be consulted to provide clarification of the observed deficiency.

3.1 ADDITIONAL COSTS

- .1 All costs required to perform the necessary Health & Safety issues noted here and elsewhere shall be included in the Base Bid Price. No Extras shall be deemed acceptable.

END OF SECTION

Part 1 General

1.1 GENERAL

- .1 Determining and carrying out fire safety requirements to requirements of applicable legislation remains the sole responsibility of the Contractor. The notes below are to supplement requirements determined by the Contractor. They are not a complete list of requirements.

1.2 FIRE DEPARTMENT BRIEFING

- .1 Owner's Representative will coordinate arrangements for contractor to be briefed on Fire Safety at their pre-work conference by City of Ottawa Fire Department Designated Representative before any work is commenced.

1.3 REPORTING FIRES

- .1 Know location of nearest fire alarm box and telephone, including emergency phone number.
- .2 Report immediately all fire incidents to Fire Department as follows:
 - .1 activate nearest fire alarm box; or
 - .2 telephone.
- .3 Person activating fire alarm box will remain at box to direct Fire Department to scene of fire.
- .4 When reporting fire by telephone, give location of fire, name or number of building and be prepared to verify the location.

1.4 INTERIOR AND EXTERIOR FIRE PROTECTION AND ALARM SYSTEMS

- .1 Fire protection and alarm system will not be:
 - .1 obstructed;
 - .2 shut-off; and
 - .3 left inactive at end of working day or shift without authorization from City of Ottawa Fire Department Designated Representative.
- .2 Fire hydrants, standpipes and hose systems will not be used for other than fire-fighting purposes unless authorized by City of Ottawa Fire Department Designated Representative.

1.5 FIRE EXTINGUISHERS

- .1 Supply fire extinguishers, as scaled by City of Ottawa Fire Department Designated Representative, necessary to protect work in progress and contractor's physical plant on site.

1.6 INSTALLATION AND/OR REPAIR OF ROOF TO INCLUDE CONTRACTORS PHYSICAL PLANT AT SITE

- .1 Notify City of Ottawa Fire Department Designated Representative of location of any asphalt kettles and dates that kettles will be in use. Ensure personnel use and take precautions as follows:
 - .1 Use kettles equipped with thermometers or gauges in good working order.
 - .2 Locate kettles in safe place outside of building or, if approved by City of Ottawa Fire Department Designated Representative, on non-combustible roof. Locate to avoid danger of igniting combustible material below.
 - .3 Maintain continuous supervision while kettles are in operation and provide metal covers for kettles to smother any flames in case of fire. Fire extinguishers shall be provided as required in 1.4.
 - .4 Prior to start of Work, demonstrate container capacities to City of Ottawa Fire Department Designated Representative.
 - .5 Use only glass fibre roofing mops.
 - .6 Used roofing mops will not be left unattended on roof and shall be stored away from building and combustible materials.
 - .7 All roofing materials will be stored in location no closer than 3 m to any structures.

1.7 BLOCKAGE OF ROADWAYS

- .1 Advise City of Ottawa Fire Department Designated Representative of any work that would impede fire apparatus response. This includes violation of minimum overhead clearance, as prescribed by City of Ottawa Fire Department Designated Representative, erecting of barricades and digging of trenches.

1.8 SMOKING PRECAUTIONS

- .1 Observe smoking regulations at all times.

1.9 RUBBISH AND WASTE MATERIALS

- .1 Rubbish and waste materials are to be kept to a minimum.

- .2 Burning of rubbish is prohibited.
- .3 Removal:
 - .1 Remove all rubbish from work site into bins at end of workday or shift or as directed.
- .4 Storage:
 - .1 Store oily waste in approved receptacles to ensure maximum cleanliness and safety.
 - .2 Deposit greasy or oily rags and materials subject to spontaneous combustion in approved receptacles and remove as required in 1.8.3.1.

1.10 FLAMMABLE AND COMBUSTIBLE LIQUIDS

- .1 Handling, storage and use of flammable and combustible liquids are to be governed by applicable legislation.
- .2 Flammable and combustible liquids such as gasoline, kerosene and naphtha will be kept for ready use in quantities not exceeding 45 litres provided they are stored in approved safety cans bearing Underwriters' Laboratory of Canada or Factory Mutual seal of approval. Storage of quantities of flammable and combustible liquids exceeding 45 litres for work purposes requires permission of City of Ottawa Fire Department Designated Representative.
- .3 Transfer of flammable and combustible liquids is prohibited within buildings or jetties.
- .4 Transfer of flammable and combustible liquids will not be carried out in vicinity of open flames or any type of heat-producing devices.
- .5 Flammable liquids having a flash point below 38° C such as naphtha or gasoline will not be used as solvents or cleaning agents.
- .6 Flammable and combustible waste liquids, for disposal, will be stored in approved containers located in a safe ventilated area. Quantities are to be kept to a minimum and Fire Department is to be notified when disposal is required.

1.11 HAZARDOUS SUBSTANCES

- .1 Work entailing use of toxic or hazardous materials, chemicals and/or explosives, or otherwise creating hazard to life, safety or health, will be in accordance with National Fire Code of Canada.
- .2 Obtain from City of Ottawa Fire Department Designated Representative a "Hot Work" permit for work involving welding, burning or use of blowtorches and salamanders, in buildings or facilities.

- .3 When Work is carried out in dangerous or hazardous areas involving use of heat, provide fire watchers equipped with sufficient fire extinguishers. Determination of dangerous or hazardous areas along with level of protection necessary for Fire Watch is at discretion of the City of Ottawa Fire Department Designated Representative. Contractors are responsible for providing fire watch service for work on a scale established and in conjunction with City of Ottawa Fire Department Designated Representative at pre-work conference.
- .4 Where flammable liquids, such as lacquers or urethanes are to be used, proper ventilation will be assured and all sources of ignition are to be eliminated. City of Ottawa Fire Department Designated Representative is to be informed prior to and at cessation of such work.

1.12 QUESTIONS AND/OR CLARIFICATION

- .1 Direct any questions or clarification on Fire Safety in addition to above requirements to City of Ottawa Fire Department Designated Representative.

1.13 FIRE INSPECTION

- .1 Site inspections by City of Ottawa Fire Department Designated Representative will be coordinated through Owner's Representative.
- .2 Allow City of Ottawa Fire Department Designated Representative unrestricted access to work site.
- .3 Co-operate with City of Ottawa Fire Department Designated Representative during routine fire safety inspection of work site.
- .4 Immediately remedy all unsafe fire situations observed by City of Ottawa Fire Department Designated Representative.

Part 2 Products (Not Used)

Part 3 Execution (Not Used)

END OF SECTION

1 General

- .1 The Contractor will be responsible for Commissioning on and for this project.

2 Commissioning

- .1 Commissioning is a planned program of tests, procedures, and checks carried out systematically on systems and integrated systems of the finished project. Commissioning is performed after systems and integrated systems are completely installed, functional and Contractor's Start-up Verification responsibilities have been completed and approved.
- .2 Objectives:
 - .1 Verify installed equipment, systems and integrated systems operate in accordance with contract documents and design criteria and intent.
 - .2 Ensure the appropriate documentation has been compiled into commissioning including air balancing report.
 - .3 Facilitate O&M manuals and any required training for the operation staff.
- .3 Contractor is responsible for start-up and any required equipment operating demonstration. Ensure systems and equipment is functioning. Troubleshooting and make adjustments as required, to achieve the design intent requirements.
 - .1 Systems to be operated at full capacity under various modes to determine if they function correctly and consistently at peak efficiency. Systems are to operate interactively with each other as intended in accordance with Contract Documents and design criteria.
 - .2 During these checks, adjustments to be made to enhance performance to meet environmental or user requirements.
- .4 Design Criteria: as per client's requirements or determined by Consultant, to meet project functional and operational requirements.

3 Commissioning Overview

- .1 Commissioning activities supplement field quality and testing procedures described in relevant technical sections.
- .2 Commissioning is conducted in concert with activities performed during the construction stage of project. Commissioning identifies issues in Planning and Design stages which are addressed during Construction and Commissioning stages to ensure the built facility is constructed and proven to operate satisfactorily under weather, environmental and occupancy conditions to meet functional and operational requirements. Commissioning activities include transfer of critical knowledge to facility operational personnel.

4 Non-Conformance of Performance Verification Requirements

- .1 Should equipment, system components, and associated controls be incorrectly installed or malfunction during Commissioning, correct deficiencies, re-verify equipment and components within the malfunctioning system, including related systems as deemed required by Consultant, to ensure effective performance.
- .2 Costs for corrective work, additional tests, inspections, to determine acceptability and proper performance of such items to be borne by Contractor. Above costs to be in form of progress payment reductions Consultant and Owners assessments.

5 Commissioning Team

- .1 Commissioning is team effort. Participation from all commissioning team members is encouraged to ensure that issues are detected and resolved effectively.
- .2 The Commissioning Team is comprised of personnel from the following parties involved in the construction project:
 - .1 Owner / Client Group
 - .2 Owner's Project Manager
 - .3 Owner's Operation Group
 - .4 Contractors Commissioning representative
 - .5 Consultant
 - .6 Construction Manager / General Contractor
 - .7 Subcontractor / Sub-Trades / Installation Contractor
 - .8 Equipment Suppliers / Miscellaneous Contractors

6 Roles and Responsibilities - Commissioning

- .1 Owner / Client Group
 - .1 Monitor construction of the facility and note any issues with respect to client program requirements and observed construction work which might be deviating from the program requirements.
- .2 Owner's Project Manager
 - .1 Project Manager is the City of Ottawa's officer representing the Owner who has the overall responsibility for managing the project throughout the project delivery until the expiry date of the construction warranty.

- .3 Owner's Operations Group
 - .1 Attend commissioning meetings; attend equipment start-up and commissioning testing as required for observation purposes. City operations group does not have authority to approve changes to the project. Any changes must be directed through the Owner's Project Manager.
 - .2 Attend equipment training sessions for education on the building equipment and systems.
- .4 Commissioning - Contractor
 - .1 The Commissioning has no design change authority.
 - .2 Primary point of responsibility to inform the Construction Manager / General Contractor, Consultants and the Owner on issue which impact the integration, and performance of the systems within the facility.
 - .3 Scheduling: develop a coordinated commissioning schedule based on the construction schedule. Coordinate owner's operation personnel to be available at appropriate times for witnessing of tests and, or training.
 - .4 Information: Collate and disseminate information to all construction team parties, including progress reports.
- .5 Consultant
 - .1 Conduct periodic construction reviews to determine that the work is in general conformance with the contract documents.
 - .2 Responsible for the system evaluation, adequacy of the system to meet design intent, capacity of the system, and review of shop drawings.
 - .3 Participate in the systems training by provide design intent literature to be reviewed by operations personnel as part of the training sessions.
 - .4 Participate in final construction reviews and occupancy inspection.
 - .5 Attend commissioning meetings when requested with 5 days notice in advance of the meetings.
 - .6 Review testing documentation for system conformance to contract documents. Issue a report noting deficiencies requiring corrective work.
 - .7 Review as-built records as required to the contract documents.
 - .8 Review and comment on the final commissioning report.

- .6 Construction Manager/ General Contractor
 - .1 Participate in the commissioning process by assigning suitably trained personnel to perform the function of Contractor's Representative in the commissioning process.
 - .2 Lead the coordination and scheduling of installation work and commissioning work.
 - .3 Ensure deficiencies are corrected.
- .7 Installation Contractor
 - .1 Include requirements for submittal data, start-up and testing, O&M data, and training in each purchase order or sub-contract written.
 - .2 Ensure cooperation and participation of sub-contractors.
 - .3 Ensure participation of major equipment manufacturers in appropriate training and testing activities. Provide and pay for power, fuel, oil and all other necessities to perform testing and commissioning.
 - .4 Attend construction/commissioning coordination meetings scheduled by the Commissioning Authority.
 - .5 Prepare schedules for systems orientation and review, O&M manual submission, training sessions, systems testing, flushing and cleaning, equipment start-up, specialty testing, and completion of deficiency work. Prepare schedule in MS Project. Submit schedule on agreed revision cycle, for integration with the commissioning schedule prepared by the Commissioning Authority.
 - .6 Provide detailed schedule and notification to the Commissioning Authority for upcoming tests, a minimum of two weeks before the anticipated test data.
 - .7 Conduct system orientation and inspection at the equipment placement completion stage. Do not make connections to equipment until acceptance has been given by the Owner.
 - .8 Participate in, and schedule vendors and sub-contractors to participate in the training sessions.
 - .9 Gather O&M manuals and data on all equipment, and assemble in binders as specified.
 - .10 Shop drawings, which are to be included in the O&M manuals, which are marked as "Reviewed" (or similar) by the Consultant or Owner, are to be marked on the front page as "ISSUED FOR MANUALS".
 - .11 Shop drawings, which are to be included in the O&M manuals, which are marked as "Reviewed as Noted" (or similar) by the Consultant or Owner, are to be

revised by the manufacturer to incorporate comments and marked on the front
paged as "REVISED FOR MANUALS".

- .12 Shop drawings which are marked as "Revised and Resubmit" (or similar) shall not be included in the O&M manuals.
- .13 Provide a final commissioning report as described below.
- .8 Equipment Suppliers and Miscellaneous Contractors
 - .1 Provide submittals and appropriate O&M manuals.
 - .2 Attend initial commissioning coordination meetings scheduled by the Commissioning Authority.
 - .3 Participate in training sessions as scheduled by the Installation Contractor.
 - .4 Demonstrate performance of equipment as applicable. This includes in-season and out-of-season testing depending on time of year of Substantial Completion.
 - .5 Provide written and signed start-up reports and submit to the Installation Contractor.

7 Commissioning Scope

- .1 The scope of commissioning for planning and budgeting purposes for individual systems to be commissioned are listed but not limited to the items below.
- .2 Architectural Systems
 - .1 Building envelope (in conjunction with the envelope consultant)
 - .2 Door hardware throughout the building (in conjunction with the consultant)
 - .3 Kitchen Equipment (in conjunction with the consultant)
- .3 Mechanical Systems
 - .1 Fire protection (portable fire extinguishers).
 - .2 Plumbing systems consisting of domestic cold water supply and distribution systems, domestic hot water heating and distribution systems, natural gas piping system, sanitary drainage and vent system, and storm drain system.
 - .3 HVAC systems and associated controls.
 - .4 Building Automation System (BAS) if applicable including communication interface with the local control panels.

- .4 Electrical Systems
 - .1 Fire alarm system.
 - .2 Incoming power and power distribution system.
 - .3 Lighting system and lighting control system.
 - .4 Emergency lighting system.
 - .5 Exit lighting system.
 - .6 Exterior lighting system, including site lighting.
 - .7 Grounding system.

8 Commissioning Plan

- .1 The Contractor to schedule project specific equipment start-up and Commissioning plan detailing the activities required to commission the facility.

9 Commissioning Schedule

- .1 Contractor to provide adequate time for Commissioning activities prescribed in technical sections and commissioning sections including:
 - .1 Approval of start-up and commissioning reports.
 - .2 Verification of reported results.
 - .3 Repairs, retesting, re-commissioning, re-verification.
 - .4 Training.
- .2 The General Contractor shall develop and integrated construction and commissioning activities.

10 Pre-Commissioning Review

- .1 During Construction:
 - .1 Co-ordinate provision, location and installation of provisions for Commissioning.
- .2 Before start of Commissioning:
 - .1 Ensure installation of related components, equipment, sub-systems, system is complete.
 - .2 Fully understand Commissioning requirements and procedures as detailed in the construction schedule and planned start-ups.

- .3 Understand completely design criteria and intent and special features.
 - .4 Submit complete start-up documentation to Consultant.
 - .5 Have Commissioning items scheduled up-to-date.
 - .6 Ensure systems have been cleaned thoroughly.
 - .7 Complete TAB procedures on systems; submit TAB reports to Consultant for review.
 - .8 Ensure "As-Built" system schematics are available.
- .3 Inform Consultant in writing of any discrepancies and deficiencies on finished works.

11 Conflicts

- .1 Report conflicts between requirements of this section and other sections to Consultant before start-up and obtain clarification.
- .2 Failure to report conflict and obtain clarification will result in application of most stringent requirement.

12 Commissioning Documentation

- .1 Provide completed start-up, air balancing reports and related Commissioning documentation to the Consultant for review.

13 Commissioning - Construction Meetings

- .1 As soon as the construction phase is advanced to a point where construction verification of systems can be scheduled, construction meetings to include Contractor, Consultant and Owner Facility representation to review equipment and installation, start-ups. Facility staff will need to verify equipment access for servicing. .

14 Equipment and System Start-Up Phase

- .1 Contractor assumes liabilities and costs for inspections. Including disassembly and reassembly after approval, starting, testing and adjusting, including supply of testing equipment.

15 Witnessing of Starting and Testing

- .1 Provide 14 days' notice prior to commencement.
- .2 Consultant and Facility staff who need to operate or service equipment to witness start-up and testing.
- .3 Tests to be performed and documented by sub-trades, suppliers and equipment manufacturers.

16 Manufacturer's Involvement

- .1 Factory testing: manufacturer to:
 - .1 Coordinate time and location of testing.
 - .2 Provide testing documentation for review by Consultant.
 - .3 Obtain written review of test results and documentation from Consultant before delivery to site.
- .2 Obtain manufacturers installation, start-up and operations instructions prior to start-up of components, equipment and systems and review with Consultant.
 - .1 Compare completed installation with manufacturer's published data, record discrepancies, and review with manufacturer.
 - .2 Modify procedures detrimental to equipment performance and review same with manufacturer before start-up.
- .3 Integrity of warranties:
 - .1 Use manufacturers trained start-up personnel where specified elsewhere in other divisions or required to maintain integrity of warranty.
 - .2 Verify with manufacturer that testing as specified will not void warranties.

17 Start-up Procedures

- .1 Verify that equipment and systems are complete, clean, and operating in normal and safe manner prior to conducting start-up, testing and commissioning.
- .2 Conduct start-up and testing in following distinct phases:
 - .1 Included in delivery and installation:
 - .1 Verification of conformity to specification, approved shop drawings
 - .2 Visual inspection of quality of installation.
 - .2 Start-up: follow accepted start-up procedures.
 - .3 Operational testing: document equipment performance.
 - .4 System Performance: include repetition of tests after correcting deficiencies.
 - .5 Post-substantial performance verification: to include fine-tuning.
- .3 Documents require tests on approved start-up forms.

- .4 Failure to follow accepted start-up procedures will result in re-evaluation of equipment by an independent testing agency selected by Consultant. If results reveal that equipment start-up was not in accordance with requirements, and resulted in damage to equipment, implement following:
 - .1 Minor equipment/systems: implement corrective measures approved by Consultant
 - .2 Major equipment/systems: if evaluation report concludes that damage is minor, implement corrective measures approved by Consultant.
 - .3 If evaluation report concludes that major damage has occurred, Consultant shall reject equipment.
 - .1 Rejected equipment to be removed from site and replace with new.
 - .2 Subject new equipment/systems to specified start-up procedures.

18 Start-up Documentation

- .1 Assemble start-up documentation and submit to Consultant for review before proceeding with the next phase of commissioning.
- .2 Start-up documentation to include:
 - .1 Factory and on-site test certificates for specified equipment.
 - .2 Pre-start-up inspection reports.
 - .3 Signed installation/start-up check lists.
 - .4 Start-up reports.
 - .5 Step-by-step description of complete start-up procedures, to permit Consultant to repeat start-up at any time.

19 Start-Up: Operation and Maintenance of Equipment and Systems

- .1 After start-up, operate and maintain equipment and systems as directed by equipment/system manufacturer.
- .2 With assistance of manufacturer, develop written maintenance program and submit to Owner and Consultant for review before implementation.
- .3 Operate and maintain systems for length of time required for commissioning to be completed.
- .4 After completion of commissioning, operate and maintain systems until issuance of certificate of interim acceptance.

20 Test Results

- .1 If start-up, testing and/or Performance Verifications produce unacceptable results, repair, replace or repeat specified starting and/or Performance Verifications procedures until acceptable results are achieved.
- .2 Provide manpower and materials, assume costs for re-commissioning.

21 Commissioning Operation and Performance Verifications

- .1 Start-up of all equipment must be completed before proceeding with Operation and Performance Testing
- .2 Notify Consultant at least 21 days prior to start of Operation and Performance Verifications.
- .3 Start Commissioning after elements of building affecting performance verification of systems have been completed.

22 Instruments / Equipment

- .1 Submit to Consultant for review:
 - .1 Complete list of instruments proposed to be used.
 - .2 Listed data including, serial number, current calibration certificate, calibration date, calibration expiry date, and calibration accuracy.
- .2 Provide equipment as required to complete work.

23 Commissioning Performance Verification

- .1 Carry out Commissioning testing:
 - .1 Under actual operating conditions, over entire operating range, in all modes.
 - .2 On independent systems and interacting systems.
- .2 Commissioning procedures to be repeatable and reported results are to be verifiable.
- .3 Follow equipment manufacturer's operating instructions.
- .4 BAS trending to be available as supporting documentation for performance verification.

24 Witnessing Commissioning

- .1 Consultant and / or Owner representative to witness activities and verify results.

25 Authorities having Jurisdiction

- .1 Where specified start-up, testing or commissioning procedures duplicate verification requirements of authority having jurisdiction, arrange for authority to witness procedures so as to avoid duplication of tests and to facilitate expedient acceptance of facility.
- .2 Obtain certificates of approval, acceptance and compliance with rules and regulation of authority having jurisdiction.
- .3 Provide copies to Consultant within 5 days of tests and reports.

26 Extrapolation of Results

- .1 Where Commissioning of weather, occupancy, or seasonal-sensitive equipment or systems cannot be conducted under near-rated or near-design conditions, extrapolate part-load results to design conditions when approved by Consultant in accordance with equipment manufacturers instructions, using manufacturer's data, with manufacturer's assistance and using approved formulae.

27 Extent of Verification

- .1 Provide manpower and instrumentation to verify up to 30% of reported results.
- .2 Number and location to be at discretion of Consultant.
- .3 Conduct tests repeated during verification under same conditions as original tests, using same test equipment, instrumentation.
- .4 Review and repeat commissioning of systems if inconsistencies found in more than 20% of reported results.
- .5 Perform additional commissioning until results are acceptable to Consultant.

28 Repeat Verifications

- .1 Assume costs incurred by Consultant for third and subsequent verifications where:
 - .1 Verification of reported results fail to receive the Consultant's approval.
 - .2 Repetition of second verification again fails to receive approval.
 - .3 Consultant deems Contractor's request for second verification was premature.

29 Sundry Checks and Adjustments

- .1 Make adjustments and changes which become apparent as Commissioning proceeds.
- .2 Perform static and operational checks as applicable and as required.

30 Deficiencies, Faults, Defects

- .1 Correct deficiencies found during start-up and Commissioning.
- .2 Report problems, faults or defects affecting Commissioning to the Consultant and Owner in writing. Stop Commissioning until problems are rectified.

31 Completion of Commissioning

- .1 Upon completion of Commissioning leave systems in normal operating mode.
- .2 Commissioning to be considered complete when contract deliverables have been submitted and accepted by Consultant.

32 Activities Upon Completion of Commissioning

- .1 When changes are made to baseline components or system settings established during Commissioning process, provide updated testing and reports for affected item.

33 Training

- .1 Contractor to assist in scheduling training sessions for the operations and maintenance staff for each system.
- .2 The Installation Contractor shall schedule training sessions with their subcontractors and equipment manufacturer service representatives.
- .3 The Contractor shall coordinate with the Consultant team and Owner's operations group and the installation contractor to schedule each training session.

34 Maintenance Materials, Spare Parts, Special Tools

- .1 Supply, deliver, and document maintenance materials, spare parts, and special tools as specified in contract.

35 Occupancy

- .1 Cooperate fully with Consultant during stages of acceptance and occupancy of facility.

36 Installed Instrumentation

- .1 Use instruments installed under Contract for TAB and PV if:
 - .1 Accuracy complies with these specifications.
 - .2 Calibrated BAS sensors may be used to obtain performance data provided that sensor calibration has been completed and accepted.

37 Performance Verification Tolerances

- .1 Application tolerances:
 - .1 Specified range of acceptable deviations of measured values from specified values or specified design criteria. Except for special areas, to be within +1- 10 % of specified values.
- .2 Instrument accuracy tolerances:
 - .1 To be of higher order of magnitude than equipment or system being tested.
 - .1 Unless otherwise specified actual values to be within +1- 2 % of recorded values.

END OF SECTION