



TORONTO ZOO

Request for Tenders for

- **BUILDING ENVELOPE REHABILITATION AT AMERICAS PAVILION –
BELVEDERE ROOF AND INTERIOR**

RFT No.: TZC T 06-2020-02

Contract No.: -

Issued: ● 2020-02-14

TZC T 06-2020-02
BUILDING ENVELOPE REHABILITATION AT
AMERICAS PAVILION – BELVEDERE ROOF AND INTERIOR
CLOSING DATE: W e d n e s d a y 2 0 2 0 - 0 3 - 0 5 at 12:00 p.m. local time

Bids are invited for **(Insert name of project)** all in accordance with this Request for Tender. This RFT is posted on the Toronto Zoo web site at <http://www.torontozoo.com/business>

SUBMISSION

The Tender submission must be sealed in an envelope using the attached mailing label and submitted to Supervisor, Purchasing & Supply c/o Reception, 361A Old Finch Ave., Toronto, ON M1B 5K7 by **W e d n e s d a y 2 0 2 0 - 0 3 - 0 5 at 12:00 hours , 12:00 p.m. local standard time** (hereinafter referred to as the “closing time”).

QUESTIONS REGARDING THIS RFT

Questions regarding this RFT must be submitted in writing only to Peter Vasilopoulos, Supervisor, Purchasing & Supply no later than **(2020-02-28 at 4:00 p.m. local time)**. Questions received later than this stated time and date may not be acknowledged or answered.

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PART 1: REQUEST FOR TENDERS PROCESS

SECTION 1 - RFT SPECIFIC PROCESS AND SUBMISSION INSTRUCTIONS

1.1 Introduction

- .1 This RFT is an invitation by the Toronto Zoo to rehabilitate the building envelope at the Americas Pavilion – Belvedere Roof, and Interior, and
 - .1 **[to prospective Suppliers to submit bids for the performance of the Work, as further described in Part 3 (DRAWINGS AND SPECIFICATIONS) and the Contract (the "Project").]**
- .2 This RFT shall be interpreted in accordance with Section 3.123.3.10 (Governing Law) and 3.13 (RFT Definitions and Interpretation).
- .3 Invitation to submit a Bid, including participation in any pre-qualification, request for information or other similar process or exchange of information prior to the RFT, does not imply that a Supplier is automatically prequalified to meet the requirements of the RFT or that the factors which were examined during such process or exchange may not be re-examined or re-evaluated by the Toronto Zoo during the consideration and selection process for this RFT. It will still be necessary for the Supplier to demonstrate its qualifications through the RFT process.
- .4 The Successful Supplier will be required to execute the Contract with the Toronto Zoo for the provision of the Work. Suppliers should review the terms and conditions set out in Part 2 (FORM OF CONSTRUCTION AGREEMENT) to understand the Contract being entered into with the Toronto Zoo.

1.2 Procurement Contact

- .1 The contact Person at the Toronto Zoo for all matters related to the RFT process (the "**Procurement Contact**") is set out below:

Name and Title
Name: Peter Vasilopoulos Title: Supervisor, Purchasing & Supply Email: pvasilopoulos@torontozoo.ca

- .2 All communications relating to this RFT must be submitted to the Procurement Contact and only communications received by the Procurement Contact will be considered in the RFT process.
- .3 All permitted communications with the Procurement Contact will be deemed as having been received by the Procurement Contact on the dates and times

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1.3 RFT Documents

.1 This RFT is comprised of the following documents:

Part 1 – Request for Tender Process

Section 1 – RFT Process and Submission Instructions;

Section 2 – Evaluation, Acceptance and Execution;

Section 3 – Other RFT Terms and Conditions;

Part 2 – Form of Construction Agreement;

Part 3 – Drawings and Specifications;

Part 4 – Submission Forms, consisting of:

- Form A - Bid Submission Form;
- Appendix I - Experience and Qualifications Form;
- Appendix II - List of Subcontractors Form;
- Appendix III – Statutory Declaration Form;

Part 5 – Pricing Form; and all Addenda.

.2 Prior to submitting a Bid, Suppliers shall examine all components of the RFT (including all reference documents, appendices, forms and Addenda) and, in accordance with Section 1.8 (Questions) promptly notify the Procurement Contact of any perceived errors, omissions, conflicts, ambiguities or discrepancies in the RFT.

.3 While the Toronto Zoo has used considerable efforts to ensure an accurate representation of information in this RFT, the information contained in this RFT is supplied solely as a guide for Bidders. The information is not guaranteed or warranted to be accurate by the Toronto Zoo, nor is it necessarily comprehensive or exhaustive. Nothing in this RFT is intended to relieve Bidders from forming their own opinions and conclusions with respect to the matters addressed in this RFT.

.4 For clarity, no prequalification documents issued by the Toronto Zoo or prequalification submissions delivered by the Suppliers to the Toronto Zoo shall form a part of the RFT or the Contract.

.5 It shall be the responsibility of each Supplier to acquire, other sources or in person from the Procurement Contact, as specified in the RFT, any document that is referenced or mentioned in this RFT which is not included herein.

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- .6 The failure of any Supplier to acquire, receive or examine any document, form, Addendum, or policy shall not relieve the Supplier of any obligation with respect to its Bid or the Contract. The Toronto Zoo is not responsible for any misunderstanding on the part of any Supplier concerning this RFT or its processes.

1.4 Responding to the RFT and Prohibited Communications

Toronto Zoo website

The RFT is available only through, the Toronto Zoo website at:
<http://www.torontozoo.com/business>

Prohibited Communications

- .1 Suppliers (including potential Suppliers) shall not, and shall cause their representatives not to discuss, disclose or communicate, directly or indirectly, any details pertaining to or in connection with their Bid or this RFT to:
- any employee, official, agent, elected or appointed official or other representative of the Toronto Zoo other than the Procurement Contact; or
 - anyone not specifically involved in their Bid (including, without limitation, any other Supplier),

except as may be authorized in writing by the Procurement Contact Other than the Procurement Contact, no Toronto Zoo representative, whether an official, agent or employee, is authorized to speak for the Toronto Zoo with respect to this RFT. Any Supplier who uses or relies on any representation, information, clarification, correspondence or other communication from any other Toronto Zoo representative does so entirely at the Supplier's own risk and the Toronto Zoo shall not be bound by such representation, information, clarification, correspondence or other communication.

- .2 Without limiting any other provision of this Section 1.4. any attempt by a Supplier to bypass the RFT process may be grounds for rejection of its Bid.

1.5 RFT Timetable

- .1 The Toronto Zoo's currently proposed schedule for each step in the RFT process is set out in below.

Event	Date /Time
Issue Date of RFT	2020-02-19
Site Visit / Pre-Bid Meeting	2020-02-25 at 2:00 p.m. local time
Deadline for Questions	● no later than (2020-02-28 at 4:00 p.m. local time)

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Event	Date /Time
Submission Deadline	● 2 0 2 0 - 0 2 - 2 8 at 12:00 hours , 12:00 p.m. local standard time
Bid Validity Period	● 90 Days
Anticipated Award Date	● 2020-03-06

- .2 The Toronto Zoo reserves the right to, in the Toronto Zoo’s sole and absolute discretion, at any time:
- revise the RFT schedule, to accelerate, eliminate or postpone any of the dates or times set out in this RFT, including the Submission Deadline;
 - to add to, delete or re-order any of the milestones set out in this RFT, at any time; or
 - modify the RFT process.

1.6 In the event of an inconsistency or a conflict between the Submission Deadline as displayed in the Toronto Zoo website portal and the Submission Deadline as indicated in an Addendum, the Submission Deadline as displayed in the Toronto Zoo website portal shall take precedence.

1.7 Site Meetings

.1 **Optional Site Meeting**

.1 **All Suppliers are encouraged to attend an optional site meeting to familiarize themselves with the Project and ascertain the full extent of the Work required. The optional site meeting will take place at 2:00pm local time on Tuesday, 2020-02-25 at 361A Old Finch Ave, Toronto, ON M1B 5K7.**

.2 No statement or information provided in such meeting by either the Toronto Zoo or the Suppliers will amend any provision of this RFT or the Contract, or may be relied upon by a Supplier in the RFT process or its Bid, except and to the extent such statement or information is later confirmed through the issuance of an Addendum.

1.7 **Addenda**

.1 The RFT may only be amended by Addendum in accordance with this Section 1.7 (Addenda). Prior to the Submission Deadline, the Toronto Zoo may at any time or times modify the RFT in whole or in part through the issuance of an Addenda, if deemed necessary by the Toronto Zoo. Each Addendum shall form an integral part of this RFT.

.2 All Addenda will be posted on the <http://www.torontozoo.com/business> and Toronto Zoo, the Toronto Zoo is not responsible for any failure of such notice system or for notices not received by Suppliers.

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- .3 Suppliers must check the Toronto Zoo's <http://www.torontozoo.com/business> frequently to inform themselves of any posted Addendum. Toronto Zoo. Suppliers shall be wholly responsible for checking and reviewing any posted Addenda and ensuring the completeness of the RFT (as amended) and their Bids (as impacted by such Addenda). The Toronto Zoo is not responsible for any incomplete or incorrect Bids resulting from the issuance of an Addendum or a Supplier's failure to update its Bid in response to an Addendum.
- .4 The Toronto Zoo will make reasonable efforts to issue the final Addendum (if any) in a sufficient time prior to the Submission Deadline to allow Suppliers to submit their Bids. If any Addendum requires substantial amendments to the RFT, the Toronto Zoo may, in its sole and absolute discretion, extend the Submission Deadline.
- .5 Other than documents issued as part of the RFT (including Addenda), the Toronto Zoo shall not be responsible for any explanations, instructions or interpretations even if provided by its actual or purported employees, designees or agents. No oral or written explanations, instructions or interpretations shall modify any of the requirements or provisions of the RFT unless in the form of an Addendum.
- .6 Any reference in this RFT to any document comprising this RFT includes any amendments to such document made in accordance with this Section 1.7 (Addenda).

1.8 Questions

- .1 Prospective Suppliers finding errors, omissions, conflicts, ambiguities or discrepancies in the RFT or having questions, comments or concerns regarding this RFT, its process and related matters ("**Questions**") may submit such Questions to the Procurement Contact using the Toronto Zoo QBD form attached. The Toronto Zoo will make reasonable efforts to respond to Questions received by the deadline for Questions set out in the RFT timetable in Section 1.5 (RFT Timetable). However, the Toronto Zoo shall have no obligation to respond to any or all Questions, and the Toronto Zoo's determination as to whether or not it will respond to any Question shall be in the Toronto Zoo's sole and absolute discretion. The onus is on each Supplier to confirm the Toronto Zoo has received all correspondence from the Supplier.
- .2 Although it is the Toronto Zoo's practice to make available to all Questions received as well as responses to such Questions: (i) for Questions of an administrative nature; or (ii) where a prospective Supplier's Question is identified as commercially confidential in nature and where, the Toronto Zoo in its sole and absolute discretion deems the Question or response to be commercially confidential, the Toronto Zoo may provide a response only to that Supplier. The Toronto Zoo reserves the right to edit Questions for clarity and applicability to all Suppliers generally.
- .3 Pursuant to Section 1.7.1 (Addenda), responses to Questions prepared and circulated by the Toronto Zoo are not RFT documents and do not amend the RFT, unless such responses form part of an Addendum.

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1.9 Submission of Bids

.1 General

- .1 Subject to Section 1.9.3 (Bid Bond) with respect to the submission of the Bid Bond, Bids must be in person Toronto Zoo prior to the Submission Deadline. Bids will be rejected as non-compliant if submitted by any other mechanism including, but not limited to, post, courier, fax, e-mail or orally, unless specifically requested Toronto Zoo
- .2 It is the Supplier's sole responsibility to ensure its Bid is received by the Submission Deadline in accordance with the requirements of this RFT. The receipt of Bids can be delayed due to a number of factors including "internet traffic", file transfer size and transmission speed. The Supplier should allow sufficient time to download, complete and upload, as applicable, the submission forms comprising its Bid and any attachments.
 - A Bid will only be considered to be submitted once it has been received by the Toronto Zoo. The time of such receipt is reflected by the time stamped by the Toronto Zoo.
- .3 Suppliers must submit their Bids in the format presented, prescribed and compatible with the requirements of the RFT and Toronto Zoo must include all attachments required by the Toronto Zoo. Failure to fully complete the forms presented in this RFT or to include and submit the required attachments or separate documentation, as applicable, may result in the bid being rejected as non-compliant.
- .4 The forms, documents and other items outlined in this Section 1.9 (Submission of Bids) must be completed in their entirety and submitted in the format presented and prescribed by the Toronto Zoo in accordance with the requirements of the RFT. Failure to so submit any such items may result in the Bid being rejected as non-compliant.
- .5 All Suppliers should exercise extreme care when completing their Bid submissions, as failure to complete the Bid fully or to comply with the requirements of this RFT may cause the Bid to be rejected as non-compliant.

.2 Bid Submission Form

- .1 Suppliers shall complete and submit all information and respond to all items in the Bid submission form set out in Form A of Part 4 (Bid Submission Form) ("**Bid Submission Form**").
- .2 The Bid Submission Form contains confirmatory statements and declarations in respect of the Toronto Zoo's Policies.

.3 Bid Bond

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- .1 In addition to the requirements set out in this RFT in respect of the submission of Toronto Zoo, each Supplier shall submit, a bid bond to secure the execution of the Contract by the Supplier (“**Bid Bond**”).
- .2 The Bid Bond shall be made out to the Toronto Zoo
 - .1 an original paper Bid Bond shall be enclosed with your submission delivered to Purchasing & Supply before the Submission Deadline at the following address:

Attention: Supervisor, Purchasing & Supply
Toronto Zoo
361A Old Finch Ave
Toronto, ON
M1B 5K7

Re: Bid Bond for Request for Tender No. **TZC T 06-2020-02**

Submitting a photocopy of the original paper Bid Bond is not acceptable. For clarity, the Toronto Zoo will not accept any original paper Bid Bonds that are delivered after the Submission Deadline and any original paper Bid Bond received after the Submission Deadline shall result in the Bid being rejected as non-compliant. **[The determination of whether the original paper Bid Bond is delivered by or before the Submission Deadline shall be based on the time and date stamp, the Supplier must ensure it receives from the Toronto Zoo at foregoing address]**

- .3 The Bid Bond shall be in the amount and in the form provided in Appendix IV of Part 4 (Bid Bond) or in another substantially similar format approved by the Toronto Zoo prior to Bid submission; and
- .4 The Bid Bond shall be signed and sealed by the Supplier and by a licensed surety company, authorized to carry on business in the Province of Ontario, and having a place of business in Ontario.
- .5 Failure of a Supplier to submit a Bid Bond, in compliance with the requirements of Sections 1.9.3.1 and 1.9.3.2 (Bid Bonds) shall result in the Bid being rejected as non-compliant.
- .4 **Experience and Qualifications Form**
 - .1 Each Supplier shall complete, and submit the Experience and Qualifications Form provided in Appendix I of Part 4 (Experience and Qualifications Form). In submitting such form the Supplier gives the Toronto Zoo consent to contact the references therein to confirm the information therein. Failure to provide the required information listed on the Experience and Qualifications Form shall render the Bid non-compliant. If, in the Toronto Zoo’s sole and absolute discretion, the references do not confirm the Supplier’s experience and

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qualifications as required by the RFT, the Bid will be declared non-compliant and will not be considered for acceptance.

- .2 The Toronto Zoo reserves the right to verify whether Suppliers are relying upon past experience of an Affiliated Person including the nature of the corporate relationship and its relevance to the Project. If, in the Toronto Zoo's sole and absolute discretion, it is determined that a Supplier is relying on an Affiliated Person's past experience and a transfer of the Affiliated Person's experience cannot be demonstrated as relevant to the Project then the Bid will be declared non-compliant and not be considered for acceptance.
- .3 The Toronto Zoo reserves the right to verify past performance of the Supplier or its Affiliated Persons with the Toronto Zoo's performance records on relevant Toronto Zoo projects (including the Toronto Zoo's agencies, boards, commissions and corporations).
- .4 The Toronto Zoo reserves the right to verify a mandatory certification of qualifications submitted by a Supplier for itself or its Affiliated Persons with any relevant third party certifying organization.
- .5 List of Subcontractors Form**
 - .1 The Supplier shall complete and submit the form provided in Appendix II of Part 4 (List of Subcontractors Form) indicating the subcontractors it intends to employ to carry out each portion of the Work ("**Subcontractors**") indicated therein.
 - .2 Suppliers must not include companies under suspension by the Toronto Zoo on their list of Subcontractors.
- .6 Pricing Form**
 - .1 Each Supplier shall complete and submit the Pricing Form set out in Part 5 (PRICING FORM) according to the instructions contained in such form.
 - .2 In completing the Pricing Form, Suppliers must take into account compliance with all of the requirements of the RFT, including Part 3 (DRAWINGS AND SPECIFICATIONS) and the terms of the Contract. The Toronto Zoo will assume, in evaluating all Bids, that compliance with such requirements has been accounted for in the completed Pricing Form.

1.10 Amendment of Bids

- .1 Prior to the Submission Deadline, a Supplier may amend its Bid at any time after submission of the Bid Toronto Zoo and a Supplier may amend its Bid one or more times if it so wishes prior to the Submission Deadline.
- .2 If a Supplier amends its Bid, the Supplier must resubmit the Bid prior to the Submission Deadline Toronto Zoo the most recently submitted version of the Bid as

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dated and stamped recorded Toronto Zoo, shall be irrevocable and binding in accordance with the provisions of the RFT, and may be accepted by the Toronto Zoo in its sole and absolute discretion unless such Bid has been properly withdrawn in accordance with Section 1.11 (Withdrawal of Bids).

1.11 Withdrawal of Bids

- .1 A Bid may be withdrawn at any time prior to the Submission Deadline by delivering written notice of withdrawal to the Procurement Contact by means of email or in person Toronto Zoo before the Submission Deadline.
- .2 For clarity, a Bid may only be withdrawn by delivering such notice to the Procurement Contact prior to the Submission Deadline and cannot be withdrawn by any other means. If a Supplier fails to properly withdraw a Bid, the Bid shall be considered to be the Supplier's submitted Bid, shall be irrevocable and binding in accordance with the provisions of the RFT, and may be accepted by the Toronto Zoo in its sole and absolute discretion, notwithstanding such failure.
- .3 Any Bids that are properly withdrawn will not be examined or evaluated for the purpose of the RFT but shall be retained for the Toronto Zoo's record retention purposes.

1.12 Bid Validity Period

- .1 Upon the Submission Deadline, each submitted Bid shall be irrevocable and binding on Suppliers for the period of time following the Submission Deadline as set out in the RFT timetable in Section 1.5 (RFT Timetable) ("**Bid Validity Period**").
- .2 In exceptional circumstances, prior to the expiration of the Bid Validity Period, the Toronto Zoo may request Suppliers to extend the validity of their Bids and any accompanying Bid Bonds. The request and responses shall be made in writing by the Procurement Contact Toronto Zoo. A Supplier may refuse the Toronto Zoo's request without rendering its Bid non-compliant. A Supplier granting the request shall not be required or permitted to modify its Bid.

SECTION 2 - EVALUATION, ACCEPTANCE AND EXECUTION

2.1 Evaluation

.1 Evaluation Process

- .1 The Toronto Zoo will conduct the evaluation of Bids in the following two stages.

Stage 1: The Bids will be reviewed to determine whether they comply with all of the mandatory requirements of the RFT, including the requirements of Section 1.9 (Submission of Bids). Bids that are substantially incomplete or do not substantially comply with the requirements of this RFT will be excluded from consideration in Stage 2.

Stage 2: The compliant Bids will be ranked on the basis of the submitted pricing of each in accordance with the price evaluation method set out in the Pricing Form.

- .2 Subject to its reserved rights set out in this Part, the Toronto Zoo may at any time and from time to time, in its sole and absolute discretion, revisit, revise, confirm or adjust the evaluations of a Bid at any time during the RFT process.

.2 Tied Bids

In the event that the Toronto Zoo receives two (2) or more Bids identical in price, the Toronto Zoo reserves the right to select one of such Bids as set out the Toronto Zoo's Policies. The Tied Bid procedure allows Toronto Zoo the tie to be broken by way of coin toss or lottery.

.3 Materially Unbalanced or Abnormally Low Bids

- .1 A Bid is materially unbalanced if:

- it is based on prices which are significantly less than cost for some items and prices which are significantly overstated in relation to cost for other items; and
- the Toronto Zoo has determined that the Bid may not result in the lowest overall cost to the Toronto Zoo even though it may be the lowest submitted Bid; or
- it is so unbalanced as to be tantamount to allowing an advance payment.

- .2 A Bid is abnormally low if the pricing, in combination with other constituent elements of the Bid, appears unreasonably low to the extent that the pricing raises material concerns with the Toronto Zoo as to the capability of the Supplier to perform the Contract on the basis of the offered pricing.

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- .3 If a materially unbalanced Bid or an abnormally low Bid is identified, the Toronto Zoo may seek clarification from the Supplier, including a detailed price analysis of its pricing in relation to the subject matter of the Contract, the scope of Work, the estimated quantities, the schedule for the performance of the Work, the allocation of risks and responsibilities and any other requirements of RFT.
- .4 If after evaluation of the price analysis, the Toronto Zoo determines that the Supplier has failed to demonstrate its capability to perform the Contract on the basis of the offered pricing, or that the offered pricing in constitutes a material risk to the Toronto Zoo, the Toronto Zoo may reject the Bid.

2.2 Rights of the Toronto Zoo

In addition to, but without limiting any other rights or options of the Toronto Zoo under this RFT, the Toronto Zoo may, in its sole and absolute discretion carry out the RFT process as it determines to be in the best interests of the Toronto Zoo and to be the most beneficial to Toronto Zoo. The Toronto Zoo may, in its sole and absolute discretion, exercise any or all of the following rights and options with respect to this RFT, at any time.

- .1 The Toronto Zoo may waive minor irregularities in any Bid.
- .2 The Toronto Zoo shall not be obliged to accept or reject any Bid (in whole or in part), including if:
 - the Bid contents appear to be incorrect, inaccurate or inappropriate;
 - the Supplier has engaged in conduct prohibited by the RFT; or
 - the Supplier or any member of a Supplier's Joint Venture is or becomes bankrupt, insolvent, makes an assignment for the benefit of its creditors generally or has a receiver appointed over all or a substantial part of its assets.
- .3 The Toronto Zoo may suspend, modify and/or cancel this RFT (with or without the substitution of another RFT) or the Project.
- .4 The lowest quoted price may not necessarily be accepted by the Toronto Zoo.
- .5 The Toronto Zoo may verify the validity of a Bid including the Supplier's statements, claims, qualifications or capabilities, by whatever means the Toronto Zoo deems appropriate including obtaining references other than those offered by the Supplier, and conduct investigations as to the qualifications of each Supplier.
- .6 The Toronto Zoo may, at any time during the RFT process, require (within such time period as set by the Toronto Zoo) one, some or all of the Suppliers to:

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- submit supplementary information or documentation clarifying any matters contained in their Bid;
- meet with the Toronto Zoo to clarify aspects of their Bid;
- acknowledge and agree to the Toronto Zoo's interpretation of any aspect of a Bid,

provided, however, that the Toronto Zoo is not obliged to seek clarification of any aspect of a Bid and may request clarification from some but not all Suppliers. Such clarification may be in respect of clarification with respect to whether a Bid meets the mandatory requirements of the RFT or whether the Supplier meets the necessary experience and performance qualifications set out in the RFT, if any. Any supplementary information and documents submitted by a Supplier which have been accepted by the Toronto Zoo and the interpretations prepared by the Toronto Zoo which have been acknowledged and agreed to by a Supplier shall be considered to form part of the Bid.

- .7 The Toronto Zoo reserves the right to assess the ability of the Supplier to perform the Contract and may reject any Bid where, in the Toronto Zoo's sole determination, the personnel and/or resources of the Supplier are insufficient.
- .8 Bids that are improperly prepared, not in compliance with all of the requirements or instructions of the RFT, incomplete, improperly signed, conditional, qualified, illegible, obscure or contain reservations, additions not called for, arithmetical errors, omissions, erasures, alterations, or irregularities of any kind may, be considered informal or irregular and may be rejected or be retained by the Toronto Zoo for consideration and acceptance.
- .9 The Toronto Zoo may choose to meet with some or all of the Suppliers in connection with their Bids or the matters provided for in the RFT. The Toronto Zoo may visit the existing place or places of business of some or all Suppliers for purposes of clarification or verification.
- .10 The Toronto Zoo may award one or more contracts for portions or all of the Work to as many Suppliers and/or Other Persons as it deems appropriate, including awarding a contract for Work less than the scope or quantity contemplated in the Successful Supplier's Bid or the RFT.
- .11 The Toronto Zoo may issue a solicitation to one, some or all of the Suppliers and/or any Other Person.
- .12 After the Submission Deadline, the Toronto Zoo may increase or decrease the quantity of any unit of Work in accordance with the Contract.
- .13 The Toronto Zoo may exercise any other right or option provided for in, or in connection with, this RFT, including the rights and options set out in the Toronto Zoo's Policies.

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.14 The Toronto Zoo may do nothing in relation to the Bids or this RFT.

2.3 Contract Execution

- .1 Once a Bid has been accepted by the Toronto Zoo, the Procurement Contact will notify the Successful Supplier that it has been awarded the Contract.
- .2 The Successful Supplier will be required to execute and deliver the Contract as well as the other documentation set out below in this Section 2.3.2 (Contract Execution) by taking the following steps within ten (10) Business Days after being notified by the Toronto Zoo that the Contract is ready for execution:
 - .1 execute and return the Contract, without any unilateral revisions to the Contract;
 - .2 obtain and deliver a performance bond and a labour and material payment bond for the due and proper performance of the Work, each in accordance with the requirements of the Contract and signed and sealed by the Supplier and its surety;
 - .3 arrange for the certificate of insurance in the form attached as a part of the Contract to be completed and signed (including stamp of insurance broker) and delivered to the Toronto Zoo;
 - .4 A letter from Workplace Safety and Insurance Board certifying that the Contractor is in good standing with the Board. A "letter of good standing" must be re-submitted throughout the Contract every 90 days.
- .3 Should the Successful Supplier fail to execute and deliver the Contract and deliver the accompanying documents in accordance with the requirements of Section 2.3.2 (Contract Execution), the Successful Supplier shall be deemed to have abandoned all rights and interests in the Contract and the RFT and the Toronto Zoo may, without prejudice to any other remedy or right which it may have, exercise all or any one or more of the following rights:
 - rescind its award of the Contract;
 - call on the Bid Bond;
 - accept the Bid of the next highest ranked Supplier and proceed to execute the Contract with such Supplier; or
 - suspend the Successful Supplier from participating in other Toronto Zoo procurement processes for such period of time as may be determined under the Supplier Performance Evaluation .

2.4 Notification to Other Suppliers

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**Part 1 – Instruction to Bidders – Section 2 – EVALUATION, ACCEPTANCE AND
EXECUTION**

Once the Successful Supplier is notified that the Toronto Zoo has awarded the Contract, the other Suppliers will be notified by the Toronto Zoo in writing Toronto Zoo the outcome of the RFT process.

2.5 Debriefing

Unsuccessful Suppliers may request a debriefing after receipt of a notification of the outcome of the selection process. All requests must be in writing to the Procurement Contact Toronto Zoo. The intent of the debriefing information session is to aid the Supplier in presenting a better bid in subsequent procurement opportunities. Any debriefing provided is at the sole and absolute discretion of the Toronto Zoo, and not for the purpose of providing an opportunity to challenge the RFT process.

SECTION 3 - GENERAL RFT TERMS AND CONDITIONS

3.1 General Process Terms and Conditions

- .1 Suppliers acknowledge that their Bids are governed by the terms and conditions set out in this RFT as well as the by-laws, policies and procedures established by the Toronto Zoo (including the Toronto Zoo's Policies and Procedures) and any additional terms and conditions related to the provision of the Toronto Zoo and Suppliers will become familiar, and comply with, all of the foregoing. Each Supplier shall comply with the Toronto Zoo's Policies and Procedures including the specific policies set out in Form A of Part 4 – Bid Submission Form (Toronto Zoo's Policies and Procedures) and elsewhere in this RFT. It is the responsibility of the Supplier to review all such policies.
- .2 Suppliers should structure their bids in accordance with the instructions in this RFT. Where information is requested in this RFT, any response made in a Bid should reference the applicable section numbers of this RFT.
- .3 The Toronto Zoo will have no obligation to consider information, documentation or other content not included in a Bid for the purpose of evaluating the Bid. For clarity, the Toronto Zoo will not consider any content referred to in but not included in the Bid, including information referenced by links to websites or other external documents.

3.2 Suppliers Shall Bear Their Own Costs

Each Supplier shall bear all costs, expenses and financial obligations associated with or incurred by the Supplier to: (i) prepare and present its Bid or to otherwise participate in the RFT process including, if applicable, costs incurred for samples, interviews or demonstrations; or (ii) to establish a legally binding contract with the Toronto Zoo.

3.3 Limitation of Liability

- .1 Notwithstanding anything in the RFT and any express or implied duties or obligations of the Toronto Zoo to the contrary, the Toronto Zoo and each of its agencies, boards, commissions, elected officials, officers, employees, servants, agents, volunteers, suppliers, advisers and contracted personnel will have no liability to any Person, including any Supplier and prospective Supplier for any damages, costs, liabilities, losses or expenses including direct, indirect, special or punitive damages, or for loss of profits, loss of opportunity or loss of reputation arising out of or otherwise relating to:
 - this RFT,
 - participation of any such Person in this RFT process;
 - the provision and availability or lack of availability or accuracy of the Toronto Zoo RFT issued by the Toronto Zoo; or
 - the Toronto Zoo's acts or omissions in connection with the conduct of this RFT process, including the acceptance, non-acceptance or delay in acceptance by the Toronto Zoo of any Bid.
- .2 This limitation applies to all possible claims, whether arising in contract, tort, equity, or otherwise, including any claim for a breach by the Toronto Zoo of a duty of fairness, if

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Part 1 – Instruction to Bidders – Section 3 – General RFT Terms and Conditions

any, or relating to a failure of the Toronto Zoo to comply with the rules set out in this RFT. By submitting a Bid to the Toronto Zoo, each Supplier irrevocably and unconditionally waives any claims for damages, costs, liabilities, losses and expenses, and shall not seek any order for injunctive relief or specific performance, against the Toronto Zoo, its agencies, boards, commissions, elected officials, officers, employees, servants, agents, volunteers, advisers and contracted personnel.

- .3 Each Supplier agrees that, despite Section 3.3.1(Limitation of Liability) or any limitations of liability or releases in favour of Toronto Zoo, if the Toronto Zoo is found to be liable, in any way whatsoever, for any act or omission in respect of the RFT Toronto Zoo to any Supplier or any other Person participating in the RFT process, and the aggregate amount of damages recoverable against Toronto Zoo for any matter relating to or arising from any act or omission by the Toronto Zoo, whether based upon an action or claim in contract, warranty, equity, negligence, intended conduct or otherwise, including any action or claim arising from the acts or omissions, negligent or otherwise, of the Toronto Zoo shall be no greater than the Supplier's cost of preparing its Bid.
- .4 Notwithstanding the Toronto Zoo's limitation of liability, the Supplier may seek a debriefing or may pursue a dispute of the RFT process in accordance with the Toronto Zoo's Policies and Legislation.

3.4 Joint Venture Bids

A Supplier may be a private legal entity or any combination of such entities in the form of a joint venture (**Joint Venture**) under and existing agreement or with the intent to enter into such an agreement as supported by a letter of intent. In the case of a Joint Venture, all members shall be jointly and severally liable for the execution of the entire contract if selected by the Toronto Zoo. The Joint Venture shall nominate a representative who shall have the authority to conduct all business on behalf of all members of the Joint Venture during the procurement process and for the execution and performance of any resulting contract.

3.5 Participation in Multiple Bids

Submission or participation in more than one Bid by a Supplier will result in the disqualification of all proposals in which the Supplier is involved. This does not limit the inclusion of the same subcontractor from being named in more than one Bid as a subcontractor only.

3.6 Toronto Zoo Materials

- .1 The RFT and all correspondence, data, plans, materials, drawings, specifications, reports, estimates, summaries, photographs, models and all other information and documentation in any form provided or made available to any Supplier or prospective Supplier by, or on behalf of, the Toronto Zoo in connection with, or arising out of this RFT (collectively, the "**Toronto Zoo Materials**") and all intellectual property rights therein:
 - are and shall remain the sole and absolute property of the Toronto Zoo;

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Part 1 – Instruction to Bidders – Section 3 – General RFT Terms and Conditions

- must be treated by Suppliers and prospective Suppliers as confidential and Suppliers must maintain such confidentiality;
 - must not be disclosed without prior written authorization from the Toronto Zoo;
 - must not be used for any purpose other than for replying to this RFT, and for fulfillment of the Contract or any related subsequent agreement; and
 - immediately upon the request of the Toronto Zoo, must be returned by the Supplier to the Toronto Zoo and all electronic copies must be destroyed.
- .2 Unless and to the extent provided otherwise in the Contract, the Toronto Zoo and its advisers make no representation or warranty as to the accuracy or completeness of the Toronto Zoo Materials. Any quantities shown or data contained in the Toronto Zoo Materials are estimates only and are for the sole purpose of indicating to Suppliers the general scale and scope of the Work. Use of or reliance by Suppliers on the Toronto Zoo Materials Toronto Zoo shall be at the Supplier's sole risk and without recourse against the Toronto Zoo.
- .3 It is the Suppliers' responsibility to make their own independent investigations, due diligence, projections and conclusions, and consult their own advisors, to obtain all the information necessary to:
- verify and confirm the accuracy and completeness of the Toronto Zoo Materials, unless and to the extent provided otherwise in the Contract;
 - Toronto Zoo satisfy themselves as to all existing conditions affecting the Project or the Contract; and
 - prepare their Bids in response to this RFT.

3.7 Ownership of Bid Materials

- .1 The documentation comprising any Bid, along with all correspondence, data, plans, materials, drawings, specifications, reports, estimates, summaries, photographs, models and all other information and documentation in any form provided or made available to the Toronto Zoo by, or on behalf of, any Supplier in connection with, or arising out of this RFT (collectively, the "**Bid Materials**") and all intellectual property rights therein, once received by the Toronto Zoo:
- shall become the sole and absolute property of the Toronto Zoo;
 - shall become subject to MFIPPA, and the Toronto Zoo may be required to disclose the Bid Materials members of the public, pursuant to MFIPPA.
- .2 Each Supplier:
- represents and warrants that the information contained in its Bid Materials does not infringe any intellectual property right of any third party;

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Part 1 – Instruction to Bidders – Section 3 – General RFT Terms and Conditions

- hereby assigns and transfer to the Toronto Zoo, and shall cause all its personnel and other third parties to assign and transfer to the Toronto Zoo, all right, title and interest in the Bid Materials, including intellectual property rights therein:
 - shall cause all its personnel and other third parties to waive, for the benefit of the Toronto Zoo, their respective moral rights (and any similar rights to the extent that such rights exist) in and to the Bid Materials; and
 - shall indemnify, defend and hold harmless the Toronto Zoo, City of Toronto and Toronto Regional Conservation Authority and its agencies, boards, commissions, elected officials, officers, employees, servants, agents, volunteers, advisers and contracted personnel, if any, against all claims, actions, suits and proceedings brought against, or losses, costs, expenses, damages suffered, sustained, or incurred by them which may be directly or indirectly attributable to, or arising or alleged to arise out of the infringement or alleged infringement of any patent, copyright, trademark, or other intellectual property right of a third party in connection with the Bid Materials.
- .3 Suppliers are also advised that MFIPPA does provide protection for confidential and proprietary business information. For the purposes of the Toronto Zoo's compliance with MFIPPA, Suppliers are advised to identify in their Bid Materials material any scientific, technical, commercial, proprietary or similar confidential information, the disclosure of which could cause them injury.
- .4 Each Supplier's name and total bid price may be made public. Bid Materials will, as necessary, be made available:
- on a confidential basis, to advisers retained by the Toronto Zoo to advise or assist with the RFT process;
 - to members of Council in accordance with the Toronto Zoo's procedures; and
 - to members of the public pursuant to MFIPPA.
- .5 The Toronto Zoo will not return the Bid or any other Bid Materials.

3.8 Failure or Default of Supplier

- .1 Without prejudice to any other right or remedy available to the Toronto Zoo under this RFT or at law, if the Supplier, for any reason, fails or defaults in respect of an obligation of the Supplier under the terms of the RFT, the Toronto Zoo may:
- disqualify the Supplier from the RFT and/or from competing for any future solicitations issued by the Toronto Zoo; and
 - require the Supplier to pay the Toronto Zoo the difference between its Bid and any other Bid which the Toronto Zoo accepts, if the latter is for a greater amount and, in addition, to pay the Toronto Zoo any other cost

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which the Toronto Zoo may incur by reason of the Supplier's failure or default.

- .2 The Supplier shall be ineligible to submit a new bid for any solicitations that the Toronto Zoo is required to reissue as a result of the Supplier's failure or default under the Contract or where the Toronto Zoo deems that the Supplier has abandoned the Contract.

3.9 Trade Agreements

Suppliers should be aware that procurements falling within the scope of the Canadian Free Trade Agreement or other trade agreements applicable to the Toronto Zoo are subject to such agreements, but the rights and obligations of the parties will be governed by the specific terms of this RFT

3.10 Governing Law and Enforceability

- .1 The terms and conditions of the RFT process are to be governed by and construed in accordance with the Toronto Zoo's Policies, the laws of the province of Ontario and the federal laws of Canada applicable therein.
- .2 If any provision of the RFT or its application to any party or circumstance is unenforceable, the provision shall be ineffective only to the extent of the unenforceability without: (i) invalidating the remaining provisions of the RFT; (ii) changing the fundamental nature of the obligations assumed by the parties; and (iii) affecting its application to other parties or circumstances.

3.11 RFT Definitions and Interpretation

.1 Definitions

Throughout this RFT, unless inconsistent with the subject matter or context, the following definitions shall apply other than in respect of Part 2 (FORM OF CONSTRUCTION AGREEMENT).

- .1 "**Addenda**" or "**Addendum**" means a document containing additional information and/or changes to the RFT issued by the Toronto Zoo on its website.
- .2 "**Bid**" means an offer submitted by a Supplier in response to the RFT, which includes all of the documentation necessary to satisfy the submission requirements of the RFT and "**Bids**" shall have a corresponding meaning;
- .3 "**Bid Bond**" has the meaning set out in Section 1.9.3 (Bid Bonds).
- .4 "**Bid Materials**" has the meaning set out in Section 3.7.1 (Ownership of Bid Materials).
- .5 "**Bid Submission Form**" has the meaning set out in Section 1.9.2 (Bid Submission Form).
- .6 "**Bid Validity Period**" has the meaning set out in Section 1.12. (Bid Validity Period).

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Part 1 – Instruction to Bidders – Section 3 – General RFT Terms and Conditions

- .7 “**Business Day**” means a day other than:
 - .1 a Saturday, Sunday, statutory holiday, or statutory vacation day that is observed by the Toronto Zoo of Toronto; or
 - .2 a day identified by the Toronto Zoo as a designated or statutory holiday
- .8 “**Toronto Zoo**” means the Board of Management of the Toronto Zoo.
- .9 “**Materials**” has the meaning set out in Section 3.6 (Toronto Zoo Materials).
- .10 “**Contract**” means the contract in the form set out in Part 2 (FORM OF CONSTRUCTION AGREEMENT) to be executed by the Successful Supplier and the Toronto Zoo, which sets out the terms and conditions for the performance of the Work.
- .11 “**Joint Venture**” has the meaning set out in Section 3.4 (Joint Venture Bids).
- .12 “**MFIPPA**” means the *Municipal Freedom of Information and Protection of Privacy Act*, as amended, supplemented, re-enacted or replaced from time to time.
- .13 “**Person**” means any individual, partnership, limited partnership, firm, joint venture, syndicate, company or corporation with or without share capital, trust, trustee, executor, administrator or other legal personal representative, governmental authority or entity however designated or constituted
- .14 “**Procurement Contact**” has the meaning set out in Section 1.2 (Procurement Contact).
- .15 “**Project**” has the meaning set out in Section 1.1 (Introduction).
- .16 “**RFT**” means this RFT package in its entirety, including all documents listed in Section 1.3 (RFT Documents) and Addenda that may be issued by the Toronto Zoo.
- .17 “**Subcontractor**” means a Person undertaking the execution of a part of the Work by virtue of an agreement with the Contractor.
- .18 “**Submission Deadline**” means the specified deadline for Bids to be submitted to the Toronto Zoo as indicated in the RFT timetable in Section 1.5 (RFT Timetable).
- .19 “**Successful Supplier**” means the Supplier that has been selected to enter into the Contract for the performance of the Work.
- .20 “**Supplier**” means a Person, including, where applicable, a Joint Bid Team, that submits a Bid in response to this RFT and “**Suppliers**” shall have a corresponding meaning.
- .21 “**Work**” means all work, services and deliverables to be provided by a Contractor in respect of the Project as described in this RFT.

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BELVEDERE ROOF AND INTERIOR**

Part 1 – Instruction to Bidders – Section 3 – General RFT Terms and Conditions

.2 Interpretation of the RFT

- .1 Except where otherwise requested, all documents relating to the Bid and all communications between Suppliers and the Toronto Zoo will be in the English language.
- .2 Except where otherwise disclosed, all references to times in this RFT will mean local time in Toronto, Ontario, Canada.
- .3 The phrase “includes” “, include” or “including” means “includes, without limitation” or “including” or “include, without limitation”.
- .4 In the RFT, unless the context otherwise requires, words importing the singular include the plural and vice versa and words importing gender include all genders.
- .5 Unless otherwise stated herein, all amounts in the RFT are in Canadian dollars, including any amounts provided in the Pricing Form.
- .6 In addition to the words defined in Section 13.13.1 (Definitions), the other words used in this RFT shall be interpreted consistent with the definitions contained in the Toronto Zoo's Policies..

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Part 1 – Instruction to Bidders – Submission Label

QUESTIONS ON BID DOCUMENTS (QBD)

Deadline: 4:00 p.m. on Friday, 2020-02-28.

See Section Instructions to Bidders 1.8

Contact:

To: The Toronto Zoo
361A Old Finch Avenue
Toronto, ON M1B 5K7
Tel: (416) 392-5916
Fax: (416) 392-6711
Attn: Peter Vasilopoulos pvasilopoulos@torontozoo.ca

From:	_____	Date:	_____
Firm:	_____	Tel:	_____
Spec Section:	_____	Paragraph(s) :	_____
Drawing Sheet:	_____	Detail(s):	_____

Question(s)
:

Mark this box if the QBD can be answered by Bidder's review of the documents. Reply with location(s) where the information can be obtained.

Reply:	
--------	--

By:	Firm:	Date:
-----	-------	-------

The reply is an answer to a Bidder's question. The reply does not change the Bid Documents unless the information contained therein is issued in an Addendum. At the sole discretion of the Toronto Zoo, the question and reply may be returned to the questioner and distributed to all bidding general contractors for informational purposes.

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BELVEDERE ROOF AND INTERIOR
Part 1 – Instruction to Bidders – Submission Label**

SUBMISSION LABEL

This address label should be affixed to the front of your sealed tender, quotation and proposal envelope/package submission. Toronto Zoo will not be held responsible for envelopes and packages that are not properly labelled or submitted to an address other than the one listed on this label.

Vendor Name _____

**TZC T 06-2020-02 – (BUILDING ENVELOPE REHABILITATION AT AMERICAS PAVILION –
BELVEDERE ROOF AND INTERIOR)**

Closing: Wednesday, 2020-03-05, 12:00 (noon) local time

TO BE RETURNED TO

**TORONTO ZOO
C/O SUPERVISOR, PURCHASING & SUPPLY
ADMINISTRATIVE SUPPORT CENTRE
361A OLD FINCH AVE.
TORONTO, ONTARIO
M1B 5K7**



**CONSTRUCTION AGREEMENT
CONTRACT TZC T 06-2020-02**

for

**Facilities & Infrastructure, Project Management
Branch**

**Building Envelope Rehabilitation At Americas
Pavilion – Belvedere Roof and Interior**

NOTICE RE: CONSTRUCTION ACT

* Parts I.1 (Prompt Payment) and II.1 (Adjudication) of the Construction Act apply with respect to this Agreement and all subcontracts thereunder.

* All claims for lien (Form 12) must be completed and submitted through the City of Toronto's website at www.toronto.ca/liens, pursuant to section 34(3.1) of the Construction Act and section 11.1 of O. Reg 304/18.

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Construction Agreement

AGREEMENT BETWEEN OWNER AND CONTRACTOR

This Agreement entered into on the Effective Date

between

The Board of Management of the Toronto Zoo

(“Owner”)

and

● **[Note to Finalization before Execution: Insert Legal Name of Contractor]**

(“Contractor”)

WHEREAS Parts I.1 (Prompt Payment) and II.1 (Adjudication) of the Construction Act apply with respect to this Agreement and all subcontracts thereunder as the Owner commenced a procurement process for the improvement that is subject of the Agreement (“**Procurement Process**”) on or after October 1, 2019;

AND WHEREAS ● **[Note to Finalization before Execution: Complete recitals];**

NOW THEREFORE in consideration of the mutual covenants herein contained, the Owner and the Contractor agree as follows:

1. THE WORK

The Contractor shall:

- 1.1 perform the Work required by the Agreement for the Project located at the Site; and
- 1.2 do and fulfill everything indicated by the Agreement; and
- 1.3 commence the Work on the Commencement Date and, subject to adjustment in Contract Time as provided for in the Agreement, attain Substantial Performance of the Work, by the Scheduled Date for Substantial Performance of the Work, and otherwise perform the Work in accordance with the Construction Schedule.

2. CONTRACT PRICE

2.1 The price for the Work (including any changes in the Work), which excludes Value Added Taxes, is the sum of, if applicable:

- .1 in respect of the Fixed Price Work, the Fixed Price; plus
- .2 in respect of the Unit Price Work, the Total Price of Unit Price Work; plus

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.3 in respect of T&M Changes in the Work recorded in a Change Order, the T&M Price, (the "**Contract Price**").

- 2.2 Value Added Taxes in the percentage amount of thirteen percent (13%) are payable by the Owner to the Contractor.
- 2.3 The Contract Price shall only be subject to adjustment as provided in the Agreement.
- 2.4 All amounts in the Agreement are expressed and payable in Canadian currency, unless expressly noted otherwise.

3. DOCUMENTS COMPRISING THE AGREEMENT

- 3.1 The following documents whether attached hereto or referred to herein form an integral part of the Agreement:
- Schedule A – Information Sheet
 - Schedule B – Pricing Form
 - Schedule C – Definitions
 - Schedule D – General Conditions
 - Schedule E – Valuing Changes in the Work
 - Schedule F – Owner Policies, Procedures, By-Laws and Other Requirements
 - Schedule G – Forms
 - Form 1 – Proper Invoice
 - Form 2 – Certificate of Insurance
 - Form 3 – Tax Statutory Declaration
 - Form 4 – Notice of Adjudication
 - Schedule H – Drawings and Specifications
 - Construction Schedule
 - Supplemental Instructions
 - any other document identified elsewhere in the Agreement as a document forming part of the Agreement.

Construction Agreement

The parties hereto have executed this Agreement by the hands of their duly authorized representatives.

SIGNED AND DELIVERED
in the presence of:

The Board of Management of the Toronto Zoo

● [Note to Finalization before Execution:
Authority stamp to be completed by the
Owner]

By:

Name: ●
Title: ●
I have authority to bind the corporation

By:

Name: ●
Title: ●
I have authority to bind the corporation

● [Note to Finalization before Execution:
Insert Legal Name of Contractor]

By:

Name: ●
Title: ●
I have authority to bind the corporation

By:

Name: ●
Title: ●
I have authority to bind the corporation

[Note to Finalization before RFT/Execution: If the Contractor is an individual, use the following signature block. Delete signature block not used. Consult Legal Services if needed.]

SIGNED, SEALED & DELIVERED
In the presence of:

Witness

Name

**Construction Agreement
Schedule A – Information Sheet**

**SCHEDULE A
INFORMATION SHEET**

[Note to Finalization before Execution: Revise A.3, A.4, A.5 and A.6 with information provided after award.]

The following table provides information cross-referenced in the provisions of the Agreement. All reference to GCs are located in Schedule D – General Conditions.

Row	Input Information	Reference	Description
A. Names and Information			
A.1	Project	Sch. C, Definition 79 & GC 3.8.2.3(1)	Building Envelope Rehabilitation at the Americas Pavilion – Belvedere Roof and Interior at the Toronto Zoo.
A.2	Site	Definition 90	Work under this contract will take place at: 361A Old Finch Ave, Toronto, ON M1B 5K7 Americas Pavilion – Belvedere Roof and Interior (Beaver/Otter Exhibit)
A.3	Notice information	GC 1.6.1.2, GC 1.6.1.3 & GC 1.6.1.4	To be provided after award
A.4	Identity of Contract Administrator	Sch. C, Definition 24	To be provided after award
A.5	Identity of Owner Representative	Sch. C, Definition 70	To be provided after award
A.6	Approved Subcontractors	GC 3.8.3, GC 3.8.3.1 & GC 3.8.3.2	To be entered after award
B. Pricing, Markups and Liquidated Damages			
B.1	Contractor's Markup for negotiated fixed price and negotiated unit price changes in the Work performed by Contractor	Sch. E, s. 2.2.3.1	Not Applicable Note: All markups for Labour and Equipment shall be included in the Unit Bid Prices. No additional markups will be paid.
B.2	Total Cumulative Markup allowed for	Sch. E, s. 2.2.3.2	Zero percent (0%)

**Construction Agreement
Schedule A – Information Sheet**

Row	Input Information	Reference	Description
	Contractor, Subcontractors, Suppliers and Sub-subcontractors on negotiated fixed price and negotiated unit price changes in the Work performed by Subcontractors, Suppliers or Sub-subcontractors (and not performed by the Contractor)		
B.3	T&M Percentage Markup for changes in the Work performed by Contractor	Sch. E, s. 3.3.1	Ten percent (10%)
B.4	Total Cumulative T&M Percentage Markup allowed for Contractor, Subcontractors, Suppliers and Sub-subcontractors on changes in the Work performed by Subcontractors, Suppliers or Sub-subcontractors (and not performed by the Contractor)	Sch. E, s. 3.3.2	Fifteen percent (15%)
B.5	Markup for Cash Allowance overages	GC 6.1.4	Ten percent (10%)
B.6	Amounts of Delay Liquidated Damages	GC 7.6.1	\$0.00 per Calendar Day that is a weekday; \$0.00 per Calendar Day that is a weekend day.
B.7	Changes in the Work on a Time & Material Basis	Sch. E, s. 3	Vertical Approach
B.8	Schedule A Schedule of Prices for Changes in the Work	Sch. B	Not applicable

**Construction Agreement
Schedule A – Information Sheet**

Row	Input Information	Reference	Description
B.9	Invoice Period	Sch. C, Definition 54	No change to default Invoice Period
B.10	Giving of a Proper Invoice	GC 5.3.1	Proper invoices shall be given to the Owner by referencing GC 1.6.1.1
C. Dates, Time Periods and Deadlines			
C.1	Effective Date	Sch. C, Definition 40	To be finalized after award
C.2	Commencement Date	Sch. C, Definition 17 & GC 3.1.6	2020-03-16
C.3	Key Work Milestones	Sch. C, Definition 55	Not applicable
C.4	Scheduled Date for Substantial Performance of the Work	Sch. C, Definition 86	2020-05-01
C.5	Scheduled Date for Total Performance of the Work	Sch. C, Definition 87	2020-05-15
C.6	Warranty Period	Sch. C, Definition 113	No change to default Warranty Period, except as stated within specifications.
C.7	Working Days	Sch. C, Definition 115	No change to default Working Days
C.8	Number of Days for Contract Administrator to Issue a Certificate for Payment	GC 5.4.1.2	28 Calendar Days after receipt of a Proper Invoice
C.9	Deadline to acknowledge a Contemplated Change Order	GC 7.2.1	No change to default of 10 Working Days

**Construction Agreement
Schedule A – Information Sheet**

Row	Input Information	Reference	Description
C.10	Deadline to respond to a Change Directive	GC 7.3.5	5 Working Days
C.11	Suspension Period for Stop Work Orders	GC 11.2.1	No change to default of 60 Working Days
D. Insurance, Contract Security, Bonds and Contractual Holdback			
D.1	Insurance Coverages	GC 8.1.1.1, GC 8.1.1.2, GC 8.1.1.3 & GC 8.1.3	Automobile Liability Insurance shall have limits of not less than two million dollars (\$2,000,000) Professional Liability Insurance shall have limits of not less than one million dollars (\$1,000,000). Pollution Liability Insurance coverage is not required.
D.2	Additional Contract Security	GC 8.2.1	Not Applicable
D.3	Amount of the Contractual Holdback	GC 8.4.1	Not Applicable
D.4	Percentage by which Contractual Holdback is Reduced after Total Performance of the Work	GC 8.4.3	Not Applicable
D.5	Surety Bonds	GC 8.3.1	No change to requirements in GC 8.3.1
E. Miscellaneous			
E.1.	Alternate order of priority of the Agreement Documents	GC 1.1.7.1	<i>No change to default order of priority</i>
E.2.	Allowable Portion of the Work for Subcontracting	GC 3.8.1	Not Applicable
E.3.	Accuracy of Utilities and Structures	GC 4.1.4.1	Contractor to rely on accuracy of positions of Utilities and Structures provided in the Agreement, subject to the following tolerances: on any drawing, 2 metres horizontally, and 1 metre vertically
E.4.	Fair Wage Schedule	Sch. F, if applicable	Fair Wage Policy is applicable. Use the City of Toronto's Fair Wage Policy available at https://www.toronto.ca/business-economy/doing-

**Construction Agreement
Schedule A – Information Sheet**

Row	Input Information	Reference	Description
			business-with-the-city/understanding-the-procurement-process/fair-wage-office-policy/fair-wage-policy/
E.5.	Workforce Development Plan	Sch. F, if included	There is <u>no requirement</u> for a Workforce Development Plan under this Agreement.

**SCHEDULE B
PRICING FORM**

[Note to Finalization before Execution: Attach Pricing Form]

SCHEDULE C

DEFINITIONS

The following Definitions shall apply to the Agreement.

- 1. Adjudicable Dispute**
A dispute respecting an Adjudicable Matter and that complies with GC 12.1.2.
- 2. Adjudicable Matter**
Any matter:
 1. referred to in s. 13.5(1) of the Construction Act, other than in paragraph 7;
 2. that is prescribed under the Construction Act as referable to adjudication; or
 3. agreed to by the parties pursuant to GC 12.2.1.2.
- 3. Adjudication**
Adjudication means a construction dispute interim adjudication under Part B.1 of the Construction Act.
- 4. Adjudicator**
Adjudicator means an individual who is qualified by the Authority as an adjudicator.
- 5. Agreement**
Agreement means the agreement between Owner and Contractor and the Schedules attached thereto, as the same may be amended, supplemented, restated or replaced from time to time in writing upon the mutual agreement of the parties or as may be otherwise provided for in the Agreement.
- 6. Allowance**
Allowance means a Cash Allowance or Provisional Allowance, as applicable.
- 7. As-Built Drawings**
As-Built Drawings has the meaning set out in GC 3.10.2.
- 8. Authority**
Authority means the Authorized Nominating Authority designated under the Construction Act.
- 9. Calendar Day**
Calendar Day means a calendar day.
- 10. Cash Allowance**
Cash Allowance means the allowances, if any, identified in the Pricing Form for known items included in the Work where the actual cost was unknown at the time of tender. The Contractor's overhead and profit is excluded from Cash Allowance and is carried in other pricing as set out in GC 6.1.2.

**Construction Agreement
Schedule C – Definitions**

- 11. Certificate of Recognition (COR™)**
Certificate of Recognition (COR™) means the nationally recognized occupational health and safety certification granted to qualifying firms by the Infrastructure Health and Safety Association (IHSA) of Ontario or its successor.
- 12. Change Directive**
A Change Directive means a written instruction, which shall be deemed incorporated into and forming part of the Agreement, prepared by the Contract Administrator and signed by the Owner directing the Contractor to proceed with a change in the Work prior to or in the absence of the Owner and the Contractor agreeing upon adjustments in the Contract Price and the Contract Time.
- 13. Change Order**
A Change Order means a written amendment to the Agreement, which shall be deemed incorporated into and forming part of the Agreement, prepared by the Contract Administrator and signed by the Owner and the Contractor stating their agreement upon:
1. a change in the Work;
 2. the method of adjustment or the amount of the adjustment in the Contract Price, if any; and
 3. the extent of the adjustment in the Contract Time, if any.
- 14. City**
City means the City of Toronto. The words “City” or “City of Toronto” wherever used in the Agreement shall be regarded as synonymous.
- 15. Claims**
Claims means any and all actual, threatened or potential claims, demands, proceedings, complaints, grievances, actions, adjudications, litigation, applications, suits, causes of action, orders, charges, arbitrations or other similar process, of whatsoever kind or nature (whether civil, administrative, regulatory, arbitral or otherwise), and Losses in respect of the foregoing matters.
- 16. Claim Notice**
Claim Notice has the meaning set out in GC 7.7.1.
- 17. Commencement Date**
Commencement Date means the commencement date for the performance of the Work as set out in row C.2 of the Information Sheet, or if no such date is set out, the date described in the Notice in Writing issued by the Owner to the Contractor, pursuant to GC 3.1.6 directing the Contractor to commence the performance of the Work.
- 18. Confidential Information**
Confidential Information means any and all (as the context requires) information of the disclosing party (including information in respect of or in connection with the Project or the performance of the Work) that is confidential to the disclosing party, or would reasonably be considered confidential, and that is disclosed orally or in writing by or on behalf of the disclosing party, to the receiving party pursuant to the Agreement, including

Construction Agreement Schedule C – Definitions

during the performance of the Work, regardless of whether the Information is specifically identified or marked as “Confidential”, “Restricted” or “Secret”. For the purposes of the Agreement, all Personal Information shall constitute Confidential Information.

19. Conflict of Interest

Conflict of Interest means any situation or circumstance where in relation to the performance of its obligations under the Agreement, the Contractor’s other commitments, relationships or financial interests:

1. could or could be seen to exercise an improper influence over the objective, unbiased and impartial exercise of its independent judgment; or
2. could or could be seen to compromise, impair or be incompatible with the effective performance of its contractual obligations.

20. Construction Act

Construction Act means the *Construction Act*, RSO 1990, c. C 30.

21. Construction Equipment

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

22. Construction Schedule

Construction Schedule has the meaning set out in GC 3.5.1.1.

23. Contemplated Change Order

Contemplated Change Order has the meaning set out in GC 7.2.1.

24. Contract Administrator

Contract Administrator means the Person designated by the Owner in row A.4 of the Information Sheet to be the Owner’s day to day administrator for the purposes of the Agreement or such other Person as may be designated by the Owner, from time to time. The words “Engineer”, “Architect” or “Consultant” wherever used in the Agreement shall be regarded as synonymous with the Contract Administrator, unless identified otherwise in row A.4 of the Information Sheet or if the Owner notifies the Contractor otherwise in writing.

25. Contract Price

Contract Price has the meaning set out in paragraph 2.1 of Section 2 of the Agreement – CONTRACT PRICE.

26. Contract Time

Contract Time means the time stipulated in paragraph 1.3 of Section 1 of the Agreement - THE WORK from the Commencement Date to the Scheduled Date for Substantial Performance of the Work.

**Construction Agreement
Schedule C – Definitions**

- 27. Contractor**
Contractor means the Person identified as such on page 1 of the Agreement. The term Contractor means the Contractor or the Contractor's authorized representative as designated to the Owner in writing.
- 28. Contractor Parties**
Contractor Parties means the Contractor, Subcontractors, Suppliers and Sub-subcontractors and their respective Personnel.
- 29. Contractor Project Manager**
Contractor Project Manager has the meaning set out in GC 3.7.3.1.
- 30. Contractor Records**
Contractor Records means the Contractor's books, payrolls, accounts, invoices, purchase orders, receipts or other information or documentation.
- 31. Contractor Site Supervisor**
Contractor Site Supervisor has the meaning set out in GC 3.7.3.2.
- 32. Contractual Holdback**
Contractual Holdback has the meaning set out in GC 8.4.1.
- 33. Contractor Prepared Documents**
Contractor Prepared Documents has the meaning set out in GC 13.3.1.
- 34. Current Schedule**
Current Schedule means the Contractor's most up-to-date working schedule, prepared based on the Construction Schedule, indicating for a specific reporting period the actual progress of the Work and forecasting of future progress and performance to complete the Work.
- 35. Daily Contractor Work Records**
Daily Contractor Work Records mean daily Contractor Records detailing labour (including the number and categories of Personnel and hours worked or on standby) and Construction Equipment (including types and quantities) employed and Product (including descriptions and quantities) used.
- 36. Deficiency or Deficient**
Deficiency or Deficient means any aspect of the Work (including Products) that fails to comply with, or conform to, the requirements of the Agreement including Laws and the Standard of Care, whether or not such non-compliance or non-conformances occur, or are discovered, prior to or during the Warranty Period. Deficiency or Deficient includes deficiencies in application, engineering, manufacture, installation, construction, workmanship or materials (to the extent the Work includes such elements) and deficiencies in Products.
- 37. Delay Liquidated Damages**
Delay Liquidated Damages has the meaning set out in GC 7.6.1.

**Construction Agreement
Schedule C – Definitions**

- 38. Dispute**
Dispute means all disputes between the parties arising out of or in connection with the Agreement including as to:
1. the interpretation, application or administration of the Agreement;
 2. findings or determinations under the Agreement, including under GC 7.7.6; or
 3. the performance of the Work.
- 39. Drawings**
Drawings means the graphic and pictorial portions of the Agreement as attached or listed in Schedule H – Drawings and Specifications or elsewhere in the Agreement wherever located and whenever issued, showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, and diagrams, as the same may be amended, supplemented or replaced from time to time by the Owner.
- 40. Effective Date**
Effective Date means the effective date of the Agreement as set out in row C.1 of the Information Sheet.
- 41. Equivalent OHS Certification**
Equivalent OHS Certification means an occupational health and safety certification issued to qualifying firms by an independent third-party organization and accepted by the Owner (in the Owner's sole discretion) as equivalent to the Certificate of Recognition (COR™).
- 42. Estimate of Units**
Estimate of Units means an estimate of the total units performed during the identified period for each item of the Unit Price Work, as may be amended by the Contract Administrator or Owner Representative.
- 43. Estimate of Units for Completion**
Estimate of Units for Completion means the Estimate of Units as of the Effective Date for the total performance of the applicable item of Unit Price Work, as may be set out in the Pricing Form.
- 44. Extended Warranty Periods**
Extended Warranty Periods has the meaning set out in GC 9.3.6.
- 45. Fair Wage Policy**
Fair Wage Policy means the Owner's Fair Wage Policy, if any such policy is identified in Schedule F - Owner Policies, Procedures, By-Laws and Other Requirements.
- 46. Final Acceptance Certificate**
Final Acceptance Certificate has the meaning set out in GC 5.8.1.
- 47. Fixed Price**
Fixed Price means the fixed price for the Fixed Price Work set out in the Pricing Form, and as may be adjusted by Change Order.

**Construction Agreement
Schedule C – Definitions**

- 48. Fixed Price Work**
Fixed Price Work means the portion of the Work paid for on a Fixed Price basis.
- 49. GC**
GC means the General Conditions.
- 50. Governmental Authority**
Governmental Authority means any federal, provincial or municipal government, parliament or legislature, or any regulatory authority, agency, tribunal, commission, board or department of any such government, parliament or legislature, or any court or other law, regulation or rule-making entity, each having jurisdiction in the relevant circumstances, including, for clarity, any Person acting under the authority of any Governmental Authority and, with respect to taxes, whether domestic or foreign.
- 51. Hazardous Material**
Hazardous Material means any contaminant, pollutant, dangerous substance, potentially dangerous substance, noxious substance, toxic substance, hazardous waste, flammable material, explosive material, radioactive material, urea formaldehyde foam insulation, asbestos, polychlorinated biphenyls, coal tar and any other biological or chemical agent, substance or material named, described, declared or defined to be hazardous, toxic, or a contaminant or pollutant in, or pursuant to, any applicable Laws.
- 52. Highway**
Highway means a common and public highway, any part of which is intended for or used by the general public for the passage of vehicles and includes the area between the lateral property lines thereof.
- 53. Indemnitees**
Indemnitees has the meaning set out in GC 9.1.1.
- 54. Invoice Period**
Unless otherwise specified in row B.9 of the Information Sheet, Invoice Period means the one-month long period which commences on the Commencement Date and ends on the day prior to the same date as the Commencement Date in the next successive calendar month and each subsequent one-month long period thereafter.
- 55. Key Work Milestones**
Key Work Milestones means the major milestones for the performance of the Work as set out in row C.3 of the Information Sheet, if any, as such milestones may be revised by Change Order or Change Directive.
- 56. Laws**
Laws means all:
1. laws, orders-in-council, by-laws, codes, rules, regulations and statutes of any Governmental Authority;
 2. orders, decisions, judgments, injunctions, decrees, awards, directives, rulings and writs of any court, tribunal, arbitrator, Governmental Authority or other Person having jurisdiction;

**Construction Agreement
Schedule C – Definitions**

3. legally enforceable consents, approvals, policies and guidelines of any Governmental Authority; and

4. any requirements under or prescribed by applicable common law,

which are applicable to the Owner, Contractor, the Project, Site, Work or obligations under the Agreement.

57. Lien Holdback

Lien Holdback means the ten percent (10%) holdback retained pursuant to Part IV of the Construction Act.

58. Losses

Losses means any and all losses, debts, expenses, liabilities, damages, obligations, payments, fines and costs.

59. Major Item

Major Item means any item of Unit Price Work that has a value, calculated on the basis of its Estimate of Units for Completion multiplied by its Unit Price, which is equal to or greater than the lesser of:

1. \$100,000; and

2. 5% of the estimated Total Price of Unit Price Work (calculated using the Estimate of Units for Completion for all items of Unit Price Work).

60. MFIPPA

MFIPPA means the *Municipal Freedom of Information and Protection of Privacy Act*.

61. Notice in Writing

A Notice in Writing means a written communication between the parties or between them and the Contract Administrator that is transmitted in accordance with the provisions of GC 1.6.1 and GC 1.6.2.

62. Notice of Adjudication

Notice of Adjudication means a written notice of Adjudication, which:

1. complies with Section 13.7(1) of the Construction Act; and

2. is substantially in the form attached as Form 4 of Schedule G – Forms, including the submission of all applicable attachments.

63. Notice of Negotiations

Notice of Negotiations has the meaning set out in GC 12.3.1.

64. OHSA

OHSA means the *Occupational Health and Safety Act (Ontario)*.

65. OPS

OPS means the Ontario Provincial Standards.

Construction Agreement
Schedule C – Definitions

- 66. Other Work**
Other Work has the meaning set out in GC 4.2.1.3.
- 67. Owner**
The Owner means the City of Toronto or its agency, board or commission as more particularly set out on page 1 of the Agreement.
- 68. Owner Documents**
Owner Documents means, collectively, the Owner Prepared Documents and Contractor Prepared Documents.
- 69. Owner Prepared Documents**
Owner Prepared Documents has the meaning set out in GC 1.1.11.
- 70. Owner Representative**
The Owner Representative means the Person designated by the Owner in row A.5 of the Information Sheet to have the authority to bind the Owner for the purposes of the Agreement or such other Person as may be designated by the Owner, from time to time.
- 71. Owner Supplied Material**
Owner Supplied Material means the material and/or equipment identified or referenced in the Drawings, Specifications or elsewhere in the Agreement as supplied by the Owner for incorporation into the Project, which is to be installed, tested, commissioned and otherwise dealt with, as applicable, by the Contractor in accordance with the Agreement.
- 72. Owner's Policies, Procedures and By-laws**
Owner's Policies, Procedures and By-Laws means the policies and procedures of the Owner and the by-laws of the City of Toronto, as may be amended, supplemented or replaced from time to time, including the policies, procedures and by-laws referenced in Schedule F - Owner Policies, Procedures, By-Laws and Other Requirements.
- 73. Person**
Person means any individual, partnership, limited partnership, joint venture, syndicate, company or corporation with or without share capital, trust, trustee, executor, administrator or other legal personal representative, Governmental Authority or entity however designated or constituted.
- 74. Personal Information**
Personal Information means all information captured by the definition of "personal information" contained in MFIPPA, regardless of whether MFIPPA is applicable to such information.
- 75. Personnel**
Personnel means with respect to a Person, its employees, invitees, directors, officers, representatives and agents, and any other person for whom the Person is directly or indirectly responsible under contract or law.
- 76. Pricing Form**
Pricing Form means the pricing form set out in Schedule B – Pricing Form.

**Construction Agreement
Schedule C – Definitions**

- 77. Procurement Process**
Procurement Process has the meaning set out in the recitals to the Agreement.
- 78. Product**
Product or Products means products, goods, material, machinery, devices, equipment, and fixtures forming the Work or any part thereof, but does not include Construction Equipment and Owner Supplied Material.
- 79. Project**
Project means the project as described in row A.1 of the Information Sheet, of which the Work may be the whole or a part.
- 80. Proper Invoice**
Proper Invoice means an invoice from the Contractor to the Owner on account as provided in 5.2 - OWNER'S OBLIGATION TO PAY, which is in compliance with the requirements of 5.3.
- 81. Provide**
Provide means to supply and install.
- 82. Provisional Allowance**
Provisional Allowance means the allowances, if any, identified in a schedule of prices in the Pricing Form for alterations, extras and deductions. Provisional Allowance items include overhead and profit.
- 83. QA/QC Plan**
QA/QC Plan has the meaning set out in GC 3.13.2.
- 84. Recovery Plan**
Recovery Plan has the meaning set out in GC 7.5.6.1.
- 85. Rules**
Rules means the *Rules of Civil Procedure*, RRO 1990, Reg 194.
- 86. Scheduled Date for Substantial Performance of the Work**
Scheduled Date for Substantial Performance of the Work means the scheduled date for Substantial Performance of the Work as set out in row C.4 of the Information Sheet, or if no such date is set out, the number of Calendar Days or Working Days after the Commencement Date specified in row C.4 of the Information Sheet.
- 87. Scheduled Date for Total Performance of the Work**
Scheduled Date for Total Performance of the Work means the scheduled date for Total Performance of the Work as set out in row C.5 of the Information Sheet, or if no such date is set out, the number of Calendar Days or Working Days after the Commencement Date specified in row C.5 of the Information Sheet.

**Construction Agreement
Schedule C – Definitions**

- 88. Schedules**
Schedules means the schedules to the Agreement listed in paragraph 3.1 of Section 3 of the Agreement – DOCUMENTS COMPRISING THE AGREEMENT and includes any appendices thereto.
- 89. Shop Drawings**
Shop Drawings means the drawings, diagrams, illustrations, schedules, performance charts, brochures, Product data, and other data which the Contractor provides to illustrate details of portions of the Work.
- 90. Site**
Site means the designated site or location of the Work identified in row A.2 of the Information Sheet.
- 91. Special Specification**
Special Specification means a Specification containing requirements specific to the Work that are not included in any Standard Specification or which are intended to amend, supplement or replace part or all of a Standard Specification, as the same may be amended, supplemented or replaced from time to time by the Owner.
- 92. Specifications**
Specifications means that portion of the Agreement as attached or listed in Schedule H – Drawings and Specifications or elsewhere in the Agreement, wherever located and whenever issued, consisting of the written descriptions, requirements, instructions and standards for Products, systems, performance, installation, workmanship, quality, and the services necessary for the performance of the Work, as the same may be amended, supplemented or replaced from time to time by the Owner.
- 93. Standard Drawing**
Standard Drawing means a Drawing listed in the Schedule H – Drawings and Specifications as a standard drawing, as the same may be amended, supplemented or replaced from time to time by the Owner. The City of Toronto's Standard Drawings can be found on-line at www.toronto.ca/ecs-standards. Any of the OPS' Standard Drawings can be acquired from the OPS. Information about OPS can be found at www.ops.on.ca.
- 94. Standard of Care**
Standard of Care has the meaning set out in GC 3.13.1.
- 95. Standard Specification**
Standard Specification means a Specification listed in Schedule H – Drawings and Specifications as a standard Specification, as the same may be amended, supplemented or replaced from time to time by the Owner. The City of Toronto's Standard Specifications can be found on-line at www.toronto.ca/ecs-standards. Any of the OPS' Standard Specifications can be acquired from the OPS.
- 96. Subcontractor**
Subcontractor means a Person having a direct contract with the Contractor to perform a part or parts of the Work at the Site.

**Construction Agreement
Schedule C – Definitions**

- 97. Subject Matter of Indemnity**
Subject Matter of Indemnity has the meaning set out in GC 9.1.1.
- 98. Submittals**
Submittals means documents or items required by the Agreement to be provided by the Contractor in accordance with the Agreement such as:
1. Shop Drawings, samples, models, mock-ups to indicate details or characteristics, before the portion of the Work that they represent can be incorporated into the Work; and
 2. As-Built Drawings and manuals to provide instructions as to the operation and maintenance of the Work.
- 99. Substantial Performance of the Work**
Substantial Performance of the Work means:
1. the requirements set out in the Construction Act for a contract to be “substantially performed” have been met, including the Work being ready for use. For clarity, the Work shall not be “ready for use” until it has satisfied all the requirements for “ready for use” in the Specifications or elsewhere in the Agreement; and
 2. the Contractor has submitted to the Contract Administrator all items required by the Specifications for Substantial Performance of the Work.
- 100. Substitution**
Substitution has the meaning set out in GC 3.9.4.2.
- 101. Sub-subcontractor**
Sub-subcontractor means a Person having a direct contract with a Subcontractor or Supplier or any other subcontractor or supplier at any tier, to perform a part or parts of the Work, or to supply Products. For greater certainty, Sub-subcontractors do not include the Subcontractors or the Suppliers.
- 102. Supplemental Instruction**
A Supplemental Instruction means an instruction issued in writing, not involving adjustment in the Contract Price or Contract Time, in the form of Specifications, Drawings, schedules, samples, models or written instructions, which are consistent with the intent of the Agreement and issued by the Contract Administrator to supplement the Agreement as required for the performance of the Work.
- 103. Supplier**
Supplier means a Person having a direct contract with the Contractor to supply Products.
- 104. Temporary Work**
Temporary Work means temporary supports, structures, facilities, services, and other temporary items, excluding Construction Equipment, required for the execution of the Work but not incorporated into the Work.

**Construction Agreement
Schedule C – Definitions**

- 105. Total Performance of the Work or Totally Performed**
Total Performance of the Work or Totally Performed means when the entire Work (except for the correction of Deficiencies that are identified after the receipt of the Proper Invoice for payment, in accordance with 5.7) has been fully and totally performed to the requirements of the Agreement (including completion in accordance with the Construction Act and the correction of all Deficiencies that were identified prior to the receipt of such Proper Invoice) as certified by the Contract Administrator in the certificate of payment issued to the Owner pursuant to GC 5.7.1.4.
- 106. Total Price of Unit Price Work**
Total Price of Unit Price Work means the aggregate amount of, for all items of Unit Price Work, the total units required by the Owner under the Agreement for each item of Unit Price Work multiplied by the Unit Price of each such item.
- 107. T&M Changes in the Work**
T&M Changes in the Work means changes in the Work performed on a time and material basis in accordance with Section 3 of Schedule E – Valuing Changes in the Work.
- 108. T&M Price**
T&M has the meaning set out in section 3.1 of Schedule E – Valuing Changes in the Work.
- 109. Unit Price**
Unit Price means the unit price for an item of Unit Price Work set out in the Pricing Form.
- 110. Unit Price Work**
Unit Price Work means the portion of the Work paid for on a Unit Price basis.
- 111. Utilities and Structures**
Utilities and Structures has the meaning set out in GC 4.1.4.1.
- 112. Value Added Taxes**
Value Added Taxes means such sum as shall be levied upon the Contract Price by the Federal or any Provincial or Territorial Government and is computed as a percentage of the Contract Price and includes the Goods and Services Tax, the Harmonized Sales Tax, and any similar tax, the collection of which have been imposed on the Contractor by the tax legislation.
- 113. Warranty Period**
Warranty Period means the warranty period under the Agreement in respect of the Work (except for the Extended Warranty Periods as described in GC 9.3.6), which is two (2) years from the date of Substantial Performance of the Work or such other period as may be specified in row C.6 of the Information Sheet or elsewhere in the Agreement.
- 114. Work**
The Work means the total construction, Products, installation, commissioning, checkout, start-up, testing and related services, deliverables and other obligations as set out in,

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Schedule C – Definitions

required by, reasonably inferable from or described in the Agreement. For clarity, the Work does not include the supply of Owner Supplied Material.

115. Working Day

Unless otherwise specified in row C.7 of the Information Sheet, Working Day means a Calendar Day other than:

1. a Saturday, Sunday, statutory holiday that is observed by the construction industry in the area of the Site; or
2. a Calendar Day identified by the City of Toronto as a designated or statutory holiday.

116. WSIB

WSIB means the Workplace Safety & Insurance Board.

SCHEDULE D
GENERAL CONDITIONS

1. GENERAL PROVISIONS

1.1 INTERPRETATION

- 1.1.1 The intent of the Agreement is to include the labour, Products and services required for the performance and completion of the Work by the Contractor in accordance with the Agreement or properly inferable from them.
- 1.1.2 If, subsequent to the Effective Date, changes are made by the Owner to any Standard Specifications, Special Specifications, Standard Drawings or any other Drawing or Specification which affect the cost of the performance of the Work or Contract Time, any claim by the Contractor must be submitted in accordance with the requirements of 7.7 - CLAIMS PROCEDURE and the Owner may submit a change in accordance with the requirements of 7.1 – OWNER’S RIGHT TO MAKE CHANGES.
- 1.1.3 Subject to any rights or remedies which may be available to the Owner, nothing contained in the Agreement shall create any contractual relationship between:
- .1 the Owner and a Contractor Party performing any portion of the Work;
 - .2 the Contract Administrator and a Contractor Party performing any portion of the Work; or
 - .3 the Owner Representative and a Contractor Party performing any portion of the Work.
- 1.1.4 Words and abbreviations which have well known technical or trade meanings are used in the Agreement in accordance with such recognized meanings.
- 1.1.5 In the Agreement, unless the context otherwise requires, words importing the singular include the plural and vice versa and words importing gender include all gender.
- 1.1.6 Neither the organization of the Specifications nor the arrangement of Drawings shall control the Contractor in dividing the Work among Subcontractors and Suppliers.
- 1.1.7 Subject to GC 1.1.9, if there is an inconsistency or a conflict within the Agreement:
- .1 the order of priority of documents, from highest to lowest, shall be, unless otherwise provided for in row E.1 of the Information Sheet:
 - (1) any amendment to the Agreement made in accordance with the terms and conditions of the Agreement, shall take precedence only over those specific provisions of the Agreement expressly amended, in order of most recent date issued (if any),
 - (2) Schedule A - Information Sheet and Schedule B – Pricing Form,

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Schedule D – General Conditions

- (3) the Agreement (excluding the Schedules),
 - (4) the Schedules of Agreement in the following order: Schedule F – Owner Policies, Procedures, By-Laws and Other Requirements, Schedule D – General Conditions and all remaining Schedules other than Schedule H – Drawings and Specifications,
 - (5) Supplemental Instructions,
 - (6) the summary of the Work as described in the Specifications,
 - (7) the Specifications (other than the summary of the Work and the material and finishing schedules in the Specifications),
 - (8) material and finishing schedules in the Drawings and Specifications,
 - (9) the Drawings (other than the material and finishing schedules in the Drawings),
 - (10) Construction Schedule, and
 - (11) any other document identified elsewhere in the Agreement as a document forming part of the Agreement
- .2 Drawings of larger scale shall govern over those of smaller scale of the same date;
 - .3 dimensions shown on Drawings shall govern over dimensions scaled from Drawings;
 - .4 detailed Drawings shall govern over general Drawings;
 - .5 later dated documents shall govern over earlier documents of the same type; and
 - .6 Special Specifications shall govern over Standard Specifications.
- 1.1.8 Subject to GC 1.1.9, if there is an inconsistency or a conflict within the contents of Standard Specifications and Standard Drawings, the order of priority from highest to lowest shall be:
- .1 City of Toronto Standard Specifications and City of Toronto Standard Drawings, including any amendments; then
 - .2 OPS Standard Specifications and OPS Standard Drawings, including any amendments; then
 - .3 other Standard Specifications and Standard Drawings referenced in the City of Toronto Standard Specifications and City of Toronto Standard Drawings or OPS Standard Specifications and OPS Standard Drawings, including, as applicable, those produced by Canadian Standards Association, Canadian General

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Standards Board, American Society for Testing and Materials and American National Standards Institute.

- 1.1.9 Notwithstanding GC 1.1.7 and 1.1.8, any provision within the Agreement establishing a higher standard of safety, reliability, durability, performance, service or quality shall take precedence over a provision establishing a lower standard of safety, reliability, durability, performance, service or quality.
- 1.1.10 The Owner shall provide the Contractor, without charge, one (1) electronic copy and up to three (3) hard copies of the Agreement other than the specifications of Canadian, United States of America or internationally recognized standards associations (including the Standard Specifications and Standard Drawings), in which case, such documents are the responsibility of the Contractor to obtain as the case may be. If requested by the Contractor, the Owner shall provide additional copies and the Contractor shall be responsible for the cost of printing, handling and shipping.
- 1.1.11 All Specifications, Drawings, models and other applicable Agreement documents and any other correspondence, data, plans, drawings, specifications, reports, estimates, summaries, photographs, models, mock-ups, information and documentation in any form, and copies thereof, furnished by the Contract Administrator or the Owner (collectively, the "**Owner Prepared Documents**") are not the property of the Contractor. All Owner Prepared Documents furnished by the Contract Administrator or Owner are to be used by the Contractor only with respect to the Work and are not to be used on other work. The Owner Prepared Documents are not to be copied or altered in any manner by the Contractor without the written authorization of the Contract Administrator or the Owner.
- 1.1.12 The Owner may issue to the Contractor one or more purchase orders in respect of the Work and/or Agreement. Any such purchase order shall be solely for the convenience of the Owner in administering its internal procedures, and notwithstanding any of the provisions set out in such purchase order, shall not create any binding obligations of either party or in any way be deemed to amend, restate, supplement or replace any of the Agreement or otherwise be considered to form a part of the Agreement.

1.2 ENTIRE AGREEMENT AND AMENDMENTS

- 1.2.1 The Agreement embodies and constitutes the sole and entire agreement between the parties hereto. There are no terms, obligations, covenants or conditions between the parties hereto, other than as contained herein. The Agreement is complementary and what is required by any:
- .1 part thereof shall be considered as being required by the whole; and
 - .2 one document forming a part of the Agreement shall be as binding as if required by all. The Agreement supersedes all prior negotiations, representations or agreements, either written or verbal, relating in any manner to the Work, including the documents from the Procurement Process.

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- 1.2.2 The Agreement may be amended only as provided in the Agreement. No amendment of the Agreement shall be valid unless executed by an instrument in writing by the parties, except as provided for in the Agreement. Neither the Agreement, nor any term hereof, can be amended in whole or in part, except by such instrument in writing, except as provided for in the Agreement, and no subsequent verbal agreement shall have any validity whatsoever.
- 1.2.3 Unless expressly provided otherwise in the Agreement including GC 2.4.1:
- .1 no verbal arrangement or agreement, relating to the Work, the Agreement or any other matter concerning the Agreement or Work, will be of any force or effect unless it is in writing and signed by duly authorized representative of the Owner; and
 - .2 the Owner and the Contract Administrator shall not be bound by any verbal communication or representation or conduct whatsoever, including any instruction, amendment or clarification of the Agreement, or any representation, information, advice, inference or suggestion, from any Person (including but not limited to an elected official, Personnel, independent contractor or any other Person acting on the behalf of or at the direction of the Owner or Owner Representative or other representative of the Owner including the Contract Administrator) concerning the Agreement, or any other matter concerning the Agreement or Work. Where in the Agreement a reference is made to the express written agreement, approval or consent of the Owner or the Contract Administrator, it shall be understood that the Owner or the Contract Administrator, as applicable, shall not be deemed or construed to have agreed to any stipulation, specification, exclusion, limitation or other term or condition that deviates from or amends a provision set out in the Agreement, unless that deviation or amendment is expressly confirmed in the executed Agreement or in a written and express amendment to the Agreement by a duly authorized representative of the Owner.
- 1.3 LAW OF THE AGREEMENT AND INTERPRETATION**
- 1.3.1 The laws of the Province of Ontario and the federal laws of Canada applicable therein shall govern the interpretation of the Agreement.
- 1.3.2 The phrase “includes”, “include” or “including” means “includes, without limitation” or “including” or “include, without limitation,”.
- 1.3.3 If any provision of the Agreement or its application to any party or circumstance is unenforceable, the provision shall be ineffective only to the extent of the unenforceability without: (.1) invalidating the remaining provisions of the Agreement; (.2) changing the fundamental nature of the obligations assumed by the parties; and (.3) affecting its application to other parties or circumstances.
- 1.3.4 Except as otherwise expressly provided for in the Agreement, any reference in the Agreement to a statute or code or rule promulgated under a statute or to any provision of a statute, code or rule promulgated under a statute shall be a reference to the statute, code, rule or provision, as amended, supplemented, re-enacted or

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replaced from time to time. Any reference to a statute shall be a reference to the statute and its underlying regulations.

- 1.3.5 The terms of the Agreement, which expressly or by their nature are intended to survive the termination or discharge of the Agreement (including all indemnities, representations and warranties of the Contractor) shall survive such termination or discharge.
- 1.3.6 For the purposes of the Agreement, all documents and communications pertaining to the Agreement shall be in the English language.

1.4 RIGHTS AND REMEDIES

- 1.4.1 Except as expressly provided in the Agreement, the duties and obligations imposed by the Agreement and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights, and remedies otherwise imposed or available by Laws.
- 1.4.2 No act or failure to act by the Owner, the Contract Administrator or Contractor shall, except as may be specifically agreed:
- .1 constitute a waiver of any right or duty afforded any of them under the Agreement;
 - .2 constitute an approval of or acquiescence in any breach, default or non-observance thereunder; or
 - .3 operate as a waiver of any such right or duty of the Owner in respect of any continuing or subsequent default, breach or non-observance, or so as to defeat or affect in any way such right or duty in respect of any such continuing or subsequent default, breach or non-observance.
- 1.4.3 The Contractor acknowledges and agrees that the exercise by the Owner of any of its rights or remedies under the Agreement, including the Owner's rights and remedies under 11. DEFAULT, TERMINATION AND SUSPENSION shall not result in irreparable harm to the Contractor and the Contractor shall not seek any order for injunctive relief, specific performance, certiorari or mandamus from any arbitral tribunal or court of law in relation to such exercise.

1.5 ASSIGNMENT AND SUCCESSION

- 1.5.1 The Contractor shall not assign the Agreement, either in whole or in part, without the written consent of the Owner, which consent may be withheld or given subject to such terms and conditions as the Owner deems appropriate.
- 1.5.2 Notwithstanding the foregoing, the Contractor acknowledges and agrees that the Owner may assign the Agreement, or any portion thereof, without the consent of the Contractor.

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1.5.3 The Agreement shall enure to the benefit of and be binding upon the parties hereto, their respective heirs, legal representatives, successors, and permitted assigns.

1.6 RECEIPT OF AND ADDRESSES FOR NOTICES AND DOCUMENTATION

1.6.1 Subject to GC 1.6.3, the parties agree that any Notice in Writing required to be given or that may be given under this Agreement shall be given in writing only by one of the following methods:

- .1 electronic mail to the name and address set out in row A.3 of the Information Sheet, including the name and telephone number of a person at the sender to contact in the event of a transmission problem;
- .2 delivery by hand to the name and address set out in row A.3 of the Information Sheet;
- .3 registered mail to the name and address set out in row A.3 of the Information Sheet; or
- .4 courier to the name and address set out set out in row A.3 of the Information Sheet.

1.6.2 For purposes of this Agreement:

- .1 a Notice in Writing sent by electronic mail which is transmitted prior to 5:00 p.m. on a Working Day, shall be deemed to have been received by the recipient on that Calendar Day, or on the next Working Day, if delivered after 5:00 p.m. or on a Calendar Day which is not a Working Day; provided that during the transmission of which no indication of failure of receipt is communicated to the sender;
- .2 a Notice in Writing delivered by hand or courier prior to 5:00 p.m. on a Working Day, shall be deemed to have been received by the recipient on such Calendar Day of delivery, or on the next Working Day, if delivered after 5:00 p.m. or on a Calendar Day which is not a Working Day; or
- .3 a Notice in Writing which is sent by registered mail is deemed to be received by the party to whom the Notice in Writing is addressed on the fifth (5th) Working Day after the date of mailing, where the date appearing on the postal registration receipt shall be deemed conclusively to be the date of mailing.

1.6.3 Notwithstanding GC 1.6.1, the parties agree that documents and notices required to be given or that may be given under the Construction Act shall be given in writing by a means or method permitted for under the Construction Act unless such means or methods are stipulated elsewhere in the Agreement.

1.6.4 Either Party may change its address or other contact particulars as set out in GC 1.6.1 by giving a Notice in Writing to the other in the manner set out in GC 1.6.1.

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1.7 CONFLICTS OF INTEREST

1.7.1 The Contractor shall:

- .1 avoid any Conflict of Interest in the performance of its contractual obligations;
- .2 disclose to the Owner without delay any actual or potential Conflict of Interest that arises during the performance of its contractual obligations;
- .3 comply with any reasonable requirements prescribed by the Owner to resolve any Conflict of Interest; and
- .4 comply with the other requirements of Chapter 195, Purchasing, of the Toronto Municipal Code in respect of conflicts of interest and unfair advantages (as defined therein).

For clarity, the Owner shall be entitled to exercise any rights or remedies which may be available to the City of Toronto pursuant to Chapter 195, Purchasing, of the Toronto Municipal Code in respect of conflicts of interest and unfair advantages (as defined therein).

1.8 MISCELLANEOUS

1.8.1 The Contractor is an independent contractor and is not an agent of the Owner.

1.8.2 The Contractor shall not publish, issue or make any statements or news release, electronic, graphic, pictorial or otherwise, concerning the Agreement, the Work, or the Project, without the express prior written consent of the Owner.

2. ADMINISTRATION OF THE AGREEMENT

2.1 AUTHORITY OF THE CONTRACT ADMINISTRATOR AND THE OWNER REPRESENTATIVE

2.1.1 The Contract Administrator shall have no authority to bind the Owner, unless otherwise provided for in writing by the Owner.

2.1.2 The Owner Representative shall be the Owner's representative during construction and until the issuance by the Contract Administrator of the Final Acceptance Certificate. Only the Owner Representative shall have the authority to bind the Owner for the purposes of the Agreement. The Owner Representative may be a Personnel of the Owner or any other Person including the same Person as the Contract Administrator.

2.1.3 The Owner Representative will execute Change Orders and Change Directives as provided in 7.2 - CHANGE ORDER and 7.3 - CHANGE DIRECTIVE.

2.1.4 All instructions and documents issued to the Contractor will be issued by the Contract Administrator or the Owner Representative, as the case may be, and the Contractor shall not recognize instructions issued by other Personnel of the Owner or any other

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document issued by other Personnel of the Owner as amending, supplementing or clarifying the Agreement.

2.2 ROLE OF THE CONTRACT ADMINISTRATOR

- 2.2.1 The Contract Administrator will provide administration of the Agreement as described in the Agreement. The Contract Administrator may be a third party, including an architect or engineer or other consultant, or a Personnel of the Owner.
- 2.2.2 The Contract Administrator will visit the Site at intervals appropriate to the progress of construction to become familiar with the progress and quality of the Work and to determine if the Work is proceeding in general conformity with the Agreement.
- 2.2.3 If the Owner and the Contract Administrator agree, the Contract Administrator will provide at the Site, one or more project representatives to assist in carrying out the Contract Administrator's responsibilities.
- 2.2.4 The Contract Administrator will promptly inform the Owner of the date of receipt of Proper Invoices as provided in 5.4 - PROGRESS PAYMENT.
- 2.2.5 The Contract Administrator will review the Work for its conformity with the Agreement and record the necessary data to establish payment quantities under the schedule of quantities and Unit Prices for Unit Price Work or to assess the value of the Work completed in the case of Fixed Price Work. Based on such records and the Contract Administrator's evaluation of the Proper Invoices, the Contract Administrator will determine the amounts owing to the Contractor under the Agreement and will issue certificates for payment as provided in 5. CONTRACT PRICE AND PAYMENT.
- 2.2.6 The Contract Administrator will not be responsible for and will not have control, charge or supervision of construction means, methods, techniques, sequences, or procedures, or for health and safety precautions and programs required in connection with the Work in accordance with the applicable health and safety Laws or general construction practice. The Contract Administrator will not be responsible for the Contractor's failure to carry out the Work in accordance with the Agreement. The Contract Administrator will not have control over, charge of or be responsible for the acts or omissions of the Contractor Parties performing portions of the Work.
- 2.2.7 The Contract Administrator will be, in the first instance, the interpreter of the requirements of the Agreement.
- 2.2.8 Matters in question relating to the performance of the Work or the interpretation of the Agreement shall be initially referred in writing to the Contract Administrator by the party raising the question for interpretations and findings and copied to the other party.
- 2.2.9 Interpretations and findings of the Contract Administrator shall be consistent with the intent of the Agreement. In making such interpretations and findings, the Contract Administrator will not show partiality to either the Owner or the Contractor.

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- 2.2.10 The Contract Administrator's interpretations and findings will be given in writing to the parties within a reasonable time and shall be subject to either party's right to dispute such interpretations and findings in accordance with 12. DISPUTE RESOLUTION.
- 2.2.11 The Contract Administrator will investigate all Claim Notices made by the Contractor pursuant to 7.7 - CLAIMS PROCEDURE and will make findings as set out in 7.7 - CLAIMS PROCEDURE and issue appropriate instructions.
- 2.2.12 During the progress of the Work the Contract Administrator will provide Supplemental Instructions to the Contractor with reasonable promptness or in accordance with a schedule for such Supplemental Instructions agreed to by the Contract Administrator and the Contractor.
- 2.2.13 The Contract Administrator will review and take appropriate action upon Shop Drawings, samples and other Contractor's Submittals and submissions, in accordance with the Agreement.
- 2.2.14 The Contract Administrator will prepare Change Orders and Change Directives as provided in 7.2 - CHANGE ORDER and 7.3 - CHANGE DIRECTIVE. For clarity, Change Directives must be signed by the Owner and Change Orders must be signed by both the Owner and the Contractor.
- 2.2.15 The Contract Administrator and the Contractor will jointly conduct reviews of the Work to determine the date of Substantial Performance of the Work and Total Performance of the Work as provided in 5.5 - SUBSTANTIAL PERFORMANCE OF THE WORK and 5.7 - PAYMENTS UPON TOTAL PERFORMANCE OF THE WORK, respectively.
- 2.2.16 All certificates issued by the Contract Administrator will be to the best of the Contract Administrator's knowledge, information and belief. By issuing any certificate, the Contract Administrator does not guarantee the Work is correct or complete.
- 2.2.17 The Contract Administrator will receive and review written warranties and related documents required by the Agreement and provided by the Contractor.
- 2.2.18 If the Contract Administrator observes that any Personnel of the Contractor, Subcontractors, Suppliers or Sub-subcontractors is potentially incompetent, disorderly or a detriment to the Project, then the Contract Administrator shall provide Notice in Writing to the Contractor and the Contractor, at the Contractor's cost and without any extension of the Contract Time, shall, in accordance with its obligations under the Agreement, immediately remove such Personnel from the Site if the Contractor determines that such Personnel should be immediately removed from the Site. If such Personnel is removed, the Contractor, at the Contractor's cost and without any extension of the Contract Time, shall provide replacement Personnel acceptable to the Contract Administrator. Such incompetent, disorderly or detrimental Personnel shall not return to the Site without the prior written consent of the Contract Administrator.
- 2.2.19 The Contract Administrator shall have the authority to temporarily suspend the Work for such reasonable time as may be necessary, for the following reasons:

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- .1 for the Contractor to remedy its non-compliance with the provisions of the Agreement;
- .2 to facilitate the checking of any portion of the Contractor's construction layout;
- .3 to facilitate the inspection of any portion of the Work by the Contract Administrator.

The Contractor shall not be entitled to any increase in the Contract Price or extension of the Contract Time in these circumstances.

2.3 REVIEW AND INSPECTION OF THE WORK

- 2.3.1 The Owner and the Contract Administrator shall have access to the Work at all times. The Contractor shall provide sufficient, safe and proper facilities and assistance at all times for the review of the Work by the Contract Administrator and Owner and the inspection of the Work by Governmental Authorities and quasi-governmental authorities. If parts of the Work are in preparation at locations other than the Site, the Owner and the Contract Administrator shall be given access to such Work whenever it is in progress.
- 2.3.2 If tests, inspections or approvals for the Work are required by the Agreement, or by the Contract Administrator's instructions, or by Laws, the Contractor shall give the Contract Administrator no less than three (3) Working Days notification of when the Work will be ready for review and inspection and make available for inspection or testing a sample of any Product. All inspection, sampling, and testing of Products shall be carried out on a random basis in accordance with the standard inspection or testing methods required for the Product. The Contractor shall arrange for and shall give the Contract Administrator reasonable notification of the date and time of inspections by other authorities and shall notify the Contract Administrator of the sources of supply of Products sufficiently in advance of the Product shipping dates to enable the Contract Administrator to perform any required inspection, sampling and testing. The Contractor shall obtain for the Contract Administrator the right to enter onto the premises of the Product manufacturer or supplier to carry out such inspection, sampling and testing. The Owner shall not be responsible for any delays to the performance of the Work where the Contractor fails to give sufficient advance notice to the Contract Administrator to enable the Contract Administrator to carry out the required inspection, sampling and testing.
- 2.3.3 The Contractor shall furnish promptly to the Contract Administrator, and in no event later than within fourteen (14) Calendar Days after receipt thereof, two copies of certificates and inspection reports relating to the Work prepared by Governmental Authorities and quasi-governmental authorities.
- 2.3.4 If the Contractor covers, or permits to be covered, Work that has been designated for special tests, inspections or approvals before such special tests, inspections or approvals are made, given or completed, the Contractor shall, if so directed, uncover such Work, have the inspections or tests satisfactorily completed, and make good covering Work at the Contractor's cost and without any extension of the Contract Time.

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- 2.3.5 Subject to GC 2.3.4, the Contract Administrator may order any portion or portions of the Work to be examined to confirm that such Work is in accordance with the requirements of the Agreement. If the Work is not in accordance with the requirements of the Agreement, the Contractor shall correct the Work and pay the cost of examination and correction and without any extension of the Contract Time. If the Work is in accordance with the requirements of the Agreement, the Owner shall pay the cost of examination and restoration.
- 2.3.6 The Contractor shall pay the cost of making any test or inspection whether to be performed by the Contractor, Contract Administrator, Owner, Governmental Authorities or quasi-governmental authorities, including the cost of samples required for such test or inspection, if such test or inspection is required by the Agreement or is required by Laws.
- 2.3.7 If any portion or portions of the Work is found to be Deficient in initial tests or inspections as determined by the Contractor, Owner, Contract Administrator, Governmental Authorities or quasi-governmental authorities, the costs of re-testing and re-inspections shall be borne by the Contractor and with no adjustment in the Contract Price or any extension of the Contract Time.
- 2.3.8 The Contractor shall provide any documentation requested by the Owner, where that documentation relates to any of the Work. The Contractor shall ensure that all such documentation is provided no later than ten (10) Calendar Days following the receipt of any such request.
- 2.3.9 The Contract Administrator and Owner will each have authority to reject any portion of the Work which in the Contract Administrator's or Owner's opinion is Deficient. Whenever the Contract Administrator or Owner considers it necessary or advisable, the Contract Administrator or Owner will have authority to require inspection or testing of Work, whether or not such Work is fabricated, installed or completed.
- 2.3.10 Any review, inspection, comment, acceptance, approval, audit, survey or rejection, or failure to review, inspect, comment, accept, approve, audit, survey or reject, by the Owner or the Contract Administrator of the Work (including Products or any documents prepared by the Contractor, Subcontractors, Suppliers or Sub-subcontractors, in whole or in part) or the issuance of any certificates or the making of any payment by the Owner or the presence of the Owner or the Contract Administrator at the Site or the receipt or taking delivery by the Owner of any Products, shall not:
- .1 constitute acceptance of the Work (including Products) or any Deficiencies or relieve the Contractor of its responsibility therefor;
 - .2 impose on the Owner or the Contract Administrator the responsibility for the sequencing, scheduling or progress of the Work;
 - .3 be deemed to confirm that any schedule is a reasonable plan for providing the Work in accordance with the relevant Construction Schedule;

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- .4 constitute an approval, disapproval, endorsement or confirmation of any Work (including Products or any document prepared by the Contractor, Subcontractors, Suppliers or Sub-subcontractors, in whole or in part) or an acknowledgment by the Owner or the Contract Administrator that any Work (including Products and such documents) satisfies the requirements of the Agreement;
- .5 affect or change the Contractor's obligation to perform the Work in accordance with the Agreement and relieve the Contractor from any liability arising from its failure to properly perform the Work;
- .6 give rise to any duty or responsibility of the Owner or the Contract Administrator to the Contractor Parties performing any of the Work; or
- .7 except as otherwise provided in the Agreement, have the effect of waiving or diminishing any obligation of, or limiting any liability of, the Contractor or of transferring any obligation under the Agreement from the Contractor to the Owner or the Contract Administrator or otherwise have the effect of amending the Agreement.

Any review or approval by the Owner and/or Contract Administrator is intended only to ascertain that the document or the performance of the Contractor's duties, liabilities, responsibilities or obligations under the Agreement including the Work generally meets the intention of the Agreement and is not an assurance or confirmation of the adequacy, quality, fitness, suitability or correctness of the Contractor's obligations, responsibilities, duties and liabilities under the Agreement including the Work, for which the Contractor is solely responsible in accordance with the Agreement.

- 2.3.11 Any Deficiencies arising from Work done by the Contractor without consulting the Contract Administrator or the Owner when the Work required the acceptance of or review with same, or when the Contractor should have sought the acceptance of Contract Administrator or Owner, shall be corrected at the cost of the Contractor (without increase in the Fixed Price or Unit Prices) and without any extension of the Contract Time.

2.4 EMERGENCY SITUATIONS

- 2.4.1 If the Contract Administrator or Owner determines, in their sole and absolute discretion, that there is an emergency situation, then the Contract Administrator or Owner, as applicable, may instruct the Contractor to take action to remedy the situation verbally or in writing. If such instruction is verbal, the Contract Administrator or Owner, as applicable, shall provide timely confirmation of such instruction in writing. If the Contractor does not take timely action, or if the Contractor is not available, the Contract Administrator or Owner may direct others to remedy the situation. If the emergency situation is the fault of the Contractor, the remedial Work shall be done at the cost of the Contractor and without any extension of the Contract Time.

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2.5 DEFICIENCIES

- 2.5.1 The Contractor shall promptly correct all Deficiencies, including Deficiencies that have been identified by the Contract Administrator and/or Owner, at the Contractor's cost (and with no adjustment in the Fixed Price or Unit Prices) and without any extension of the Contract Time, whether or not the Deficiency has been incorporated in the Work and whether or not the Deficiency is the result of poor workmanship, use of Deficient products or damage through carelessness or other act or omission of a Contractor Personnel, provided that:
- .1 the Contractor shall correct, in a manner acceptable to the Owner or the Contract Administrator, all Deficiencies, whether or not they are specifically identified by the Contract Administrator or Owner; and
 - .2 the Contractor shall prioritize the correction of any Deficiencies which, in the sole discretion of the Owner, adversely affects the work or operations of the Owner or other contractors or there is a risk of bodily injury to any individual or physical loss of or damage to property.
- 2.5.2 The Contractor shall remove rejected Products from the Site expeditiously after the notification to that effect from the Contract Administrator or Owner. Where the Contractor fails to comply with such notice, the Contract Administrator or Owner may cause the rejected Products to be removed from the Site and disposed of in what the Contract Administrator or Owner considers to be the most appropriate manner, and the Contractor shall pay the costs of disposal.
- 2.5.3 The Contractor shall promptly make good damage or destruction to the Owner's or other contractors' work, other property of the Owner, or any other property as a result of Deficiencies or the correction of Deficiencies at the Contractor's cost (and with no adjustment in the Fixed Price or Unit Prices) and without any extension of the Contract Time.
- 2.5.4 If the Contractor fails to promptly carry out the correction of Deficiencies or make good damage or destruction to the Owner's or other contractors' work, other property of the Owner, or any other property as required by this 2.5 – DEFICIENCIES, the Owner may correct the Deficiencies or make good such work or property and hold the Contractor responsible for all costs thereof.
- 2.5.5 If in the opinion of the Contract Administrator or Owner it is not expedient to correct a Deficiency, the Owner may, in accordance with 5.10 – OWNER'S SET-OFF, set-off the greater of (i) the difference in value between the Work as performed and that called for by the Agreement and (ii) the cost to correct such Deficiency. If the Owner and the Contractor do not agree on the difference in value or the cost to correct such Deficiency, they shall refer the matter to the Contract Administrator for determination.
- 2.5.6 No payment by the Owner under the Agreement nor partial or entire use or occupancy of the Work by the Owner shall constitute an acceptance of any portion of the Work (including Products) which is Deficient.

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2.6 CONTRACTOR RECORDS

- 2.6.1 Prior to the issuance of the final certificate for payment, and thereafter until the later of two (2) years after the end of the Warranty Period, or all Claims in respect of the Agreement being settled, the Contractor shall maintain and keep accurate Contractor Records in respect of Work (including in respect of Fixed Price Work, Construction Equipment, Products, component costs reflecting the taxes and customs duties, including excise taxes and changes in the Work). Without limiting the generality of the foregoing, the Contractor Records shall be of sufficient detail to support the total cost of any Work (other than Fixed Price Work), changes in the Work, Cash Allowances expenditures and taxes and duties. For Fixed Price Work, the Contractor Records shall be of sufficient detail for the Owner to ascertain the Contractor's compliance with the Fair Wage Policy, if any.
- 2.6.2 The Contractor shall cause the Subcontractors, Suppliers and Sub-subcontractors, to:
- .1 maintain and keep accurate Contractor Records in respect of all items for which the Contractor is required by the Agreement to maintain and keep Contractor Records; and
 - .2 allow the Owner to inspect and audit such Contractor Records, for the same period of time.
- 2.6.3 Without limiting the generality of 13.3, the Owner may inspect and audit the Contractor Records at any time during the period in which the Contractor is required to maintain and keep such Contractor Records. The Contractor shall, at its cost, supply certified copies (and notarized if maintained outside of Ontario) of any part of the Contractor Records required whenever requested by the Owner.

3. EXECUTION OF THE WORK

3.1 CONTROL AND COMMENCEMENT OF THE WORK

- 3.1.1 The Contractor shall, and shall cause the Subcontractors, Suppliers and Sub-subcontractors to, perform the Work in accordance with the Agreement and comply with the Agreement. The Contractor shall have total control of the Work and shall effectively direct and supervise the Work so as to ensure conformity with the Agreement.
- 3.1.2 The Contractor shall be solely responsible for construction means, methods, techniques, sequences, and procedures and for co-ordinating the various parts of the Work under the Agreement, even if such means, methods, techniques, sequences or procedures are set out in the Owner Prepared Documents.
- 3.1.3 The Contractor shall not enter upon or occupy any property of a third party for any purpose, unless the Contractor has received prior written permission from the property owner.
- 3.1.4 Except for such Work as may be required by the Contract Administrator to maintain the Work in a safe and satisfactory condition or as otherwise expressly allowed by the

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Agreement, the Contractor shall not carry on Work at the Site on Calendar Days other than Working Days without permission in writing from the Contract Administrator.

- 3.1.5 The Contractor shall, at all times and as part of the Work, fully assist, co-operate, consult and co-ordinate with the Contract Administrator, the Owner Representative and any other Persons retained or identified by the Owner which are related to or connected with the Project or performing work at or near the Site. The objective of such assistance, co-operation, consultation and co-ordination is to make certain the Work is properly co-ordinated with and integrated with the work, services and operations of such entities.
- 3.1.6 The Contractor shall not commence the Work or deliver anything to the Site prior to the Commencement Date. If no date is set out for the Commencement Date in row C.2 of the Information Sheet, the Owner shall be entitled to issue a Notice in Writing to the Contractor directing the Contractor to commence the performance of the Work on the date described therein.

3.2 SUPPLEMENTAL INSTRUCTIONS

- 3.2.1 The Contract Administrator may, during the progress of the Work, issue Supplemental Instructions, which shall be deemed incorporated into and forming part of the Agreement. Supplemental Instructions shall only be issued by the Contract Administrator.
- 3.2.2 Upon receipt of a Supplemental Instruction, the Contractor shall immediately proceed to perform the Work in accordance with such Supplemental Instruction and otherwise in accordance with the Agreement, unless the Contractor is of the opinion that such Supplemental Instructions require a change in the Contract Price and/or extension of the Contract Time, in which case the Contractor shall proceed in accordance with GC 3.2.3.
- 3.2.3 If the Contractor, after receiving Supplemental Instructions, is of an opinion that such Supplemental Instructions require a change in the Contract Price and/or extension of the Contract Time, then the Contractor shall promptly notify the Owner and Contract Administrator of such and submit a Claim Notice in accordance with the requirements of 7.7 - CLAIMS PROCEDURE. The Contractor shall not proceed with the Work in respect of such Supplemental Instruction until it has received further instruction from the Contract Administrator. If, pursuant to 7.7 - CLAIMS PROCEDURE it is subsequently determined that the Claim Notice in respect of such Supplemental Instructions is valid, then such determination shall be reflected in a Change Directive issued pursuant to 7.3 – CHANGE DIRECTIVE.

3.3 CONSTRUCTION BY OWNER OR OTHER CONTRACTORS

- 3.3.1 The Owner reserves the right to award separate contracts in connection with other parts of the Project to other contractors and to perform work with its Personnel. Such work by other contractors or Owner's Personnel may include utility relocation and surveying, testing, sampling and quality assurance estimates prior to, and possibly during, the Work.

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- 3.3.2 Subject to and without limitation to 4.2 – HEALTH AND SAFETY, when separate contracts are awarded for other parts of the Project, or when work is performed by the Owner's Personnel, the Contractor shall:
- .1 co-ordinate, schedule and sequence the activities and work of other contractors and Owner's Personnel on the Project with the Work; and
 - .2 promptly report to the Contract Administrator in writing, and in no event later than within five (5) Working Days of discovery thereof, any apparent deficiencies in the work of other contractors or of the Owner's Personnel, where such work affects the proper execution of any portion of the Work, prior to proceeding with that portion of the Work. Failure by the Contractor to so report shall invalidate any Claims against the Owner by reason of deficiencies in the work of other contractors or Owner's Personnel except those deficiencies not then reasonably discoverable,
- 3.3.3 Where the Agreement identifies work to be performed by other contractors or the Owner's Personnel, the Contractor shall co-ordinate the Construction Schedule (and access to the Site) with the work of other contractors and the Owner's Personnel so as to mitigate the risk of delay and disruption under the Agreement and for the other contractors and the Owner's Personnel.
- 3.3.4 Disputes and other matters in question between the Contractor and other contractors shall be dealt with as provided in 12. DISPUTE RESOLUTION provided the other contractors have reciprocal obligations. The Contractor shall be deemed to have consented to arbitration of any dispute with any other contractor whose contract with the Owner contains a similar agreement to arbitrate.
- 3.3.5 Notwithstanding that the Owner may award separate contracts in connection with other parts of the Project to other contractors and perform work with its Personnel, the performance of such work or connection of such work onto the Work, by the Owner's Personnel or by other contractors, will not limit or relieve the Contractor of its obligations and responsibilities under the Agreement (including warranty) unless a Deficiency has been created by the Owner's Personnel or Owner's other contractors.
- 3.3.6 When requested in writing by the Contract Administrator or Owner, the Contractor shall stop Work on the Project so as to avoid interference with work being performed at adjacent or impacted construction projects of the Owner that are unrelated to the Project. The Contractor shall not be entitled to an extension of the Contract Time or to an increase in the Contract Price unless, and only to the extent, the event which caused the cessation of the Work would entitle the Contractor to an extension of the Contract Time or the reimbursement of the Contractor's Losses as provided in GC 7.5.1, 7.5.2 or 7.5.3.

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3.4 TEMPORARY WORK

- 3.4.1 The Contractor shall have the sole responsibility for the design, erection, operation, maintenance, removal and repair of Temporary Work.
- 3.4.2 The Contractor shall engage and pay for registered professional engineering Personnel skilled in the appropriate disciplines to perform those functions referred to in GC 3.4.1 where required by Laws or by the Agreement and in all cases where such Temporary Work is of such a nature that professional engineering skill is required or prudent to produce safe and satisfactory results.
- 3.4.3 Notwithstanding the provisions of 3.1 - CONTROL OF THE WORK, GC 3.4.1 and 3.4.2 or provisions to the contrary elsewhere in the Agreement, but subject to 3.6 – DOCUMENT REVIEW, where the Agreement includes designs for Temporary Work:
- .1 such designs shall be considered to be part of the design of the Work and the Contractor shall not be held responsible for that part of the design; and
 - .2 the Contractor shall, however, be responsible for the execution of such design in the same manner as for the execution of the Work.
- 3.4.4 2.3 - REVIEW AND INSPECTION OF THE WORK and the requirements for Shop Drawings in 3.11 – SHOP DRAWINGS also apply to the Temporary Work.

3.5 CONSTRUCTION SCHEDULE

- 3.5.1 The Contractor shall:
- .1 prepare and submit to the Owner and the Contract Administrator within seven (7) Calendar Days from the Commencement Date, unless otherwise stipulated elsewhere in the Agreement or agreed to by the Contract Administrator, a construction schedule for their review and acceptance that indicates the timing of the major activities of the Work and provides sufficient detail of the critical events and their inter-relationship to demonstrate the Work shall be performed in conformity with the Contract Time. The construction schedule shall:
 - (1) take into account the phasing and sequencing of construction and the completion dates contained in the Agreement or as otherwise required by the Contract Administrator or the Owner;
 - (2) include and conform to the Key Work Milestones or any other milestones for the performance of the Work set out in the Agreement;
 - (3) be of a computerised type and provided in both electronic format and hard copy;
 - (4) show the Project critical path and the critical path must be identified in a contrasting colour (red) from the other activities;

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- (5) clearly show, in weekly intervals, the logic and timing of major activities, proposed start dates and estimated duration for activities; and
- (6) have a level of detail sufficient to identify the Contractor and each specific Subcontractor and their respective parts of the Work and the specific location thereof.

Once approved by the Owner and the Contract Administrator, the construction schedule submitted by the Contractor under this GC 3.5.1.1, as updated by the Contractor and approved by the Owner and Contract Administrator, shall become the "**Construction Schedule**". The Construction Schedule (and any approved updates) shall be the benchmark against which the progress of the Work is to be measured for the purposes of the Agreement;

- .2 monitor the progress of the Work relative to the Construction Schedule;
- .3 maintain a Current Schedule and update the Current Schedule every two (2) weeks, unless otherwise stipulated elsewhere in the Agreement or agreed to by the Contract Administrator, and provide the updated Current Schedule to the Owner and Contract Administrator. For clarity, the Current Schedule shall be used for information purposes only;
- .4 advise the Contract Administrator of any revisions required to the Construction Schedule as the result of extensions of the Contract Time as provided in 7.CHANGES IN THE WORK and provide the Owner and Contract Administrator for approval, an updated Construction Schedule reflecting such extensions; and
- .5 perform the Work in accordance with the Construction Schedule including the Key Work Milestones.

3.5.2 If the Contractor fails to submit the initial or any updated Construction Schedule satisfactory to the Contract Administrator, the Owner shall be entitled to withhold or delay payments under the Agreement until the Contractor complies with the requirements of GC 3.5.1.

3.6 DOCUMENT REVIEW AND EXAMINATION OF SITE

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- 3.6.1 The Contractor shall review the Agreement in accordance with the Standard of Care. The Contractor shall report to the Contract Administrator, no later than three (3) Working Days after discovery by the Contractor, any error, inconsistency or omission the Contractor may discover. The Contractor shall not be liable for Losses resulting from errors, inconsistencies or omissions in the Agreement, which the Contractor did not discover, provided that the Contractor exercised such Standard of Care. The Contractor shall be liable and responsible for Losses (and without any extension of the Contract Time) resulting from errors, inconsistencies or omissions in the Agreement if it recognizes, or should have recognized, exercising such Standard of Care, such errors, inconsistencies or omissions, yet fails to raise such errors, inconsistencies or omissions to the Contract Administrator's attention prior to performing the affected portion of the Work.
- 3.6.2 If the Contractor does discover any error, inconsistency or omission in the Agreement or has any doubt as to the meaning or intent of any part thereof, the Contractor shall not proceed with the Work affected until the Contractor has reported to the Contract Administrator and received corrected or missing information, instructions or explanations from the Contract Administrator in writing. The Contractor shall comply with such information, instructions or explanations. The Contractor shall cooperate in good faith with the Owner and the Contract Administrator to resolve any error, omission or inconsistency in the Agreement in a manner that will not result in increased cost to the Owner or any extension of the Contract Time.
- 3.6.3 The Owner makes no representation, warranty or guarantee about the accuracy, completeness, feasibility or any other aspect of the documents or information provided by the Owner including interpretations of data or opinions expressed in any subsurface report or geotechnical report. Accordingly, the Contractor shall review and otherwise deal with such documents or information in accordance with the requirements of GC 3.6.1 and 3.6.2.
- 3.6.4 Without limitation to any specific obligations in the Drawings and Specifications in respect of the examination of the Site and surrounding area, the Contractor represents and warrants that in entering into the Agreement with the Owner and acting in accordance with the Standard of Care, it has examined the Site and surrounding area and it has satisfied itself as to the scope and character of the Work, all conditions and information affecting the Work, including the nature of the Work and the Site, access to the Site and weather conditions or that, not having acted in such a manner, the Contractor has assumed and does hereby assume all risk of conditions now existing or arising in the course of the Work which might or could make the Work more expensive or more onerous to fulfil and which a contractor acting in accordance with the Standard of Care would have discovered. The cost and time of all conditions referred to in this GC 3.6.4 form part of the Fixed Price and Unit Prices and the Contract Time and shall not be the basis for an increase in the Fixed Price or Unit Prices or any extension of the Contract Time.

3.7 SUPERVISION

- 3.7.1 The Contractor shall provide all necessary supervision.
- 3.7.2 The Contractor shall:

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- .1 furnish competent and adequate Personnel, who shall be in attendance at the Site at all times, as necessary, for the proper administration, co-ordination, supervision and superintendence of the Work;
 - .2 organize the procurement of all Products and Construction Equipment so that they will be available in advance of the time they are needed for the Work; and
 - .3 keep an adequate force of skilled Personnel on the job to complete the Work in accordance with all requirements of the Agreement.
- 3.7.3 Prior to commencement of the Work, unless otherwise stipulated elsewhere in the Agreement or agreed to by the Contract Administrator, the Contractor shall select a competent and experienced:
- .1 Project manager (the “**Contractor Project Manager**”) who shall:
 - (1) be in attendance at the Site or otherwise engaged in the Work at all times, or for such other period of attendance as required by the Agreement including the Specifications;
 - (2) have full responsibility for the prosecution of the Work, with full authority to act in all matters as may be necessary for the proper co-ordination, supervision, direction and technical administration of the Work;
 - (3) attend site meetings in order to render reports on the progress of the Work; and
 - (4) have authority to bind the Contractor in all matters related to the Agreement; and
 - .2 supervisor of the Site (the “**Contractor Site Supervisor**”) who shall be in attendance at the Site at all times while Work is being performed, or for such other period of attendance as required by the Agreement including the Specifications and shall have full responsibility for the day to day field supervision and superintendence of the Work.
- 3.7.4 The Contractor Project Manager and the Contractor Site Supervisor, if applicable:
- .1 shall represent the Contractor at the Site; and
 - .2 may be the same individual if specified as such in the Specifications.
- 3.7.5 Information, notices and instructions given to the Contractor Project Manager and/or the Contractor Site Supervisor, if applicable, shall be deemed to have been received by the Contractor, other than notices that are required to be delivered in accordance with 1.6 - RECEIPT OF AND ADDRESSES FOR NOTICES AND DOCUMENTATION.
- 3.7.6 At the request of the Owner, the Contractor shall supply complete information including written job-specific qualification records for any Personnel of the Contractor,

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Subcontractors, Suppliers or Sub-subcontractors. Such records will detail the activities that each such Personnel has been trained and qualified to perform.

- 3.7.7 If the Owner observes that any Personnel of the Contractor, Subcontractors, suppliers or Sub-subcontractors is potentially incompetent, disorderly or a detriment to the Project, then the Owner shall provide Notice in Writing to the Contractor and the Contractor, at the Contractor's cost and without any extension of the Contract Time, shall, in accordance with its obligations under the Agreement, immediately remove such Personnel from the Site if the Contractor determines that such Personnel should be immediately removed from the Site. If such Personnel is removed, the Contractor, at the Contractor's cost and without any extension of the Contract Time, shall provide replacement Personnel acceptable to the Owner. Such incompetent, disorderly or detrimental Personnel shall not return to the Site without the prior written consent of the Owner or Contract Administrator.
- 3.7.8 Without limiting the obligations of the Contractor described in 3.3 – CONSTRUCTION BY OWNER OR OTHER CONTRACTORS and 4.2 – HEALTH AND SAFETY, if the Owner or Contract Administrator observes that any Personnel of the Contractor, Subcontractors, Suppliers or Sub-subcontractors poses an imminent risk to the health and safety of other persons, then the Owner or Contract Administrator can require the Contractor to immediately remove such Personnel from the Site at the Contractor's cost and without any extension of the Contract Time, and in accordance with its obligations under the Agreement. The Contractor, at the Contractor's cost and without any extension of the Contract Time, shall provide replacement Personnel acceptable to the Owner. The Personnel that posed an imminent risk to the health and safety of other persons shall not return to the Site without the prior written consent of the Owner or Contract Administrator.
- 3.7.9 The Contractor shall provide the Owner and the Contract Administrator with the names, work addresses and mobile telephone numbers of the Contractor Project Manager, the Contractor Site Supervisor and other responsible field Personnel who may be contacted for emergency and other reasons during non-working hours and update as necessary.

3.8 SUBCONTRACTORS AND SUPPLIERS

- 3.8.1 The Contractor may, subject to this 3.8 – SUBCONTRACTORS AND SUPPLIERS, subcontract portions of the Work, which shall not exceed the portion set out in row E.2 of the Information Sheet, to Subcontractors and Suppliers. The Contractor shall, and shall cause the Subcontractors, Suppliers and Sub-subcontractors to, perform the Work in accordance with the Agreement. The Contractor shall be fully responsible to the Owner for the Subcontractors', Suppliers' and Sub-subcontractors' failure to abide by the obligations of the Agreement.
- 3.8.2 The Contractor shall preserve and protect the rights of the parties under the Agreement with respect to the portion of the Work to be performed under subcontract, and shall:
- .1 enter into subcontracts with Subcontractors and Suppliers to require them to perform their portion of the Work as provided in the Agreement;

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- .2 provide the Owner or Contract Administrator with a redacted copy of any subcontract with a Subcontractor or Supplier, and all applicable amendments and changes, promptly upon request of the Owner, and in no event later than within five (5) Working Days of such request.
 - .3 incorporate, or cause to be incorporated, into all subcontracts with Subcontractors and Suppliers the terms and conditions of the Agreement, including:
 - (1) the contract number set out on the cover page of the Agreement and Project description set out in row A.1 of the Information Sheet;
 - (2) 9.3 – WARRANTY, GC 13.2.4 and Schedule F - Owner Policies, Procedures, By-Laws and Other Requirements;
 - (3) a provision requiring the Subcontractor or Supplier to provide adequate notice to the Contractor in order for the Contractor to fulfill its obligations under GC 12.2.16. For clarity, such provision shall include a requirement that the Subcontractor or Supplier include a similar provision in all its subcontracts with Sub-subcontractors and all such Sub-subcontractors to include a similar provision in all their subcontracts with their Sub-subcontractors and so on within every tier of the construction pyramid; and
 - (4) a provision that permits the Contractor's interest in the subcontract to be immediately assigned, at the same price and in the Owner's sole and absolute discretion, to the Owner or the Owner's designee upon Notice in Writing thereof given by the Owner to both Contractor and Subcontractor or Supplier, as the case may be, for nominal consideration of \$5.00, provided, however, that until the Owner has given such Notice in Writing, nothing herein contained shall be deemed to create any contractual or other liability upon the Owner for the performance of obligations under such subcontracts and the Contractor shall be fully responsible and liable for all of its obligations and liabilities (if any) under such subcontracts; and
 - .4 have control over, charge of, and be fully responsible to the Owner for, the acts and omissions of Subcontractors, Suppliers and their Personnel and for the acts and omissions of Personnel of the Contractor even if such Subcontractor or Supplier was approved or selected by the Owner.
- 3.8.3 Unless expressly stated otherwise in row A.6 of the Information Sheet, the Contractor may only use the Subcontractors and Suppliers identified in row A.6 of the Information Sheet for the specific portion of the Work which they are identified as performing for the Project. Contractor shall not:
- .1 change any of such identified Subcontractors or Supplier or let any subcontracts for the performance of the Work to Subcontractors and Suppliers that have not been identified in row A.6 of the Information Sheet;

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- .2 use a Subcontractor or Supplier to perform Work which has not been identified in row A.6 of the Information Sheet as being performed by such Subcontractor or Supplier,

without the prior written approval of the Owner. The Owner shall be entitled to a minimum of ten (10) Working Days to review and approve any such request for approval by the Contractor. Without limiting the generality of the factors or criteria which the Owner and Contract Administrator may consider during such review and approval process, the Owner shall be entitled to consider the proposed Subcontractor's or Supplier's compliance with the Owner's Policies, Procedures and By-laws. Any approved replacement of a Subcontractor or Supplier shall be made with no increase in the Contract Price and extension of the Contract Time and any costs incurred by the Owner for the services of the Contract Administrator in reviewing such proposed replacement shall be borne by the Contractor.

- 3.8.4 The Owner's consent to subcontracting by the Contractor shall not be construed as relieving the Contractor from any obligation under the Agreement and shall not impose any liability on the Owner.
- 3.8.5 The Owner, through the Contract Administrator, may provide to a Subcontractor, Supplier and Sub-subcontractor information as to the percentage of the Subcontractor's or Supplier's Work which has been certified for payment.
- 3.8.6 The Contractor shall pay the Subcontractors and Suppliers on a timely basis in accordance with the terms of their respective subcontracts and applicable Laws.

3.9 LABOUR AND PRODUCTS

- 3.9.1 The Contractor shall provide and pay for labour, Products, Construction Equipment, water, heat, light, power, transportation, and other facilities and services necessary for the performance of the Work in accordance with the Agreement. Without limiting the generality of the foregoing, the Contractor shall pay its Personnel, and shall cause the Subcontractors and Suppliers to pay their Personnel, performing the Work, in accordance with the labour related provisions set out in the Agreement and at intervals no less than those required by such Personnel's employment or labour agreements.
- 3.9.2 The Contractor covenants and agrees that the Work, including all Products and components thereof, shall conform to the Agreement in all respects, and, unless otherwise specified in the Agreement, shall be of merchantable quality and fit for their intended purpose as described in the Contract Documents and shall be new and free from Deficiencies. Products which are not specified shall be of a quality consistent with those specified and the use of such Products shall be subject to the acceptance of the Contract Administrator or Owner. This GC 3.9.2 shall be in addition to and not in limitation of any other right or remedy granted by the Agreement or otherwise available to the Owner.
- 3.9.3 Title to the Work including the Products (and each portion thereof) shall pass to the Owner immediately upon payment therefore (subject to applicable holdback that is not then due) or upon incorporation of the Products into the Work at the Site,

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whichever first occurs, free and clear of all liens, charges and encumbrances (subject to any rights or remedies provided by the Construction Act, if applicable). Notwithstanding any transfer of title to the Work or any portion thereof to the Owner, the Contractor shall be responsible for and bear the risk of Loss with respect to the Work (including Products delivered to the Site, whether or not incorporated into the Work) until the date of Total Performance of the Work. Title to Owner Supplied Material shall remain with the Owner at all times.

3.9.4 Substitutions

- .1 The Contractor shall not substitute any Product without the prior written approval of the Contract Administrator and the Owner.
- .2 Where the Agreement requires the Contractor to supply a Product, the Contractor may apply to the Contract Administrator to propose a substitution for such Product (“**Substitution**”) that equals or exceeds the quality, suitability, reliability, durability and performance of the Product designated in the Agreement. The application by the Contractor to the Contract Administrator for a Substitution shall be:
 - (1) in writing and include complete data as to the quality, suitability, reliability, durability, performance and projected cost or cost savings of the Substitution, impact on the Construction Schedule and such other information as the Contract Administrator may require; and
 - (2) made in such time as to ensure that the review and approval process by the Contract Administrator and the Owner shall not adversely impact the Construction Schedule.

The burden of proving the quality, suitability, reliability, durability and performance of a Substitution shall be upon the Contractor.

- .3 The approval or rejection of a Substitution shall be made at the sole and absolute discretion of the Contract Administrator and the Owner. Notwithstanding the foregoing, the Contractor shall not be entitled to any increase in Contract Price or extension of the Contract Time as a result of the review, approval or rejection of a Substitution by the Contract Administrator or the Owner.
- .4 Approval of a Substitution will only be for the specific circumstances set out in the application and shall not change or modify any other requirement contained in the Agreement or establish approval for the Substitution to be used in any other portion of the Work that is unrelated to the subject approval.

3.9.5 All surplus Products which have not been used in the performance of the Work shall be removed from the Site when notified in writing to do so by the Contract Administrator. The cost for such surplus Products shall be credited to the Fixed Price or Total Price of Unit Price Work under the Proper Invoice submitted pursuant to GC 5.7.1.1, to the extent the Owner has paid for such surplus Products.

3.9.6 The cost of overtime Work (including overtime rates):

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- .1 required beyond the normal working day at the Site (as may be described in the Specifications) to complete individual construction operations of a continuous nature in respect of Fixed Price Work or Unit Price Work, such as pouring or finishing of concrete or similar Work; or
- .2 in respect of Fixed Price Work or Unit Price Work that the Contractor elects to perform without the Owner or the Contract Administrator requesting such overtime Work; or
- .3 except as expressly provided for in the Specifications as a part of the Contract Price,

shall not be chargeable to the Owner and shall be at the cost of the Contractor and without adjustment in the Fixed Price or Unit Prices.

- 3.9.7 The Contractor shall maintain good order and discipline among the Contractor Parties engaged on the Work and shall not employ on the Work anyone not skilled in the tasks assigned.

3.10 DOCUMENTS AT THE SITE

- 3.10.1 The Contractor shall control, store and retain copies (one of which must be in hardcopy) of the Agreement, Submittals, reports, and records of meetings at the Site, in good order and readily available to the Owner and the Contract Administrator. Upon the request of the Owner, the Contractor shall provide hard copies and electronic copies of all the foregoing documents to the Owner, at the Owner's cost, except to the extent the delivery of such document already forms part of the Fixed Price Work.

- 3.10.2 The Contractor shall accurately and continuously note on the Drawings and Specifications kept by the Contractor at the Site, (1) all approved changes and deviations made during the Work which differ from that shown or specified in the Agreement and reviewed Shop Drawings indicating, in a neat, accurate and legible manner the Work as actually installed; (2) the exact location and detail of buried, embedded or concealed as-built conditions and all other as-built conditions of the Work (including the location of all asbestos abatement Work dealing with such matters as floor tiles and pipe insulation); and (3) the exact location and detail of Work installed on a "field run" basis (collectively, the "**As-Built Drawings**"). If any Work is performed otherwise than as shown in the Agreement, the Contractor shall note on such As-Built Drawings the Work as installed, including with respect to the mechanical, electrical and fire protection Work. The As-Built Drawings shall be made available for review by the Owner and the Contract Administrator at all times. The Contractor shall deliver the As-Built Drawings to the Owner on or before Substantial Performance of the Work, in the following format: (A) one complete set of reproducible final versions; and (B) one complete set stored on the latest edition of AutoCAD or such other format required by the Owner.

3.11 SHOP DRAWINGS

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- 3.11.1 The Contractor shall provide Shop Drawings if required by the Agreement or as the Contract Administrator may reasonably request. The Shop Drawings shall meet the requirements of the Agreement (including this 3.11, unless otherwise stipulated elsewhere in the Agreement or agreed to by the Contract Administrator) and the Contractor shall carry out the Work in accordance with Shop Drawings which meet such requirements. The Contractor shall not perform any portion of the Work covered by or affected by Shop Drawings until the Contract Administrator has completed its review of such Shop Drawings for construction in accordance with the procedure referred to in the Agreement.
- 3.11.2 The Contractor shall provide Shop Drawings to the Contract Administrator to review in orderly sequence and sufficiently in advance so as to cause no delay in the Work or in the work of other contractors.
- 3.11.3 Upon request of the Contractor or the Contract Administrator, they shall jointly prepare a schedule of the dates for provision, review and return of Shop Drawings.
- 3.11.4 The Contractor shall provide Shop Drawings in the form specified, or if not specified, as directed by the Contract Administrator.
- 3.11.5 Shop Drawings provided by the Contractor to the Contract Administrator shall indicate by stamp, date and signature of the Person responsible for the review that the Contractor has reviewed each one of them.
- 3.11.6 The Contract Administrator's review is for conformity to the design concept and for general arrangement only and shall not relieve the Contractor of responsibility for errors or omissions in the Shop Drawings or for meeting all requirements of the Agreement.
- 3.11.7 Shop Drawings which require approval of any legally constituted authority having jurisdiction shall be provided to such authority by the Contractor for approval.
- 3.11.8 The Contractor shall review all Shop Drawings before providing them to the Contract Administrator. The Contractor represents by this review that:
- .1 the Contractor has determined and verified all applicable field measurements, field construction conditions, Product and Owner Supplied Material requirements, catalogue numbers and similar data, or will do so, and
 - .2 the Contractor has checked and co-ordinated each Shop Drawing with the requirements of the Work and of the Agreement.
- 3.11.9 At the time of providing Shop Drawings, the Contractor shall expressly advise the Contract Administrator in writing of any deviations in a Shop Drawing from the requirements of the Agreement. The Contract Administrator shall indicate the acceptance or rejection of such deviation expressly in writing.
- 3.11.10 The Contractor shall provide revised Shop Drawings to correct those which the Contract Administrator rejects as inconsistent with the Agreement, unless otherwise directed by the Contract Administrator. The Contractor shall notify the Contract

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Administrator in writing of any revisions to the Shop Drawings other than those requested by the Contract Administrator.

- 3.11.11 The Contract Administrator shall review and return Shop Drawings in accordance with the schedule agreed upon, or, in the absence of such schedule, with reasonable promptness so as to cause no delay in the performance of the Work.
- 3.11.12 The Contractor shall provide the Owner with a "specification compliance report" from the manufacture or Supplier of each item of equipment forming part of the Products. The specification compliance report shall provide details which demonstrate that all applicable requirements of the Drawings and Specifications have been satisfied. Any deviations from such requirements must be addressed in the specification compliance report to the satisfaction of the Owner, as confirmed by the Owner. For clarity, any deviation set out in the specification compliance report is not accepted by the Owner, except to the extent such acceptance has been confirmed in writing by the Owner.

3.12 USE OF THE WORK

- 3.12.1 The Contractor shall confine Construction Equipment, Temporary Work, storage of Products, Owner Supplied Material, waste products and debris, and operations of Contractor Parties to limits indicated by Laws or the Agreement and shall not unreasonably encumber the Site. All Products and Owner Supplied Equipment shall be stored under suitable conditions to prevent damage, deterioration, and contamination.
- 3.12.2 The Contractor shall not load or permit to be loaded any part of the Work or any part of the Site with a weight or force that shall or could be considered to endanger the safety or integrity of the Work or any part of the Site, individuals and the area adjacent to the Site.

3.13 STANDARD OF CARE, QUALITY ASSURANCE AND QUALITY CONTROL

- 3.13.1 In performing the Work, the Contractor shall exercise a standard of care, skill and diligence that would normally be provided by an experienced, qualified and prudent contractor supplying similar work for similar projects ("**Standard of Care**"). The Contractor acknowledges and agrees that throughout the term of the Agreement, the Contractor's obligations, duties and responsibilities shall be interpreted in accordance with the Standard of Care. The Contractor shall exercise the Standard of Care in respect of any Products and Personnel which it may recommend to the Owner.
- 3.13.2 If required by the Specifications, the Contractor shall develop and maintain a quality assurance and quality control plan ("**QA/QC Plan**"), in accordance with the Specifications, to ensure that the Work, including the performance of the Work is in accordance with the Agreement.
- 3.13.3 As of the Effective Date, the Contractor represents and warrants that there are no pending, threatened or anticipated Claims that would have a material effect on the financial ability of the Contractor to perform the Work. The Contractor shall immediately notify the Owner of any such Claims that arise after the Effective Date

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and shall take all necessary and prudent steps to remedy or resolve such Claims to ensure that the performance of the Work is unaffected.

3.14 USE AND OCCUPANCY OF THE WORK PRIOR TO SUBSTANTIAL PERFORMANCE OF THE WORK

- 3.14.1 Without limitation to any other right of the Owner in the Agreement, the Owner shall, at any and all times, have the right to enter, occupy and use the Work or any part thereof prior to Substantial Performance of the Work if such entry and occupancy does not materially interfere with the Contractor's performance and the completion of the Work within the Contract Time. Should the Owner wish to use or occupy part or all of the Work prior to Substantial Performance of the Work, the Owner shall give thirty (30) Calendar Days' Notice in Writing to the Contractor of the intended purpose and extent of such use or occupancy.
- 3.14.2 If the Owner exercises the right of occupancy and/or use of the Work in accordance with GC 3.14.1, it agrees to do so in a manner that does not materially interfere with the Contractor's performance and the completion of the Work within the Contract Time and with the understanding that the Owner will be occupying premises within a construction site which will require compliance with all normal construction site requirements including health and safety requirements.
- 3.14.3 The use or occupancy of the Work or any part thereof by the Owner prior to Substantial Performance of the Work shall not constitute an acceptance of the Work or parts so occupied. Such use or occupancy of the Work shall not:
- .1 relieve or limit the Contractor or its surety from any responsibilities under the Agreement or liability that has arisen, or may arise, from the performance of the Work;
 - .2 waive the Owner's right to charge the Contractor liquidated damages (including Delay Liquidated Damages) in accordance with the terms of the Agreement; or
 - .3 affect the Warranty Period or the warranties set out in the Agreement.
- 3.14.4 Within five (5) Working Days of receiving the Notice in Writing referred to in GC 3.14.1, the Contractor shall notify the Owner in writing of the additional premium cost, if any, to maintain all risk property insurance coverage (including boiler coverage). The cost of such additional premium shall be paid by the Owner (but without any markup by the Contractor) through the issuance of a Change Order, provided that the Owner's need to use or occupy the space did not arise as a result of the Work being behind schedule for a reason other than as described in GC 7.5.1, 7.5.2 or 7.5.3. If because of such use or occupancy the Contractor is unable to provide such additional coverage, the Owner shall provide, maintain and pay for all risk property insurance coverage (including boiler coverage) insuring the full value of the used or occupied portion of the Work, including coverage for such use or occupancy, and shall provide the Contractor with proof of such insurance. The Contractor shall refund to the Owner the unearned premiums applicable to the Contractor's policies upon termination of coverage.

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3.15 ACCESS TO PROPERTIES ADJOINING THE WORK AND INTERRUPTION OF OPERATIONS

- 3.15.1 The Contractor shall provide, at all times and at no extra cost to the Owner and without extension of the Contract Time, access to fire hydrants, water and gas valves, and all other Utilities and Structures and access to any existing equipment located at the Site which remains in operation by the Owner over the duration of the Project. The operation of any such Utilities and Structures and equipment shall take precedence over the Work in the case of conflicts.
- 3.15.2 The Contractor acknowledges that during the term of the Contract, the Place of the Work and the area in the vicinity of the Place of the Work may be occupied by the Owner and other Persons and that, if so occupied, such Persons will continue to carry out their normal operation and use of Place of the Work and shall be allowed to maintain their services and business continuity. The Contractor shall perform the Work in the least intrusive manner possible so as to avoid interfering with any such operations in the vicinity of the Work. The Contractor shall not disrupt the use or enjoyment of the Place of the Work and the vicinity by the Owner and other Persons.

4. PROTECTION OF PERSONS, WORK AND PROPERTY

4.1 PROTECTION OF WORK AND PROPERTY

- 4.1.1 The Contractor shall protect the Work, Persons and the Owner's property and property adjacent to, in the vicinity of or proximate to the Site from damage which may arise as the result of the Work (including from settlement of ground, flow of water, vibration or shock), and the Contractor shall, and shall cause the other Contractor Parties to, take all precautions to avoid such damage. The Contractor shall be responsible for making good any such damage, at its cost, except damage which occurs as the result of:
- .1 subject to 3.6 – DOCUMENT REVIEW, errors, inconsistencies or omissions in the Agreement; and
 - .2 negligent acts or omissions by the Owner, the Owner Representative, the Contract Administrator, any other contractors (other than the Contractor Parties), and their respective Personnel.
- 4.1.2 Should damage occur to the Work or Owner's property for which the Contractor is not responsible for pursuant to the Agreement, the Contractor shall make good such damage to the Work and, if the Owner so directs, to the Owner's property. The Contract Price and Contract Time shall be adjusted as provided in 7.1 - OWNER'S RIGHT TO MAKE CHANGES, 7.2 - CHANGE ORDER and 7.3 - CHANGE DIRECTIVE.
- 4.1.3 Construction Affecting Railway Property or Third Party Operations
- .1 The Contractor shall be required to conduct the Work in such a manner as to avoid the possibility of damaging or interfering with any railway property in the vicinity of the Work. Every reasonable precaution shall be taken by the

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Contractor to ensure the safety and protection of all Contractor Parties and Construction Equipment and railway property (at track crossings or otherwise) and users thereof throughout the performance of the Work.

- .2 The Owner shall pay the costs of all flagging and other traffic control measures required and provided by a railway company unless such costs are solely a function of the Contractor's chosen method of completing the Work.

4.1.4 Operational Risk

- .1 The position of all pole lines, conduits, pipes, watermains, sewers and other covered, underground and overground utilities and structures in, on, adjacent to under or over the Site (collectively, the "**Utilities and Structures**") are not necessarily provided in the Agreement, and where provided, the accuracy of the position of such Utilities and Structures is not guaranteed and the Owner disclaims all liability with respect to same except to the extent explicitly stated otherwise in row E.3 of the Information Sheet. The Contractor shall be liable for damages to the Utilities and Structures as a result of any act or omission, whether or not the result of negligence, by the Contractor Parties and the Losses relating to such damage shall not be chargeable to the Owner and shall be at the cost of the Contractor.
- .2 Without limiting the generality of GC 4.1.4.1, before commencing any Work, the Contractor shall inform itself of the existence and exact condition, size, depth and location of all Utilities and Structures in accordance with the Standard of Care and the Specifications, if applicable, and such process shall occur in conjunction with the Contractor's review of the Agreement pursuant to GC 3.6.1. For clarity, to the extent the Owner is required to provide such information to the Contractor as a part of its obligation under Laws, including the *Ontario Underground Infrastructure Notification System Act, 2012*, any work required to obtain such information shall be performed by the Contractor as a part of the Work without any increase to the Contract Price or extension of the Contract Time.
- .3 As a part of, and in co-ordination with, the Work, the Contractor shall provide for the removal, protection, support, temporary and permanent relocation and restoration of the Utilities and Structures to the satisfaction of the owners of the Utilities and Structures, and in performing such Work, the Contractor shall comply with the requirements of the owners of the Utilities and Structures. The Contractor shall arrange with the appropriate owners for the stake out of all Utility and Structure connections that may be affected by the Work. The Contractor shall maintain records of such stake outs and make such records available to the Owner upon request. The Contractor shall observe the location of such stake outs, prior to commencing the Work, and in the event that there is a discrepancy between the location of such stake outs and the locations provided in the Agreement, that may affect the Work, the Contractor shall, prior to performing the affected portion of the Work, immediately notify the Contract Administrator and the affected owners of the Utilities and Structures, in order to resolve the discrepancy.

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- .4 Where any interruptions in the supply of utility services are required and are authorized by the Contract Administrator, the Contractor shall, in consultation with the Owner, give the affected property owners notice in accordance with the Specifications, and shall arrange such interruptions so as to create a minimum of interference to those affected.
- 4.1.5 Without in any way limiting the Contractor's obligations under 4.1, should the Contractor or any Subcontractor, Supplier or Sub-subcontractor cause Losses to trees or other plantings, whether owned by the Owner or third parties, the Contractor shall be liable for the replacement cost of the trees or other plantings damaged, including the cost of any arborist or other consultant, and such Losses may be set-off in accordance with 5.10 – OWNER'S SET-OFF.
- 4.1.6 The Contractor shall immediately inform the Contract Administrator of all damage that occurs during the term of the Agreement. The Contractor shall then investigate and report back to the Contract Administrator and Owner within fifteen (15) Calendar Days of the occurrence of such damage. Such reports shall include all details as the Owner and Contract Administrator require. The Contractor shall neither undertake to repair and/or replace any damage whatsoever to the Work of other contractors, or to adjoining property, nor acknowledge the same was caused or occasioned by the Contractor, without first consulting the Owner and receiving written instructions as to the course of action to be followed from either the Owner or the Contract Administrator. However, where there is imminent danger to life or public safety, the Contractor shall take such emergency action as it deems necessary to remove the danger. The Contractor shall notify the Owner of such imminent danger as promptly as is practicable under the circumstances. The Contract Administrator may conduct its own investigation and the Contractor shall provide all assistance to the Contract Administrator and Owner as may be necessary for that purpose.
- 4.1.7 The Contractor shall immediately upon becoming aware of a complaint or Claim made by a resident or property owner, inform the Contract Administrator and the Owner.
- 4.2 HEALTH AND SAFETY**
- 4.2.1 The Contractor shall, until Total Performance of the Work, be solely responsible for:
 - .1 construction health and safety at the Site;
 - .2 compliance with the Laws and practices which relate to construction health and safety, including OHSA; and
 - .3 initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Work and the other work performed by the Owner's Personnel and other contractors at the Site (collectively, the "**Other Work**").
- 4.2.2 Without restricting the generality of any other provision in the Agreement, the Contractor shall, for the purposes of the OHSA, be deemed, construed and designated as the "constructor" for the Work (including the Work of the

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Subcontractors, Suppliers and Sub-subcontractors and the Other Work of the Owner's Personnel and other contractors at the Site) and shall assume and fulfill all of the responsibilities of constructor as set out in OHSA in respect of the Work and the Other Work and the Site from the Commencement Date until Total Performance of the Work. Unless explicitly stated otherwise in the Agreement, nothing in the Agreement shall be deemed or construed as making the Owner the "employer" (as defined in OHSA) or the "constructor" (as defined in OHSA), either instead of or jointly with the Contractor.

- 4.2.3 The Contractor shall establish and administer a health and safety plan for the performance of the Work at the Site, which shall comply with the requirements of all Governmental Authorities having jurisdiction and all Laws. The Contractor shall provide the Owner with a copy of the health and safety plan prior to the Commencement Date. The Contractor shall ensure the Contractor Parties, Owner's Personnel and other contractors at the Site comply with the health and safety plan. As part of its reporting obligations on the progress of the Work described in the Specifications, the Contractor shall provide information on the ongoing implementation of its health and safety plan.
- 4.2.4 Prior to the Commencement Date, the Contractor shall submit to the Owner:
- .1 a current WSIB clearance certificate;
 - .2 a tax statutory declaration in the form attached as Form 3 of Schedule G – Forms;
 - .3 documentation of the Contractor's in-house corporate level health and safety program;
 - .4 a copy of the Notice of Project filed with the Ministry of Labour naming itself as "constructor" under OHSA; and
- 4.2.5 The Contractor shall possess and maintain a valid Certificate of Recognition (COR™) or an Equivalent OHS Certification for the duration of performance of the Agreement. The Contractor shall provide the Contract Administrator with a new Certificate of Recognition (COR™) or Equivalent OHS Certification immediately upon the expiry of the previous Certificate of Recognition or Equivalent OHS Certification or otherwise upon demand by the Contract Administrator.
- 4.2.6 The Contractor shall report to the Owner all health and safety incidents at the Site including the Contractor's response. Without limiting the foregoing, the Contractor shall report any such incident occurring on or off the Site that relates to its Work or Other Work immediately, and shall, in addition, in no event later than forty-eight (48) hours give written notice of such incident
- 4.2.7 During the course of the Work, the Contractor shall furnish forthwith to the Contract Administrator a copy of all correspondence, reports, orders or charges respecting health and safety, including under OHSA, the *Technical Standards and Safety Act, 2000*, the *Highway Traffic Act*, the *Environmental Protection Act*, the *Workplace Safety and Insurance Act, 1997*, the *Employment Standards Act, 2000* and the

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Criminal Code, which are received by, or which come to the notice of, the Contractor that apply or are relevant to any of the Work or activities conducted under the terms of the Agreement. The Contractor shall immediately take all corrective measures necessary to address the issues identified or arising out of any such correspondence, report, order or charges.

- 4.2.8 Without limiting the obligations of the Contractor described in 3.3 – CONSTRUCTION BY OWNER OR OTHER CONTRACTORS and this 4.2 – HEALTH AND SAFETY, the Owner or Contract Administrator may, by written notice, direct the Contractor to stop the Work where the Owner or Contract Administrator determines that there is an imminent risk to the safety of individuals or property at the Site. In the event that the Contractor receives such written notice, it shall immediately stop the Work and secure the Site. The Contractor shall not be entitled to an extension of the Contract Time or to an increase in the Contract Price unless, and only to the extent, the event which caused such imminent risk would entitle the Contractor to an extension of the Contract Time or the reimbursement of the Contractor's Losses as provided in GC 7.5.1, 7.5.2 or 7.5.3.
- 4.2.9 Nothing in the Agreement shall be construed as requiring the Contract Administrator or Owner to monitor or approve the health and safety practices of the Contractor.

4.3 HAZARDOUS MATERIALS

- 4.3.1 Unless expressly permitted in the Agreement, the Contractor shall, and shall cause the other Contractor Parties to, not bring onto the Site any Hazardous Materials without the prior written authorization of the Contract Administrator. No later than five (5) Working Days following execution of the Agreement and prior to the Contractor mobilizing to the Site, the Contractor shall provide to the Owner, a list of all Hazardous Materials, including safety data sheets, which the Contractor expects to use for the Work, for the Owner's review, and update the Owner with any changes made to the list. The Contractor shall also comply with all other provisions under OSHA related to Hazardous Materials.
- 4.3.2 The Contractor shall use all reasonable care to avoid spilling or disturbing any Hazardous Materials during the performance of the Work. In the case of a "spill" as defined in the *Environmental Protection Act*, the Contractor shall immediately notify the Owner and the Contract Administrator of the location and details of such spill and report the spill to the relevant Governmental Authority. Reporting a spill to the Owner shall not relieve the Contractor of its legislated responsibilities regarding spills or discharges.
- 4.3.3 If the Contractor or the Owner encounters Hazardous Materials at the Site or has reasonable grounds to believe that Hazardous Materials are present at the Site, which were not:
- .1 brought to the Site by the Contractor Parties;
 - .2 disclosed by the Owner or in the Agreement; or

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.3 discovered by the Contractor through the fulfillment of its responsibilities pursuant to 3.6 - EXAMINATION OF SITE,

the Contractor shall:

.4 take all necessary steps, in accordance with Laws, including stopping the Work, to

- (1) manage, remove, dispose of, store or otherwise render harmless such Hazardous Materials;
- (2) ensure that no individual's exposure to any Hazardous Materials exceeds any applicable time weighted levels prescribed by Laws (including O Reg 833 under OHSA); and
- (3) ensure that no property is damaged or destroyed as a result of exposure to, or the presence of, such Hazardous Materials; and

.5 immediately report the circumstances to the Contract Administrator and the other party in writing.

4.3.4 If the Owner and Contractor do not agree on:

- .1 the existence and significance of the Hazardous Materials described in GC 4.3.3;
- .2 if such Hazardous Materials were brought onto the Site by a Contractor Party;
- .3 if such Hazardous Materials were disclosed by the Owner or in the Agreement; or
- .4 if such Hazardous Materials should have been discovered by the Contractor through the fulfillment of its responsibilities pursuant to 3.6 - EXAMINATION OF SITE,

the Owner shall retain and pay for an independent qualified expert to investigate and determine such matters. The expert's report shall be delivered to the Owner and the Contractor.

4.3.5 If the Owner and Contractor agree or if the expert referred to in GC 4.3.4 determines that the Hazardous Materials were not brought onto the Site by a Contractor Party and were not disclosed by the Owner or in the Agreement and would not have been discovered by the Contractor through the fulfillment of its responsibilities pursuant to 3.6 - EXAMINATION OF SITE, the Owner shall immediately at the Owner's own cost:

- .1 reimburse the Contractor for the costs of all steps taken pursuant to GC 4.3.3; and
- .2 extend the Contract Time for such reasonable time as the Contract Administrator may recommend in consultation with the Contractor and the expert referred to in 4.3.4 and reimburse the Contractor for reasonable Losses incurred as a result of

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the delay, but excluding any consequential, indirect or special damages and loss of profit, loss of opportunity or loss of productivity resulting from such delay.

- 4.3.6 If the Owner and Contractor agree or if the expert referred to in GC 4.3.4 determines that the Hazardous Materials were brought onto the Site by a Contractor Party and were not disclosed by the Owner or in the Agreement and would not have been discovered by the Contractor through the fulfillment of its responsibilities pursuant to 3.6 - EXAMINATION OF SITE, the Contractor shall immediately at the Contractor's own cost and without extension of the Contract Time:
- .1 make good any damage to the Work, the Owner's property or property adjacent to the Site as provided in GC 4.1.1; and
 - .2 reimburse the Owner for reasonable Losses incurred under GC 4.3.4 but excluding any consequential, indirect or special damages and loss of profit, loss of opportunity or loss of productivity.
- 4.3.7 If either party does not accept the expert's findings under GC 4.3.4, the disagreement shall be settled in accordance with 12. DISPUTE RESOLUTION. If such disagreement is not resolved within thirty (30) Calendar Days, the parties shall act immediately in accordance with the expert's determination and take the steps required by GC 4.3.5 or GC 4.3.6 it being understood that by so doing, neither party will jeopardize any claim that party may have to be reimbursed as provided by 4.3 - HAZARDOUS MATERIALS.
- 4.4 MOULD**
- 4.4.1 If the Contractor or Owner observes or reasonably suspects the presence of mould at the Site, the remediation of which is not expressly part of the Work:
- .1 the observing party shall immediately report the circumstances to the other party in writing;
 - .2 the Contractor shall immediately take all reasonable steps, including stopping the Work if necessary, to ensure that no individual suffers injury, sickness or death and that no property is damaged as a result of exposure to or the presence of the mould; and
 - .3 if the Owner and Contractor do not agree on the existence, significance or cause of the mould or as to what steps need be taken to deal with it, the Owner shall retain and pay for an independent qualified expert to investigate and determine such matters. The expert's report shall be delivered to the Owner and Contractor.
- 4.4.2 If the Owner and Contractor agree, or if the expert referred to in GC 4.4.1.3 determines that the presence of mould was caused by the Contractor's operations under the Agreement, the Contractor shall promptly, and in no event later than within ten (10) Working Days after such agreement or determination, as applicable, at the Contractor's own cost:

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- .1 take all reasonable and necessary steps to safely remediate or dispose of the mould;
 - .2 make good any damage to the Work, the Owner's property or property adjacent to the Site as provided in GC 4.1.1; and
 - .3 reimburse the Owner for reasonable Losses incurred under GC 4.4.1.3.
- 4.4.3 If the Owner and Contractor agree, or if the expert referred to in GC 4.4.1.3 determines that the presence of mould was not caused by the Contractor's operations under the Agreement, the Owner shall promptly, and in no event later than within ten (10) Working Days after such agreement or determination, as applicable, at the Owner's own cost:
- .1 take all reasonable and necessary steps to safely remediate or dispose of the mould;
 - .2 reimburse the Contractor for the cost of taking the steps under GC 4.4.1.2 and making good any damage to the Work as provided in GC 4.1.2; and
 - .3 extend the Contract Time for such reasonable time as the Contract Administrator may recommend in consultation with the Contractor and the expert referred to in GC 4.4.1.3 and reimburse the Contractor for reasonable Losses incurred as a result of the delay but excluding any consequential, indirect or special damages and loss of profit, loss of opportunity or loss of productivity.
- 4.4.4 If either party does not accept the expert's finding under GC 4.4.1.3, the disagreement may be settled in accordance with 12. DISPUTE RESOLUTION. If such disagreement is not resolved within thirty (30) Calendar Days, the parties shall act immediately in accordance with the expert's determination and take the steps required by GC 4.4.2 or 4.4.3, it being understood that by so doing neither party will jeopardize any Claim the party may have to be reimbursed as provided by 4.4 - MOULD.
- 4.5 ARTIFACTS AND FOSSILS**
- 4.5.1 Fossils, coins, articles of value or antiquity, structures and other remains or things of scientific or historic interest discovered at the Place or Work shall, as between the Owner and the Contractor, be deemed to be the absolute property of the Owner.
- 4.5.2 The Contractor shall take all reasonable precautions to prevent removal or damage to discoveries as identified in GC 4.5.1, and shall immediately notify the Contract Administrator upon discovery of such items and shall suspend the Work within any area identified by the Contract Administrator. Initial notification may be verbal provided that such notice is confirmed in writing by the Contractor within two (2) Calendar Days of discovery.
- 4.5.3 The Contract Administrator will investigate the impact on the Work of the discoveries identified in GC 4.5.1. If conditions are found that would cause an increase or decrease in the Contractor's cost or time to perform the Work, the Contract

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Administrator, with the Owner's approval, will issue appropriate instructions for a change in the Work as provided in 7.2 - CHANGE ORDER or 7.3 - CHANGE DIRECTIVE.

5. CONTRACT PRICE AND PAYMENT

5.1 CONTRACT PRICE

5.1.1 The Contract Price, which excludes Value Added Taxes, is described in paragraph 2.1 of Section 2 of the Agreement – CONTRACT PRICE.

5.2 OWNER'S OBLIGATION TO PAY

5.2.1 Subject to the provisions of the Agreement, and in accordance with the Construction Act, the Owner shall:

- .1 in respect of Fixed Price Work, make progress payments and, if any, milestone payments to the Contractor for amounts undisputed by the Owner on account of the Fixed Price when due, together with such Value Added Taxes as may be applicable to such payments;
- .2 in respect of Unit Price Work, make progress payments to the Contractor for amounts undisputed by the Owner on account of the Total Price of Unit Price Work when due, together with such Value Added Taxes as may be applicable to such payments;
- .3 upon Substantial Performance of the Work, pay to the Contractor the unpaid balance of the ten percent (10%) portion of the Lien Holdback when due together with such Value Added Taxes as may be applicable to such payment; and
- .4 upon Total Performance of the Work, pay to the Contractor the unpaid amount of the Contract Price and the finishing portion of the Lien Holdback when due together with such Value Added Taxes as may be applicable to such payments.

5.2.2 Payment of the Contract Price shall be full compensation for all labour, services, Contractor Parties, Construction Equipment and Products required in the performance of the Unit Price Work, including, hand tools, supplies and other incidentals.

5.2.3 The Unit Prices shall not be adjusted during the term of the Agreement other than as provided for in Schedule B – Pricing Form.

5.2.4 Payment for any Unit Price Work not specifically detailed as part of any one item of Unit Price Work and without specified details of payment shall be deemed to be included in the items of Unit Price Work with which it is associated.

5.2.5 Advance payments for Products not yet incorporated into the Work (whether or not delivered to the Site) shall not be made by the Owner without the prior written consent of the Owner, in its sole and absolute discretion. Any such advance payment shall be made on terms as agreed to by the Owner and Contractor (such terms may

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include transfer of title, the Contractor's responsibility for risk of Loss and off-site storage requirements).

- 5.2.6 In the event of Losses occurring where payment becomes due under the all risk property insurance policies, payments shall be made to the Contractor in accordance with the provisions of 8.1 – INSURANCE.

5.3 PROPER INVOICES

- 5.3.1 After the Commencement Date, Proper Invoices shall be given to the Owner monthly for each Invoice Period as the Work progresses, unless otherwise specified in row B.9 of the Information Sheet. Proper Invoices shall be given to the Owner by giving it to the Owner Representative in accordance with row B.10 of the Information Sheet.

- 5.3.2 If the Contractor is performing Unit Price Work, the Contract Administrator or Owner Representative shall make an Estimate of Units once an Invoice Period, in writing. The first Estimate of Units shall be in respect of the Unit Price Work performed since the Contractor commenced the Unit Price Work, and every subsequent Estimate of Units, except the final one, shall be in respect of the Unit Price Work performed since the preceding Estimate of Units was made. The Contract Administrator or Owner Representative, as applicable, shall provide a copy of each such Estimate of Units to the Contractor on or before the 5th Calendar Day after the end of the Invoice Period (or the next Working Day following such date if such date is not a Working Day).

- 5.3.3 For all Work, the Contractor shall submit a draft invoice to the Contract Administrator:

- .1 at the invoice meeting held on or before the 7th Calendar Day after the end of the Invoice Period (or the next Working Day following such date if such date is not a Working Day) to which the Proper Invoice relates; or
- .2 on or before the 7th Calendar Day after the end of the Invoice Period (or the next Working Day following such date if such date is not a Working Day) to which the Proper Invoice relates, in such form of written or electronic communication as agreed to by the parties.

If the Contractor submits the draft invoice in accordance with GC 5.3.3.1, then the Contract Administrator, the Owner and the Contractor shall review such draft invoice at such meeting or, if the Contractor submits the draft invoice in accordance with GC 5.3.3.2, then the Contractor Administrator and the Owner shall review such draft invoice and, prior to the 14th Calendar Day after the end of such Invoice Period, the Owner and the Contract Administrator may provide the Contractor with suggested revisions to the draft invoice based upon the progress of the Work, the Contract Administrator's or Owner Representative's, as applicable, Estimate of Units and other relevant considerations. The draft invoice shall be submitted in the same format (and with the same content) as the Proper Invoice.

- 5.3.4 On the 14th Calendar Day after the end of the Invoice Period to which the Proper Invoice relates, the Contractor shall give a Proper Invoice to the Owner. In preparing the Proper Invoice, the Contractor should take into consideration revisions proposed by the Contract Administrator and the Owner from the draft invoice process including

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any reconciliations with the Contract Administrator's or Owner Representative's, as applicable, Estimate of Units. Incorporating such revisions will reduce the likelihood of the Owner issuing a notice of non-payment pursuant to GC 5.4.1.3 but is without prejudice to any rights or remedies of the Owner under the Agreement or otherwise. For clarity:

- .1 a Proper Invoice shall not be rendered in compliance with the requirements of the Agreement solely by reason of a failure to incorporate any such proposed revisions including any reconciliation with the Contract Administrator's or Owner Representative's, as applicable, Estimate of Units; and
- .2 the Contractor may only give to the Owner a Proper Invoice on the 14th Calendar Day after the end of the Invoice Period to which the Proper Invoice relates, and the Contractor shall not give to the Owner a Proper Invoice on any other Calendar Day. Any Proper Invoice received by the Owner on any Calendar Day:
 - (1) earlier than the 14th Calendar Day after the end of such Invoice Period shall be deemed to have been received by the Owner on the 14th Calendar Day after the end of such Invoice Period; or
 - (2) later than the 14th Calendar Day after the end of such Invoice Period shall be deemed to have been received by the Owner on the Calendar Day of such delivery,

and if the date on which the Proper Invoice is received under GC 5.3.4.2, or is deemed to have been received under GC 5.3.4.2(1) or (2), is not a Working Day, then it shall be deemed to be received on the next Working Day.

5.3.5 The amount applied for in each Proper Invoice shall be:

- .1 for Fixed Price Work:
 - (1) relating to milestones set out in the Agreement, the portion of the Fixed Price attributable to the milestones which the Owner has agreed have been completed on or before the last Calendar Day of the Invoice Period to which the Proper Invoice relates except for milestones dealt with in prior Proper Invoices;
 - (2) not relating to milestones set out in the Agreement, the value, proportionate to the Fixed Price not attributable to the milestones, of such Fixed Price Work performed to the last Calendar Day of the Invoice Period to which the Proper Invoice relates less the value of such Fixed Price Work previously invoiced in prior Proper Invoices;
- .2 for Unit Price Work, the aggregate of the total units for each item of the Unit Price Work performed to the last Calendar Day of the Invoice Period to which the Proper Invoice relates multiplied by the applicable Unit Price of each such item, less the value of all Unit Price Work previously invoiced in prior Proper Invoices; and

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- .3 for T&M Changes in the Work, an amount equal to:
- (1) the total T&M Price of all T&M Changes in the Work performed to the last Calendar Day of the month to which the Proper Invoice relates; less
 - (2) the total T&M Price of all T&M Changes in the Work in respect of all prior Proper Invoices,
- calculated in accordance with Section 3 of Schedule E – Valuing Changes in the Work.

For clarity, the amount applied for in each Proper Invoice shall not include any amounts included in any Claim Notice unless and until the Owner or the Contract Administrator, as the case may be, has issued a determination to the Contractor regarding the validity of such Claim Notice pursuant to GC 7.7.6.

5.3.6 Schedule of Values

- .1 The Contractor shall submit to the Contract Administrator, within fourteen (14) Calendar Days of the Effective Date and prior to the first Proper Invoice, a schedule of values with a detailed breakdown of the Fixed Price Work not relating to milestones, aggregating the total amount of the Fixed Price not attributable to the milestones, so as to facilitate evaluation of Proper Invoices.
- .2 The schedule of values shall:
 - (1) be made out in such form and supported by such evidence as the Contract Administrator may reasonably direct;
 - (2) include a fair and reasonable value for the preparation and completion of the As-Built Drawings; and
 - (3) include the fixed price for the bonds and insurance to be maintained by the Contractor in compliance with the requirements of the Agreement and provide for the payment of such fixed price for the bonds and insurance in amounts proportionate to the payment of the Fixed Price not attributable to the milestones unless otherwise agreed to by the Contract Administrator.
- .3 When accepted by the Contract Administrator, the schedule of values shall be used as the basis for evaluating Fixed Price Work not relating to the milestones in Proper Invoices, unless both parties agree the schedule of values is in error.
- .4 The Owner, acting reasonably, reserves the right to modify costs allocated to the various breakdown items in the schedule of values during the performance of the Work to prevent front loading.

- 5.3.7 The Proper Invoice shall be in a form similar to Form 1 of Schedule G – Sample Proper Invoice and shall, to the extent applicable:

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- .1 include the following information, to the extent such information is not included in any schedule of values:
 - (1) the Contractor's name, telephone number and mailing address, and contact information of the Contractor Project Manager;
 - (2) remittance payment information;
 - (3) Proper Invoice number;
 - (4) the date of the Proper Invoice and the Invoice Period during which the Work was performed;
 - (5) the Contract number;
 - (6) purchase order number
 - (7) contact information of the Owner's Representative and Contract Administrator;
 - (8) a description of the Project;
 - (9) percentage of Work completed to date;
 - (10) a description of the Work performed during the Invoice Period and a specific itemization of the Work with quantities where appropriate including:
 - (A) the Contract Administrator's or Owner Representative's, as applicable, Estimate of Units; and
 - (B) the Contractor's Estimate of Units;
 - (11) the total Contract Price and the amount of the Contract Price previously paid;
 - (12) the value of Work and changes in the Work performed to date itemized by Change Order; and
 - (13) the amount payable for the Work and changes in the Work performed during the Invoice Period;
- .2 include the schedule of values;
- .3 include a detailed description of expenditures under the Cash Allowance and Provisional Allowance;
- .4 include Daily Contractor Work Records;
- .5 include evidence of compliance with worker's compensation legislation including a WSIB clearance certificate;

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- .6 include a statutory declaration using the latest form CCDC 9A - 2018 Statutory Declaration of Progress Payment Distribution by Contractor, confirming that all accounts of the Contractor have been paid in full up to and including the latest progress payment received;
- .7 for advance payment, if applicable, for Products not yet incorporated into the Work:
 - (1) list such Products (and the advance payment calculations in respect thereof) as a separate line item; and
 - (2) be supported by invoices and such other evidence as the Contract Administrator may reasonably request to establish the value and delivery of such Products;
- .8 list the Lien Holdback, Contractual Holdback and any other holdbacks provided for under this Contract as a separate line item;
- .9 include the Contractor's registration number for Value Added Taxes and list the total amount of Value Added Taxes separate from the total Contract Price;
- .10 include a copy of the latest Current Schedule delivered in compliance with the applicable requirements of 3.5 – CONSTRUCTION SCHEDULE; and
- .11 include such other information and documents: (1) identified elsewhere in the Agreement; or (2) as required under the Construction Act.

5.3.8 A Proper Invoice may be revised by the Contractor after it has submitted the Proper Invoice to the Owner, if:

- .1 the Owner agrees in advance to the revision;
- .2 the date of the Proper Invoice is not changed; and
- .3 the Proper Invoice continues to be in compliance with the requirements of GC 5.3.7.

5.4 PROGRESS PAYMENT

5.4.1 After receipt by the Contract Administrator of a Proper Invoice submitted by the Contractor in accordance with 5.3 – PROPER INVOICES:

- .1 the Contract Administrator shall promptly inform the Owner of the date of receipt of the Proper Invoice;
- .2 the Contract Administrator shall, no later than the number of Calendar Days or Working Days, as applicable, after the receipt of the Proper Invoice identified in row C.8 of the Information Sheet, issue to the Owner and copy to the Contractor, a certificate for payment in the amount applied for, or in such other undisputed amount as the Contract Administrator determines to be properly due; and

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.3 if the Contract Administrator, or the Owner independent of the Contract Administrator, disputes all or any portion of the amount applied for in such Proper Invoice, the Owner shall promptly, but no later than fourteen (14) Calendar Days after the Contract Administrator's receipt of the Proper Invoice from the Contractor, provide the Contractor a notice of non-payment in the form and manner prescribed by the Construction Act specifying the amount that is not being paid and detailing all of the reasons for such non-payment.

5.4.2 The Owner shall, no later than twenty-eight (28) Calendar Days after the receipt of the Proper Invoice, make payment to the Contractor of the amount set out in the Proper Invoice less the amount disputed by the Contract Administrator or the Owner independent of the Contract Administrator, as applicable, that is set out in the notice of non-payment issued pursuant to GC 5.4.1.3. For clarity, progress payments for Unit Price Work shall be based on Estimates and as such shall be construed and held to be approximate. Subject to section 1.1 of Schedule E – Valuing Changes in the Work, the final quantities of total units for each item of the Unit Price Work performed for the Proper Invoice submitted pursuant to GC 5.7.1.1 shall be based on actual field measurements of the Unit Price Work completed. The Owner shall retain the Contractual Holdback, Lien Holdback and any other holdbacks provided for under this Contract as a separate line item from such payment and may retain any other amount pursuant to 5.10 - OWNER'S SET-OFF. Unless otherwise specified in the Agreement, no letter of credit or demand-worded holdback shall be accepted or used to retain any part of the Lien Holdback.

5.4.3 For clarity, if the Contractor fails to submit a Proper Invoice to the Contract Administrator which is in compliance with the requirements of GC 5.3.7, the Owner shall not be required to make payment to the Contractor within the twenty-eight (28) Calendar Day period set out in GC 5.4.2. Such twenty-eight (28) Calendar Day period shall not commence until such time as the Contract Administrator has received from the Contractor a Proper Invoice in compliance with the requirements of GC 5.3.7.

5.5 SUBSTANTIAL PERFORMANCE OF THE WORK

5.5.1 When the Contractor considers that Substantial Performance of the Work has been attained the Contractor shall, within one (1) Working Day, deliver to the Contract Administrator and to the Owner a comprehensive list of items to be completed or corrected, together with a written application for a review by the Contract Administrator to establish Substantial Performance of the Work. Failure to include an item on the list does not alter the responsibility of the Contractor to complete the Agreement. Such written application shall include the proof required by the Agreement including the Specifications to demonstrate that the Work has been substantially performed in conformance with the requirements of the Construction Act.

5.5.2 The Contract Administrator shall review the Work to verify the validity of the written application for Substantial Performance of the Work and shall promptly, and in any event, no later than twenty (20) Calendar Days after receipt of the Contractor's list and application:

.1 advise the Contractor in writing that the Work is not substantially performed and give reasons why, or

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.2 set out the date of Substantial Performance of the Work in the certificate of Substantial Performance of the Work and issue a copy of such certificate to each of the Owner and the Contractor within seven (7) Calendar Days after signing such certificate. The certificate of Substantial Performance of the Work shall be in the form prescribed by the Construction Act.

5.5.3 Immediately following the issuance of the certificate of Substantial Performance of the Work, the Contractor shall prepare and submit to the Owner and the Contract Administrator a schedule for completing the Work and correcting all Deficiencies, which establishes the date for the Total Performance of the Work. Upon the Owner and the Contract Administrator's approval of such schedule, the Construction Schedule shall be deemed to be amended to include such schedule. The date for Total Performance of the Work identified in such schedule shall not be later than the Scheduled Date for Total Performance of the Work.

5.5.4 Upon receipt of a copy of the certificate of Substantial Performance of the Work, the Contractor shall forthwith, as required by section 32(1) of the Construction Act, publish a copy of the certificate in the manner set out in the regulations. If the Contractor fails to publish a copy of the certificate of Substantial Performance of the Work within seven (7) Calendar Days after receiving a copy of such certificate, the Owner may publish a copy of such certificate at the Contractor's cost.

5.6 PAYMENT OF LIEN HOLDBACK UPON SUBSTANTIAL PERFORMANCE OF THE WORK

5.6.1 After the date on which all liens that may be claimed against the Lien Holdback have expired or been satisfied, discharged or otherwise provided for under the Construction Act and provided the certificate of Substantial Performance of the Work has been published in accordance with 5.5, the Contractor shall submit a Proper Invoice for the Lien Holdback, which shall, in addition to complying with the requirements of GC 5.3.7, include the following items in order to be considered a "Proper Invoice" for the purposes of GC 5.6.2:

- .1 the list of Claims required by GC 9.2.1;
- .2 the value of outstanding or incomplete Work; and
- .3 a representation and warranty from the Contractor that, as of the date of the Proper Invoice, the only Adjudications in respect of disputes as described in GC 12.2.16 are Adjudications which the Contractor has provided Notice in Writing of to the Owner in accordance with GC 12.2.16.

5.6.2 After the receipt of a Proper Invoice from the Contractor in compliance with the requirements of GC 5.6.1, the Contract Administrator shall issue a certificate for payment of the Lien Holdback.

5.6.3 Subject to GC 5.6.4 and the Construction Act, the Owner shall, no later than fifteen (15) Working Days after the receipt of the Proper Invoice, make payment to the Contractor of the amount of the Lien Holdback set out in the Proper Invoice. Subject to the Construction Act, the Owner may retain out of the Lien Holdback any sums

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required by law to satisfy any liens against the Work and any other amount pursuant to 5.10 - OWNER'S SET-OFF.

5.6.4 The Owner may refuse to pay some or all of the Lien Holdback the Owner is required to pay to the Contractor pursuant to GC 5.6.3 if:

- .1 no later than forty (40) Calendar Days after publication of the certificate of Substantial Performance of the Work in accordance with GC 5.5.4, the Owner publishes, in the manner set out in the Construction Act, a notice in the form prescribed by the Construction Act, specifying the amount of the Lien Holdback that the Owner refuses to pay; and
- .2 the Owner notifies the Contractor, in accordance with the Construction Act, of the publication of such notice.

5.6.5 For clarity, if the Contractor fails to submit a Proper Invoice to the Contract Administrator which is in compliance with the requirements of GC 5.6.1, the Owner shall not be required to make payment to the Contractor within the fifteen (15) Working Day period set out in GC 5.6.3. Such fifteen (15) Working Day period shall not commence until such time as the Contract Administrator has received from the Contractor a Proper Invoice in compliance with the requirements of GC 5.6.1.

5.7 PAYMENTS UPON TOTAL PERFORMANCE OF THE WORK

5.7.1 Payment Upon Total Performance of the Work

- .1 When the Contractor considers that the Work is Totally Performed, the Contractor shall submit a Proper Invoice for payment of the unpaid amount of the Contract Price other than the finishing portion of the Lien Holdback.
- .2 The Contractor's Proper Invoice submitted in accordance with GC 5.7.1.1 shall, in addition to complying with the applicable requirements of GC 5.3.7, include the list of Claims required by GC 9.2.2 in order to be considered a "Proper Invoice" for the purposes of GC 5.7.1.5.
- .3 The Contract Administrator shall, no later than ten (10) Calendar Days after the receipt of a Proper Invoice from the Contractor submitted in accordance with GC 5.7.1.1, review the Work to verify the validity of such Proper Invoice. If the Contract Administrator, or the Owner independent of the Contract Administrator, disputes the validity of such Proper Invoice, the Owner shall promptly, but no later than fourteen (14) Calendar Days after the Contract Administrator's receipt of such Proper Invoice from the Contractor, provide the Contractor a notice of non-payment in the form and manner prescribed by the Construction Act specifying the amount that is not being paid and detailing all of the reasons why such Proper Invoice is invalid. No later than twenty-eight (28) Calendar Days after the receipt by the Contract Administrator of such Proper Invoice, the Owner shall make payment to the Contractor of the amount set out in such Proper Invoice less the amount disputed by the Contract Administrator or the Owner independent of the Contract Administrator, as applicable, that is set out in a notice of non-payment. If such Proper Invoice is invalid, then the Contractor shall

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then submit another Proper Invoice when it considers that the Work is Totally Performed and the process described in this GC 5.7.1 shall repeat.

- .4 When the Contract Administrator finds the Proper Invoice submitted in accordance with GC 5.7.1.1 is valid and in compliance with the requirements of GC 5.7.1.2, the Contract Administrator shall promptly issue a certificate for payment which shall set out the date of Total Performance of the Work.
- .5 The Owner shall, no later than twenty-eight (28) Calendar Days after the receipt by the Contract Administrator of a Proper Invoice submitted in accordance with GC 5.7.1.1 pay the Contractor as provided in 5.2 - OWNER'S OBLIGATION TO PAY less any amount disputed by the Contract Administrator or the Owner independent of the Contract Administrator, as applicable, that is set out in a notice of non-payment issued pursuant to GC 5.4.1.3 (including amounts in respect of Deficiencies identified after the receipt of the Proper Invoice).
- .6 For clarity, if the Contractor fails to submit a Proper Invoice to the Contract Administrator which is in compliance with the requirements of GC 5.7.1.1, the Owner shall not be required to make payment to the Contractor within the twenty-eight (28) Calendar Day period set out in GC 5.6.3. Such twenty-eight (28) Calendar Day period shall not commence until such time as the Contract Administrator has received from the Contractor a Proper Invoice in compliance with the requirements of GC 5.7.1.1.

5.7.2 Payment of the Finishing Portion of the Lien Holdback

- .1 After the date on which all liens that may be claimed against the finishing portion of the Lien Holdback have expired or been satisfied, discharged or otherwise provided for under the Construction Act and provided the Contract Administrator has certified that the Work is Totally Performed in accordance with GC 5.7.1, the Contractor shall submit a Proper Invoice for the finishing portion of the Lien Holdback.
- .2 When the Contract Administrator finds the Proper Invoice submitted in accordance with GC 5.7.2.1 is valid and in compliance with the requirements of GC 5.7.2.1, the Contract Administrator shall promptly issue a certificate of payment for the finishing portion of the Lien Holdback.
- .3 Subject to GC 5.7.2.4 and the Construction Act, the Owner shall, no later than fifteen (15) Working Days after the receipt of the Proper Invoice, make payment to the Contractor of the amount of the finishing portion of the Lien Holdback set out in the Proper Invoice. Subject to the Construction Act, the Owner may retain out of the finishing portion of the Lien Holdback any sums required by law to satisfy any liens against the Work and any other amount pursuant to 5.10 - OWNER'S SET-OFF.
- .4 The Owner may refuse to pay some or all of the finishing portion of the Lien Holdback the Owner is required to pay to the Contractor pursuant to GC 5.7.2.3 if:

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(1) no later than forty (40) Calendar Days after the date of Total Performance of the Work, the Owner publishes, in the manner set out in the Construction Act, a notice in the form prescribed by the Construction Act, specifying the amount of the finishing portion of the Lien Holdback that the Owner refuses to pay; and

(2) the Owner notifies the Contractor, in accordance with the Construction Act, of the publication of such notice.

.5 For clarity, if the Contractor fails to submit a Proper Invoice to the Contract Administrator which is in compliance with the requirements of GC 5.7.2.1, the Owner shall not be required to make payment to the Contractor within the fifteen (15) Working Day period set out in GC 5.6.3. Such fifteen (15) Working Day period shall not commence until such time as the Contract Administrator has received from the Contractor a Proper Invoice in compliance with the requirements of GC 5.7.2.1.

5.8 FINAL ACCEPTANCE CERTIFICATE

5.8.1 The Contract Administrator shall issue the final acceptance certificate ("**Final Acceptance Certificate**") after the later of the:

.1 date on which the Contract Administrator determines that the Work has passed all inspection and testing requirements and is satisfied that the Contractor has corrected all Deficiencies and has discharged all of the Contractor's obligations under the Agreement; and

.2 expiry of the Warranty Period.

The Contract Administrator shall have no obligation to issue the Final Acceptance Certificate until all known Deficiencies have been corrected and the Contractor has discharged all obligations under the Agreement.

5.9 CONTRACTOR DISCHARGE OF LIABILITIES

5.9.1 In addition to the obligations assumed by the Contractor pursuant to 3.8 – SUBCONTRACTORS AND SUPPLIERS, the Contractor agrees to discharge all liabilities and obligations for the Work including in respect of labour, services, Contractor Parties, Construction Equipment and Products, except for amounts withheld by reason of legitimate dispute and which have been identified to the party or parties, from whom payment has been withheld.

5.10 OWNER'S SET-OFF

5.10.1 In addition to and without limiting any other rights the Owner may have under the Agreement and at law or otherwise, the Owner may set-off and deduct from any amount owing to the Contractor under the Agreement (including any payments by the Owner pursuant to GC 5.4.2, GC 5.6.3, GC 5.7.1.5, GC 5.7.2.3 and determinations pursuant to an Adjudication) an amount sufficient to cover:

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- .1 any outstanding or disputed liabilities or obligations of the Contractor to the Owner (including unpaid liquidated damages), or to the Indemnities pursuant to 9.1 – INDEMNIFICATION;
- .2 any Losses or amounts for which the Owner is expressly entitled in the Agreement to set-off or retain including GC 2.5.5, GC 5.4.2, GC 5.6.3, GC 5.7.2.3, GC 11.1.5.1, GC 11.1.5.2, GC 4.1.5, GC 10.2.5, GC 8.1.11.3, GC 9.1.3 GC 9.1.6, GC 13.2.1.2 and GC 13.2.2;
- .3 any of the following:
 - (1) any assessment due to the Workplace Safety and Insurance Board relating to the Work; and
 - (2) any amount necessary to satisfy Contractor's obligations under 5.9 – CONTRACTOR DISCHARGE OF LIABILITIES;
- .4 any other amounts owed by the Contractor to the Owner under the Agreement; and
- .5 if the Contractor becomes insolvent, all outstanding Claims and Losses of the Owner whether or not related to the Agreement.

If there is an insufficient amount owing by the Owner to the Contractor, then the Contractor shall reimburse the Owner for all of the aforementioned Claims and Losses.

6. ALLOWANCES

6.1 ALLOWANCES

- 6.1.1 The Fixed Price or Total Price of Unit Price Work includes the Allowances, if any. The Allowances include all taxes and duties (except only Value Added Taxes).
- 6.1.2 The Contractor's overhead and profit for the Cash Allowance is included in the Fixed Price or Total Price of Unit Price Work, and not in the Cash Allowance itself. Each Provisional Allowance item includes the Contractor's overhead and profit in connection with such Provisional Allowance. The Contractor shall not be paid any additional overhead and profit in connection with the Allowances other than as provided for in this 6.1 - ALLOWANCES.
- 6.1.3 Expenditures under Allowances shall be pre-authorized by the Owner in writing through the Contract Administrator.
- 6.1.4 Where the actual cost of the Work under any individual Cash Allowance exceeds the amount of such Cash Allowance, any unexpended amounts from other Cash Allowances may be reallocated, at the Owner's direction, to cover the shortfall, and, in that case, there shall be no additional amount added to the Fixed Price for overhead and profit. Only where the actual cost of the Work under all Cash Allowances exceeds the total amount of all Cash Allowances shall the Contractor be

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compensated for the excess incurred and substantiated, plus an amount for overhead and profit on such excess, as set out in row B.5 of the Information Sheet, and the Fixed Price shall be adjusted accordingly by Change Order.

- 6.1.5 The total amount of any unexpended Allowances shall be deducted from the Fixed Price or Total Price of Unit Price Work by Change Order, after providing for any reallocation contemplated in GC 6.1.4. For Provisional Allowances, such deduction includes the Contractor's overhead and profit included in such total amount. For clarity, no adjustment shall be made for the Contractor's overhead and profit included in the Fixed Price or Total Price of Unit Price Work on such total amount deducted in respect of Cash Allowances.
- 6.1.6 The value of the Work performed under an Allowance is eligible to be included in Proper Invoices.
- 6.1.7 The Contractor and the Contract Administrator shall jointly prepare a schedule that shows when the Contract Administrator and Owner must authorize ordering of items called for under Allowances to avoid delaying the progress of the Work.
- 6.1.8 The Contractor shall extend to the Owner all refunds and trade, quantity and cash discounts, rebates and refunds which may be received in purchasing under Allowances.
- 6.1.9 The Owner reserves the right to call, or to have the Contractor call, competitive bids or other types of procurements for portions of the Work to be paid for from Allowances. If the Owner determines to proceed with competitive bids, the Contractor shall comply with the directions of the Owner.
- 6.1.10 The Contractor shall include copies of Contractor Records substantiating purchases under Allowances.

7. CHANGES IN THE WORK

7.1 OWNER'S RIGHT TO MAKE CHANGES

- 7.1.1 The Owner, through the Contract Administrator, without invalidating the Agreement, may make:
 - .1 changes in the Work consisting of additions, deletions or other revisions to the Work by Change Order or Change Directive; and
 - .2 changes to the Contract Time for the Work, or any part thereof, by Change Order or Change Directive.
- 7.1.2 The Contractor shall not perform a change in the Work without a Change Order or a Change Directive. To the extent the Contractor performs any such change in the Work, the Contractor does so at its own risk and without any liability or obligation on the part of the Owner. There shall be no change in the Contract Price (including delay prolongation costs, remobilization costs or other compensation), extension of the Contract Time or other amendment to the Agreement on account of any change in

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the Work unless specified in, and initiated through, a Change Order or a Change Directive.

- 7.1.3 There shall be no extension of the Contract Time or increase in the Contract Price or payment of any kind whatsoever (including for loss of productivity) based on the aggregate quantity, scope or value of changes in the Work whether resulting from Change Order or Change Directive. The Contractor agrees that in connection with any Change Order or Change Directive it shall co-operate with the Owner and the Contract Administrator and shall carry out such Change Order or Change Directive in such a manner as to avoid incurring or to minimize any additional Losses to be incurred as a result of such Change Order or Change Directive or delay in the performance of the Work.
- 7.1.4 The value of a change shall be determined as follows, at the sole discretion of the Owner, as indicated in the Contemplated Change Order or Change Directive, as applicable:
- .1 if the change relates to items for which the Unit Prices set out in the Agreement are applicable, in accordance with Section 1 of Schedule E – Valuing Changes in the Work; or
 - .2 in the absence of applicable Unit Prices set out in the Agreement:
 - (1) on either a negotiated fixed price or unit price basis, in accordance with the provisions in Section 2 of Schedule E – Valuing Changes in the Work; or
 - (2) if the Parties are unable to agree on a fixed price or unit price pursuant to GC 7.1.4.2(1), on a time and material basis, in accordance with the provisions in Section 3 of Schedule E – Valuing Changes in the Work.
- 7.1.5 Without limiting the entitlement of the Contractor pursuant to GC 11.1.9.2 when there is a termination for convenience pursuant to GC 11.1.9.1, if any change in the Work is made by which the amount of Work to be done is decreased, or any portion of the Work is dispensed with, the Owner shall not be liable to the Contractor for any consequential, indirect or special damages and loss of profit, loss of opportunity or loss of productivity.
- 7.1.6 Subject to any entitlement of the Contractor expressly provided for under the Agreement, no course of conduct or dealing between the parties, no express or implied acceptance of additions, deletions or other revisions to the Work, and no Claims that the Owner has been unjustly enriched by any addition, deletion or other revision to the Work, whether in fact there is any such unjust enrichment or not, shall be the basis of a Claim Notice or any other Claim for additional payment under the Agreement or a Claim Notice for any extension of the Contract Time or any other Claim.
- 7.2 CHANGE ORDER**
- 7.2.1 When a change in the Work is proposed or required by the Owner, the Contract Administrator will provide the Contractor with a written description of the proposed

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change in the Work (a “**Contemplated Change Order**”). The Contractor shall promptly but in no event later than ten (10) Working Days (or such other period set out in row C.9 of the Information Sheet) after receipt of a Contemplated Change Order submit, in a form acceptable to the Contract Administrator, a method of adjustment or an amount of adjustment for the Contract Price, if any, and the adjustment in the Contract Time, if any, for the proposed change in the Work.

7.2.2 Subject to GC 7.1.4, when the Owner and Contractor agree to the adjustments in the Contract Price and Contract Time or to the method to be used to determine the adjustments, such agreement shall be reflected in a Change Order. The value of the Work performed as the result of a Change Order shall be included in the Proper Invoice.

7.2.3 A Change Order shall be a final determination or adjustment in the Contract Time, Contract Price and any other amendment to the Agreement as a result of the change in the Work and shall constitute a full and final settlement and satisfaction of all consequences to the Contractor of such change in the Work and shall be deemed to compensate Contractor fully for all effects of such change in the Work. For clarity, if a Change Order does not address an adjustment in the Contract Time, Contract Price or any other amendment to the Agreement, as the case may be, there shall be no adjustment in the Contract Time, Contract Price or any other amendment to the Agreement, as the case may be as a result of the change in the Work provided for in such Change Order.

7.3 CHANGE DIRECTIVE

7.3.1 If the Owner requires the Contractor to proceed with a change in the Work prior to the Owner and the Contractor agreeing upon the corresponding adjustment in Contract Price and/or Contract Time the Owner, through the Contract Administrator, shall issue a Change Directive.

7.3.2 Without limiting GC 7.3.1, a Change Directive may be used to direct a change in the Work that is only a change in the Construction Schedule or Contract Time.

7.3.3 Upon receipt of a Change Directive, the Contractor shall proceed immediately with the change in the Work.

7.3.4 The adjustment in the Contract Price, if any, for a change carried out by way of a Change Directive shall be determined in accordance with GC 7.1.4.

7.3.5 Without limitation to GC 7.3.3, upon receipt of a Change Directive, the Contractor shall promptly provide the Owner with an estimate of the cost of the performance of the change in the Work contemplated in the Change Directive and the impact on the Construction Schedule, if applicable, but in no event later than ten (10) Working Days (or such other period set out in row C.10 of the Information Sheet) after receipt of the Change Directive. If the Contractor, acting reasonably, requires more time to provide an estimate, it may notify the Owner of the date when the estimate will be provided.

7.3.6 Without limitation to GC 7.3.3, when the Owner and the Contractor reach agreement in respect of a Change Directive on the adjustment to the Contract Price and to the

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Contract Time, if any, such agreement shall be reflected in a Change Order. The Contractor shall not be entitled to include the value of the change in the Work performed as the result of such Change Directive in its Proper Invoices until, and unless, such Change Order has been executed.

7.4 CONCEALED OR UNKNOWN CONDITIONS

7.4.1 If the Owner or the Contractor discover conditions at the Site which are:

- .1 subsurface or otherwise concealed physical conditions which existed before the commencement of the Work which differ materially from those indicated in, or inferable from, the Agreement; or
- .2 physical conditions, other than conditions due to weather, that are of a nature which differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Agreement,

then the observing party shall give Notice in Writing to the other party of such conditions before they are disturbed and in no event later than five (5) Working Days after first observance of the conditions.

7.4.2 The Contract Administrator will promptly, and in no event later than within twenty (20) Working Days after discovery thereof by the Owner or the Contractor, investigate such conditions and make a finding having regard to and subject to the liabilities and responsibilities assumed by the Contractor pursuant to 3.6 - EXAMINATION OF SITE and GC 4.1.4. If the finding is that the conditions differ materially and, having regard to and subject to the liabilities and responsibilities assumed by the Contractor pursuant to 3.6 - EXAMINATION OF SITE and GC 4.1.4, this would cause an increase or decrease in the Contract Time or Contract Price, the Contract Administrator, with the Owner's approval, will issue appropriate instructions for a change in the Work as provided in 7.2 - CHANGE ORDER or 7.3 - CHANGE DIRECTIVE. For clarity, the Contractor's entitlement to such change in the Work shall be determined by the Contract Administrator taking into account the respective liabilities assumed by the Owner and Contractor pursuant to 3.6 - EXAMINATION OF SITE and GC 4.1.4.

7.4.3 If the Contract Administrator finds that the conditions at the Site are not materially different or that no change in the Contract Price or extension of the Contract Time is justified, the Contract Administrator will report the reasons for this finding to the Owner and the Contractor in writing.

7.4.4 If such concealed or unknown conditions relate to Hazardous Materials, artifacts and fossils, or mould, the parties will be governed by the provisions of 4.3 - HAZARDOUS MATERIALS, 4.5 - ARTIFACTS AND FOSSILS and 4.4 – MOULD, as applicable.

7.5 DELAYS

7.5.1 If the Contractor is delayed in the completion of a critical path Work activity by:

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- .1 subject to GC 7.5.3, an act or omission of the Owner, the Owner Representative, the Contract Administrator or anyone employed or engaged by them directly or indirectly, which is contrary to the provisions of the Agreement; or
- .2 by a stop work order issued by a court or other public authority,

then, except to the extent such event results from the negligent act or omission of the Contractor Parties or the default or breach of the Contractor's obligations under the Agreement or any other act or fault of the Contractor Parties, the Contract Time shall be extended for such reasonable time as agreed to by the Parties, taking into account such time period as recommended by the Contract Administrator and the Contract Price shall be adjusted to account for reasonable Losses incurred by the Contractor as the result of such delay including the Losses referred to in GC 7.5.8, as applicable, but excluding any consequential, indirect or special damages and loss of profit, loss of opportunity or loss of productivity resulting from such delay.

7.5.2 If the Contractor is delayed in the completion of a critical path Work activity by any cause beyond the Contractor's control, including:

- .1 war, blockades, and civil commotions;
- .2 labour disputes, strikes and lock-outs (other than lock-outs described in GC 7.5.3);
- .3 fire, unusual delay by common carriers or unavoidable casualties; or
- .4 abnormally adverse weather conditions at the Site which are different from those normally and customarily experienced at the Site (as documented by weather data from Environment Canada) over the past ten (10) years taking into consideration severity, duration and time of year conditions,

except to the extent such event results from the negligent act or omission of the Contractor Parties or the default or breach of the Contractor's obligations under the Agreement, then the Contract Time shall be extended for such reasonable time as agreed to by the Parties, taking into account such time period as recommended by the Contract Administrator. The extension of time shall not be less than the time lost as the result of the event causing the delay, unless the Contractor agrees to a shorter extension. The Contractor shall not be entitled to payment for Losses incurred by such delays except to the extent the Contractor would be entitled to reasonable Losses in accordance with GC 7.5.1 or if such delay is the cause of the stop work order in connection with the Contractor's termination of the Agreement pursuant to GC 11.2.1.

7.5.3 If the Contractor is delayed in the completion of a critical path Work activity by a lock-out of the Owner or the City of Toronto, except to the extent such event results from the negligent act or omission of the Contractor Parties or the default or breach of the Contractor's obligations under the Agreement:

- .1 the Contract Time shall be extended for the duration of such lock-out, provided that if the duration of such lock-out exceeds five (5) Working Days, the Contract

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Time shall be extended by the duration of such lock-out plus an additional (5) Working Days; and

- .2 the Contract Price shall only be adjusted to account for direct reasonable costs the Contractor incurs for leased Construction Equipment as a result of such lock-out, but excluding any consequential, indirect or special damages and loss of profit, loss of opportunity or loss of productivity resulting from such delay.

7.5.4 No extension of the Contract Time shall be made for delay unless Notice in Writing of the cause of delay is given to the Contract Administrator and Owner in accordance with 7.7.1.

7.5.5 If no:

- .1 schedule is made under GC 2.2.12 for the Contract Administrator to provide Supplemental Instruction; or
- .2 time period is provided elsewhere in the Agreement where the Contract Administrator is to provide instructions to the Contractor,

then no request for an extension of the Contract Time shall be made by the Contractor because of failure of the Contract Administrator to provide such Supplemental Instructions or other instructions, as applicable, until fifteen (15) Working Days after demand for such Supplemental Instructions or other instructions, as applicable, has been made or such longer period of time reasonably required under the circumstances.

7.5.6 If the Work is behind schedule for a reason other than as described in GC 7.5.1, 7.5.2 or 7.5.3, the Contractor, at its expense and subject to GC 7.5.7, shall:

- .1 prepare and present to the Contract Administrator and Owner, for review and approval, a recovery plan ("**Recovery Plan**") as soon as practical, but not later than three (3) Working Days after the earlier of the Contractor becoming aware of the Work being behind schedule or the Owner notifying the Contractor that the Work is behind schedule. Such Recovery Plan shall include information and details required by the Contract Administrator and Owner, acting reasonably, and shall demonstrate how the Contractor shall achieve the recovery of the schedule and bring the Work back on schedule. Any costs incurred by the Owner for the services of the Contract Administrator in reviewing multiple submissions of the Recovery Plan shall be borne by the Contractor; and
- .2 commence the implementation of the Recovery Plan approved by the Contract Administrator and Owner as soon as practical, but not later than within two (2) Working Days of the Contract Administrator and Owner providing approval of the Recovery Plan; and
- .3 otherwise take all measures necessary to bring the Work back on schedule (including expediting, increasing the labour force, supervisors and equipment, and working overtime).

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For clarity, this GC 7.5.6 shall not limit the other provisions of 7.5.

- 7.5.7 For greater certainty and without limiting any other provision in the Agreement, there shall be no extension of the Contract Time or increase in the Fixed Price or Unit Prices to the extent a delay was caused by the negligent act or omission of the Contractor Parties or by the Contractor's default or breach of the Agreement. Without limiting any other provision in the Agreement, the Owner shall be reimbursed by the Contractor for all Losses incurred by the Owner as the result of such delay, including all services required by the Owner from the Contract Administrator and Owner Representative as a result of such delay by the Contractor and, in particular, the costs of the Contract Administrator's and Owner Representative's services during the period between the Scheduled Date for Substantial Performance of the Work as the same may be extended through the provisions of the GC and the actual date of Substantial Performance of the Work achieved by the Contractor. For clarity, such costs shall be in addition to any Delay Liquidated Damages payable by the Contractor.
- 7.5.8 The Contractor shall be responsible for the care, maintenance and protection of the Work in the event of any suspension of construction as a result of the delay described in GC 7.5.1, 7.5.2 or 7.5.3. In the event of such suspension, the Contractor shall be reimbursed by the Owner for the reasonable Losses incurred by the Contractor for such care, maintenance and protection, but excluding the costs of the Contractor's head office Personnel and any consequential, indirect or special damages and loss of profit, loss of opportunity or loss of productivity.
- 7.5.9 Without limiting the generality of any other provision in the Agreement, the Contractor shall use best efforts to mitigate the impact of any delay events dealt with by GC 7.5.1, 7.5.2 or 7.5.3 and any other matters dealt with in a Claim Notice upon the performance of the Work, the Contract Time and the Contract Price. If the Contractor does not exercise such best efforts, the Contractor's entitlements under any applicable Claim Notice will be reduced or invalidated to reflect impacts that would have been avoided by such mitigation.
- 7.5.10 Any extension of the Contract Time or adjustment in the Contract Price provided for in this 7.5 – DELAYS shall be authorized in accordance with 7.2 - CHANGE ORDER.

7.6 DELAY LIQUIDATED DAMAGES

- 7.6.1 The Contractor acknowledges and agrees that the Owner will suffer financial Loss if the Work is not completed within the time specified in the Agreement. The Contractor also recognizes the delays, costs and difficulties involved in proving the actual Loss suffered by the Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, the Contractor agrees that if the date of Substantial Performance of the Work is delayed past the Scheduled Date for Substantial Performance of the Work, subject to any adjustment in Contract Time as provided for in the Agreement, the Contractor shall pay Owner liquidated damages in the amount designated in row B.6 of the Information Sheet ("**Delay Liquidated Damages**") for each and every Calendar Day or Working Day, as applicable, of delay until the Contractor has attained Substantial Performance of the Work. The Contractor further

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expressly acknowledges and agrees that Delay Liquidated Damages payable by the Contractor are:

- .1 not intended to be a penalty and are a reasonable and genuine pre-estimate of the actual damage that will be incurred by the Owner if the Contractor fails to achieve Substantial Performance of the Work in accordance with the requirements of the Agreement (including paragraph 1.3 of Section 1 of the Agreement);
- .2 in addition to, and without prejudice to, any other right or remedy available to the Owner under the Agreement or otherwise and does not limit or reduce any obligation or liability of the Contractor under the Agreement or otherwise; and
- .3 not a cap on the damages payable by, or liability of, the Contractor, if the Contractor fails to achieve Substantial Performance of the Work in accordance with the requirements of the Agreement (including paragraph 1.3 of Section 1 of the Agreement).

7.6.2 If there is a delay in attaining Substantial Performance of the Work, in spite of the payment of Delay Liquidated Damages in accordance with GC 7.6.1, the Contractor shall continue to perform and expedite the Work in accordance with the Agreement.

7.6.3 The Contractor shall pay Delay Liquidated Damages pursuant to 7.6.1 on a monthly basis as they accrue.

7.7 CLAIMS PROCEDURE

7.7.1 The Contractor shall provide a Notice in Writing to the Owner and the Contract Administrator of any claim for a change in the Contract Price, extension of the Contract Time or other changes to the Work or amendments to the Agreement (“**Claim Notice**”) within ten (10) Working Days after the Contractor knows, or should know applying the Standard of Care, of the event or circumstance giving rise to such claim. Any Claims by the Contractor in respect of such claim or Claim Notice shall be irrevocably barred, and waived and released by the Contractor unless the Contractor has strictly complied with the applicable requirements of 7.CHANGES IN THE WORK and the Contractor has provided such Claim Notice within the prescribed time period.

7.7.2 Without limiting the generality of any other provision in the Agreement, the Contractor shall immediately upon commencing Work that may result in a Claim Notice, keep such Contractor Records that relate to such Work (including any T&M Change in the Work) and the Claim Notice arising therefrom (including Daily Contractor Work Records) as may be necessary to support and substantiate such Claim Notice. The Contractor shall attempt, on a daily basis, to reconcile its Daily Contractor Work Records with the records of the Contract Administrator or Owner Representative, as applicable and have the Daily Contractor Work Records signed by the Contract Administrator or Owner Representative, as applicable. For clarity, the reconciling of the Contractor’s Daily Work Records with the records of the Contract Administrator or Owner Representative, as applicable, shall not be construed to be acceptance of a Claim Notice. If it is not possible to reconcile the Daily Contractor Work Records, then the Contractor shall submit the un-reconciled Daily Contractor Work Records with its

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Claim Notice, whereby the resolution of the dispute about the Daily Contractor Work Records shall not be resolved until there is a resolution of the applicable Claim Notice.

7.7.3 Subject to GC 7.7.4, the Claim Notice shall:

- .1 identify the item or items in respect of which the Claim Notice arises;
- .2 include the date the Contractor first became aware of the event or circumstance giving rise to the Claim Notice;
- .3 state the grounds, contractual or otherwise, upon which the Claim Notice is made;
- .4 provide sufficient and detailed information and documentation to allow the Contract Administrator and the Owner to properly consider the Claim Notice of the Contractor including:
 - (1) a description of the portions of the Work affected thereby;
 - (2) the cause of the change in the Contract Time, a description of such change, an assessment of the impact such change will have on the Construction Schedule (including an explanation as to how the critical path will be affected) and a reasonable estimate of the number of Calendar Days by which the Work will be delayed and date and time when the delay was experienced;
 - (3) a detailed account of the amount claimed and a breakdown of the change in the Contract Price;
 - (4) details of mitigation strategies applied; and
 - (5) all other pertinent details and backup information and documents; and
- .5 include the Contractor Records (including Daily Contractor Work Records) maintained by the Contractor supporting such Claim Notice.

The Contractor shall submit further updates on the Claim Notice to the Owner and the Contract Administrator as they become available, but in no event shall the Contractor submit any further updates within the fourteen (14) Calendar Days prior to the deadline for the Contract Administrator to issue its determination pursuant to GC 7.7.6.

7.7.4 Where the event giving rise to the Claim Notice has a continuing effect, the Claim Notice submitted under GC 7.7.2 shall be considered to be an interim Claim Notice and the Contractor shall, submit further updates on the Claim Notice at such intervals as the Owner or Contract Administrator may reasonably require. Such updates shall give the accumulated amount of the Claim Notice and any further grounds upon which it is based, as a part of the information and documents which the Contractor is required to provide in accordance with GC 7.7.2. The Contractor shall submit a final

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Claim Notice after the end of the effects resulting from the event as a part of the information and documents which the Contractor is required to provide in accordance with GC 7.7.2.

- 7.7.5 The Contract Administrator may, from time to time, request the Contractor to submit any further and other particulars as the Contract Administrator considers necessary to assess the Claim Notice. The Contractor shall submit the requested information within thirty (30) Calendar Days of receipt of such request or such shorter time as required by the Contract Administrator.
- 7.7.6 Within ninety (90) Calendar Days of initial receipt of the Claim Notice pursuant to GC 7.7.1, or such longer period of time required by Owner, the Owner, or if authorized by the Owner, the Contract Administrator, shall prepare and issue a determination to the Contractor regarding the validity of the Claim Notice. Such determination may be reflected in a Change Order or Change Directive to the extent required pursuant to GC 7.1.2. The Contractor shall be conclusively deemed to have accepted such determination of the Owner, or the Contract Administrator, as the case may be, and to have expressly waived and released the Owner from all Claims in respect of the Claim Notice including the particular matter dealt with in that determination unless, within fifteen (15) Working Days after receipt of that determination, the Contractor provides a revised Claim Notice or disputes that determination in accordance with 12.DISPUTE RESOLUTION.

7.8 SERVICE STANDARDS FOR CONTRACTOR IN RESPONDING TO THIRD PARTY CLAIMANTS

- 7.8.1 For the purposes of this 7.8 - SERVICE STANDARDS FOR CONTRACTOR IN RESPONDING TO THIRD PARTY CLAIMANTS, "Third Party Claimant" means any Person asserting a Claim that is not a party to the Agreement other than a Subcontractor, Supplier or Sub-subcontractor asserting a Claim in respect of the Work or the Project:
- .1 for which such Subcontractor, Supplier or Sub-subcontractor is entitled to assert rights (including lien rights) under the Construction Act against the Owner; or
 - .2 which relate to a Claim the Contractor is asserting against the Indemnitees.
- 7.8.2 Without limiting the obligations of the Contractor under 7.7 – CLAIMS PROCEDURE and GC 7.8.3 or elsewhere in the Agreement, the Contractor shall, or shall cause the Contractor's insurer to, in the manner and extent requested by the Owner:
- .1 respond to all Third Party Claimants in a timely manner;
 - .2 ensure that Third Party Claimants are provided with accurate information about the status of their Claim, and
 - .3 where appropriate, notify Third Party Claimants of the relevant activity on their Claims and provide them with information.

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- 7.8.3 If the Contractor receives notice of a Claim of a Third Party Claimant relating to or arising out of the Agreement, the Contractor shall immediately forward the notice of Claim to the City of Toronto Clerk's office at claims@toronto.ca.
- 7.8.4 Once the Contractor receives notice of a Claim of a Third Party Claimant relating to or arising out of the Agreement (including any notice from the City of Toronto's adjuster), the Contractor shall, or shall cause the Contractor's insurer to, in the manner and extent requested by the Owner:
- .1 within five (5) Working Days of receiving notice of such Claim, send a letter to the Third Party Claimant acknowledging receipt of such Claim and provide the Third Party Claimant with the contact information of the Contractor Project Manager, or another Person representing the Contractor, to whom the Third Party Claimant can refer questions regarding such Claim;
 - .2 conduct an investigation of such Claim and make a decision regarding such Claim that is based on a proper consideration of the facts; and
 - .3 within twenty-five (25) Working Days of receiving notice of such Claim, provide the Third Party Claimant with a letter advising of the results of the investigation and clearly explaining the Contractor's decision regarding such Claim or should the Contractor require the involvement of their insurance company to resolve such Claim, this shall be forwarded to the insurance company and the Third Party Claimant shall be notified within the allotted period of time above.
- 7.8.5 The Owner may, in writing, provide an extension of time for responding to the Claim of a Third Party Claimant pursuant to this 7.8- SERVICE STANDARDS FOR CONTRACTOR IN RESPONDING TO THIRD PARTY CLAIMANTS if the Contractor or the Contractor's insurer, in writing, provides the Owner with a request for an extension as well as the reasons for the extension. In considering whether to provide such an extension, the Owner shall consider the Contractor's, or the Contractor's insurer's, reasons for the request and all of the surrounding circumstances including good customer service standards. Once the Contractor forwards such Claim to its insurer, the resolution of such Claim shall follow the insurance industry standards for claim investigation.
- 7.8.6 If an extension of time is provided under GC 7.8.5, the Contractor, or the Contractor's insurer, shall write to the Third Party Claimant advising that the investigation is on-going, advise of the date by which the Contractor or its insurer will report the results of the investigation to the Third Party Claimant, and explain the reasons why additional time is required to make a decision on the Claim.
- 7.8.7 A copy of all letters sent to a Third Party Claimant by or on behalf of the Contractor, including letters sent by the Contractor's insurer, pursuant to this 7.8- SERVICE STANDARDS FOR CONTRACTOR IN RESPONDING TO THIRD PARTY CLAIMANTS, shall be copied to the Owner, and the City of Toronto's adjuster.
- 7.8.8 Where appropriate, the Contractor shall ensure its insurer takes all of the appropriate steps to meet the obligations under GC 7.8.1 to 7.8.7.

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7.8.9 The Contractor shall provide to the Owner monthly updates on the status of all Claims received from Third Party Claimants until resolution of such Claims.

7.8.10 If the Contractor fails to meet any of its obligations under this 7.8 - SERVICE STANDARDS FOR CONTRACTOR IN RESPONDING TO THIRD PARTY CLAIMANTS, the Owner may provide the Contractor with Notice in Writing that the relevant obligations have not been fulfilled. If the Contractor does not fulfil such obligations within five (5) Working Days from receipt of such Notice in Writing, the Owner, without prejudice to any other right or remedy, may hold back an amount of \$10,000.00 from monies payable to the Contractor under the Agreement. The Owner may exercise its right of holdback under this section for each Claims of a Third Party Claimant for which the Contractor fails to meet its obligations under 7.8 - SERVICE STANDARDS FOR CONTRACTOR IN RESPONDING TO THIRD PARTY CLAIMANTS. Without limiting any of the Owner's other rights of holdback or set-off, the Owner will release the monies held back pursuant to this GC 7.8.10 once it has received evidence that the Contractor has sent the Third Party Claimant a letter(s) in accordance with GC 7.8.4.1 and 7.8.4.3.

8. INSURANCE, CONTRACT SECURITY, BONDS AND CONTRACTUAL HOLDBACK

8.1 INSURANCE

8.1.1 Without restricting the generality of 9.1 – INDEMNIFICATION or any other provision of the Agreement, the Contractor shall provide, maintain and pay:

- .1 for the insurance coverages listed in this 8.1 - INSURANCE under GCs 8.1.2, 8.1.4, 8.1.5, 8.1.6, 8.1.7, 8.1.8 and 8.1.9 as such coverages may be modified by Row D.1 of the Information Sheet;
- .2 if required by row D.1 of the Information Sheet, coverage under GC 8.1.3; and
- .3 such additional insurance coverages as required by Row D.1 of the Information Sheet.

8.1.2 Commercial General Liability Insurance:

- (1) in the amount of five million dollars (\$5,000,000) per occurrence;
- (2) that includes the Indemnitees and such other Persons identified by the Owner from time to time as additional insureds with respect to liability arising out of the operation of the Contractor with regard to the Agreement; and
- (3) that provides for a cross liability and/or severability of interest, contractual liability, Owner's and Contractor's protective liability, broad form property damage, contingent/and or employer's liability, products and completed operations, non-owned automobile liability and, if applicable to the insured operations as detailed in the Agreement, coverage for blasting, explosion, shoring, underpinning, underground works, pile driving and collapse; and

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- (4) which includes completed operations coverage for a period of six (6) years from the date of Substantial Performance of the Work, unless otherwise indicated in the Agreement. If the Contractor fails to comply with the requirements of this GC 8.1.2(4) or to maintain such coverage any contractual period for claiming indemnity described in the Agreement will not be binding on the Owner.

8.1.3 Contractor's Pollution Liability Insurance

- .1 If specified in row D.1 of the Information Sheet, pollution liability insurance. The policy shall have a limit of not less than Two Million Dollars (\$2,000,000) per claim limit. The policy shall cover third-party injury and property damage claims, including clean-up costs, as a result of pollution conditions arising from the Contractor's, Subcontractor's, Sub-subcontractor's or Supplier's operations and completed operations (i.e. Work performed). If written as a single project policy, the policy shall include an extended reporting period of 24 months. If written as an annual policy, the policy should be kept in force for 24 months from the date of the later of the: issuance of the Final Acceptance Certificate or termination of the Agreement, as the case may be. The Owner shall be included as an additional insured on this policy.

8.1.4 All Risk Property Insurance

- .1 All risk property insurance shall be written on a replacement cost basis based on the Contract Price, on the building or structure while in the course of construction, and on all Products, Construction Equipment, supplies and/or systems, including boiler and machinery, and pressure vessels if applicable, that form part of the Work or are used in the performance of the Work. The policy may be written separately in the form of a Builder's Risk or Installation Floater; and Boiler and Machinery policy and/or Contractor's Equipment policy, as appropriate to the Project. The Owner shall be included as an additional insured and a joint loss payee on these policies, except for the Contractor's Equipment policy. This GC 8.1.4 is subject to GC 3.14.4.
- .2 The all risk property insurance shall provide that, in the event of a loss or damage:
 - (1) unless directed otherwise by the Owner in its sole and absolute discretion, the Contractor shall act on behalf of both the Owner and the Contractor for the purpose of adjusting the amount of such loss or damage payment with the insurers and payment shall be made to the Owner and the Contractor as their respective interests may appear;
 - (2) when the extent of the loss or damage is determined the Contractor shall proceed to restore the Work. Loss or damage shall not affect the rights and obligations of either party under the Agreement except that the Contract Time may be extended relative to the extent of the loss or damage in accordance with 7.5 – DELAYS; and

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(3) the Contractor shall be entitled to receive from the Owner, in addition to the amount due under the Agreement, the amount at which the Owner's interest in restoration of the Work has been appraised, such amount to be paid as the restoration of the Work proceeds and in accordance with the requirements of 5. CONTRACT PRICE AND PAYMENT. In addition, the Contractor shall be entitled to receive from the payments made by the insurers the amount of the Contractor's interest in the restoration of the Work.

8.1.5 Automobile Liability Insurance

.1 Automobile liability insurance in respect of all licensed owned/leased vehicles that will be utilized in the performance of the Work, unless otherwise required by the Agreement. Such automobile liability insurance shall have limits of not less than five million dollars (\$5,000,000).

8.1.6 Professional Liability Insurance

.1 If providing specialized consulting services including architectural, design, mechanical engineering, or other engineering professional services as a part of the Work, the Contractor shall provide and/or cause any Subcontractor or Sub-subcontractor, where such Subcontractor or Sub-subcontractor is under a professional obligation to maintain the same, Professional Liability Insurance or Errors and Omissions Insurance in the amount of not less than five million dollars (\$5,000,000) and shall continue for twenty-four (24) months following the date of the earlier of the issuance of the Final Acceptance Certificate or termination of the Agreement, as the case may be.

8.1.7 Aviation Liability Insurance

.1 If used directly or indirectly in performance of the Work by the Contractor, Subcontractor, Sub-subcontractor or Supplier, aviation liability insurance with respect to owned or non-owned aircraft, remotely piloted aircraft, unmanned aerial vehicles or drones including the use of additional premises, and shall include, if applicable, coverage for bodily injury, death, aircraft passenger hazard, and damage to property including loss of use thereof. Such insurance shall have limits of not less than five million dollars (\$5,000,000).

8.1.8 Watercraft Liability Insurance

.1 If used directly or indirectly in performance of the Work by the Contractor, Subcontractor, Sub-subcontractor or Supplier, watercraft liability insurance with respect to owned or non-owned watercraft including the use of additional premises, and shall include coverage for bodily injury, death, and damage to property including loss of use thereof. Such insurance shall have limits of not less than five million dollars (\$5,000,000).

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8.1.9 Marine Insurance

- .1 If carrying out any ocean, coastal and inland waterway shipments, the Contractor shall ensure a marine insurance policy is in place to fully insure the full replacement value of the shipment, insurance, and freight plus 10% and should cover the cargo on an "All Risks" basis from the point of origin of shipment until delivery in Toronto, Ontario, including the risk of unloading at the delivery point.
- .2 The Contractor shall maintain or cause to be maintained, if applicable, hull and machinery insurance covering the full replacement cost of all barges, scows and other watercraft owned, rented or leased by the Contractor or any Subcontractor or Sub-subcontractor.

8.1.10 The Contractor shall be responsible for all deductible and self-insured retention amounts under the policies required by this 8.1 - INSURANCE.

8.1.11 Insurance Requirements and Duration

- .1 Unless specified otherwise in this 8.1 - INSURANCE, the duration of each insurance policy shall be from on or before Commencement Date until the date of the earlier of the issuance of the Final Acceptance Certificate or termination of the Agreement, as the case may be.
- .2 Prior to the execution of the Agreement, and upon placement and at amendment or extension of all or any part of the insurance, the Contractor shall within five (5) Working Days provide the Owner with confirmation of coverage on the Owner's certificate of insurance form as attached as Form 2 of Schedule G – Forms or on a form acceptable to the Owner, without notice or demand by the Owner. Prior to the expiration date of all or any part of the insurance the Contractor shall submit to the Owner such confirmation of coverage or a replacement policy without notice or demand by the Owner. The insurance documents required by this GC 8.1.11.2 shall be signed by the insurer or an authorized representative of the insurer.
- .3 If the Owner receives notice of cancellation for nonpayment of the insurance premium, the Owner may, but is not obliged to, pay the premium of any policy of insurance required to be maintained herein and make a formal demand for reimbursement of such costs from the Contractor. If the Contractor fails to pay the cost of the insurance placed by the Owner within fifteen (15) Calendar Days of the date on which the Owner made a formal demand for reimbursement of such costs, the Owner may set-off the costs thereof in accordance with 5.10 – OWNER'S SET-OFF.
- .4 The Contractor shall, on request, within five (5) Working Days provide the Owner with a certified true copy of each insurance policy exclusive of information pertaining to premium or premium bases used by the insurer to determine the cost of the insurance. The certified true copy shall include a signature of the insurer or the underwriter or the broker.

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- .5 All insurance policies taken out by the Contractor shall be placed with insurers satisfactory to the Owner in its sole and absolute discretion. Without limiting the generality of the foregoing, all insurers must be licensed to underwrite insurance in the Province of Ontario, except to the extent the Owner waives such requirement in writing.
 - .6 The insurance policies required pursuant to this GC shall:
 - (1) be primary and shall not call into contribution any insurance available to the Owner; and
 - (2) contain a waiver of subrogation rights which the insurers may have against the Owner or any other additional insured, except for the Automobile Liability and Professional Liability policies.
 - .7 The amount of the deductible for the purpose of the Agreement shall not be more than \$25,000.00. Following the award of the Agreement, the Owner reserves the right to negotiate a higher or lower deductible, as appropriate.
 - .8 In addition to the insurance required by 8.1 – INSURANCE, the Contractor shall, at its cost, maintain such other forms of insurance as the Owner, acting reasonably, may require from time to time, in amounts and for risks against which a prudent contractor would insure.
 - .9 Each policy (except for the policy of automobile liability insurance required under GC 8.1.5) shall contain an endorsement requiring the insurer(s) to notify the Owner in writing, by registered mail, at least thirty (30) Calendar Days (fifteen (15) Calendar Days if cancellation is due to non-payment of premium), prior to any cancellation of the Contractor's insurance.
 - .10 "Claims made" insurance policies shall not be permitted, except for the Professional Liability and Contractor's Pollution Liability policy.
 - .11 The insurance coverages required by 8.1 – INSURANCE shall allow for partial or total use and occupancy by the Owner prior to Substantial Performance of the Work in accordance with 3.14.
- 8.1.12 The Contractor shall cause the Subcontractors and Suppliers to provide and maintain, at the expense of the Subcontractors and Suppliers, the insurance set out in GC 8.1.3 and 8.1.5.

8.2 CONTRACT SECURITY

- 8.2.1 The Contractor shall, prior to the Commencement Date or within the specified time, provide to the Owner any contract security specified in row D.2 of the Information Sheet.

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8.3 SURETY BONDS

- 8.3.1 Unless expressly indicated otherwise in row D.5 of the Information Sheet, the Contractor shall provide surety bonds, which shall be:
- .1 a performance bond with a coverage limit of fifty percent (50%) of the aggregate amount of the Fixed Price and the estimated Total Price of Unit Price Work (calculated using the Estimate of Units for Completion), plus Value Added Taxes; and a labour and material payment bond with a coverage limit of fifty percent (50%) of such aggregate amount;
 - .2 in compliance with the requirements of the Construction Act and in the form prescribed by the Construction Act; and
 - .3 delivered to the Owner prior to the execution of the Agreement by both the Owner and the Contractor.
- 8.3.2 The premiums for the bonds required by the Agreement are included in the Fixed Price and Unit Prices.
- 8.3.3 If the Contract Price increases during the Performance of the Work, the Owner shall have the right, in its sole discretion and at any time, to require riders be provided to the existing bonds, to increase the value of the bonds to fifty percent (50%) of the total of the Contract Price plus Value Added Taxes.

8.4 CONTRACTUAL HOLDBACK

- 8.4.1 The Owner shall retain a contractual holdback equal to the amount(s) identified in row D.3 of the Information Sheet (the aggregate of such amounts retained by the Owner being the “**Contractual Holdback**”). For clarity, the Owner shall not retain Contractual Holdback in respect of the payment of Lien Holdback pursuant to 5.6 - PAYMENT OF LIEN HOLDBACK UPON SUBSTANTIAL PERFORMANCE OF THE WORK or the payments pursuant to 5.7 – PAYMENTS UPON TOTAL PERFORMANCE OF THE WORK.
- 8.4.2 The Owner, without prejudice to any other right or remedy, shall be entitled to apply the Contractual Holdback towards Losses the Owner may suffer, sustain or incur in connection with the:
- .1 exercise of its rights in respect of the Contractor’s failure to correct a default pursuant to GC 11.1.5;
 - .2 failure of Contractor to complete the Work and correct deficient Work after the issuance of the certificate of Substantial Performance of the Work in accordance with the completion schedule established pursuant to GC 5.5.3; and
 - .3 exercise of its right to correct Deficiencies or make good damaged work or property pursuant to GC 2.5.4 and 9.3.5.

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- 8.4.3 Upon the Total Performance of the Work, the portion of the Contractual Holdback which remains after the Owner has exercised its rights pursuant to 8.4.2, if any, shall be reduced by the percentage amount identified in row D.4 of the Information Sheet. The reduced amount of the Contractual Holdback (without any interest owed by the Owner) shall be eligible to be included in the Proper Invoice submitted pursuant to GC 5.7.1.1.
- 8.4.4 After the issuance of the Final Acceptance Certificate, the Contractor may submit a Proper Invoice to the Owner in accordance with the applicable requirements of 5.3 – PROPER INVOICES requesting release of the portion of the Contractual Holdback which remains after the Owner has exercised its rights pursuant to GC 8.4.2, if any. The Owner shall make payment to the Contractor of such remaining portion of the Contractual Holdback (without any interest owed by the Owner) in accordance with the applicable requirements of 5.4 – PROGRESS PAYMENT.

9. INDEMNIFICATION, WAIVER OF CLAIMS AND WARRANTY

9.1 INDEMNIFICATION

- 9.1.1 The Contractor shall indemnify, defend and hold harmless the Owner, the mayor of the City of Toronto and each of the City of Toronto's agencies, boards, commissions, Personnel, elected officials, servants, volunteers and advisers (including the Contract Administrator and the Owner Representative), and their respective successors and assigns (collectively as the "**Indemnitees**") from and against all Claims brought against, or Losses suffered, sustained, or incurred by, the Indemnitees which may be directly or indirectly attributable to, or arising or alleged to arise out of:

- .1 the negligent acts or omissions of the Contractor Parties;
- .2 any deliberate act of wrongdoing or wilful misconduct or fraud of a Contractor Party including intentional misrepresentation; or
- .3 the performance of or the failure to perform any of the Contractor's obligations under the Agreement

(collectively, the "**Subject Matter of Indemnity**"). The Subject Matter of Indemnity includes:

- .4 all Losses that any of the Indemnitees may suffer, sustain or incur arising in respect of bodily injury, illness or death of any individual or physical loss of or damage to tangible property (including all or any part of the Site or any other tangible property related thereto); and
- .5 all Claims arising in respect of bodily injury, illness or death of any individual or physical loss of or damage to tangible property.

- 9.1.2 Without limiting the generality of any other provision in the Agreement, the Contractor shall indemnify, defend and hold harmless the Indemnitees from and against all Claims brought against, or Losses suffered, sustained, or incurred by the Indemnitees which may be directly or indirectly attributable to, or arising or alleged to arise out of:

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- .1 a lien or subsequent lawsuit brought in connection with any lien by a Subcontractor, Sub-subcontractor or Supplier;
 - .2 the infringement or an alleged infringement of any patented invention or copyright by the Contractor Parties in connection with the Work including the Products;
 - .3 the Contractor's failure to comply with the requirements of 4.3 – HAZARDOUS MATERIALS;
 - .4 the Contractor's failure to comply with the requirements of OHSA and the duties, responsibilities and obligations of the constructor under OHSA;
 - .5 the Contractor's failure to comply with the requirements of GC 12.2.16 or 3.8.2.3(3);
 - .6 a Subcontractor, Supplier or Sub-subcontractor's failure to comply with the requirements of GC 3.8.2.3(3);
 - .7 the presence of mould caused by the Contractor's operations under the Agreement as determined in accordance with GC 4.4.2; or
 - .8 the Contractor's failure to comply with the requirements of GC 10.1.6.
- 9.1.3 The Contractor shall pay to the Indemnitees, or any of them, on demand the amount of all Losses and Claims for which the Contractor is obligated to indemnify the Indemnitees and any moneys paid or payable by the Indemnitees in settlement or in discharge or on account thereof. If the Contractor fails to make such payments within ten (10) Working Days after such demand, the Owner may set-off such payments in accordance with 5.10 – OWNER'S SET-OFF.
- 9.1.4 The Owner shall indemnify, defend and hold harmless the Contractor from and against all Claims brought against the Contractor by third parties, or Losses suffered, sustained, or incurred by the Contractor in respect of such third party Claims, that are attributable to, or arise out of, the Contractor's direct involvement in the Agreement, provided such third party Claims are directly caused by the negligent act or omission of the Owner in the performance of the Owner's obligations under the Agreement, and then only to the extent the Losses was caused by the Owner.
- 9.1.5 The Owner shall indemnify, defend and hold harmless the Contractor from and against all Claims brought against the Contractor, or Losses suffered, sustained, or incurred by the Contractor arising out of the Contractor's performance of its obligations under the Agreement which are attributable to, or arise out of
- .1 a lack of or defect in title or an alleged lack of or defect in title to the Site; or
 - .2 an infringement of a patent of invention directly resulting from the use of a model, plan or design that was supplied to the Contractor by the Owner as part of the Agreement,

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but excluding any consequential, indirect or special damages and loss of profit, loss of opportunity or loss of productivity. The Contractor expressly waives the right to indemnity for Claims other than those stated above.

- 9.1.6 The Contractor hereby authorizes and empowers the Owner or its solicitor to defend, settle or compromise any of the Claims described in GC 9.1.1 and 9.1.2 as the Owner or its solicitor may deem expedient. The Contractor shall ratify and confirm all the acts of the Owner and its solicitor undertaken pursuant to this GC 9.1.6 and shall pay to such solicitor on demand his or her reasonable costs of any such defense, settlement and/or compromise. If the Contractor fails to make such payments to the solicitor, the Owner may set-off such payments in accordance with 5.10 – OWNER’S SET-OFF.
- 9.1.7 The Contractor shall not settle or compromise any of the Claims described in GC 9.1.1 or 9.1.2, for which it is liable to indemnify, defend and hold harmless the Owner without first obtaining the consent of the Owner with such consent not to be unreasonably withheld or delayed.
- 9.1.8 The Contractor acknowledges that the Owner holds the benefit of any covenant, release or indemnity in the Agreement, including the covenants of the Contractor in GC 9.1.1, 9.1.2 and 9.1.3, that is expressly intended to extend to include the Indemnitees (other than the Owner) as third party beneficiaries as trustee and agent for such Indemnitees. The Owner shall be entitled to enforce the rights of such Indemnitees as third party beneficiaries under such covenant and indemnities.
- 9.1.9 9.1 - INDEMNIFICATION in no way limits any other liability or obligation of the parties in respect of the Agreement.

9.2 WAIVER OF CLAIMS

- 9.2.1 With its Proper Invoice for the Lien Holdback submitted in accordance with 5.6 - PAYMENT OF LIEN HOLDBACK UPON SUBSTANTIAL PERFORMANCE OF THE WORK, the Contractor shall include a list setting out the status of all outstanding Claim Notices which have been submitted in strict compliance with 7.7 – CLAIMS PROCEDURE. For clarity, notwithstanding any other provision of the Agreement to the contrary:
- .1 any Claim Notices submitted prior to such Proper Invoice, but which are not set out in such list shall be deemed to be irrevocably barred, and waived and released by Contractor; and
 - .2 any Claims not included in such list shall be deemed to be irrevocably and unconditionally barred, and waived and released by Contractor, except for payment of the Lien Holdback which is the subject matter of such Proper Invoice, payment of the Contractual Holdback and any Claims in respect of Work to be performed sixty (60) Days prior to the date of Substantial Performance and on and after the date of Substantial Performance of the Work.
- 9.2.2 With its Proper Invoice submitted pursuant to GC 5.7.1.1 the Contractor shall include a list setting out the status of all outstanding Claim Notices which have been

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submitted in strict compliance with 7.7 – CLAIMS PROCEDURE. For clarity, notwithstanding any other provision of the Agreement to the contrary:

- .1 any Claim Notices submitted prior to such Proper Invoice, but which are not set out in such list shall be deemed to be irrevocably barred, and waived and released by Contractor; and
- .2 any Claims not included in such list shall be deemed to be irrevocably and unconditionally barred, and waived and released by Contractor, except for payment of any remaining Lien Holdback and the payment which is the subject matter of such Proper Invoice.

9.3 WARRANTY

- 9.3.1 The Contractor warrants that all Work shall be free of Deficiencies including in materials and workmanship and conform to the requirements of the Agreement during the Warranty Period. Except as expressly provided elsewhere in the Agreement, the Contractor does not warrant that the Owner Supplied Materials are free of Deficiencies. For clarity, this does not limit any warranty obligations of the Contractor for Work in respect of, or in connection with, the Owner Supplied Materials.
- 9.3.2 The Owner or Contract Administrator shall promptly give the Contractor Notice in Writing of observed Deficiencies which occur during the Warranty Period.
- 9.3.3 The Contractor shall, at the Contractor's cost, commence correction of Deficiencies in the Work which appear prior to and during the Warranty Period promptly, and in no event later than within ten (10) Working Days after receipt of Notice in Writing from the Owner or Contract Administrator of observed Deficiencies, and promptly complete the correction of such Deficiencies. The obligation of the Contractor to perform the corrective Work in accordance with this 9.3 – WARRANTY shall include the provision of all necessary labour and materials and the removal and replacement of covering materials. The carrying out of the correction of Deficiencies shall be executed at times convenient with the Owner which may entail overtime Work on the part of, and at the cost of, the Contractor. For greater certainty, if the Contractor is notified of Deficiencies prior to the end of the Warranty Period, then the Contractor shall make good the Deficiencies, notwithstanding that the warranty Work may commence or extend beyond the end of the Warranty Period.
- 9.3.4 The Contractor shall, at its cost, make good or pay for damage or destruction to other parts of the Work, the Owner's or other contractors' property or any other property caused by the Deficiencies during the Warranty Period or the correction of such Deficiencies.
- 9.3.5 If after receipt of the Owner's or Contract Administrator's Notice in Writing, the Contractor fails to, within the required period, commence and complete the correction of Deficiencies or make good damage or destruction to other parts of the Work, the Owner's or other contractors' property or any other property as required by this 9.3 – WARRANTY, the Owner may correct the Deficiencies or make good such damage and destruction and hold the Contractor responsible for all costs thereof.

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- 9.3.6 Any extension of the warranty beyond the Warranty Period shall be as specified in the Agreement ("**Extended Warranty Periods**"). Without limiting the Contractor's warranty under 9.3 – WARRANTY, the Extended Warranty Periods shall be issued by the warrantor to the benefit of the Owner. The Contractor's responsibility with respect to the Extended Warranty Periods shall be limited to obtaining any of the Extended Warranty Periods from the warrantor and assisting the Owner in the administration of the Extended Warranty Periods to the extent reasonably required by the Owner. The obligations under the Extended Warranty Periods are solely the responsibilities of the warrantor. For clarity, this GC 9.3.6 does not limit any responsibility or liability of the Contractor in respect of Deficiencies which appear prior to and during the Warranty Period.
- 9.3.7 Any Product or equipment requiring excessive servicing during the Warranty Period (or free maintenance period, if applicable) shall be considered Deficient and the warranty (or free maintenance period) shall be deemed to take effect from the time that the Deficiency has been corrected so as to cause excessive servicing to terminate.
- 9.3.8 Within thirty (30) Calendar Days after Substantial Performance of the Work, and without limiting the Contractor's warranty under this 9.3 – WARRANTY, the Contractor shall assign to the Owner, to the extent assignable, the benefit of all warranties and guarantees relating to the Work. The assignment shall:
- .1 expressly reserve the right of the Contractor to make any claims under such warranties and guarantees;
 - .2 in no way prejudice any rights of or benefits accruing to the Contractor pursuant to such warranties and guarantees; and
 - .3 be in a form acceptable to the Owner.
- 9.3.9 The provisions of 9.3 – WARRANTY shall not deprive the Owner of any action, right or remedy otherwise available to the Owner for the Contractor's failure to fulfill its obligations or responsibilities under the Agreement and shall not be construed as a waiver of Claims in favour of the Contractor or as a limitation on the time in which the Owner may pursue such other action, right or remedy. The warranties set out in the Agreement are not supplemental to and do not limit or preclude the application of any other conditions and warranties, express or implied, by law, trade usage or otherwise.

10. GOVERNING REGULATIONS

10.1 LAWS, NOTICES, PERMITS, AND FEES

- 10.1.1 The Owner shall obtain and pay for development approvals, building permit, easements, rights of servitude, and all other necessary approvals and permits, except for the permits and fees referred to in GC 10.1.2 or for which the Agreement specify as the responsibility of the Contractor.
- 10.1.2 The Contractor shall be responsible for the procurement of permits, licences, inspections, and certificates, which are necessary for the performance of the Work

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(including dewatering permits/agreements) and customarily obtained by contractors in the jurisdiction of the Site after the issuance of the building permit. The Contract Price includes the cost of these permits, licences, inspections, certificates and agreements, and their procurement.

- 10.1.3 The Contractor shall, and shall cause all Subcontractors, Suppliers and Sub-subcontractors to give the notices required by, and comply with, the Laws which are or come into force during the performance of the Work and which relate to the Work, to the preservation of health and safety.
- 10.1.4 Without limiting GC 10.1.3, the Contractor shall notify the Chief Building Official or the registered code agency where applicable, of the readiness, substantial completion, and completion of the stages of construction set out in the Ontario Building Code. The Contractor shall be present at each site inspection by an inspector or registered code agency as applicable under the Ontario Building Code.
- 10.1.5 Subject to 3.6 – DOCUMENT REVIEW AND EXAMINATION OF SITE, the Contractor shall not be responsible for verifying that the Agreement is in compliance with the Laws relating to the Work. If the Agreement is at variance therewith, or if, subsequent to the Effective Date, changes are made to the applicable Laws which require modification to the Agreement, the Contractor shall advise the Contract Administrator in writing requesting direction immediately upon such variance or change becoming known. The Contract Administrator will make the changes required to the Agreement as provided in 7.1 - OWNER'S RIGHT TO MAKE CHANGES, 7.2 - CHANGE ORDER and 7.3 - CHANGE DIRECTIVE.
- 10.1.6 If the Contractor:
- .1 fails to notify the Owner and the Contract Administrator in writing of changes made to the applicable Laws (other than Owner's Policies, Procedures and By-laws) in accordance with GC 10.1.5;
 - .2 fails to obtain direction as required in GC 10.1.5; or
 - .3 performs Work that it knows or should have known, applying the Standard of Care, contravenes any Laws,
- the Contractor shall be responsible for and shall correct the violations of such Laws, and shall be responsible for the Losses and delay attributable to the failure to comply with the provisions of such Laws, and, notwithstanding any limitations described in GC 9.1.1.
- 10.1.7 Notwithstanding GC 7.5.2, if subsequent to the Effective Date, changes are made to Laws (other than Owner's Policies, Procedures and By-laws) which increase or decrease the cost of the performance of the Work or Contract Time then:
- .1 any claim by the Contractor must be submitted in accordance with the requirements of 7.7 - CLAIMS PROCEDURE; and

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.2 the Owner may submit a change in accordance with the requirements of 7.1 – OWNER'S RIGHT TO MAKE CHANGES.

10.1.8 Without limiting the generality of any other provision in the Agreement, the Contractor shall cause all certificates to be furnished that are required or given by the appropriate Governmental Authorities or quasi-governmental authorities as evidence that the Work as installed conforms with the Laws, including certificates of compliance for the Owner's occupancy or partial occupancy. The certificates are to be final certificates giving complete clearance of the Work, in the event that such Governmental Authorities or quasi-governmental authorities furnish such certificates.

10.2 TAXES AND DUTIES

10.2.1 Subject to GC 10.2.3, the Fixed Prices and Unit Prices shall include all taxes and customs duties except for Value Added Taxes payable by the Owner to the Contractor. For clarity, there shall be no adjustment in the Fixed Price or Unit Prices as a result of inflation or currency fluctuation.

10.2.2 The Contractor shall provide a detailed breakdown of additional taxes and duties if requested by the Owner in a form satisfactory to the Owner.

10.2.3 Any increase or decrease in costs to the Contractor due to changes in Canadian federal and provincial taxes and custom duties after the Effective Date shall increase or decrease the Fixed Prices and Unit Prices accordingly. For greater certainty, the Contractor shall not be entitled to any markup for overhead or profit on any increase in such taxes and duties.

10.2.4 The Contractor represents and warrants that it is:

.1 not a non-resident Canadian; or

.2 has notified the Owner in writing, prior to execution of the Agreement that it is a non-resident Canadian,

for the purposes of the *Income Tax Act* (Canada). Notwithstanding anything to the contrary, all amounts payable by the Owner shall be subject to the *Income Tax Act* (Canada) (including applicable deductions from payments by the Owner on account of withholding against tax). Without limiting the generality of the foregoing, if any Laws requires that any taxes or other amounts be deducted or withheld from any payments to be made by the Owner under the Agreement, the Owner shall deduct such taxes or other amounts and remit such taxes or other amounts directly to the applicable Governmental Authority, including the Canada Revenue Agency, on or before the applicable due date and the Owner shall not be required to compensate or otherwise indemnify the Contractor with respect to such taxes or other amount.

10.2.5 Any taxes or customs duties applicable to the Agreement, including any sales taxes, excise taxes or Value Added Taxes, whether or not paid, which are found to be inapplicable or for which refund, exemption or recovery may be obtained, are the sole and exclusive property of the Owner. The Contractor agrees to, and to cause all Subcontractors, Suppliers and Sub-subcontractors to, cooperate with the Owner in

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the application for any refund, exemption or recovery of any taxes or customs duties, which cooperation shall include, making or concurring in the making of an application for any such refund, exemption or recovery, and providing to the Owner copies, or where required, originals of Contractor Records or other documents necessary to support such applications for refunds, exemptions or recoveries. All such refunds, exemptions or recoveries shall either be paid to the Owner, or shall be a credit to the Owner against the Contract Price in accordance with 5.10 – OWNER’S SET-OFF, in the Owner’s discretion. The Contractor agrees to endorse over to the Owner any cheques received from the federal or provincial governments, or any other taxing authority, as may be required to give effect to this GC. The Contractor agrees to enable, assist with and submit to any reasonable audit requested by the Owner with respect to the potential refunds, exemptions or recoveries under this GC.

10.2.6 Customs duties penalties, or any other penalty, fine or assessment levied against the Contractor, shall not be treated as a tax or customs duty for the purpose of this 10.2 – TAXES AND DUTIES.

10.3 PATENT FEES

10.3.1 The Contractor shall pay the royalties and patent licence fees required for the performance of the Agreement.

10.4 WORKERS’ COMPENSATION

10.4.1 Prior to commencing the Work, and again with the Proper Invoice for the Lien Holdback following Substantial Performance of the Work and the Contractor’s Proper Invoice submitted pursuant to GC 5.7.1.1, the Contractor shall provide evidence of compliance with workers’ compensation Laws, including payments due thereunder by the Contractor.

10.4.2 At any time during the term of the Agreement, when requested by the Owner, the Contractor shall provide evidence of compliance with workers’ compensation Laws by the Contractor and Subcontractors.

11. DEFAULT, TERMINATION AND SUSPENSION

11.1 OWNER’S RIGHT TO PERFORM THE WORK, TERMINATE THE CONTRACTOR’S RIGHT TO CONTINUE WITH THE WORK, TERMINATE THE AGREEMENT OR SUSPEND THE WORK

11.1.1 If the Contractor is adjudged bankrupt, or makes a general assignment for the benefit of creditors because of the Contractor’s insolvency, or if a receiver is appointed because of the Contractor’s insolvency, the Owner may, without prejudice to any other right or remedy the Owner may have, immediately terminate the Contractor’s right to continue with the Work or immediately terminate the Agreement, by giving the Contractor or receiver or trustee in bankruptcy Notice in Writing to that effect specifying the date upon which such termination becomes effective.

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11.1.2 If the Contractor:

- .1 fails to comply with the requirements of 1.7 – CONFLICTS OF INTEREST or if the parties are unable to resolve a Conflict of Interest of the Contractor to the satisfaction of the Owner;
- .2 fails to provide a Recovery Plan in accordance with GC 7.5.6.1 or comply with the requirements in respect of a Recovery Plan under GC 7.5.6.2 and 7.5.6.3; or
- .3 is found or determined to have committed any offence that qualifies as an “indictable offence” under the *Criminal Code* (Canada) or any offence of a similar nature with substantially similar penalties under any quasi-criminal provisions of another Law or any fraudulent act in any way related to the Work or the Agreement,

the Owner may, without prejudice to any other right or remedy the Owner may have, immediately terminate the Contractor’s right to continue with the Work or immediately terminate the Agreement, by giving the Contractor Notice in Writing to that effect specifying the date upon which such termination becomes effective.

11.1.3 Subject to GC 11.1.1 and GC 11.1.2, if the Contractor:

- .1 fails to commence the Work by the Commencement Date;
- .2 neglects to prosecute the Work properly or fails or neglects to maintain the latest Construction Schedule; or
- .3 otherwise fails to comply with the requirements of the Agreement,

the Owner may, without prejudice to any other right or remedy the Owner may have, give the Contractor Notice in Writing that the Contractor is in default of the Contractor’s contractual obligations and instruct the Contractor to correct the default in the five (5) Working Days immediately following the receipt of such Notice in Writing. Failure by the Owner to provide such Notice in Writing in a timely manner after the default has occurred shall not constitute condonation of the default.

11.1.4 If the Owner determines that the default referred to in GC 11.1.3 cannot be corrected in the five (5) Working Days specified or in such other time period as may be subsequently agreed in writing by the parties, the Contractor shall be in compliance with the Owner’s instructions if the Contractor:

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

11.1.5 If the Contractor fails to correct the default referred to in GC 11.1.3 in the time specified or in such other time period as may be subsequently agreed in writing by

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the parties, without prejudice to any other right or remedy the Owner may have, the Owner may:

- .1 correct such default and set-off the cost thereof in accordance with 5.10 – OWNER'S SET-OFF provided the Contract Administrator has certified such cost to the Owner and the Contractor;
- .2 charge the Contractor for any Losses suffered, sustained or incurred by the Owner as a result of such default and/or set-off such Losses in accordance with 5.10 – OWNER'S SET-OFF; or
- .3 immediately terminate the Contractor's right to continue with the Work in whole or in part or immediately terminate the Agreement by giving the Contractor Notice in Writing to that effect specifying the date upon which such termination becomes effective.

11.1.6 If the Owner terminates the Contractor's right to continue with the Work or terminates the Agreement as provided in GC 11.1.1, 11.1.2 and 11.1.5, without prejudice to any other right or remedy which the Owner may have, the Owner may, at its sole option:

- .1 take possession of the Work, Products and Owner Supplied Material at the Site;
- .2 subject to the rights of third parties, utilize the Construction Equipment at the Site;
- .3 finish the Work by whatever method the Owner may consider expedient, but without undue delay or cost;
- .4 require Contractor to provide such reasonable assistance as required to properly and safely transition the Work to the Owner or its other contractors;
- .5 withhold further payment to the Contractor until a final certificate for payment is issued;
- .6 charge the Contractor the amount by which the full cost of finishing:
 - (1) any Fixed Price Work as certified by the Contract Administrator exceeds the unpaid balance of the Fixed Price; and
 - (2) any Unit Price Work as certified by the Contract Administrator exceeds the portion of the Total Price of Unit Price Work that would have been paid to the Contractor on the completion of such Unit Price Work (calculated based on the number of units required to complete the Unit Price Work after the effective date of termination).

plus compensation to the Contract Administrator for the Contract Administrator's additional services and a reasonable allowance as determined by the Contract Administrator to cover the cost of corrections to Work performed by the Contractor that may be required under 9.3 - WARRANTY;

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- .7 on expiry of the Warranty Period, charge the Contractor the amount by which the cost of corrections to the Contractor's Work under 9.3 - WARRANTY exceeds the allowance provided for such corrections, or if the cost of such corrections is less than the allowance, pay the Contractor the difference; and
- .8 charge the Contractor for any Losses suffered, sustained or incurred by the Owner as a result of such termination and/or set-off such Losses in accordance with 5.10 – OWNER'S SET-OFF.

For clarity, any one or more of the Owner's rights in GC 11.1.6 shall also apply to the portions of the Work that the Owner has terminated the Contractor's right to continue pursuant to GC 11.1.5.3, *mutatis mutandis*.

- 11.1.7 Upon receipt of Notice in Writing from the Owner terminating the Agreement, the Contractor shall:
 - .1 subject to GC 11.1.6.4, cease Work on the effective date of the termination;
 - .2 place no additional orders (and if requested by the Owner, the Contractor shall cancel existing orders and subcontracts specified by the Owner upon terms satisfactory to the Owner); and
 - .3 preserve and protect the Products (at the Site or in transit), Owner Supplied Material and Work completed and in progress pending the Owner's instructions, and the Contractor shall dispose of same in accordance with the Owner's instructions.
- 11.1.8 The Contractor's obligation under the Agreement as to quality, correction and warranty of the Work performed by the Contractor up to the time of termination shall continue after such termination of the Agreement.
- 11.1.9 Termination for Convenience
 - .1 Notwithstanding any other term or condition in the Agreement, the Owner may (at any time) terminate the Contractor's right to continue with the Work or terminate the Agreement without cause and in its sole and absolute discretion by giving a Notice in Writing to the Contractor, specifying the date upon which such termination becomes effective, provided that such termination date may not be less than seven (7) Calendar Days from the date on which the Contractor is deemed to have received such Notice in Writing.
 - .2 In the event of termination pursuant to GC 11.1.9.1, the Owner shall be entitled to take possession of the Site, the Work, the Products and the Owner Supplied Material, and the Contractor shall be entitled to be paid for the following, without duplication, but subject to the other requirements in the Agreement to be satisfied by the Contractor prior to payment:
 - (1) the value proportionate to the Contract Price, of the Work performed up to the effective date of termination;

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- (2) reasonable demobilization costs paid by the Contractor which have been pre-approved by the Owner in writing;
- (3) reasonable costs incurred in connection with the preservation or protection of the Work; and
- (4) Subcontractor and Supplier cancellation costs reasonably paid by the Contractor as a result of such termination which have been pre-approved by the Owner in writing and could not have been reasonably mitigated by the Contractor.

For greater certainty, the amounts payable pursuant to GC 11.1.9.2(1) are less any previous amounts paid or properly withheld on account of the Contract Price and except for the amounts referred to in this GC 11.1.9.2, the Contractor shall not be entitled to any additional Losses resulting from the termination in accordance with GC 11.1.9.1 including any consequential, indirect or special damages and loss of profit, loss of opportunity or loss of productivity.

11.1.10 Notwithstanding any other provision in the Agreement, the Contractor shall accept, and not dispute, the termination of the Agreement or the Contractor's right to continue with the Work in whole or in part by the Owner under GC 11.1.1, 11.1.2 or 11.1.5.3, provided that the Contractor is entitled to dispute the existence of the underlying default or event giving the Owner the right to terminate the Agreement, or the Contractor's right to continue with the Work in whole or in part, in accordance with 12. DISPUTE RESOLUTION. However, if the Agreement is terminated under GC 11.1.1, 11.1.2 or 11.1.5.3 and it is later determined that there was no default or other event giving the Owner the right to terminate the Agreement or the Contractor's right to continue with the Work in whole or in part, as applicable, such termination shall be deemed to have been a termination for convenience and the rights and obligations of GC 11.1.9 shall apply to such termination.

11.1.11 Suspension

- .1 The Owner, from time to time, may suspend any portion or the whole of the Work for any reason for such time as the Owner may notify the Contractor in a Notice in Writing. In addition to suspending any portion or the whole of the Work, the Owner shall be entitled to instruct the Contractor in the Notice in Writing to take such other action as may be reasonably required in respect of the suspension.
- .2 The Contractor shall, upon receipt of such Notice in Writing, suspend the Work referred to in such Notice in Writing (except for Work which, in the reasonable opinion of the Contractor is necessary for the safety and security of people or property) and such suspended Work shall not be resumed until the Owner so directs in writing.
- .3 Subject to GC 2.2.19, upon resumption of the suspended Work and provided the suspension of the Work was not as a result of the negligent act or omission of the Contractor Parties or the default or breach of the Contractor's obligations under the Agreement or any other act or fault of the Contractor Parties, the Contract Time shall be extended for such reasonable time as agreed to by the Parties,

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taking into account such time period as recommended by the Contract Administrator and the Contract Price shall be adjusted to account for reasonable Losses incurred by the Contractor as the result of such suspension but excluding any consequential, indirect or special damages and loss of profit, loss of opportunity or loss of productivity resulting from such suspension.

- 11.1.12 The Contractor acknowledges that remedies at law may be inadequate to provide the Owner with full compensation if the Contractor breaches its obligations under this 11.1 - OWNER'S RIGHT TO PERFORM THE WORK, TERMINATE THE CONTRACTOR'S RIGHT TO CONTINUE WITH THE WORK, TERMINATE THE CONTRACT OR SUSPEND THE WORK and that any such breach of such obligations by the Contractor may cause the Owner irreparable harm. As a result, the Owner will be entitled, without prejudice to any other right or remedy it may have at law or in equity, to seek injunctive relief, specific performance, or any other equitable remedy if the Contractor breaches such obligations or takes steps that reasonably will result in a breach of such obligations.

11.2 CONTRACTOR'S RIGHT TO TERMINATE THE AGREEMENT

- 11.2.1 If the Work is suspended or otherwise delayed for a period of sixty (60) Working Days (or such alternate period under row C.11 of the Information Sheet) or more, by a stop work order issued by a court or other public authority (other than the City of Toronto) and providing that such order was not issued as the result of an act or fault of a Contractor Party, the Contractor may terminate the Agreement by giving the Owner Notice in Writing to that effect specifying the date upon which such termination becomes effective.

- 11.2.2 The Contractor may give Notice in Writing to the Owner, with a copy to the Contract Administrator, that the Owner is in default of the Owner's contractual obligations if:

- .1 the Contract Administrator fails to issue a certificate for payment as provided in 5.4 - PROGRESS PAYMENT; or
- .2 the Owner fails to pay the Contractor an amount: (1) which is due and payable under the Agreement, subject to the Owner's right to set-off pursuant to 5.10 – OWNER'S SET-OFF; or (2) awarded by arbitration or court; or
- .3 the Owner fails to comply with a material requirement of the Agreement,

and instruct the Owner to correct the default in the fifteen (15) Working Days immediately following the receipt of such Notice in Writing.

- 11.2.3 If the default cannot be corrected within the fifteen (15) Working Days specified in GC 11.2.2, the Owner shall be in compliance with the Contractor's instructions if the Owner:

- .1 commences the correction of the default within the specified time;
- .2 provides the Contractor with an acceptable schedule for such correction; and

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.3 completes the correction in accordance with such schedule.

11.2.4 If the Owner fails to correct the default in the time specified or subsequently agreed upon, the Contractor may, without prejudice to any other right or remedy the Contractor may have, terminate the Agreement by giving the Owner Notice in Writing to that effect specifying the date upon which such termination becomes effective.

11.2.5 If the Contractor terminates the Agreement under the conditions described in this 11.2 - CONTRACTOR'S RIGHT TO TERMINATE THE AGREEMENT, the Contractor shall be entitled to be paid for all Work performed to the date of termination. The Contractor shall also be entitled to recover the reasonable Losses associated with termination, including the costs of demobilization, but excluding any consequential, indirect or special damages and loss of profit, loss of opportunity or loss of productivity resulting from such termination.

11.3 OTHER TERMINATION OBLIGATIONS

11.3.1 If the Agreement is terminated, by the Owner or Contractor, as the case may be:

.1 the party terminating the Agreement shall publish, in the manner set out in the Construction Act, a notice of the termination in the form prescribed by the Construction Act and, for the purposes of this section, the date on which the Agreement is terminated is the termination date specified in the Notice in Writing delivered by such party to the other party pursuant to the Agreement; and

.2 the Contractor shall:

- (1) comply with the requirements in GC 13.5.7 in respect of Confidential Information;
- (2) stop, and cause all Subcontractors, Suppliers and Sub-subcontractors to stop, all Work in progress and refrain from undertaking any further commitments;
- (3) except for subcontracts to be assigned to the Owner pursuant to GC 3.8.2.3(4), terminate any subcontracts related to the Work;
- (4) minimize all costs resulting from the termination of the Agreement; and
- (5) at the Owner's option, deliver, or cause to be delivered, to the Owner all Work-in-process obtained or performed by the Contractor and the Subcontractors, Suppliers and Sub-subcontractors up to the effective date of termination (including all Work-in-process situate at locations other than the Site and Contractor Prepared Documents).

12. DISPUTE RESOLUTION

12.1 DISPUTE RESOLUTION

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- 12.1.1 Unless the Agreement has been terminated or completed, the Contractor shall in every case, notwithstanding any Claim Notice or the occurrence of a Dispute, continue to proceed with the Work with due diligence and expedition. Such continuance shall not jeopardize the Contractor's entitlement in respect of such Claim Notice or Dispute, provided the Contractor has complied with all other requirements of the Agreement.
- 12.1.2 The parties acknowledge and agree that, for the purposes of Part II.1 of the Construction Act, there shall be no dispute with respect to an Adjudicable Matter that is also the subject matter of a Claim Notice, unless and until a Claim Notice in accordance with GC 7.7 – CLAIMS PROCEDURE has been received by the Owner and the Contract Administrator, and the Owner or the Contract Administrator, as the case may be, has issued a determination to the Contractor regarding the validity of the Claim Notice pursuant to GC 7.7.6.
- 12.1.3 The parties acknowledge that no arbitration, action, suit or other proceeding shall be brought, nor any mediation undertaken, with respect to the subject matter of a Claim Notice unless and until a Claim Notice in accordance with GC 7.7 has been received by the Owner and the Contract Administrator, and the Owner or the Contract Administrator, as the case may be, has issued a determination to the Contractor regarding the validity of the Claim Notice pursuant to GC 7.7.6.

12.2 ADJUDICATION

- 12.2.1 The parties acknowledge and agree that, for the purposes of paragraph 7 of s. 13.5(1) of the Construction Act:
- .1 neither the Agreement nor any Schedule sets out "any other matter" that the parties agree may be referred to an Adjudication; and
 - .2 the parties may agree after the commencement of the Agreement to "any other matter" that may be referred to an Adjudication provided such agreement is in writing and explicitly identifies and refers to the other matter to refer to an Adjudication.
- 12.2.2 All Adjudications shall proceed in accordance with the provisions of the Construction Act and the additional procedures set out in this 12.2 - ADJUDICATION, subject to the exercise of the powers provided to the Adjudicator under section 13.12 of the Construction Act.
- 12.2.3 Subject to GC 7.7 – CLAIMS PROCEDURE and GC 12.1.2, at any time prior to the completion of the Agreement, either party may refer an Adjudicable Dispute to Adjudication, by giving a Notice of Adjudication to the other party.
- 12.2.4 If the party issuing the Notice of Adjudication is the:
- .1 Contractor, the Notice of Adjudication shall be given to:

City of Toronto
Adjudication Unit

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C/O City Solicitor's Office
Metro Hall, 26th Floor
55 John Street
Toronto, Ontario M5V 3C6

- .2 Owner, the Notice of Adjudication shall be given to the person at the address set out in row A.3 of the Information Sheet.

The Notice of Adjudication shall be given to the other party by registered mail, courier or hand delivery.

- 12.2.5 Delivery of the Notice of Adjudication by registered mail is deemed given on the fifth day after the Notice of Adjudication is mailed.
- 12.2.6 Delivery of the Notice of Adjudication by courier is deemed given on the second day following the day the courier was given the document, unless the second day is a holiday, in which case the Notice of Adjudication is deemed given on the next day that is not a holiday.
- 12.2.7 The seat of the Adjudication shall be in Toronto, Ontario.
- 12.2.8 In addition to the requirements of section 13.8 of the Construction Act, if an Adjudication between the Owner and the Contractor is with respect to an Adjudicable Matter that is the same or includes the subject matter of disputes that can be referred to adjudication between:
- .1 the Contractor and Subcontractors and/or Suppliers that are to be adjudicated in separate Adjudications, if a Subcontractor and/or Supplier does not agree to a consolidated Adjudication, the Owner shall be entitled, in its sole and absolute discretion, to direct the Contractor to, and the Contractor shall, require the consolidation of the Adjudication through the exercise of the Contractor's right pursuant to section 13.8(2) of the Construction Act; or
- .2 the Owner and other contractors engaged by the Owner to perform work on the improvement that are to be adjudicated in separate Adjudications, the Contractor hereby acknowledges and agrees to the consolidation of the separate Adjudications if the Owner requires the consolidation of the separate Adjudications and such other contractors have also agreed to the consolidation of the separate Adjudications.
- 12.2.9 The Adjudicator nominated by the party issuing the Notice of Adjudication shall:
- .1 have relevant qualifications and experience with respect to the Project or projects of a similar nature and magnitude, to the Project;
- .2 be independent of and at arm's length to Contractor, Owner and any other person having an interest in the Project or any of the documents comprising the Agreement; and
- .3 have no conflict of interest relating to the parties or the Dispute.

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12.2.10 In addition to the requirements of section 13.11 of the Construction Act, the copy of the contract and any other documents delivered to the party that received the Notice of Adjudication pursuant to section 13.11 of the Construction Act shall:

- .1 be delivered to such party by the other party in the manner as required by the Adjudicator;
- .2 if the contract and such documents have an aggregate file size in excess of twenty (20) MB, be delivered to such party by the other party on a USB flash drive or using a secure electronic document exchange service in a searchable format; and
- .3 include an index of documents with identifying information (for example, date, document description, author/recipient).

12.2.11 The Contractor and Owner hereby acknowledge and agree that:

- .1 they shall, immediately after the appointment of the Adjudicator, either through the agreement of the parties or by the Authorized Nominating Authority ("**ANA**"), deliver a written agreement requesting that the Adjudicator provide the party that received the Notice of Adjudication no less than fourteen (14) Calendar Days from the date of receipt of the documents pursuant to section 13.11 of the Construction Act to respond;
- .2 if the documents delivered pursuant to section 13.11 of the Construction Act:
 - (1) exceed 100 documents or 1000 pages in the aggregate, excluding the Agreement and all Schedules; or
 - (2) seek monetary relief in excess of one million dollars (\$1,000,000) exclusive of Value Added Taxes,

they shall, immediately after the receipt of such documents, deliver to the Adjudicator a written agreement requesting that the Adjudicator provide the party that received the Notice of Adjudication no less than sixty (60) Calendar Days from the date of receipt of such documents to respond and extend the deadline for the Adjudicator to make its determination to no less than thirty (30) Calendar Days after the deadline for the delivery of the response by such party; and

- .3 if the documents delivered pursuant to section 13.11 of the Construction Act are delivered at any time between the Friday prior to December 25th in a given year and the first Monday of January of the following year, they shall, immediately after the receipt of such documents, deliver to the Adjudicator a written agreement requesting that the Adjudicator exclude the period between the date of delivery of such documents and that first Monday of January from the counting of Calendar Days for the purposes of the Adjudication and, as necessary to give effect to such exclusion, extend the deadline for the party that received the Notice of Adjudication to respond and the deadline for the Adjudicator to make its determination.

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- 12.2.12 The Adjudicator shall be entitled to grant any remedy or relief which is consistent with the intentions of the parties expressed under the Agreement but shall not be entitled to exercise the power of prerogative writs.
- 12.2.13 In addition to the requirements of section 13.19(1) of the Construction Act, a requirement to pay an amount in accordance with section 13.19 of the Construction Act is subject to GC 13.2.1.2.
- 12.2.14 Other than in accordance with the Construction Act, any determination and reasons of an Adjudicator on the Project shall not be relied upon by either party on any other projects. The determination and reasons of any adjudicators on any other projects shall not be relied upon by the parties in any Adjudication on the Project.
- 12.2.15 If an Adjudicable Dispute is referred to Adjudication and such Adjudicable Dispute is already the subject of a mediation pursuant to GC 12.4 - MEDIATION, an arbitration pursuant to GC 12.5 - ARBITRATION or a court proceeding, which has not been finally determined, the party responding to the Notice of Adjudication shall be entitled, in its sole and absolute discretion, to choose to:
- .1 terminate, suspend or proceed with such mediation or arbitration, as applicable, and if the responding party elects to terminate such mediation or arbitration, as applicable, the party referring the Adjudicable Dispute to Adjudication shall be responsible for all costs of the mediator or arbitrator, as applicable, up to the date of receipt of the Notice of Adjudication; or
 - .2 stay or proceed with such court proceeding, and if the responding party elects to stay such court proceeding, the party referring the Adjudicable Dispute to Adjudication shall execute all further documents and do all other lawful things necessary to give full effect to such stay, and after the Adjudicator makes its determination, either party may move to lift such stay, which the other party shall consent to.
- 12.2.16 The Contractor shall, in respect of any dispute between:
- .1 the Contractor and a Subcontractor or Supplier;
 - .2 a Sub-subcontractor and a Subcontractor or Supplier; or
 - .3 a Sub-subcontractor and another Sub-subcontractor,
- no later than two (2) Working Days after the receipt by the Adjudicator of the documents under section 13.11 of the Construction Act in respect of such dispute, deliver a Notice in Writing to the Contract Administrator and Owner setting out the date which such Adjudicator received such documents.

12.3 NEGOTIATIONS

- 12.3.1 Either party may initiate negotiations of any Dispute by giving written notice to the other party ("**Notice of Negotiations**") with reasonable particulars of the Dispute. After the receipt of a Notice of Negotiations the parties shall make all reasonable

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efforts to resolve the Dispute by amicable negotiations and the parties agree to provide, without prejudice, open and timely disclosure of relevant facts, information, and documents to facilitate such negotiations.

- 12.3.2 Any applicable negotiations shall be completed as soon as possible and shall be limited to a period of no more than ninety (90) Calendar Days following the delivery of a Notice of Negotiations, or such other period of time as the Parties agree in writing.

12.4 MEDIATION

- 12.4.1 Subject to GC 12.1.3, the parties, by mutual written agreement, may submit any Dispute to mediation. Such mediation shall proceed in accordance with this 12.4 – Mediation and such other terms and conditions agreed to by the parties.
- 12.4.2 The mediator shall be mutually agreed upon by the Owner and Contractor.
- 12.4.3 Subject to GC 12.2.15.1, each party is responsible for its own costs related to the mediation. The costs of the mediator shall be equally shared by the Owner and Contractor.

12.5 ARBITRATION

- 12.5.1 Subject to GC 12.1.3, the parties, by mutual written agreement, may submit any Dispute to be finally determined by arbitration before a sole arbitrator, who shall also be agreed to as a part of such mutual agreement. The provisions of the *Arbitration Act, 1991* (ON) shall apply to such arbitration, including the provisions for appeal therein except as otherwise provided in this 12.5 - ARBITRATION and such arbitration shall be subject to such other terms and conditions agreed to by the parties.
- 12.5.2 If the parties agree to arbitration to resolve a Dispute, the Owner shall notify the Contract Administrator in writing within fifteen (15) Calendar Days of the written agreement to arbitrate.
- 12.5.3 Subject to GC 12.2.15.1, unless otherwise agreed to in the written agreement to arbitrate, each party is responsible for its own costs related to the arbitration and the arbitrator shall not have the discretion to award costs related to the arbitration. The costs of the arbitrator and any other Persons appointed to assist the arbitrator (including independent experts) shall be equally shared by the Owner and Contractor.
- 12.5.4 The arbitrator's reasoned decision shall be made in writing within ninety (90) Calendar Days of the conclusion of the hearing. An extension of time to make a decision may be granted with consent of both parties.
- 12.5.5 The resolution of Disputes pursuant to this 12.5 - ARBITRATION shall be final and binding upon the parties, and there shall be no appeal therefrom, including any appeal to a court of law on a question of law, a question of fact, or a question of mixed fact and law.

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12.6 RIGHTS OF BOTH PARTIES

12.6.1 Unless the parties agree otherwise, no action taken under GC 12.1 to GC 12.5 by either party shall be construed as a renunciation or waiver of any of the rights or recourse available to the parties.

13. OTHER PROVISIONS

13.1 OWNERSHIP OF EXISTING MATERIALS AND EQUIPMENT

13.1.1 Unless otherwise specified, all materials, equipment and other property existing at the Site at the time of execution of the Agreement shall remain the property of the Owner or any other Person identified by the Owner.

13.2 CONSTRUCTION LIENS

13.2.1 Upon the receipt of a written notice of lien, claim for lien or a certificate of action under the Construction Act, arising from the performance of the Work by any Subcontractor, Supplier or Sub-subcontractor:

- .1 the Contractor at its sole cost, shall take whatever steps are necessary to discharge, release or vacate such claim for lien or certificate of action, or withdraw the written notice of a lien within ten (10) Calendar Days of it coming to the notice of the Contractor. If the claim for lien or certificate of action is merely vacated, the Contractor shall, if requested, undertake the Owner's defence of any subsequent lawsuit commenced in respect of the claim for lien or certificate of action at the Contractor's sole cost; and
- .2 the Owner may retain an amount sufficient to satisfy such claim for lien, certificate of action or written notice of a lien, including an amount sufficient to cover potential costs, in accordance with GC 5.10 – OWNER'S SET-OFF.

13.2.2 If the Contractor fails or refuses to vacate or discharge the claim for lien or certificate of action, or cause the withdrawal of the written notice of a lien, within the time period required by 13.2.1, the Owner shall at its option, be entitled (but not obliged) to take whatever steps are necessary to vacate and/or discharge the claim for lien or certificate of action, or cause the withdrawal of the written notice of a lien and all Losses incurred by the Owner in so doing (including all legal fees and disbursements) may be set-off by the Owner in accordance with 5.10 – OWNER'S SET-OFF.

13.2.3 After the Contractor or the Owner, as the case may be, has vacated and/or discharged the claim for lien or certificate of action, or caused the withdrawal of the written notice of a lien, then any amount retained by the Owner pursuant to GC 13.2.1.2 in respect of such claim for lien, certificate of action or written notice of lien shall be eligible to be included in the next Proper Invoice submitted by the Contractor.

13.2.4 The Contractor acknowledges that all claims for lien shall be given to the Clerk of the City of Toronto through its web portal at www.toronto.ca/liens.

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13.2.5 This 13.2 – CONSTRUCTION LIENS does not apply to any claim for lien or certificate of action to the extent arising from a payment default of the Owner under the Agreement.

13.3 OWNERSHIP OF CONTRACTOR DOCUMENTS

13.3.1 Subject to GC, 1.1.11, all correspondence, data, plans, drawings, specifications, reports, estimates, summaries, photographs, models, mockups, Contractor Records and all other information and documentation in any form (an whether in draft or final format) prepared by or for the Contractor in connection with, or arising out of the Work or the Agreement (collectively, the "**Contractor Prepared Documents**") shall be the exclusive property of the Owner, provided the Contractor shall retain the copyright in the Contractor Prepared Documents prepared by the Contractor. The Contractor grants the Owner an irrevocable, perpetual, royalty free and cost free license to use, amend and copy the Contractor Prepared Documents in any manner it chooses including the construction, design, testing, refurbishment, use, modification, expansion, occupancy, operation, maintenance, renovation, management, sale, extension, alteration and repair of the Work, the Site, the Project or any part thereof or any other project or any work including providing the Contractor Prepared Documents to consultants, design-builders, construction managers, contractors, suppliers and others for such purposes. Such license shall survive the termination of the Agreement.

13.3.2 In the event of any termination of the Agreement or as requested by the Owner, from time to time, the Contractor agrees to promptly, and in no event later than within ten (10) Working Days after such termination, deliver the Contractor Prepared Documents to the Owner.

13.4 OWNER SUPPLIED MATERIAL

13.4.1 The Contractor shall, in advance of receipt of shipments of Owner Supplied Material, provide adequate and proper storage facilities acceptable to the Contract Administrator and on the receipt of the Owner Supplied Material shall immediately place it in storage except where it is to be incorporated forthwith into the Work.

13.4.2 The Contractor shall be responsible for acceptance of Owner Supplied Material, at the specified delivery point. All Owner Supplied Material in each shipment shall be accounted for by the Contractor. Immediately upon receipt of each shipment, the Contractor shall provide the Contract Administrator with copies of bills of lading, or such other documentation the Contract Administrator may require to substantiate and reconcile the quantities of Owner Supplied Material received. Where Owner Supplied Material arrives at the delivery point in a damaged condition or where there are discrepancies between the quantities received and the quantities shown on the bills of lading, the Contractor shall immediately report such damage or discrepancies to the Contract Administrator who shall arrange for an immediate inspection of the shipment. Where damage or deficiencies are not so reported, it shall be assumed that the shipment arrived in good condition and order, and any damage or deficiencies reported thereafter shall be made good by the Contractor at no extra cost to the Owner and without any extension of the Contract Time.

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- 13.4.3 Once accepted by the Contractor, notwithstanding that title to the Owner Supplied Equipment shall be held by the Owner, the risk of Loss to the Owner Supplied Material shall be borne by the Contractor. If after accepting delivery, such Owner Supplied Material is damaged or lost while under the control of the Contractor, it shall be replaced or repaired by the Contractor at no cost to the Owner, and to the satisfaction of the Contract Administrator. If such Owner Supplied Material is rejected by the Contract Administrator for reasons that are not the fault of the Contractor, it shall remain in the care and at the risk of the Contractor until its disposition has been determined by the Contract Administrator.
- 13.4.4 Owner Supplied Material shall not, except with the written permission of the Contract Administrator, be used by the Contractor for purposes other than the performance of the Work under the Agreement. Contractor shall store, operate, maintain, repair and otherwise deal with the Owner Supplied Material in the same manner as would a prudent owner of such material and equipment, and in accordance with the Agreement and the applicable operating and maintenance manuals, and using suitably qualified and experienced Personnel, until returned to the Owner.
- 13.4.5 Empty reels, crates, containers and other types of packaging from Owner Supplied Material shall become the property of the Contractor when they are no longer required for their original purpose and shall be disposed of by the Contractor at the Contractor's cost unless otherwise specified in the Agreement or directed by the Owner.
- 13.4.6 Where Owner Supplied Material supplied by the Owner is ordered and stockpiled prior to the award of the Agreement, the Contractor shall, at no extra cost to the Owner, immediately upon commencement of operations, check the Owner Supplied Material, report any damage or deficiencies to the Contract Administrator and take charge of the Owner Supplied Material at the stockpile site. Where damage or deficiencies are not so recorded by the Contractor, it shall be assumed that the stockpile was in good condition and order when the Contractor took charge of it, and any damage or deficiencies reported thereafter shall be made good by the Contractor at no extra cost to the Owner and without any extension of the Contract Time.
- 13.5 CONFIDENTIAL INFORMATION AND PERSONAL INFORMATION**
- 13.5.1 The parties acknowledge and agree that MFIPPA applies to the Owner and the Owner Documents and that the Owner is required to fully comply with MFIPPA. The Contractor shall retain and preserve Owner Documents in a secure and accessible manner to enable the Owner to fulfill its obligations under MFIPPA and the Owner's Policies, Procedures and By-laws.
- 13.5.2 Notwithstanding anything else in the Agreement to the contrary, the Contractor acknowledges and agrees that the Owner has a right to disclose or publish the Agreement (including any or all terms hereof), any or all Owner Documents and any information derived from the Owner Documents as the Owner, in its sole discretion, may consider appropriate.
- 13.5.3 Each party acknowledges the importance of maintaining the confidentiality and privacy of Confidential Information. Except as authorized hereunder, each receiving

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party shall, with respect to Confidential Information it receives from or on behalf of any disclosing party at all times:

- .1 hold such Confidential Information in strict confidence, under and in accordance with all applicable requirements of the Agreement including the Specifications, if any;
- .2 implement and use, appropriate technical, organizational and physical security measures to protect and secure such Confidential Information, whether in storage or in use, with no less than the same degree of care as the receiving party uses to protect its own Confidential Information against loss, theft and unauthorized access, use, copying, modification, disclosure, publication or dissemination or disposal, but in no case with less than a reasonable degree of care. Further, the Contractor shall comply, if requested by the Owner, with a document control and security protocol approved by the Owner, which protocol shall prescribe limitations on the use, disclosure and storage of such Confidential Information;
- .3 comply with all applicable requirements of Laws, including MFIPPA, the *Personal Information Protection and Electronic Documents Act (Canada)*, and any other Laws now in force or that may in the future come into force governing the collection, use, disclosure and protection of Personal Information applicable to the Contractor;
- .4 not disclose to a third party and not permit any third party any manner of access to, whether directly or indirectly, such Confidential Information without the prior written approval of the disclosing party in each instance, except as provided for in this 13.5 – CONFIDENTIAL INFORMATION AND PERSONAL INFORMATION; and
- .5 not to use such Confidential Information for any purpose whatsoever other than in connection with the rights conferred under the Agreement as permitted by the Agreement.

13.5.4 The parties agree that:

- .1 the receiving party may disclose Confidential Information of the disclosing party received by it pursuant to the Agreement:
 - (1) to its Personnel if and when such Personnel have a need to know such Confidential Information so that such receiving party may exercise its rights and/or meet its obligations under the Agreement or comply with Laws, provided that such Personnel are advised of the confidential nature of the Confidential Information and, by virtue of the terms of their employment, engagement or retainer or as a result of an agreement in writing, are bound by confidentiality obligations substantially no less restrictive than those imposed on the receiving party pursuant to the Agreement;
 - (2) to the extent such disclosure is required pursuant to Laws or any Governmental Authority, provided that, where circumstances permit, prior to

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such disclosure the receiving party shall to the extent it is legally permitted to do so give the disclosing party a notice of the potential disclosure and allow the disclosing party the opportunity to contest the requirement for disclosure or seek a protective order or ruling in connection with such potential disclosure;

(3) as necessary in connection with any dispute resolution commenced pursuant to the Agreement; and

(4) as may be permitted or required under the *City of Toronto Act, 2006*;

.2 the Contractor may disclose Confidential Information of the Owner to its professional advisors, Subcontractors, Suppliers or Sub-subcontractors, to the extent necessary, to enable that party to perform, to cause to be performed the Work, or to enforce, its rights or obligations under the Agreement, provided that such parties are advised of the confidential nature of the Confidential Information and bound in writing to confidentiality obligations in favour of both the Owner and Contractor substantially no less restrictive than those imposed on Contractor by the Agreement;

.3 the Owner may disclose Confidential Information of the Contractor to its professional advisors, consultants, other contractors, Personnel and any other party providing or potentially providing services to the Owner to enable the Owner to perform any of its obligations or exercise any of its rights under the Agreement, provided that such parties are advised of the confidential nature of the Confidential Information and bound in writing to confidentiality obligations substantially no less restrictive than those imposed on the Owner by the Agreement; and

.4 any disclosure of Confidential Information allowed pursuant to this 13.5 - CONFIDENTIAL INFORMATION AND PERSONAL INFORMATION shall be limited to that which is necessary to satisfy the need for such disclosure.

13.5.5 The Contractor acknowledges that the Owner may use the Confidential Information of Contractor for purposes not specific to the Project, but for other general governmental purposes.

13.5.6 Each receiving party shall immediately provide Notice in Writing to a disclosing party in the event that it becomes aware of any actual or suspected loss, theft or accidental or unauthorized access, disclosure, copying, use, modification or destruction of Confidential Information by a receiving party or any party to which a receiving party has disclosed any Confidential Information.

13.5.7 The Contractor shall allow the Owner on reasonable Notice in Writing to inspect any Confidential Information in the custody or possession of a Contractor Party and to audit compliance with this GC including the measures used to protect Confidential Information, and otherwise properly respond to all reasonable inquiries of the Owner with respect to handling of Confidential Information within five (5) Working Days.

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- 13.5.8 The Contractor shall provide, and shall cause each of its professional advisors, Subcontractors, Suppliers or Sub-subcontractors to provide, in a timely manner, all necessary and reasonable information and co-operation to the Owner and to any Governmental Authorities with jurisdiction or oversight over Laws governing the collection, use, disclosure and protection of Personal Information in connection with any investigations, audits or inquiries made by any such bodies or authorities under such legislation.
- 13.5.9 Subject to any applicable requirement of Laws, the Contractor shall on the earliest of the date of Total Performance of the Work, termination or expiry of the Agreement or upon the written request of the Owner, immediately cease all use of and return to the Owner or, at the direction of the Owner, dispose of, destroy, or render permanently anonymous, all Confidential Information, in each case using appropriate technical, organizational and physical security measures to protect Confidential Information against loss, theft and unauthorized access, disclosure, copying, use or modification.
- 13.5.10 This 13.5 – CONFIDENTIAL INFORMATION AND PERSONAL INFORMATION shall not apply in respect of information (except for Personal Information), if such information:
- .1 was lawfully acquired by the receiving party prior to the Effective Date without any restrictions as to use or disclosure or any obligation of confidentiality;
 - .2 is lawfully, and without any restrictions as to use or disclosure or any obligation of confidentiality, provided to a receiving party by a third party, except where the third party is known or should reasonably have been suspected of being subject to an obligation to the disclosing party to maintain such information in confidence;
 - .3 is independently created, developed or acquired by or for the receiving party without reference to the Confidential Information provided by the disclosing party or through third parties to whom the Confidential Information had not been disclosed; or
 - .4 is released from the confidentiality provisions of the Agreement by the written authorization of the disclosing party.
- 13.5.11 The obligations in this 13.5 – CONFIDENTIAL INFORMATION AND PERSONAL INFORMATION shall survive the termination of the Agreement. To the extent of any conflict or inconsistency between this GC and any other provision of the Agreement, this GC shall prevail.

SCHEDULE E

VALUING CHANGES IN THE WORK

1. CHANGES IN THE WORK BASED ON UNIT PRICES SET OUT IN THE AGREEMENT

- 1.1** Notwithstanding that the number of units of an item of Unit Price Work to be performed shall exceed or be less than the Estimate of Units for Completion, subject to section 1.2 of this Schedule E, the Contractor shall proceed to perform the applicable Unit Price Work and payment shall be made for the final quantities of total units for such item in accordance with GC 5.3.5.2.
- 1.2** When the number of units of a Major Item of Unit Price Work exceeds the Estimate of Units for Completion for such item by more than 30%, the Contractor shall not proceed with the portion of such Major Item of Unit Price Work in excess of 130%, but the Owner shall have the right, in its sole discretion, to require that the portion of the applicable Unit Price Work for such Major Item which exceeds 130% of the Estimate of Units be performed and paid for as a T&M Change in the Work, in accordance with Section 3 of this Schedule E and if the Owner so elects, the Contract Administrator shall issue a Change Directive pursuant to GC 7.3 – CHANGE DIRECTIVE, or the parties shall sign a Change Order pursuant to GC 7.2 – CHANGE ORDER, reflecting the change for this portion of the Unit Price Work. For clarity:
- 1.2.1 where the number of units of a Major Item exceeds 100% of the applicable Estimate of Units for Completion for such Major Item, the units of such Major Item which are less than 130% of the Estimate of Units for Completion of such Major Item shall be paid for at the Unit Prices in accordance with GC 5.3.5.2;
- 1.2.2 where the number of units of an item of Unit Price Work (other than Major Items) exceeds 100% of the Estimate of Units for Completion for such item, all units of such item (including any units in excess of 130% of the applicable Estimate of Units for Completion) shall be paid for at the Unit Prices in accordance with GC 5.3.5.2; and
- 1.2.3 the Unit Prices under "Schedule A Schedule of Prices for Changes in the Work", if attached to Schedule B - Pricing Form, shall apply to an item of Unit Price Work if there is no corresponding Unit Price set out elsewhere in Schedule B – Pricing Form for such item.

2. CHANGES IN THE WORK ON A NEGOTIATED FIXED PRICE OR NEGOTIATED UNIT PRICE BASIS

- 2.1** The negotiated fixed price for a change in the Work or negotiated unit price(s) for the components of a change in the Work, as the case may be, whether performed by the Contractor or a Subcontractor, Supplier or Sub-subcontractor, shall be inclusive of all costs, charges, expenses, fees and taxes whatsoever required or related to the performance of such change in the Work and markup as provided for in section 2.2.3 of this Schedule E, with the exception of Value Added Taxes.

Construction Agreement
Schedule E – Valuing Changes in the Work

- 2.2** The negotiated fixed price for a change in the Work or negotiated unit price(s) for the components of a change in the Work, as the case may be, shall be the sum of the following:
- 2.2.1 the negotiated fixed price or negotiated unit price(s), as applicable, for the portions of the change in the Work to be carried out by the Contractor's Personnel, without markup by the Contractor;
 - 2.2.2 the negotiated fixed price or negotiated unit price(s), as applicable for the portions of the change in the Work to be carried out by the Subcontractors, Suppliers or Sub-subcontractors, without markup by the Contractor, Subcontractor, Supplier or Sub-subcontractor; and
 - 2.2.3 markup calculated as follows:
 - .1 multiplying the negotiated amount set out in section 2.2.1 of this Schedule E by the percentage amount described in row B.1 of the Information Sheet; and
 - .2 multiplying the negotiated amount set out in section 2.2.2 of this Schedule E by the percentage amount described in row B.2 of the Information Sheet.
- Such markup percentages shall not be adjusted during the term of the Agreement. Notwithstanding any other provision in the Agreement, the cumulative total percentage markup charged by the Contractor, Subcontractors, Suppliers and Sub-subcontractors pursuant to section 2.2.3.2 of this Schedule E shall not exceed the percentage amount set out in row B.2 of the Information Sheet, regardless of the extent to which the change in the Work is performed by a Subcontractor, Supplier or Sub-subcontractor. For greater certainty, such markup percentage shall not apply to Value Added Taxes. Any change in Work performed by a Subcontractor, Supplier and Sub-subcontractor that is an "associate" (as defined by the Securities Act) of the Contractor shall be treated as if such change in the Work was performed by the Contractor for the purposes of calculating the markup and, in such an instance, the markup in section 2.2.3.1 of this Schedule E is applicable, not the markup in section 2.2.3.2 of this Schedule E.
- 2.3** The Contractor shall provide written quotes identifying each amount to be charged by the Contractor and each Subcontractor, Supplier and Sub-subcontractor, including for each of the foregoing, a detailed breakdown of amounts for transportation, labour, Product, Construction Equipment, services. The Value Added Taxes, as applicable, shall be identified separately in a manner satisfactory to the Owner. The Contractor shall also provide any other detail reasonably required by the Owner to evaluate the proposed fixed price of the change in the Work.
- 2.4** Where such change in the Work requires the rental of Construction Equipment, any rental charges for the actual operation time required for the performance of the change in the Work must be agreed upon by the parties before the Contractor commences the change in the Work.

Construction Agreement
Schedule E – Valuing Changes in the Work

- 2.5** The markups provided for in section 2.2.3 of this Schedule E shall constitute the only compensation the Contractor shall be entitled to for any and all overhead, profit, incidental and administrative costs whatsoever related to the change, including, costs relating to superintendence and supervision, shop drawing production, estimating, site office and home office expenses, tools of Personnel, temporary facilities and controls, and coordination of any and all Work-related activities.
- 2.6** If such change in the Work results in a net decrease in the Fixed Price, the Fixed Price shall be decreased by an amount proportionate to the reduction in the Fixed Price Work, provided that such reduction shall not include any amounts for portions of the Fixed Price relating to the fixed overhead costs incurred by the Contractor as reasonably substantiated by the Contractor.
- 3. CHANGES IN THE WORK ON A TIME AND MATERIAL BASIS – VERTICAL APPROACH**
- 3.1** For the purposes of this Section 3 of this Schedule E, the following definitions apply:
- 3.1.1 “**T&M Costs**” has the meaning set out in section 3.2.1 of this Schedule E;
- 3.1.2 “**T&M Markup**” has the meaning set out in section 3.4.2 of this Schedule E;
- 3.1.3 “**T&M Percentage Markup**” has the meaning set out in section 3.2.2 of this Schedule E;
- 3.1.4 “**T&M Price**” means, in respect of a T&M Change in the Work, the total T&M Costs plus the T&M Markup.
- 3.2** For T&M Changes in the Work, the following shall apply:
- 3.2.1 the cost of performing the T&M Change in the Work shall be calculated using the provisions of section 3.5 of this Schedule E, subject to all applicable credits being deducted and section 3.11 of this Schedule E (“**T&M Costs**”); and
- 3.2.2 the percentage markup shall be determined in accordance with section 3.3 of this Schedule E (“**T&M Percentage Markup**”).
- 3.3** The T&M Percentage Markup applicable to T&M Change in the Work shall be determined as follows:
- 3.3.1 on T&M Changes in the Work performed by Contractor: the percentage amount set out in row B.3 of the Information Sheet; and
- 3.3.2 on T&M Changes in the Work performed by the Subcontractor or Supplier or Sub-subcontractors: the percentage amount set out in row B.4 of the Information Sheet.

The T&M Percentage Markup shall not be adjusted during the term of the Agreement. Notwithstanding any other provision in the Agreement, the cumulative total percentage markup charged by the Contractor, Subcontractors, Suppliers and all Sub-subcontractors pursuant to section 3.3.2 of this Schedule E shall not exceed the amount

Construction Agreement
Schedule E – Valuing Changes in the Work

set out in row B.4 of the Information Sheet, regardless of the extent to which the change in the Work is performed by a Subcontractor, Supplier or Sub-subcontractor. For greater certainty, the percentage markup shall not apply to Value Added Taxes. Any change in Work performed by a Subcontractor, Supplier and Sub-subcontractor that is an “associate” (as defined by the Securities Act) of the Contractor shall be treated as if such change in the Work was performed by the Contractor for the purposes of calculating the T&M Percentage Markup and, in such an instance, the T&M Percentage Markup in section 3.3.1 of this Schedule E is applicable, not the markup in section 3.3.2 of this Schedule E.

- 3.4** If the T&M Change in the Work results in a net increase in the Contractor’s cost, the Contract Price shall be increased by:
- 3.4.1 the T&M Costs; plus
 - 3.4.2 the T&M Percentage Markup multiplied by the T&M Costs (“**T&M Markup**”),
- 3.5** The T&M Costs shall be the actual reasonable costs to the extent directly paid by the Contractor in performing such T&M Change in the Work in accordance with the Agreement (without any markup) and, subject to section 3.11 of this Schedule E, is limited to the actual reasonable costs of the following:
- 3.5.1 salaries, wages and benefits paid to Personnel in the direct employ of the Contractor applying the labour rates as agreed in writing between the Owner and Contractor for Personnel:
 - .1 carrying out the T&M Change in the Work, including, to the extent the T&M Change in the Work results in an extension of the Contract Time, project managers, superintendents, assistants, watch persons and administrative Personnel;
 - .2 engaged in expediting the production or transportation of material or equipment, at shops or on the road; or
 - .3 engaged in the preparation of Shop Drawings, fabrication drawings, coordination drawings and As-Built Drawings.
- The Contractor acknowledges that the agreed upon labour rates (including the underlying salaries, wages and benefits on which the labour rates were calculated) shall be subject to audit and verification by the Owner in accordance with GC 2.6 and adjustment as appropriate.
- 3.5.2 contributions, assessments or taxes incurred for such items as employment insurance, provincial or territorial health insurance, workers’ compensation, and Canada or Quebec Pension Plan, insofar as such cost is based on wages, salaries or other remuneration paid to Personnel of the Contractor and included in the cost of the Work as provided in section 3.5.1 of this Schedule E;
 - 3.5.3 all Products including cost of transportation thereof;

Construction Agreement
Schedule E – Valuing Changes in the Work

- 3.5.4 materials and supplies, including transportation and maintenance thereof, which are consumed in the performance of the Work; and cost less salvage value on such materials and supplies used but not consumed, which remain the property of the Contractor;
- 3.5.5 all Construction Equipment, exclusive of hand tools, and Temporary Work, used in the performance of the Work, whether rented from or provided by the Contractor or others, including installation, minor repairs and replacements, dismantling, removal, transportation, and delivery cost thereof, which for clarity, excludes the labour costs for directly operating such items included in section 3.5.1 of this Schedule E;
- 3.5.6 all equipment and services required for the Contractor's field office;
- 3.5.7 deposits lost provided that they were not lost by acts or omissions of the Contractor's Personnel;
- 3.5.8 subject to the Owner's prior written approval for amounts in excess of \$10,000, the value of subcontracts with Subcontractors and Suppliers, provided however that any time and material costs included in such amounts shall be limited to the actual costs of the items described in this section 3.5 of this Schedule E changing "Contractor" to "Subcontractor" or "Supplier" as necessary;
- 3.5.9 quality assurance required by the Agreement such as inspection and testing services, charges levied by authorities, provided such costs are pre-approved in writing by the Owner;
- 3.5.10 legal costs, incurred by the Contractor, in relation to the performance of the T&M Change in the Work provided that they are not related to or arising from a dispute between the Owner and the Contractor unless such costs are part of a settlement or awarded by adjudication, arbitration or court;
- 3.5.11 charges levied by authorities having jurisdiction at the Site;
- 3.5.12 royalties, patent licence fees and Losses for infringement of patents and cost of defending suits therefor subject always to the Contractor's obligations to indemnify the Owner as provided in GC 9.1.2.2;
- 3.5.13 any adjustment, attributable to the T&M Change in the Work, in premiums for all bonds and insurance which the Contractor is required, by the Agreement, to purchase and maintain;
- 3.5.14 any adjustment in taxes, other than Value Added Taxes and those relating to the Contractor's income or real or personal property;
- 3.5.15 duties for which the Contractor is liable;
- 3.5.16 charges for long distance telephone and facsimile communications, courier services, expressage, and petty cash items incurred in relation to the performance of the Work;

Construction Agreement
Schedule E – Valuing Changes in the Work

3.5.17 removal and disposal of waste products and debris; and

3.5.18 safety measures and requirements.

All other costs attributable to the T&M Change in the Work are included in the percentage markup calculated in accordance with the provisions of section 3.3 of this Schedule E.

- 3.6** Notwithstanding any other provisions contained in the Agreement (other than section 3.11 of this Schedule E), it is the intention of the parties that the cost of any item under any cost element referred to in section 3.5 of this Schedule E shall cover and include any and all costs or liabilities attributable to the T&M Change in the Work other than those which are the result of or occasioned by any failure on the part of the Contractor to perform the change in the Work in accordance with the Standard of Care. Any cost due to failure on the part of the Contractor to perform the change in the Work in accordance with the Standard of Care shall be borne by the Contractor.
- 3.7** The Contractor shall prepare and maintain complete and accurate Daily Contractor Work Records for T&M Changes in the Work.
- 3.8** All trade, quantity and cash discounts and rebates and refunds accrue to the Owner, including all returns from sale of surplus materials and equipment applicable to the T&M Change in the Work, and the Contractor shall make provisions for them to be secured without delay.
- 3.9** Pending determination of the final amount of a T&M Change in the Work, the undisputed value of the T&M Change in the Work performed:
- 3.9.1 as the result of a Change Order, is eligible to be included in Proper Invoices; and
- 3.9.2 as the result of a Change Directive, is not eligible to be included in Proper Invoices except to the extent that it is dealt with in a Change Order.
- 3.10** If the Owner and the Contractor do not agree on the proposed adjustment in the Contract Time attributable to the T&M Change in the Work, or the method of determining it, the adjustment shall be referred to the Contract Administrator for determination.
- 3.11** Notwithstanding any other provisions contained in the Agreement, the T&M Costs shall not include, and no payment shall be made by the Owner for:
- 3.11.1 head office salaries, wages and benefits and all other overhead or general expenses;
- 3.11.2 capital expenses and interest on capital;
- 3.11.3 general clean-up, except where the performance of the T&M Change in the Work causes specific additional clean-up requirements;
- 3.11.4 salaries, wages and benefits paid for project managers, superintendents, assistants, watch persons and administrative Personnel except only for the salaries, wages and benefits of Personnel described in section 3.5.1 of this

Construction Agreement
Schedule E – Valuing Changes in the Work

Schedule E and the related contributions, assessments or taxes referred to in section 3.5.2 of this Schedule E;

- 3.11.5 salaries, wages, benefits, rentals, or other expenses that exceed the rates that are standard in the locality of the Site that are otherwise deemed unreasonable by the Contract Administrator;
- 3.11.6 any Losses attributable to Deficiencies, the negligent acts or omissions of the Contractor Parties or the Contractor's failure to perform any of its obligations under the Agreement;
- 3.11.7 any costs noted in the Agreement as non-reimbursable by the Owner; or
- 3.11.8 any costs noted in the Agreement as paid or incurred at the Contractor's expense.

Construction Agreement
Schedule F – Owner’s Policies, Procedures, By-Laws and Other Requirements

SCHEDULE F

OWNER'S POLICIES, PROCEDURES, BY-LAWS AND OTHER REQUIREMENTS

The following Toronto Zoo Official Policy Statements and procedures are included in this RFT, are applicable for this project.

SAFE-001	Occupational Health & Safety
SAFE-002	Health & Safety Hazard Reporting
SAFE-005	Hazardous Materials
SAFE-007	Confined Space
SAFE-013	Lock Out / Tag Out Procedure
SAFE-017	Contractor Safety
SAFE-018	Vehicles on Site
SAFE-025	Hot Work
SAFE-026	Scaffold & Ladder Safety

City of Toronto Fair Wage Policy: <https://www.toronto.ca/business-economy/doing-business-with-the-city/understanding-the-procurement-process/fair-wage-office-policy/fair-wage-policy/>

Toronto Zoo's Commitment to the City of Toronto's Corporate Smog Alert Response Plan.

Toronto Zoo's Accessible Customer Service Training Requirements: Contractors, Consultants and other Service Providers

SCHEDULE G

FORMS

Schedule G is comprised of the following forms:

Form 1: Sample Proper Invoice

Form 2: Certificate of Insurance

Form 3: Tax Statutory Declaration

Form 4: Notice of Adjudication

**Construction Agreement
Schedule G – Forms**

FORM 1: SAMPLE PROPER INVOICE

Commented [JJ1]: This addresses the CoT

Contractor Company Logo

INVOICE

BILL TO:

Owner: *City of Toronto*
Street Address: *55 John Street, 20th Floor*
City: *Toronto, Ontario*
Postal Code: *M5V 3C6*

Division: *Engineering & Construction Services*

Owner Representative: *John Doe*

Tel. #: *416-39X-XXXX*
Email: *John.Doe@toronto.ca*

Contract #: *Contract Number*
Blanket Contract #: (if any) *XXXXXXXX*
PO #/ CRO#/ DPO#: *XXXXXXXX*
Project Description: *Project Description*
Invoice Period: *(Start) to (End)*
Progress Payment Certificate#: *PR-XX*

REMIT TO:

Vendor Name: *Vendor*
Vendor Number: *123456789*
Street Address: *123 Toronto Street, Unit 12*
City: *Toronto, Ontario*
Postal Code: *XXX XXX*

Contractor Project Manager: *John Doe*

Tel. #: *416-39X-XXXX*
Email: *John.Doe@Vendor.ca*

INVOICE DATE: *September 19, 2019*
INVOICE # *12548*

HST Registration No. _____
Currency _____

Item	Contract Price	Progress To Date		Previous Billing	Current Billing
		%	\$		
A	B	C = (D / B)	D	E	F = (D - E)
Base Contract	\$0.00	0.00%	\$0.00	\$0.00	\$0.00
Allowances	\$0.00	0.00%	\$0.00	\$0.00	\$0.00
Approved Change Orders (non-Allowance)	\$0.00	0.00%	\$0.00	\$0.00	\$0.00
Gross Amount	\$0.00	0.00%	\$0.00	\$0.00	\$0.00
Less: Statutory Lien Holdback			\$(0.00)	\$(0.00)	\$(0.00)
Less: Contractual Holdbacks			\$(0.00)	\$(0.00)	\$(0.00)
Net Amount			\$0.00	\$0.00	\$0.00
HST 13%			\$0.00	\$0.00	\$0.00
Less: Other Taxes			\$(0.00)	\$(0.00)	\$(0.00)
Total Amount Due					\$0.00

Name: _____

Signature: _____

Title: _____

Date: _____

Additional information to be included/attached



FORM 2: CERTIFICATE OF INSURANCE

To be completed only by the insurer or by its representative.

Name of Insured:		City of Toronto Contact Name, Address, and Telephone Number:		
Address and Telephone Number of Insured:				
Operations of Named Insured for which certificate is issued:				
(NOTE: Provide specific project information including the Toronto Zoo contract number)				
1. Commercial General Liability: Deductible \$ _____				
Insuring Company	Policy Number	Policy Limit(s) \$ (per occurrence)	Effective Date (yyyy-mm-dd)	Expiry Date (yyyy-mm-dd)
Primary Insurer:				
Umbrella/Excess Insurer:				
<input type="checkbox"/> Applicable to Auto Coverage				
Contractor's Pollution Liability, Sudden and Accidental and Gradual, if applicable				

Commercial General Liability policy provisions:

- a) The CITY OF TORONTO, ITS BOARDS, AGENCIES, COMMISSIONS OR SUBSIDIARY OPERATIONS, AS APPLICABLE, the TORONTO AND REGION CONSERVATION AUTHORITY, and the CONSULTANT are included as Additional Insureds but only with respect to liability arising out of the operations of the Insured for which a contract or proposal is issued by the Toronto Zoo.
- b) The policy includes a Cross-Liability and Severability of Interest, Blanket Form Contractual Liability, Owner's and Contractor's Protective Liability, Broad Form Property Damage, Contingent and/or Employer's Liability, Non-Owned Automobile Liability, Products/Completed Operations and any other provision relevant to the contract work. If applicable to the insured operations, coverage for Blasting, Pile Driving and Collapse.
- c) The Commercial General Liability Policy(ies) identified above shall apply as primary insurance and not excess to any other insurance available to the City.

2. Automobile Liability, if applicable: Deductible \$ _____				
Insuring Company	Policy Number	Policy Limit(s) (\$)	Effective Date (yyyy-mm-dd)	Expiry Date (yyyy-mm-dd)
3. Contractor's Equipment Property Insurance: Deductible \$ _____				
Contractor's tools & equipment , materials & supplies in an amount to reflect the replacement cost. Policy includes a Waiver of Subrogation Clause in favour of the City.				



Certificate of Insurance
Capital Construction Projects

Insuring Company	Policy Number	All-Risk Property Limit(s) (\$)	Effective Date (yyyy-mm-dd)	Expiry Date (yyyy-mm-dd)

4. Builder's Risk or Installation Floater - Products, supplies and equipment and/or systems, including boiler and machinery, if applicable, that forms part of the Work. Deductible \$ _____

Identify Policy Type:

Builder's Risk

Installation Floater

The Owner shall be included as an additional insured and a joint loss payee.

Insuring Company	Policy Number	Limit of Coverage (\$)	Effective Date (yyyy-mm-dd)	Expiry Date (yyyy-mm-dd)

5. Other (Specify) _____ . Deductible \$ _____

Insuring Company	Policy Number	Policy Limit(s) (\$)	Effective Date (yyyy-mm-dd)	Expiry Date (yyyy-mm-dd)

6. Other (Specify) _____ . Deductible \$ _____

Insuring Company	Policy Number	Policy Limit(s) (\$)	Effective Date (yyyy-mm-dd)	Expiry Date (yyyy-mm-dd)

All of the above policies (with the exception of the Automobile Insurance, Section 2 above) must include a clause that states that if the policy is cancelled during the period of coverage, as stated herein, thirty (30) days, (fifteen (15) days if cancellation is due to non-payment of premium), prior written notice by registered mail will be given by the Insurer(s) to the City of Toronto.

CERTIFICATION

I certify that the insurance is in effect as stated in this Certificate and that I have authorization to issue this Certificate for and on behalf of the Insurer(s). This Certificate is valid until the expiration date(s) stated in the "Expiry Date" provision, unless notice is given in writing in accordance with the provision of this Certificate.

Date	Broker's or Insurer's Name and Address	Signature and Stamp of Certifying Official

FORM 3: TAX STATUTORY DECLARATION

CANADA,) IN THE MATTER OF the annexed Agreement
PROVINCE OF ONTARIO,) made between
JUDICIAL DISTRICT OF YORK)
)
)
) – and –
)
) **[OWNER]**
)
) this ____ day of ____, 20__.
) with respect to
)
)

I, _____, of the CITY / TOWN / VILLAGE of _____
in the Province of _____, do solemnly declare as follows:

1. I am _____ of _____
(If an incorporated Company, state "President", (Company Name)
"Secretary", or as the case may be)
referred to above (hereinafter called "the Contractor"), and as such have knowledge of
the matters hereinafter declared to.
2. The Contractor has paid all taxes and/or penalties imposed on it by the Corporation Tax
Act, R.S.O. 1990, c. C.40, as may be amended.

AND I MAKE this solemn Declaration conscientiously believing it to be true and knowing that it
is of the same force and effect as if made under oath.

DECLARED before me at)
the _____ of _____)
in the City of Toronto)
this _____ day) _____
of _____ 20__) Signing Officer of Company
)
)

A Commissioner, etc.

FORM 4: NOTICE OF ADJUDICATION

IN THE MATTER OF AN ADJUDICATION PURSUANT TO PART II.1 OF THE
CONSTRUCTION ACT, R.S.O. 1990, c. C.30, as amended

Notice of Adjudication

Date

Agreement Information

Contract Number
Project

Information of Party Initiating the Adjudication

Corporate Name
Corporate Address
City/Town Province Corporate Phone No.
Postal Code Email (if applicable) Corporate Fax No.

Information of Party Receiving the Notice of Adjudication

Corporate Name
Corporate Address
City/Town Province Corporate Phone No.
Postal Code Email (if applicable) Corporate Fax No.

Contractor Information

Contractor Project Manager, if applicable
Contractor Site Supervisor, if applicable

Owner Information

Owner Representative
Contract Administrator

Adjudication Claim Information

Claimed Amount, exclusive H.S.T.

**Construction Agreement
Schedule G – Forms**

Please indicate which Adjudicable Matter the Adjudication is in respect of:

<input type="checkbox"/> Valuation of services or materials provided under the Agreement
<input type="checkbox"/> Payment under the Agreement
<input type="checkbox"/> Dispute regarding a Notice of Non-Payment
<input type="checkbox"/> Amounts Set-off by Owner
<input type="checkbox"/> Non-payment of Lien Holdback

If applicable, please identify relevant:

<input type="checkbox"/> Change Directive Number: _____
<input type="checkbox"/> Change Order Number: _____
<input type="checkbox"/> Proper Invoice Number: _____
<input type="checkbox"/> Claim Notice reference number and date: _____

Please provide the nature and a brief description of the dispute, including details respecting how and when the dispute arose and the nature of the redress sought (attach a separate sheet if necessary):

Requested Adjudicator

First and Last Name		
Address		
City/Town	Province	Phone No.
Postal Code	Website (if applicable)	Email

Consolidation

- The dispute which is the subject matter of this Notice of Adjudication is proposed to be consolidated with the disputes which are the subject matter of the notices of adjudication attached as "**Attachment 1**"

Delivery

See GC 12.2.4 for method of delivery of the Notice of Adjudication and address for delivery.

Attachments

Please attach a copy of any notices of adjudication for adjudications proposed to be consolidated to this Notice of Adjudication as "**Attachment 1**".

Please attach a copy of SCHEDULE A – INFORMATION SHEET to this Notice of Adjudication as "**Attachment 2**".

SCHEDULE H
DRAWINGS AND SPECIFICATIONS

[Note to Finalization before Execution: Attach or list the Drawings and Specifications (which includes, for clarity, the Standard Drawings, the Standard Specifications and Special Specifications and material and finishing schedules).]

PART 3 – DRAWINGS AND SPECIFICATIONS

TZC T 06-2020-02 - BUILDING ENVELOPE REHABILITATION AT AMERICAS PAVILION – BELVEDERE ROOF AND INTERIOR

DRAWING LIST

SP1 – SITE PLAN
D1 – EXISTING CONDITIONS
D2 – WATERPROOFING DETAILS
D3 – TOP SURFACE CONCRETE REPAIRS
D4 – UNDERSIDE SURFACE CONCRETE REPAIRS
D5 – THROUGH SLAB CONCRETE REPAIRS
S01 – NOTES AND DETAILS

SPECIFICATIONS/SCOPE

Scope
TZC T 06-2020-02 PART 3C – SPECIFICATIONS

1.0 SCOPE OF WORK

1. Supply all labour, tools, materials and equipment to complete the work as outlined in the quotation documents, drawings and specifications.
2. All work to be completed in accordance with applicable codes (e.g. Building Code, Electrical Code, Fire Code, etc.)
3. Any work must be carefully coordinated with the Zoo to ensure the safety of visitors, staff and the animals.
4. Overhead work shall be performed using appropriate barricades to prevent people from inadvertently walking below the work.
5. Any equipment parked on service roads or public pathways shall be completely surrounded by appropriate barricades to prevent unauthorized personnel from entering the area.
6. Any required barricades shall be supplied and installed by the successful bidder.
7. The contractor shall supply the Zoo with copies of relevant certificates and licences for all workers prior to commencement of work.
8. All measurements to be site verified.
9. The contractor is required to provide closeout documents including but not limited to as built drawings, warranty, and inspection certificates.

2.0 CONTRACTOR RESPONSIBILITIES

1. Regular meetings/communication with the Toronto Zoo Project Team to review project status and to discuss issues that may arise during the project.
2. Provide samples, mock ups, etc. as required to the Project Team. A sample for the mud bank finish is required, prior to complete application. Sample is to be approved by the Toronto Zoo.
3. Provide product information, SDS sheets and colour samples to the Project Team prior to start of the work where applicable.
4. Protect adjacent areas not included in the project. Any damage caused will be the responsibility of the contractor to rectify at no additional cost to the Zoo.
5. Clean the work area and remove all debris from site on a daily basis and make good any damage caused as a result of the work.
6. Secure the work site and provide construction signs and barriers to prevent injury to Zoo personnel and the public who will require access to the surrounding space during the work.
7. All electric current required for the work shall be provided or furnished by the

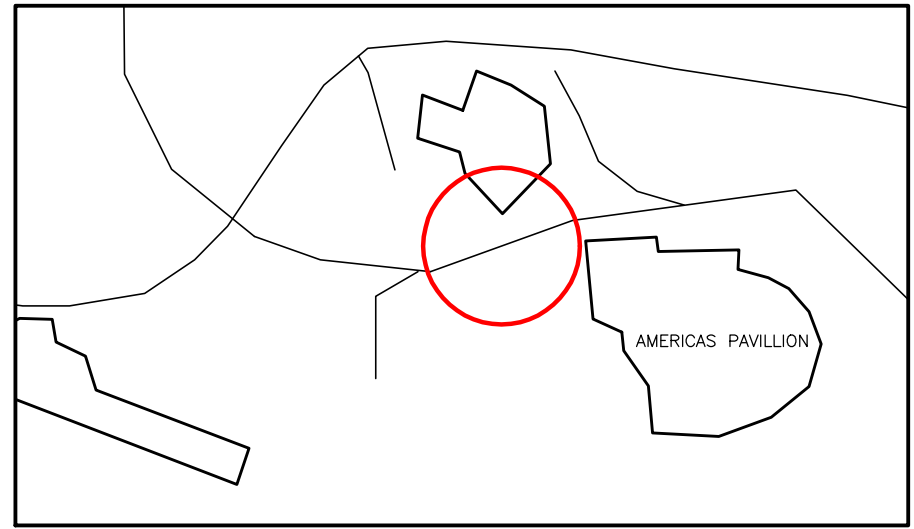
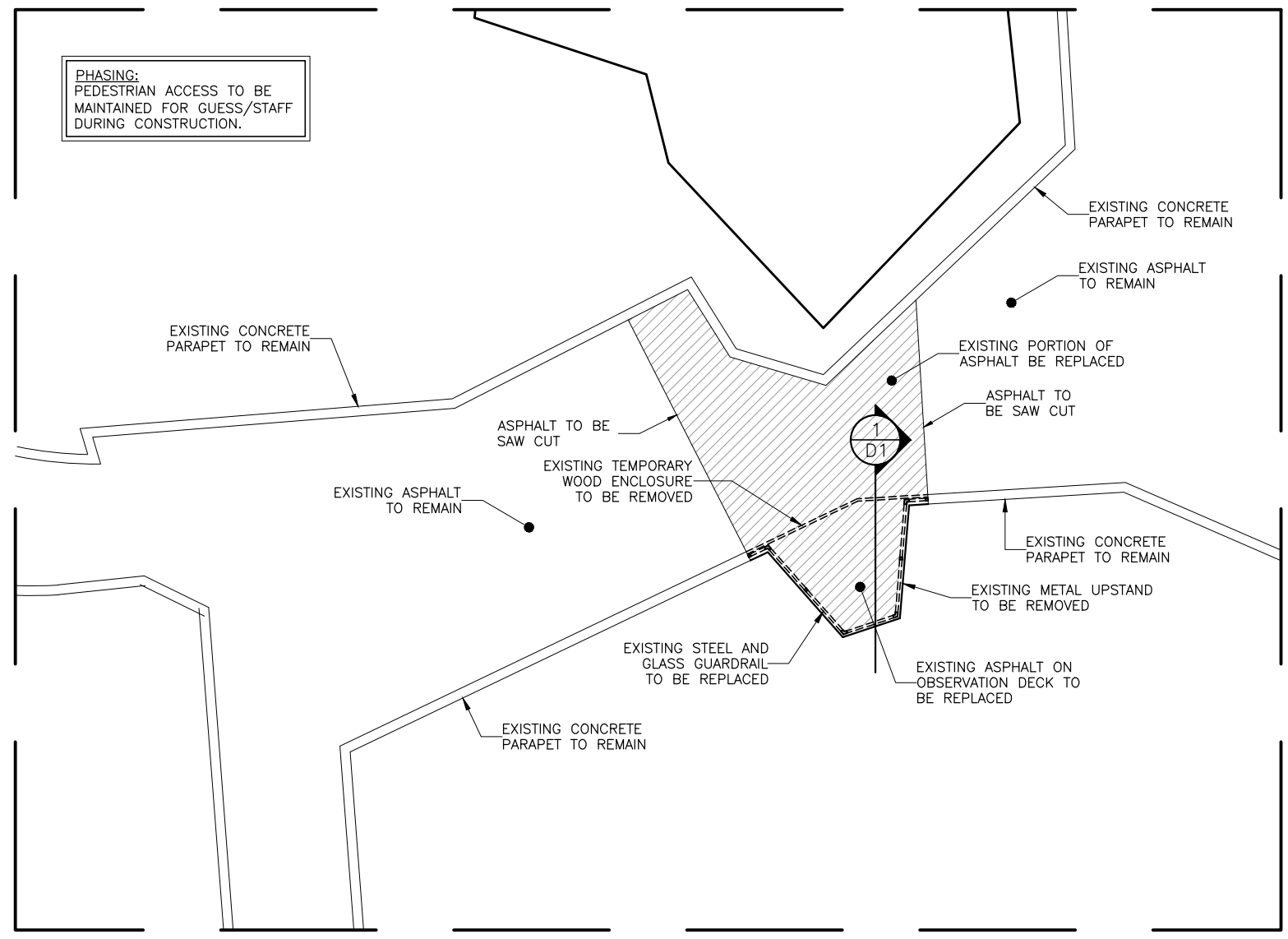
Contractor. All temporary connections for electricity shall be subject to the approval of the Owner. All temporary lines will be furnished, installed, connected, and maintained by the Contractor in a professional manner satisfactory to the Owner and shall be removed by the Contractor in like manner upon completion of the work.

8. Upon award of contract, Contractor is to finish all work, including clean up and de-mobilization by the completion date specified.
9. Submit all shop drawings for review and approval prior to start of fabrication. Review of shop drawings shall not mean that the Toronto Zoo approves detail design inherent in shop drawings, responsibility for which shall remain with the Contractor submitting same, and such review shall not relieve the Contractor of his responsibility for errors or omissions in shop drawings or of his responsibility for meeting all requirements of the subcontract documents.

3.0 SAFETY SPECIFICATIONS

1. It is the responsibility of the Contractor to protect the site as required during construction.
2. Ensure that awareness of public safety is considered and protect visitors in the vicinity during the construction period.
3. All necessary personal protective equipment must be worn at all times and SDS sheets must be available on site as required.
4. It is the responsibility of the Contractor to ensure that the work site is properly protected at all times. All work sites must be marked and hoarded adequately with construction signs posted to secure and isolate the work site from the public or other personnel that have access to the area.

PHASING:
PEDESTRIAN ACCESS TO BE
MAINTAINED FOR GUEST/STAFF
DURING CONSTRUCTION.



1 KEY PLAN
SP1 SCALE 1:1000

NOTE:
MAX ALLOWED LOAD
• 11,000 Kg (24,000 lbs)

2 SITE PLAN
SP1 SCALE 1:200

PEN COLOR CODE: C1-0.10 C2-0.20 C3-0.30 C4-0.40 C5-0.50 C6-0.10 C7-0.15

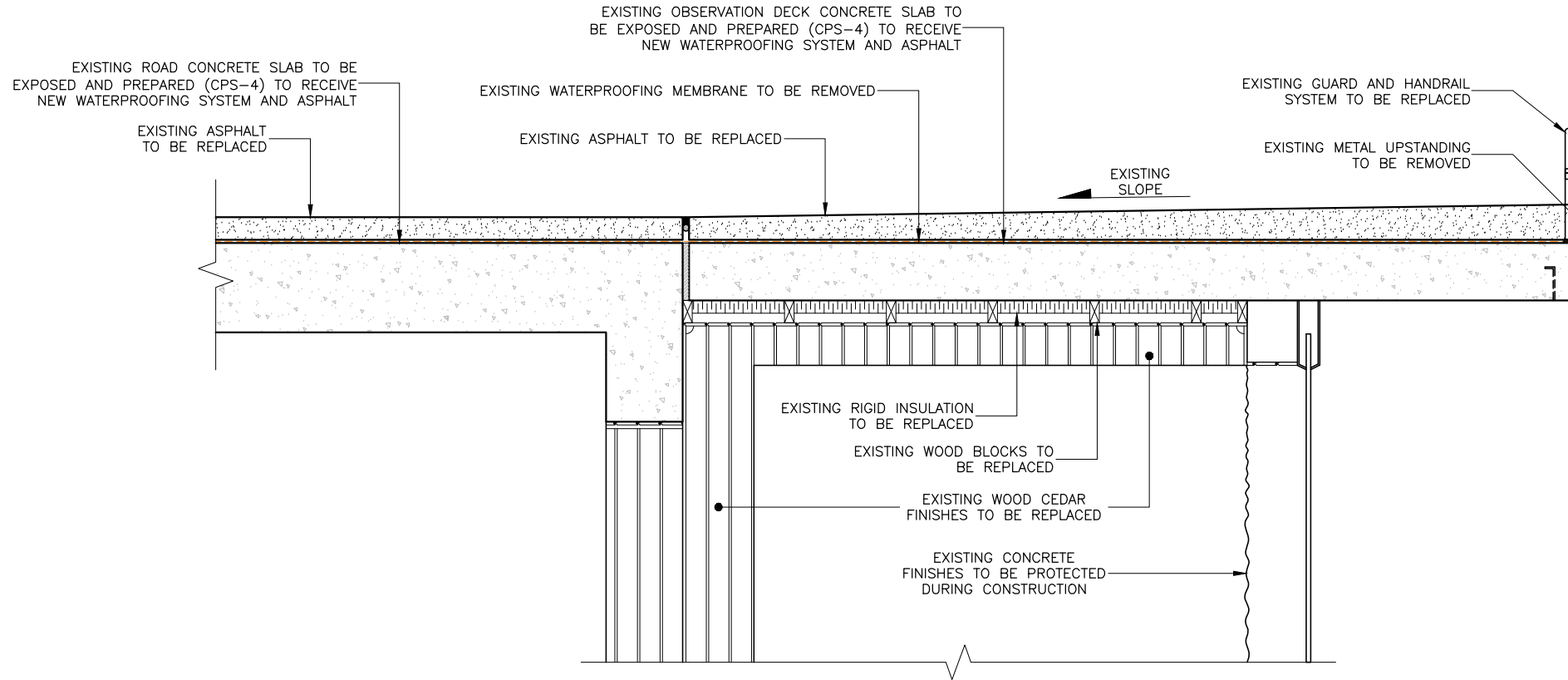
REV. TABLE			
NO.	1	ISSUED FOR CLIENT REVIEW	M.M
		ISSUED	BY

	IRC BUILDING SCIENCES GROUP SERVING CANADA WITH REGIONAL OFFICES FROM COAST TO COAST HEAD OFFICE 2121 ARGENTIA ROAD, SUITE #401, MISSISSAUGA, ONTARIO TOLL FREE: 1-888-607-5245 TEL: 905-607-7244 WWW.IRCGROUP.COM FAX: 905-607-7288	TITLE: SITE PLAN CLIENT: TORONTO ZOO PROJECT: ASPHALT & OBSERVATION DECK REHABILITATION 361A OLD FINCH AVENUE TORONTO, ONTARIO	IRC #: 10978 W.O.#: HR19-084SP SCALE: AS NOTED DATE: 2019/08/16	NORTH: 	DRN.: H.V. CHK.: C.T. DWG.#: SP1 REV.#: REV 01
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NOTE:

MAX ALLOWED LOAD

- 11,000 Kg (24,000 lbs)



1 SECTION
D1 EXISTING CONDITION
SCALE 1:25

PEN COLOR CODE: C1-0.10 C2-0.20 C3-0.30 C4-0.40 C5-0.50 C6-0.10 C7-0.15

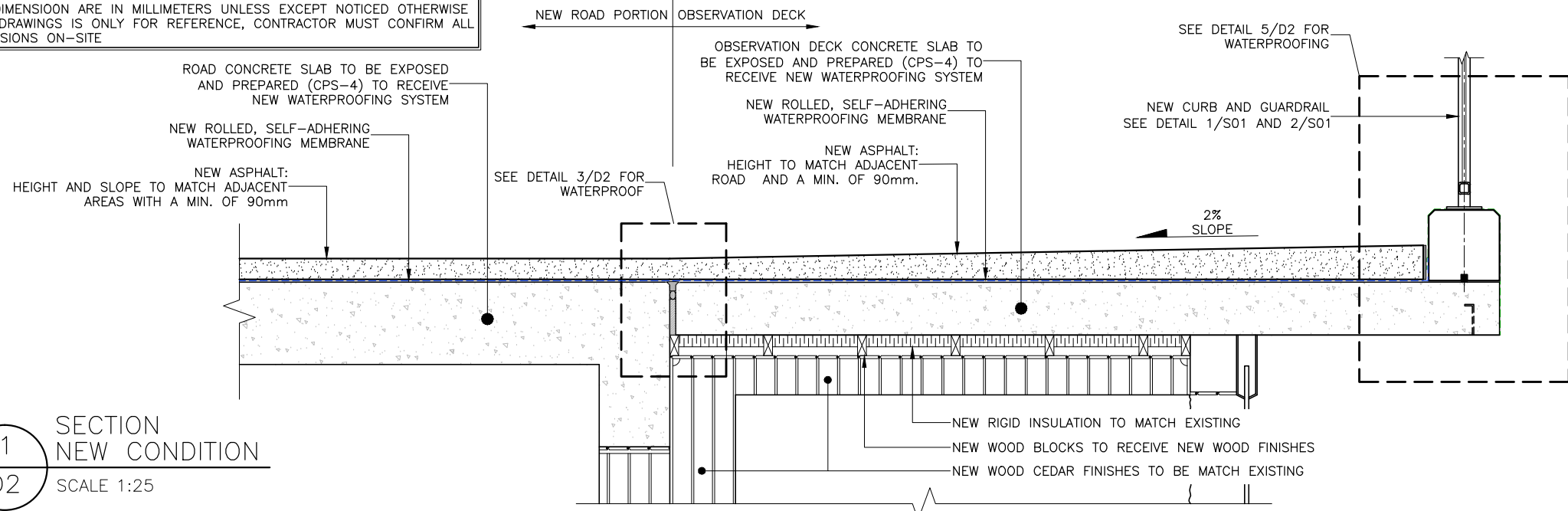
REV. TABLE			
NO.	1	ISSUED FOR CLIENT REVIEW	M.M
		ISSUED	BY



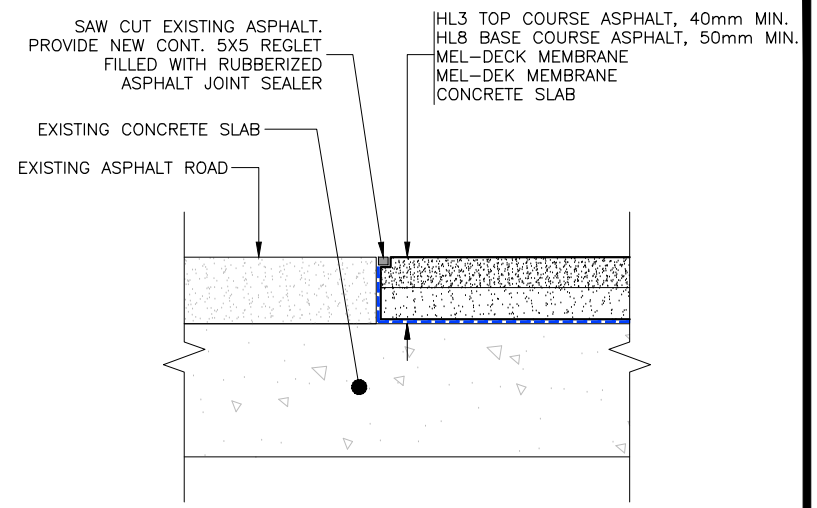
IRC BUILDING SCIENCES GROUP
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2121 ARGENTIA ROAD, SUITE #401, MISSISSAUGA, ONTARIO
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WWW.IRCGROUP.COM FAX: 905-607-7288

TITLE:	EXISTING CONDITIONS	IRC #:	10978	NORTH:	DRN.:	H.V.
CLIENT:	TORONTO ZOO	W.O.#:	HR19-084SP		CHK.:	C.T.
PROJECT:	ASPHALT & OBSERVATION DECK REHABILITATION	SCALE:	AS NOTED		DWG.#:	REV.#:
	361A OLD FINCH AVENUE TORONTO, ONTARIO	DATE:	2019/08/16		D1	REV 01

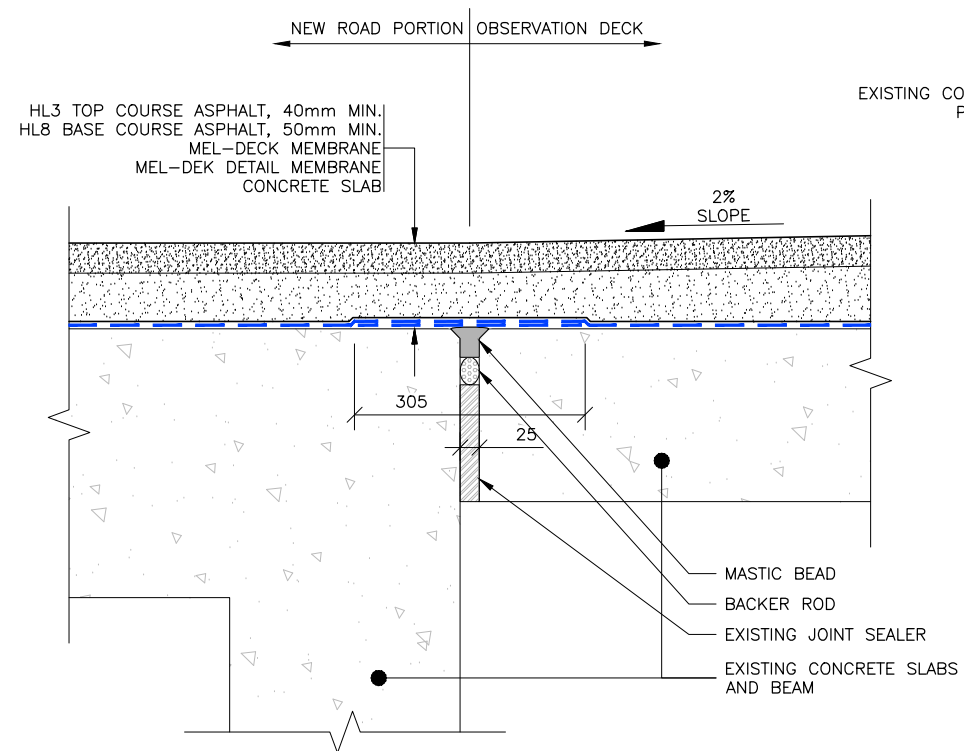
NOTE:
 • ALL DIMENSION ARE IN MILLIMETERS UNLESS EXCEPT NOTICED OTHERWISE
 • THIS DRAWINGS IS ONLY FOR REFERENCE, CONTRACTOR MUST CONFIRM ALL DIMENSIONS ON-SITE



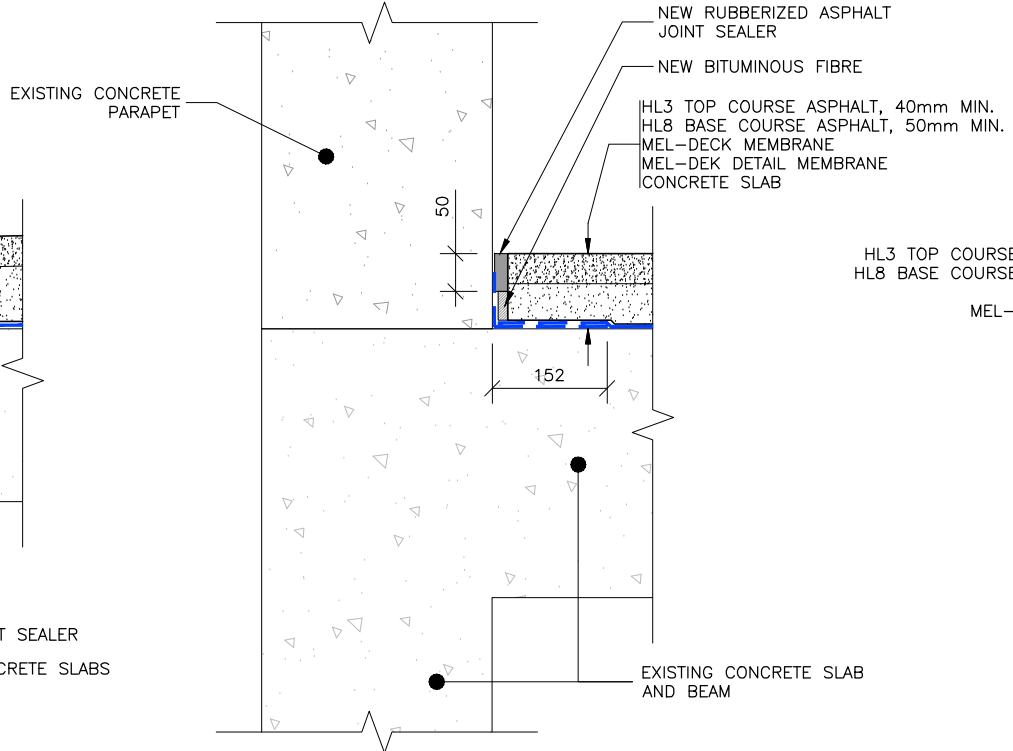
1
D2
SECTION
NEW CONDITION
SCALE 1:25



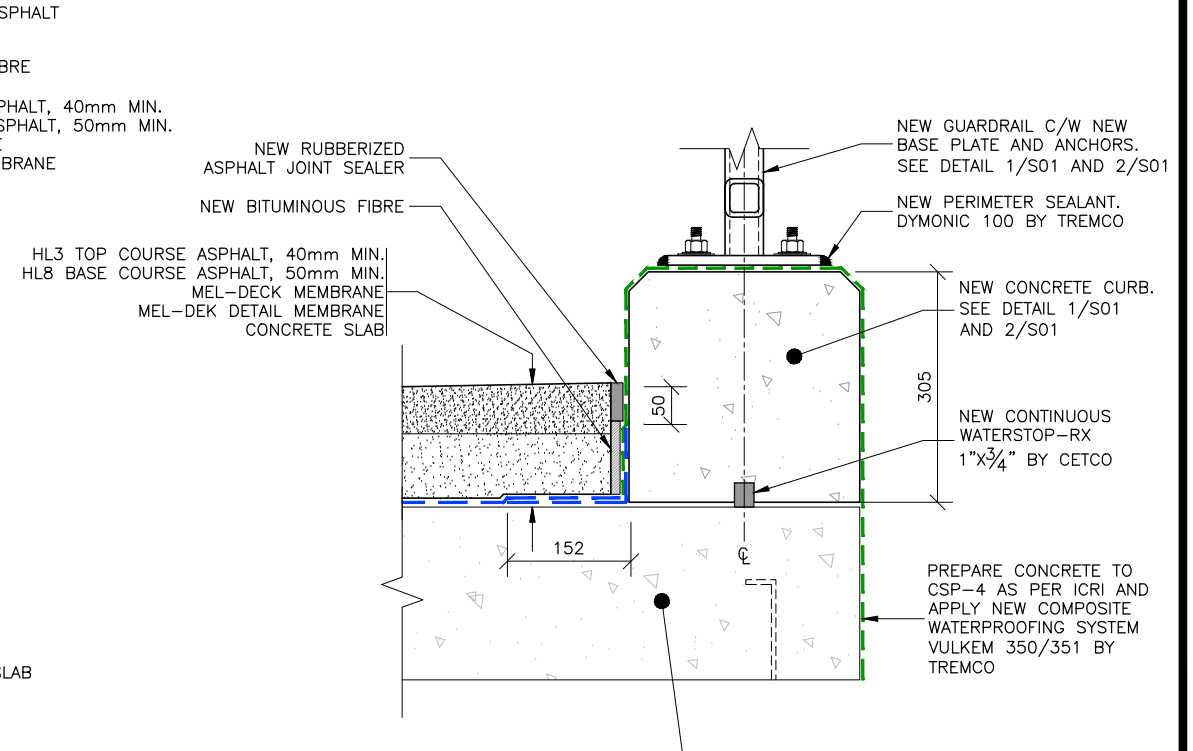
2
D2
WATERPROOFING AT
ASPHALT/ASPHALT TRANSITION
SCALE 1:10



3
D2
WATERPROOFING AT
EXPANSION JOINT
SCALE 1:10



4
D2
WATERPROOFING AT
EXISTING PARAPET
SCALE 1:10

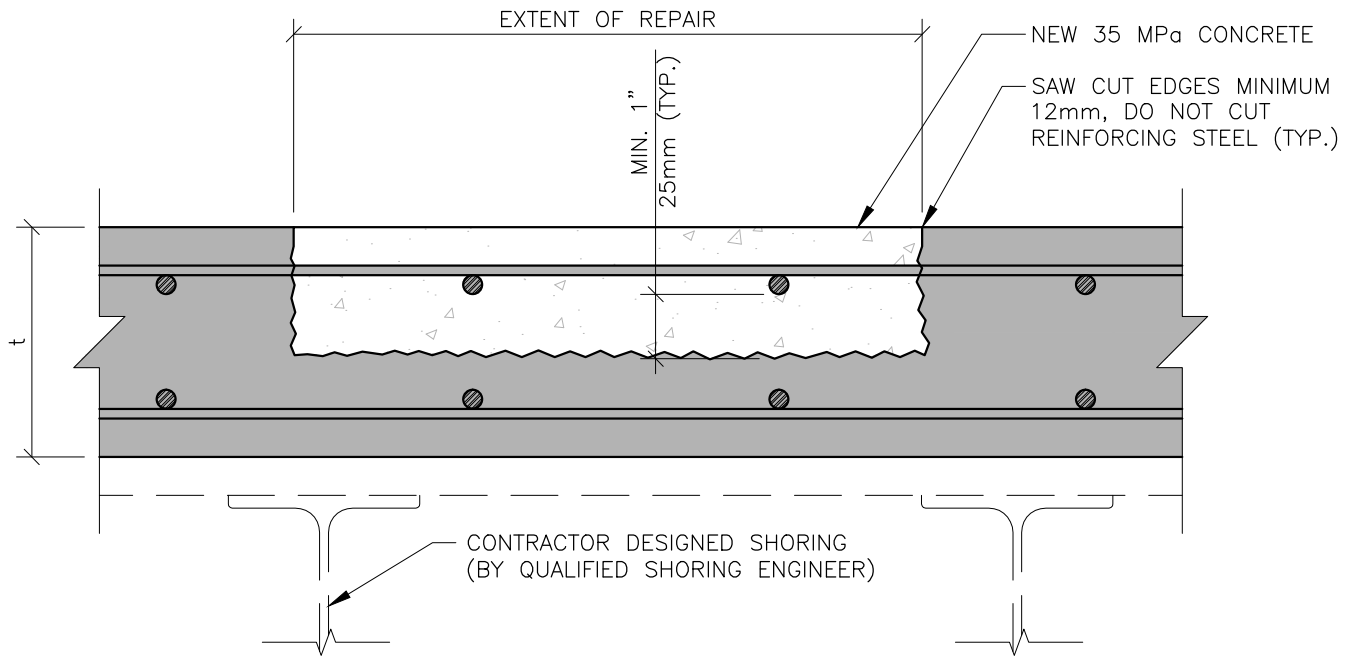


5
D2
WATERPROOFING AT
NEW CURB
SCALE 1:10

PEN COLOR CODE: C1-0.10 C2-0.20 C3-0.30 C4-0.40 C5-0.50 C6-0.10 C7-0.15

REV. TABLE			
NO.	1	ISSUED FOR CLIENT REVIEW	M.M
		ISSUED	BY

	IRC BUILDING SCIENCES GROUP SERVING CANADA WITH REGIONAL OFFICES FROM COAST TO COAST HEAD OFFICE 2121 ARGENTIA ROAD, SUITE #401, MISSISSAUGA, ONTARIO TOLL FREE: 1-888-607-5245 TEL: 905-607-7244 WWW.IRCGROUP.COM FAX: 905-607-7288	TITLE: WATERPROOFING DETAILS CLIENT: TORONTO ZOO PROJECT: ASPHALT & OBSERVATION DECK REHABILITATION 361A OLD FINCH AVENUE TORONTO, ONTARIO	IRC #: 10978 W.O.#: HR19-084SP SCALE: AS NOTED DATE: 2019/08/16	NORTH: DRN.: H.V. CHK.: C.T. DWG.#: D2 REV.#: REV 01
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NOTES:

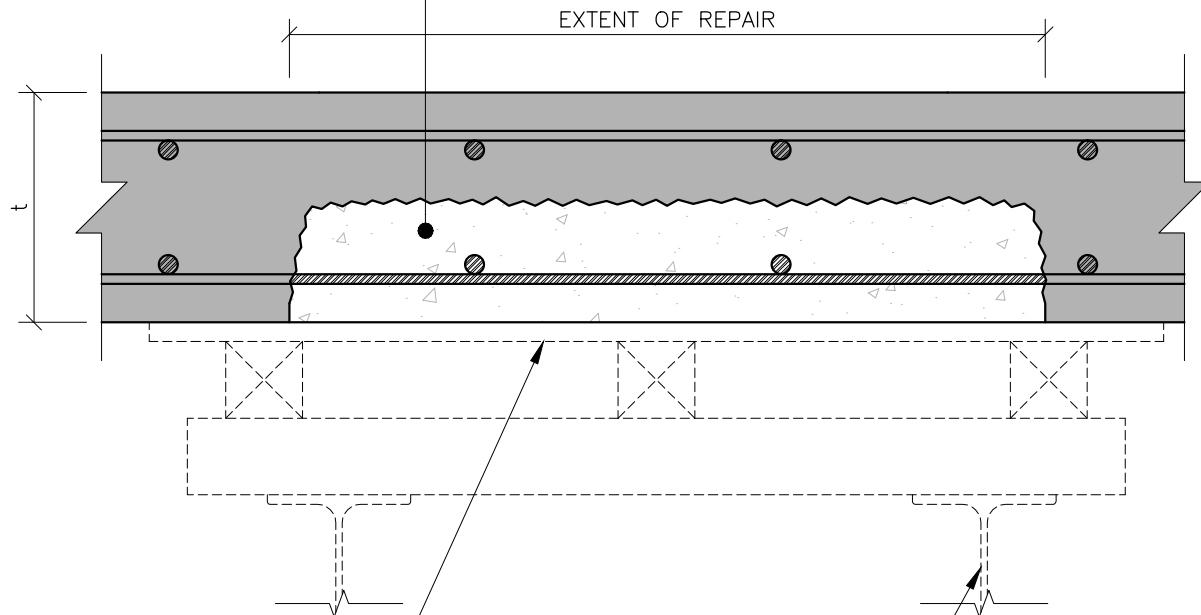
1. SEE SPECIFICATION FOR DETAILS. DO NOT REMOVE CONCRETE BEYOND THE AREAS DELINEATED UNLESS INSTRUCTED BY THE CONSULTANT.
2. FIELD CONDITIONS MAY DIFFER FROM THE INFORMATION PROVIDED. THE CONTRACTOR IS TO VERIFY CONDITIONS PRIOR TO COMMENCING CONCRETE REMOVALS.
3. PAY UNIT = m²
4. SHORING DESIGN PROFESSIONAL TO REVIEW EACH INSTALLATION AND ISSUE SATISFACTORY SITE VISIT REPORT PRIOR TO COMMENCING CONCRETE REMOVALS.
5. MAINTAIN MINIMUM 25mm CLEARANCE BETWEEN EXPOSED REINFORCING STEEL AND EXISTING SOUND CONCRETE.
6. EXISTING CONCRETE SURFACES TO BE COATED WITH A CONCRETE BONDING AGENT PRIOR TO PLACING NEW CONCRETE.

PEN COLOR CODE: C1-0.10 C2-0.20 C3-0.30 C4-0.40 C5-0.50 C6-0.10 C7-0.15



TITLE:	TOP SURFACE CONCRETE REPAIRS	IRC #:	10978	SCALE:	AS NOTED
CLIENT:	TORONTO ZOO	W.O.#:	HR19-084SP	DATE:	2019/08/16
PROJECT: ASPHALT & OBSERVATION DECK REHABILITATION 316A OLD FINCH AVENUE TORONTO, ONTARIO	DRN.:	H.V.	DWG.#:	REV.#:	D3 REV01
	CHK.:	C.T.			

MAINTAIN A MINIMUM 1" (25mm)
CLEARANCE BETWEEN EXPOSED
REINFORCING STEEL AND EXISTING
CONCRETE SURFACE



PROVIDE SUITABLE FORMWORK
AS SPECIFIED. ONLY NEW PLYWOOD
SHEATHING SHALL BE USED FOR
ALL EXPOSED FINISHED SURFACES

CONTRACTOR DESIGNED SHORING
(BY QUALIFIED SHORING ENGINEER)

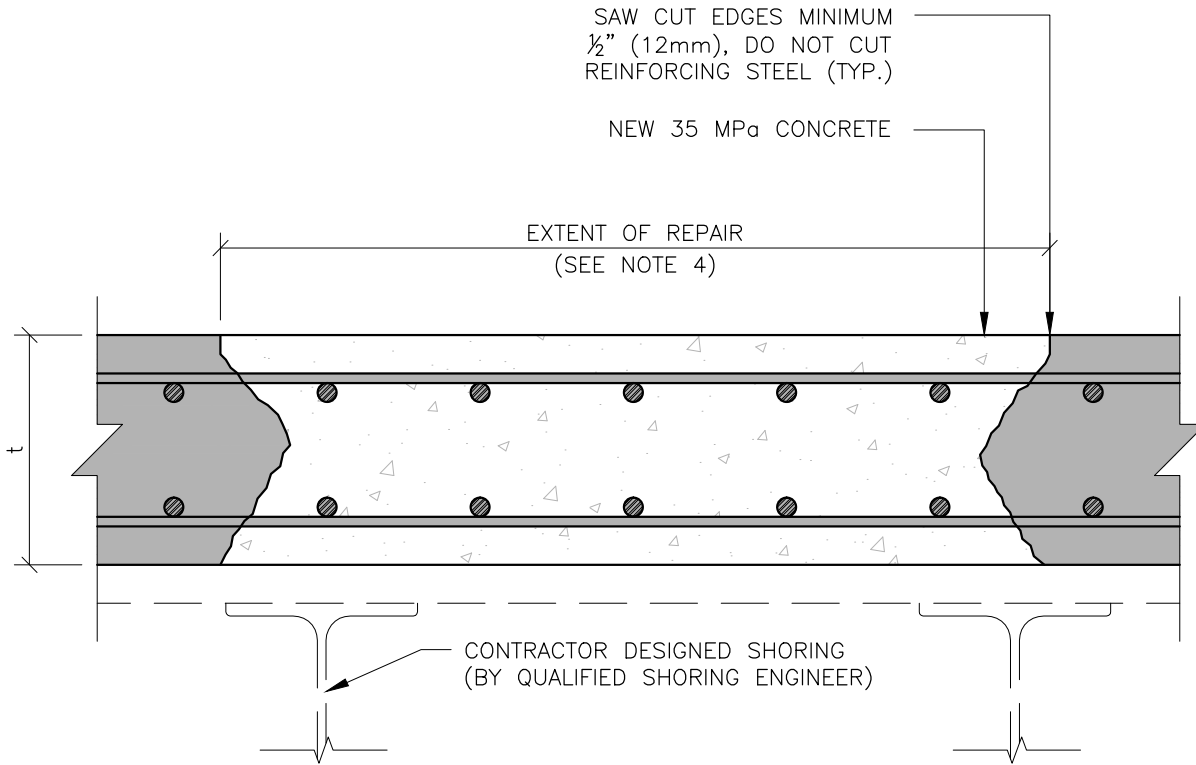
NOTES:

1. SEE SPECIFICATION FOR DETAILS. DO NOT REMOVE CONCRETE BEYOND THE AREAS MARKED UNLESS INSTRUCTED BY THE CONSULTANT.
2. FIELD CONDITIONS MAY DIFFER FROM THE INFORMATION SHOWN ON THIS DETAIL.
3. PAY UNIT = m^2
4. SHORING DESIGN PROFESSIONAL TO REVIEW EACH INSTALLATION AND ISSUE SATISFACTORY SITE VISIT REPORT PRIOR TO COMMENCING CONCRETE REMOVALS.
5. PRIOR TO PLACING NEW CONCRETE, APPLY A CONCRETE BONDING AGENT TO THE EXISTING CONCRETE.

PEN COLOR CODE: C1-0.10 C2-0.20 C3-0.30 C4-0.40 C5-0.50 C6-0.10 C7-0.15



TITLE:	UNDERSIDE SURFACE CONCRETE REPAIRS	IRC #:	10978	SCALE:	AS NOTED
CLIENT:	TORONTO ZOO	W.O.#:	HR19-084SP	DATE:	2019/08/16
PROJECT:	ASPHALT & OBSERVATION DECK REHABILITATION 316A OLD FINCH AVENUE TORONTO, ONTARIO	DRN.:	H.V.	DWG.#:	D4
		CHK.:	C.T.	REV.#:	REV01



NOTES:

1. SEE SPECIFICATION FOR DETAILS. DO NOT REMOVE CONCRETE BEYOND THE AREAS MARKED UNLESS INSTRUCTED BY THE CONSULTANT.
2. FIELD CONDITIONS MAY DIFFER FROM THE INFORMATION SHOWN ON THIS DETAIL.
3. PAY UNIT = m²
4. SHORING DESIGN PROFESSIONAL TO REVIEW EACH INSTALLATION AND ISSUE SATISFACTORY SITE VISIT REPORT PRIOR TO COMMENCING CONCRETE REMOVAL.
5. WHERE REQUIRED, USE ONLY NEW PLYWOOD SHEATHING AT EXPOSED FINISHED SURFACES.

PEN COLOR CODE: C1-0.10 C2-0.20 C3-0.30 C4-0.40 C5-0.50 C6-0.10 C7-0.15



TITLE:	THROUGH SLAB CONCRETE REPAIRS	IRC #:	10978	SCALE:	AS NOTED
CLIENT:	TORONTO ZOO	W.O.#:	HR19-084SP	DATE:	2019/08/16
PROJECT: ASPHALT & OBSERVATION DECK REHABILITATION 316A OLD FINCH AVENUE TORONTO, ONTARIO	DRN.:	H.V.	DWG.#:	REV.#:	D5 REV01
	CHK.:	C.T.			

GENERAL NOTES

1. THE BUILDING STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE ONTARIO BUILDING CODE 2012.
2. THE CONTRACTOR SHALL CHECK ALL DIMENSIONS WITH THE LATEST ISSUE OF ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS. REPORT ANY DISCREPANCIES BEFORE PROCEEDING WITH THE WORK.
3. READ STRUCTURAL DRAWINGS IN CONJUNCTION WITH SPECIFICATIONS AND OTHER CONTRACT DOCUMENTS.
4. SEE ARCHITECTURAL, MECHANICAL AND ELECTRICAL DRAWINGS FOR LOCATION OF OPENINGS, EQUIPMENT BASES, SUMP PITS, AND TRENCHES NOT INDICATED ON STRUCTURAL DRAWINGS.
5. SEE DRAWINGS FOR DESIGN LOADS. DO NOT EXCEED DURING CONSTRUCTION.
6. ALL REFERENCES TO CODES & STANDARDS ARE TO THE LATEST ISSUE.

SITE INSPECTION REPORTS & TESTING

1. THE ONTARIO BUILDING CODE 2012 SPECIFIES THAT GENERAL FIELD REVIEWS OF THE BUILDING BE CARRIED OUT DURING THE COURSE OF CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF THE START OF CONSTRUCTION TO FACILITATE SUCH REVIEWS BY THE STRUCTURAL ENGINEER.
2. THIRD PARTY INSPECTION AND TESTING REPORTS ARE TO BE SUPPLIED TO THE STRUCTURAL ENGINEER BY THE GENERAL CONTRACTOR FOR THE FOLLOWING:
 - A) REINFORCING STEEL PLACEMENT
 - B) CONCRETE CYLINDER TEST REPORTS FOR ALL STRUCTURAL CONCRETE. (FOOTINGS, FOUNDATION WALLS, CAISSONS, SLAB ON GRADE, STRUCTURAL SLABS, CONCRETE ON STEEL DECK).

SHOP DRAWINGS

1. THE CONTRACTOR SHALL FURNISH SHOP DRAWINGS TO THE STRUCTURAL ENGINEER, A MINIMUM OF ONE REPRODUCIBLE AND TWO PRINTS STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE PROVINCE OF ONTARIO.
 - A) REINFORCING STEEL PLACING DRAWINGS AND BAR LISTS.
 - B) STEEL ERECTION DRAWINGS.
 - C) PRECAST CONCRETE FLOOR AND ROOF PLANK. ERECTION AND CONNECTION DETAILS.
 - D) STEEL STUD PLACEMENT AND CONNECTION DETAILS.
 - E) RAILING GLASS INSERT

CAST-IN-PLACE CONCRETE

1. CONFORM TO CSA STANDARD A23.1, CONCRETE MATERIALS AND METHODS OF CONCRETE CONSTRUCTION, A23.2, METHODS OF TEST FOR CONCRETE AND A23.3, DESIGN OF CONCRETE STRUCTURES IN DETAILING BENDS, PLACEMENT, SPACING, SPLICING AND PROTECTION OF REINFORCING.
2. COMPRESSIVE STRENGTH OF CONCRETE AT 28 DAYS U.N.O.

LOCATION	STRENGTH	MAXIMUM AGGREGATE SIZE (mm)
EXTERIOR CURB CLASS F2	25 MPa	20

-MAXIMUM SLUMP IS TO BE 3"
-CONCRETE EXPOSED TO WEATHER SHALL HAVE AN AIR-ENTRAINMENT OF 5%.
3. ALL REINFORCING STEEL SHALL BE BILLET STEEL BARS FOR CONCRETE REINFORCEMENT IN ACCORDANCE WITH CSA STANDARD G30.18, BILLET STEEL BARS FOR CONCRETE REINFORCEMENT, GRADE 400R fy=400 MPa
4. CONCRETE COVER FOR REINFORCING STEEL BARS AND PLACING TOLERANCES SHALL BE IN ACCORDANCE WITH CSA STANDARD A23.1.

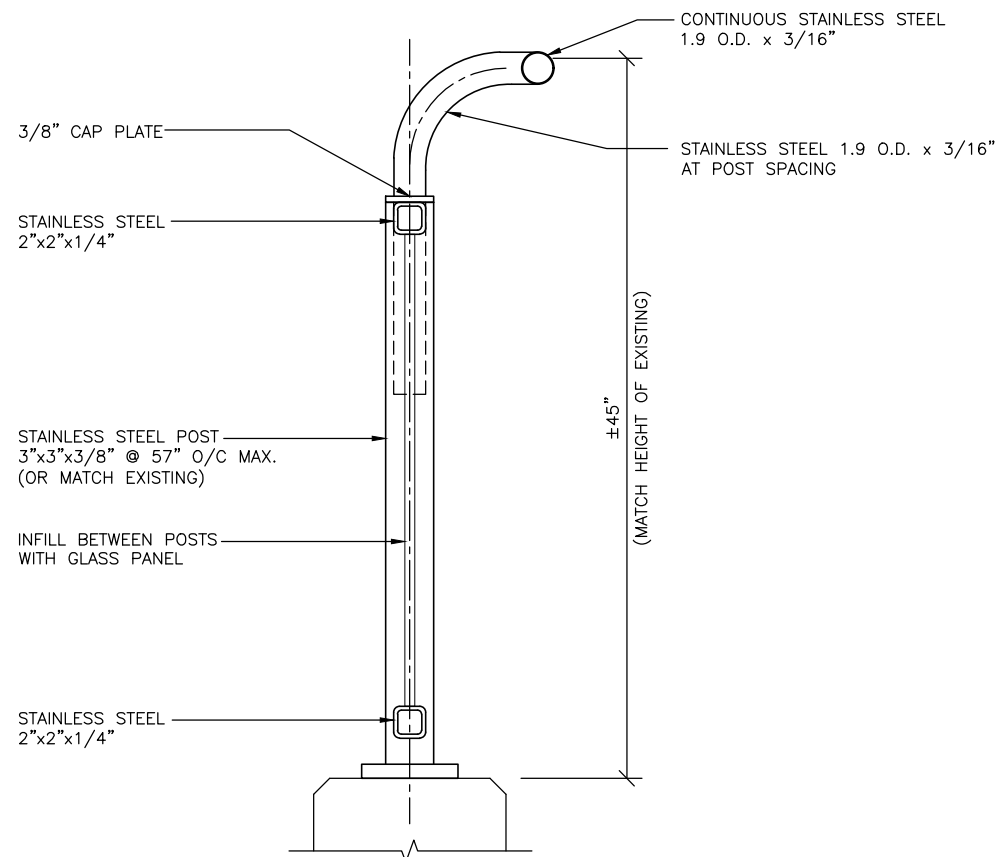
STRUCTURAL METAL

1. CONFORM TO CSA STANDARD CAN/CSA S16 LIMIT STATES DESIGN OF STEEL STRUCTURES.
2. CONFORM TO CSA STANDARD W55.3, RESISTANCE WELDING QUALIFICATIONS CODE FOR FABRICATORS OF STRUCTURAL MEMBERS USED IN BUILDINGS.
3. CONFORM TO CSA STANDARD W59, WELDED STEEL CONSTRUCTION (METAL ARC WELDING).
4. WELDING ELECTRODES - CSA STANDARD W48, FILLER METALS AND ALLIED MATERIALS FOR METAL ARC WELDING.
5. STRUCTURAL STEEL - CSA STANDARD G40.20/G40.21, GENERAL REQUIREMENTS FOR ROLLED OR WELDED STRUCTURAL QUALITY STEEL/STRUCTURAL QUALITY STEELS. GRADE 350W FOR GENERAL PURPOSE STRUCTURAL STEEL SHAPES, 300W FOR ANGLES, CHANNELS, RODS AND PLATES. HOLLOW STRUCTURAL SECTIONS SHALL CONFORM TO CSA STANDARD G40.20 GRADE 350W, HOT FORM WELDED OR HOLLOW STRUCTURAL SECTION, CLASS H.
6. HIGH STRENGTH BOLTS, NUTS AND WASHERS A.S.T.M. STANDARD A325, STANDARD SPECIFICATION FOR STRUCTURAL BOLTS, STEEL, HEAT TREATED 120/105 ksi MINIMUM TENSILE STRENGTH OR A325M, STANDARD SPECIFICATION FOR HIGH STRENGTH BOLTS FOR STRUCTURAL STEEL JOINTS (METRIC).
7. ANCHOR RODS - A.S.T.M. F1554 GRADE 36
8. PRIMER:
 - A) STRUCTURAL STEEL EXTERIOR EXPOSURE: CISC/CPMA OVER COMMERCIAL BLAST CLEANING AS PER SSPC SPECIFICATION SP6/NACE No. 3.
 - B) HOT DIPPED GALVANIZED AS PER CAN/CSA-G164 HOT DIP GALVANIZING OF IRREGULARLY SHAPED ARTICLES.
9. ALL RAILING MEMBERS TO BE STAINLESS STEEL WITH MIN. $F_y = 205 \text{ MPa}$.

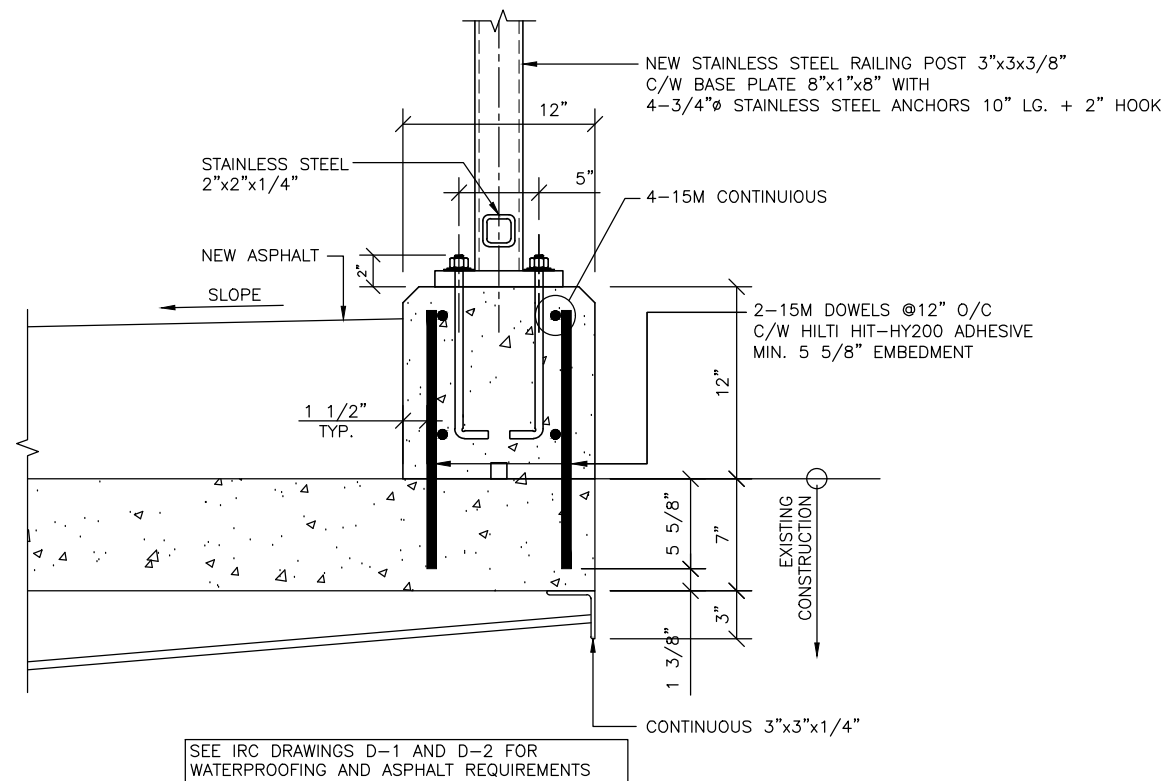
DESIGN LOADS

BUILDING IMPORTANCE: NORMAL
SITE CLASS: 'D'

- OBC 4.1.5.14 LOADS ON GUARDS
(1) SPECIFIED HORIZONTAL LOAD= 3.0 kN/m
(2) GLASS PANEL POINT LOAD+ 0.5 kN APPLIED OVER A 100x100mm AREA
(3) VERTICAL LOAD= 1.5 kN/m



1 GUARDRAIL DETAIL
S01 SCALE 1" = 1'-0"



2 GUARDRAIL DETAIL @ CURB
S01 SCALE 1" = 1'-0"

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No.	DATE	ISSUE	BY
2	08/27/19	REVISED TO STAINLESS STEEL	M.T.W.
1	05/14/19	ISSUED FOR CLIENT REVIEW	M.T.W.

irc GROUP IRC BUILDING SCIENCES GROUP
2121 ARGENTIA ROAD, SUITE 401
MISSISSAUGA, ONTARIO, L5N 2X4
TEL: 905.607.7244, FAX: 905.607.7288
1.888.607.5245 WWW.IRCGROUP.COM

PROJECT RAILING REMEDIATION AMERICA'S PAVILION
LOCATION TORONTO ZOO 361A OLD FINCH AVE., TORONTO, ON
DESIGNER M.T.W.

DESCRIPTION NOTES AND DETAILS

DATE	05/14/19	JOB	HR19-084SP-10978
SCALE	AS SHOWN	FILE	BS001
DRAWN BY	S.P.	SHEET	S01
CHECK BY	M.T.W.		

BID DOCUMENTS AND SPECIFICATIONS

Project: **Building Envelope Rehabilitation**
At
AMERICAS PAVILION – BELVEDERE ROOF
361A Old Finch Avenue
Toronto, ON, M1B 5K7

Prepared for: **TORONTO ZOO – AMERICAS PAVILION**
361A Old Finch Avenue
Toronto, Ontario, M1B 5K7

Attention: Joshua Jaikaran

W.O. Number: HR19-084SP
IRC Number: IRC-10978

Project Meeting: TBD, 2019 at 10:00 am
Closing Date: TBD, 2019 at 2:00 pm EDT/EST

IRC Building Sciences Group
2121 Argentia Road
Mississauga, Ontario, L5N 2X4



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PART 1 - GENERAL

1.1 DESCRIPTION

- .1 This section includes for compliance and submittals required for health and safety during Work.

1.2 REFERENCES

- .1 Federal regulations, latest edition including all amendments up to project date:
 - .1 Fire Commissioners of Canada, FC 301, Standard for Construction Operations.
 - .2 Canada Labour Code, Part 2, Canada Occupational Safety and Health Regulations.
- .2 Provincial regulations, latest edition including all amendments up to project date:
 - .1 Provincial or National Building Code for Place of Work.
 - .2 Provincial Occupational Health and Safety Act.

1.3 SUBMITTALS

- .1 Informational Submittals:
 - .1 Notice of Project filed with Provincial Ministry of Labour or equivalent for Place of Work.
 - .2 Health and Safety Plan for Specific Work Site including, but not limited to:
 - .1 Name and contact info of Contractor's Health and Safety Representative for Work Site; including twenty-four (24) hour emergency contact phone numbers.
 - .2 Phone numbers of local fire, police, and ambulance outside of 911 services.
 - .3 Location of nearest medical facility and level of injury that each can service.
 - .4 Copies of certification for all employees on site of applicable safety training including, but not limited to:
 - .1 WHIMIS.
 - .2 Fall arrest and protection.
 - .3 Suspended Access Equipment.
 - .4 Erection of Scaffolding.
 - .5 License for powder actuated devices.
 - .5 Material Safety Data Sheets (MSDS) of controlled products to be used.
 - .6 On-site Contingency and Emergency Response Plan addressing:
 - .1 Standard procedures to be implemented during emergency situations.
 - .2 Preventative planning and protocols to address possible emergency situations. For example, if swing stage work is required, list protocol to be followed if supporting cable breaks.
 - .7 Guidelines for handling, storing, and disposing of hazardous materials that may be encountered on site, including measures to prevent damage or injury in case of an accidental spill.
 - .3 Incident and accident reports, promptly if and upon occurrence.
 - .4 Make submittals in accordance with Section 01 33 00 - Submittal Procedures.

1.4 RESPONSIBILITY

- .1 Contractor responsible for health and safety of persons on Work Site and for protection of persons adjacent to Site to extent that they may be affected by performance of Work.
- .2 Contractor responsible for safety of property and environment on Work Site and for protection of same adjacent to Site to extent that they may be affected by performance of Work.
- .3 Contractor is responsible for health and safety at Work Site and is not relieved by Consultant's review of Health and Safety Plan for Specific Work Site.

1.5 OCCUPATIONAL HEALTH AND SAFETY

- .1 Comply and conform to all health and safety work practices in accordance with regulations and authorities having jurisdiction at Place of Work including, but not limited to:
 - .1 WHMIS awareness and training.
 - .2 Fall-arrest, temporary guardrails, and travel-restraint systems.
 - .3 Eye protection, hardhats, and safety boots.
- .2 Maintain one reference copy on site of Occupational Health and Safety Act and Regulations for Construction Projects for Place of Work, latest edition.
- .3 Ensure that all personnel are adequately equipped to comply with safety regulations and that sufficient safety equipment is available.
- .4 Provide at Work Site sufficient equipment to supply first aid.
- .5 Promptly report to Owner and Consultant all accidents, and any claims made against Contractor or Subcontractor on account of accident.
- .6 Enforce proper work methods and act immediately on directions regarding safety and work practices given by authorities having jurisdiction or by Owner, at no additional cost to Owner.
- .7 Failure of Contractor to comply with verbal or written instructions or orders from Ministry of Labour Inspector, other authorities, Owner, or Consultant regarding safe work practices or provision of specified requirements under regulations to be considered Non-Compliance with Contract.
 - .1 Owner or Consultant may stop Work for failure to rectify non-compliance of health and safety regulations.

1.6 WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

- .1 Contractor to be familiar with WHMIS regulations and be responsible for compliance.
- .2 Contractor responsible for all other requirements of regulations as applicable to Employers.
- .3 All controlled products to be properly labelled and stored.
- .4 Immediately inform Owner and Consultant if any unforeseen or peculiar safety-related factor, hazard, or condition becomes evident during performance of Work.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION – 00 73 19

PART 1 - GENERAL

1.1 SECTION INCLUDES

- .1 Contractor's use of premises.
- .2 Owner occupancy.
- .3 Scope of Work.

1.2 CONTRACTOR'S USE OF PREMISES

- .1 Contractor shall limit use of premises for Work, for storage, and access.
- .2 Coordinate use of premises under direction of Owner and Consultant.
- .3 Obtain and pay for use of additional storage or work areas needed for operations under this Contract.

1.3 OWNER OCCUPANCY

- .1 Owner will occupy premises during entire construction period for execution of normal operations.
- .2 Cooperate with Owner in scheduling operations to minimize conflict and to facilitate Owner usage.

1.4 SCOPE OF WORK – GENERAL

- .1 **Tender Item No. 1.1** is the cost related to mobilization/demobilization of all tools, materials, and labour required to carry out the Scope of Work, and to provide all General Requirements as outlined in Section 01 00 00 of the specifications. Specifically, it is expected that the Contractor will:
 - .1 Go beyond the minimum to ensure the safety and proper execution of public routing; ensuring temporary access to fire exits if and when they are affected as part of the work.
 - .2 Coordinate all trades to ensure the work is completed as soon as possible.
 - .3 Perform all work according to all Ministry of Labour requirements.
 - .4 Obtain Construction/Building Permit and sidewalk/roadway occupation permits as required by the local municipality.
 - .5 Obtain all service and utility locates for private and public services. Scanning to be included.
 - .6 Coordination of trades will be the responsibility of the general contractor to ensure the work is completed as soon as possible. Provide winter protection and heat as required to perform the work if required and as specified.
 - .7 Supply, set-up, maintain and remove scaffolding, man lift platforms and/or swingstages during the performance of the work as required to access the repair areas. If scaffolding is to be used, the contractor is to provide complete shop drawings bearing the seal of a Professional Engineer, licensed to practice in the Province of Ontario. Work to include review and approval of installed scaffolding by designer. Allowance should be made for access to all elevations of the building.
 - .8 No public access to the work area is to be allowed. Ensure access to fire exits is maintained and hoarded through the work area. Pedestrian access along sidewalks must be maintained as per Owners requirements. No areas of access to or around the building are to be restricted without the approval of the Owner.

- .9 Install temporary protection at all locations of work, as required to ensure safe, clean, orderly removal and disposal work and to provide protection for all property, building components, vehicles, pedestrians and occupants.
 - .10 Provide temporary support to existing structural and cladding components during performance of work (if required).
 - .11 Install temporary protection for all materials and building components, which have been exposed during demolition/removals as specified.
 - .12 Dispose of all materials at landfill site authorized by authorities having jurisdiction.
 - .13 Accept that weather conditions are considered incidental to the Work and will not be considered additional to Bid Price.
 - .14 Perform daily and final clean-up of the work area and surrounding areas of the site.
 - .15 Include for reinstating the site to its original condition or better with the approval of the Owner prior to demobilization.
- .2 Tender item 1.2** is an allowance to cover costs related to applying for and obtaining all required permits for the project. Costs under this item will be paid out at cost upon receipt of documents to substantiate amounts. Profit and overhead does not apply for this item.
- .3 Tender item No. 1.3** is an allowance is provided for obtaining third party quality assurance testing of all materials placed on site to carry out the Scope of Work as selected by the Owner. The allowance is to include for the preparation of a report detailing testing which will be submitted to the Consultant. Costs for this item will be reimbursed at actual cost upon submission of third-party's invoice(s) in accordance with the payment submittal procedures. Additional profit and overhead will not be paid for testing.
- .4 Tender item 1.4** is for costs related to obtaining project bonding. Represents the cost for 50% labour and materials, and 50% performance bonds. This item may be removed from the project at the Owner's discretion.

1.5 SCOPE OF WORK: EXTERIOR REMOVALS

- .1 Tender item 2.1** is for costs related to remove the existing asphalt pavement in accordance with Section 32 12 16, at the direction of the Engineer/Consultant and as delineated in Drawings SP1. Specifically:
- .1 Mill/excavate/remove the full thickness of the existing asphalt pavement and dispose of at an approved site. Site measure and confirm the area to be removed prior to starting work.
 - .2 Remove existing waterproofing down to the existing concrete slab and prepare to CPS-4 as per IRCI (International Concrete Repair Institute) to accept new membranes. Clean the substrate to receive a new waterproofing system, as directed by Engineer/Consultant.
- .2 Tender item 2.2** is for costs related to remove and dispose of the existing metal upstanding and guardrail at the perimeter of the observation deck.

1.6 SCOPE OF WORK: INTERIOR REMOVALS

- .1 Tender item 3.1** is for costs related to remove the existing interior wood finishes to expose existing substrate, under the observation deck including the central column and at the direction of the Engineer/Consultant.

1.7 SCOPE OF WORK: WATERPROOFING

- .1 **Tender item 4.1** is for costs related to supply and install a new hot-applied waterproofing system in accordance with section 07 14 13 at the exposed concrete slabs. The costs are to include a new thin waterproofing membrane at the new curb as per section 07 14 16. Costs are also to include for cleaning of the existing concrete slabs to CSP 4 profile in accordance with the requirements of International Concrete Repair Institute (ICRI) prior to application of the waterproof material. All work is to be reviewed and confirmed, via a letter on company letterhead, by the membrane manufacturer. The work must be completed as per drawings D1 and D2.

1.8 SCOPE OF WORK: CONCRETE CURB

- .1 **Tender item 5.1** is for costs related to supply and install a new concrete curb at the perimeter of the observation deck. The work must be completed as per drawings S01 and concrete sections.

1.9 SCOPE OF WORK: ASPHALT PAVEMENT

- .1 **Tender item 6.1** is for costs related to supply, place and compact High Stability Surface Course Asphalt, using appropriate machinery according to the existing base building design loads, to 90 mm compacted thickness in accordance with Section 32 16 12. Note: The height of the finished surface course of asphaltic concrete should be flush with surrounding pavement areas.

1.10 SCOPE OF WORK: METAL RAILING

- .1 **Tender item 7.1** is for costs related to supply and installation of new metal railings and safety glass as per structural drawing S01, Section 05 73 00 and Section 08 80 50.

1.11 SCOPE OF WORK: INTERIOR FINISHES

- .1 **Tender item 8.1** is for costs related to supply and installation of new rigid insulation, blocking, and wood finishes matching the existing in materials and colour. Existing artificial rockwork must be protected during the interior repair work. Any damage to the existing artificial rockwork must be repaired with no cost to the owner.

1.12 SCOPE OF WORK: SEPARATE PRICES

- .1 **Tender item 9.1 – Top Surface Concrete Repairs** is for costs related to identify and mark all delaminated concrete on the top surface of the suspended slabs. Repair as per drawing D3 and related sections. Do not proceed with the removals until reviewed by the Consultant.
- .2 **Tender item 9.2 – Underside Surface Concrete Repairs** is for costs related to identify and mark all delaminated concrete on the underside surface of the suspended slabs. Repair as per drawing D4 and related sections. Do not proceed with the removals until reviewed by the Consultant.
- .3 **Tender item 9.3 – Through Slab Concrete Repairs** is for costs related to areas of concrete deterioration in the suspended slabs where top surface and soffit deterioration overlap, or where soffit repairs would exceed 0,2m², or as directed by the Consultant. Repair as per drawing D5 and related sections. Do not proceed with the removals until reviewed by the Consultant.

1.13 SCOPE OF WORK: UNIT RATES

- .1 **Tender Item No. 10.1:** The hourly rates for labour to be applied if additional repairs are conducted that are not included in the Scope of Work.

- .2 **Tender Item No. 10.2:** If additional repairs are conducted that are not included in the Scope of Work payment for materials shall be cost plus 15% mark-up.

END OF SECTION - 01 11 00

PART 1 - GENERAL

1.1 SECTION INCLUDES

- .1 Shop drawings.
- .2 Samples.
- .3 Certificates and transcripts.

1.2 REFERENCES

- .1 Canadian Construction Documents Committee (CCDC).

1.3 ADMINISTRATIVE

- .1 Submit to Consultant and Toronto Zoo submittals listed for review. Submit with reasonable promptness and in orderly sequence so as to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for an extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .2 Work affected by submittal shall not proceed until review is complete.
- .3 Present shop drawings, product data, samples and mock-ups in SI Metric units.
- .4 Where items or information is not produced in SI Metric units converted values are acceptable.
- .5 Review submittals prior to submission to Consultant and Toronto Zoo. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and coordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and shall be considered rejected.
- .6 Notify Consultant and Toronto Zoo, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.
- .7 Verify field measurements and affected adjacent Work are coordinated.
- .8 Contractor's responsibility for errors and omissions in submission is not relieved by Consultant's and Toronto Zoo's review of submittals.
- .9 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Consultant's and Toronto Zoo's review.
- .10 Keep one reviewed copy of each submission on site.

1.4 SHOP DRAWINGS AND PRODUCT DATA

- .1 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work.
- .2 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been coordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.
- .3 Allow 10 days for Consultant's and Toronto Zoo's review of each submission.

- .4 Adjustments made on shop drawings by Consultant and Toronto Zoo are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Consultant and Toronto Zoo prior to proceeding with Work.
- .5 Make changes in shop drawings as Consultant and Toronto Zoo may require, consistent with Contract Documents. When resubmitting, notify Consultant and Toronto Zoo in writing of any revisions other than those requested.
- .6 Accompany submissions with transmittal letter, containing:
 - .1 Date.
 - .2 Project title and number.
 - .3 Contractor's name and address.
 - .4 Identification and quantity of each shop drawing, product data and sample.
 - .5 Other pertinent data.
- .7 Submissions shall include:
 - .1 Date and revision dates.
 - .2 Project title and number.
 - .3 Name and address of:
 - .1 Sub-Contractor.
 - .2 Supplier.
 - .3 Manufacturer.
 - .4 Contractor's stamp, signed by Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
 - .5 Details of appropriate portions of Work as applicable:
 - .1 Fabrication.
 - .2 Layout, showing dimensions, including identified field dimensions, and clearances.
 - .3 Setting or erection details.
 - .4 Capacities.
 - .5 Performance characteristics.
 - .6 Standards.
 - .7 Operating weight.
 - .8 Wiring diagrams.
 - .9 Single line and schematic diagrams.
 - .10 Relationship to adjacent work.

- .8 After Consultant's and Toronto Zoo's review, distribute copies.
- .9 Submit 3 copies of shop drawings for each requirement requested in specification Sections and as Consultant and Toronto Zoo may reasonably request.
- .10 Submit 3 copies of product data sheets or brochures for requirements requested in specification Sections and as requested by Consultant and Toronto Zoo where shop drawings will not be prepared due to standardized manufacture of product.
- .11 Delete information not applicable to project.
- .12 Supplement standard information to provide details applicable to project.
- .13 If upon review by Consultant and Toronto Zoo, no errors or omissions are discovered or if only minor corrections are made, 2 copies will be returned and fabrication and installation of Work may proceed. If shop drawings are rejected, noted copy will be returned and resubmission of corrected shop drawings, through same procedure indicated above, must be performed before fabrication and installation of Work may proceed.

1.5 SAMPLES

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

1.6 MOCK-UPS

- .1 Erect mock-ups as requested by Consultant and Toronto Zoo.

END OF SECTION - 01 33 00

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PART 1 - GENERAL

1.1 SECTION INCLUDES

- .1 Barriers.
- .2 Fall Arrest.
- .3 Fire Routes.

1.2 RELATED SECTIONS

- .1 Section 02 41 19 – Selective Demolition.

1.3 APPLICABLE PUBLICATIONS

- .1 All codes, standard specifications and by-laws referred to in this section shall be current editions including all revisions, addenda and supplements.
 - .1 CGSB 1.189M, Exterior Alkyd Primer for Wood QPL.
 - .2 CGSB 1.59, Alkyd Exterior Gloss Enamel.
 - .3 CSA-O121, Douglas Fir Plywood.
 - .4 Occupational Health and Safety Act, Regulations for Construction Projects.
 - .5 CSA S350, Code of Practice for Safety in Demolition of Structures.
 - .6 National Building Code of Canada, Part 8, "Safety Measures at Construction and Demolition Sites".

1.4 INSTALLATION AND REMOVAL

- .1 Provide temporary controls in order to execute Work expeditiously.
- .2 Remove from site all such work after use.
- .3 Interior work areas to be completely sealed off in order to protect from the mitigation of dust, fumes, etc., which will have an affect on animals/exhibits, staff and the public.
- .4 Underwater viewing glass is to be covered with hoarding to protect glass and visibility of work. This should include neighbouring glass with sightlines to work areas.
- .5 Avoid work near intake vents. Interior enclosures are to be weather tight, should work area be exposed to exterior (to protect exhibits and staff/guests from temperature changes, etc.).
- .6 Hoarding and enclosures should allow for pedestrian traffic flow around work area at all times.

1.5 WORK AREA HOARDING

- .1 Erect temporary site enclosures using:
 - .1 38 x 89 mm (2" x 4") construction grade lumber framing at 600 mm (24") centres and 1200 x 2400 x 13 mm (48" x 96" x ½") exterior grade fir plywood to CSA O121. Apply plywood panels vertically flush and butt jointed.
 - .2 1800 mm (72") high interlocking steel fence, with openings no greater than 38 mm (1-½") and include privacy screen.

- .2 Where required, provide a minimum of one lockable truck entrance gate and at least one pedestrian door as directed and conforming to applicable traffic restrictions on adjacent streets. Equip gates with locks and keys.
- .3 Erect and maintain pedestrian walkways including roof and side covers, complete with signs and electrical lighting as required by law.
- .4 Paint public side of temporary site enclosure with approved colours with one coat of primer in accordance with CGSB 1.189M and one coat exterior paint to CGSB 1.59 or wrap with Toronto Zoo designed graphic. Maintain public side of enclosure in clean condition.
- .5 Provide barriers around trees and plants designated to remain. Protect from damage by equipment and construction procedures.

1.6 COVERED HOARDING

- .1 Covered hoardings will be required when working over exits that serve as fire exits and locations where entrance or exit is required to remain open during work as stipulated by Owner.
- .2 Covered hoardings shall be erected from the vertical face of the exit/entrance a minimum of:
 - .1 a line from the top of the work extending on 60° angle from the vertical, or
 - .2 6000 mm (240") long.
- .3 Covered hoardings shall be provided when work occurs overhead of the following:
 - .1 Emergency exits;
 - .2 Safe Areas;
 - .3 Emergency access roads;
 - .4 Entrances and exits determined by Owner to remain open during work; and
 - .5 Entrances and exits required to remain open to provide adequate egress in and out of building
- .4 Covered hoardings for pedestrian traffic shall be constructed as follows:
 - .1 Scaffolding frames with cross bracing at 2400 mm (96") on centre;
 - .2 50 mm x 250 mm (2" x 10") planks across the top of the frames tight together fastened to the scaffolding frames;
 - .3 19 mm (3/4") plywood fastened to the top of the 50 x 250 mm (2" x 10") planks;
 - .4 minimum 12 mm (1/2") plywood on 38 x 89 mm (1-1/2" x 3-1/2") framing side walls set inside of overhead framing; and
 - .5 provide and maintain lighting to a minimum of 50 lux, constructed in a fashion that will mitigate vandalism.
- .5 Covered hoarding for Access roads and Safe Areas shall be designed by a Professional Engineer licensed in Ontario under the guidelines of the Occupational Health and Safety Act and with local authorities having jurisdiction.

1.7 WORKING FROM ROOF

- .1 If and when work is performed on roof, existing roof composition shall be protected by the following:
 - .1 minimum 25 mm (1") rigid insulation;
 - .2 6 mil polyethylene sheet, lapped at discontinuities by 300 mm (12"); and
 - .3 19 mm ($\frac{3}{4}$ ") plywood sheathing.

1.8 FALL ARREST

- .1 If building does not have an approved roof anchor system in place, supply an engineered rigging system signed and sealed by a Professional Engineer. Where a system does not exist it may be designed solely for the duration of the project.
- .2 Provide rigging drawings showing the location of anchors, tiebacks, life lines and primary suspension lines indicating the following:
 - .1 Primary suspension line size;
 - .2 Life safety line size;
 - .3 Quantity and location of counter weights;
 - .4 Size and length of outrigger beam;
 - .5 Configuration of stages, whether bosuns chair, swing stage or tiered swing stage; and
 - .6 Details indicating:
 - .1 proprietary beam saddles with anchorage;
 - .2 compression fittings;
 - .3 shackles or forged hooks;
 - .4 protection of life lines; and
 - .5 size and quantity of cable clips.
- .3 Where swing stage rigging is not used prepare plans indicating a location for life line tie offs.
- .4 Provide typical details indicating the construction and anchorage for secure, rigid guard rails and barricades around deep excavations, open shafts, open stair wells, open edges of floors and roofs.
- .5 Conform to the requirements of Occupational Health and Safety Act and regulations for Construction Projects.

1.9 WEATHER ENCLOSURES

- .1 Weather shall be considered incidental to work and shall not be claimed as additional.
- .2 The applicable standard shall be used for materials or building components when enclosures and/or heating is required to complete the work.
- .3 Provide weather tight closures for, but not limited to:

- .1 unfinished door and window openings;
 - .2 openings in floors and roofs;
 - .3 openings through walls;
 - .4 locations where daily work is not completed in a days work and components left exposed are sensitive to weather conditions;
 - .5 protection of materials used that are sensitive to weather conditions; and
- 4 Design enclosures to withstand wind pressure, snow loading etc.

1.10 DUST TIGHT SCREENS

- .1 Provide dust tight screens 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 Provide means for ventilating area if work is to occur in an interior or confined space.
- .4 Ventilate work area when it corresponds with areas used by tenants or patrons concurrently for parking or egress. If dust generation will affect tenants or patrons provide sealed enclosure with adequate ventilation for health and safety of workers.

1.11 ACCESS TO SITE

- .1 Provide and maintain access roads, sidewalk crossings, ramps and construction runways as may be required for access to Work.
- .2 Provide all appropriate signage directing the public and building occupants away from work area.
- .3 Emergency exits: Maintain clear and unobstructed use of all existing exit doors and routes. This may include the provision of overhead protection and enclosed exit walkways in the case of overhead work. Provide adequate lighting for 24 hour use.

1.12 PUBLIC TRAFFIC FLOW

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

1.13 FIRE ROUTES

- .1 Maintain access to property including overhead clearances for use by emergency response vehicles.
- .2 Provide all required signage to inform emergency vehicles of temporary route for access if modified as part of work.

1.14 PROTECTION FOR OFF-SITE AND PUBLIC PROPERTY

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

1.15 PROTECTION OF BUILDING FINISHES

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

END OF SECTION - 01 56 00

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PART 1 - GENERAL

1.1 SECTION INCLUDES

- .1 Consideration of Substantial Performance.
- .2 Inspections required for applications of Substantial Performance and Total Completion.
- .3 Closeout Submittals.

1.2 REFERENCES

- .1 Canadian Construction Documents Committee CCDC-2, Stipulated Price Contract.

1.3 CONSIDERATION OF SUBSTANTIAL PERFORMANCE AND COMPLETION BY CONSULTANT

- .1 A Contract will be considered substantially performed given the following:
 - .1 when the improvement to be made under that Contract is capable of completion or, where there is a known defect, correction, at a cost of not more than,
 - .1 3 percent of the first \$500,000 of the Contract Price,
 - .2 2 percent of the next \$500,000 of the Contract Price, and
 - .3 1 percent of the balance of the Contract Price.
 - .2 Where the work cannot be completed expeditiously for reasons beyond the control of the Owner or Contractor, the remaining costs will be deleted from the Contract Price in determination of substantial performance.
- .2 A Contract will be considered completed given the following:
 - .1 when the improvement to be made under that Contract is capable of completion or, where there is a known defect, correction, at a cost of the lesser of,
 - .1 1 percent of the Contract Price.
 - .2 \$1000.00.

PART 2 - PRODUCTS

2.1 NOT USED

- .1 Not Used.

PART 3 - EXECUTION

3.1 INSPECTION AND DECLARATION

- .1 Contractor and all Sub-Contractors shall conduct an inspection of Work; identify deficiencies and defects in preparation of list for application of Substantial Performance.
- .2 Consultant will schedule date within the time allowance of the Contract Documents for both Consultant and Contractor to perform inspection of Work and to confirm Work identified on submitted list.
- .3 Consultant will within the time allowance of the Contract Documents provide a breakdown of costs associated with the deficiencies and defects for Consideration of Substantial Performance.

- .4 If Work is deemed incomplete in Consideration of Substantial Performance, complete outstanding items and request re-inspection following the same protocol.
- .5 When the Contractor is satisfied that the Work is completed make application for final inspection of Consultant. Consultant will within the allowances of the Contract Documents perform final inspection of the Work.
- .6 Any deficiencies and defects shall be tabulated with associated costing for Consideration of Completion.
- .7 If Work is deemed incomplete by Consultant, complete outstanding items and request re-inspection.
- .8 Defective products will be rejected, regardless of previous inspections. Replace products at own expense.

3.2 MAINTENANCE AND RECORD DOCUMENTS

- .1 The following shall be submitted to the Owner at completion of Work:
 - .1 Maintenance manuals for, but not limited to, operating instructions, maintenance manuals, record of “as built” drawings, spare parts, maintenance of materials, special tools for completeness.
 - .2 Record of substantial and project completion correspondence inclusive, but not limited to Contractor lists, Consultant tabulations and certificates.
 - .3 Compile all shop drawings that have been submitted.

3.3 RECORDING ACTUAL SITE CONDITIONS

- .1 Submit Actual Conditions as outlined in following sentences.
- .2 Record information on set of Project Specifications provided by Consultant.
- .3 Provide felt tip marking pens, maintaining separate colours for each major system, for recording information.
- .4 Record information concurrently with construction progress. Do not conceal Work until required information is recorded.
- .5 Contract Drawings and shop drawings: legibly mark each item to record actual construction, including:
 - .1 Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - .2 Measured locations of internal utilities and appurtenances, referenced to visible and accessible features of construction.
 - .3 Field changes of dimension and detail.
 - .4 Changes made by change orders.
 - .5 Details not on original Contract Drawings.
 - .6 References to related shop drawings and modifications.
- .6 Specifications: legibly mark each item to record actual construction, including:

- .1 Manufacturer, trade name, and catalogue number of each product actually installed, particularly optional items and substitute items.
- .2 Changes made by Addenda and change orders.

3.4 WARRANTIES AND BONDS

- .1 Separate each warranty or bond with index tab sheets keyed to Table of Contents listing.
- .2 List Sub-Contractor, supplier, and manufacturer, with name, address, and telephone number of responsible principal.
- .3 Obtain warranties and bonds, executed in duplicate by Sub-Contractors, suppliers, and manufacturers, within ten days after certification of completion.
- .4 Verify that documents are in proper form, contain full information, and are notarized.
- .5 Co-execute submittals when required.
- .6 Retain warranties and bonds until time specified for submittal.

3.5 FORMAT

- .1 Organize data in the form of an instructional manual.
 - .1 Binders shall be vinyl, hard covered, 3 'D' ring, loose leaf [219 x 279] mm with spine and face pockets.
 - .2 When multiple binders are used, correlate data into related consistent groupings. Identify contents of each binder on spine.
 - .3 Identify each binder with type or printed title 'Project Record Documents'; list title of project and identify subject matter of contents.
 - .4 Arrange content under Section numbers and sequence of Table of Contents.
 - .5 Provide tabbed fly leaf for each separate product and system, with typed description of product and major component parts of equipment.
 - .6 Manufacturer's printed data, or typewritten data will be accepted.
 - .7 Drawings shall be provided with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.

3.6 CONTRACT CLOSE-OUT

- .1 Expedite and complete deficiencies and defects identified by the Consultants.
- .2 Submit required documentation such as statutory declarations, Workers' Compensation Certificates, warranties, certificates of approval or acceptance from regulating bodies.
- .3 Review inspection and testing reports to verify conformance to the intent of the documents and that changes, repairs or replacements have been completed.
- .4 Provide on-going review, inspection and attendance to building, call-back, maintenance and repair problems during Warranty periods.
- .5 Provide warranties and bonds fully executed and notarized.

- .6 Execute transition of Performance of Labour and Materials Payment Bond to warranty period requirements.
- .7 Collect and assemble documents executed by Sub-Contractors, suppliers and manufacturers.

END OF SECTION - 01 78 00

PART 1 - GENERAL

1.1 RELATED SECTIONS

- .1 Section 01 33 00 – Submittal Procedures
- .2 Section 00 73 19 - Health and Safety
- .3 Section 01 35 43 - Environmental Procedures
- .4 Section 01 56 00 – Temporary Barriers and Enclosures.

1.2 SUBMITTALS

- .1 Shop drawings
 - .1 Submit for approval drawings, diagrams or details showing sequence of demolition work and supporting structures and underpinning, where required by authorities having jurisdiction.
 - .2 Submit drawings stamped and signed by qualified professional engineer licensed in Province of Ontario, Canada.
 - .3 Refer to Section 01 33 00 – Submittal Procedures
- .2 Hazardous Materials: provide description of Hazardous Materials and Notification of Filing with proper authorities prior to beginning of Work as required.
- .3 Submit plan indicating:
 - .1 Descriptions of and anticipated quantities of materials to be salvaged, reused, recycled and landfilled.
 - .2 Schedule of selective demolition.
 - .3 Number and location of dumpsters.
 - .4 Anticipated frequency of tipping.
- .4 Submit copies of certified weigh bills, bills of landing from authorized disposal sites and reuse and recycling facilities for material removed from upon request from Owner's Representative.

1.3 QUALITY ASSURANCE

- .1 Convene pre-installation meeting one week prior to beginning work of this section to:
 - .1 Verify project requirements.
 - .2 Review installation and substrate conditions.
 - .3 Co-ordination with building subtrades.
- .2 Arrange for site visit with Owner's Representative to examine existing site conditions adjacent to demolition work, prior to start of Work.
- .3 Hold project meetings at owner's periodic request.
 - .1 Ensure key personnel, site supervisor, project manager, subcontractor representatives attend.

1.4 DELIVERY, STORAGE AND HANDLING

- .1 Protect existing items designated to remain and items designated for salvage. In event of damage to such items, immediately replace or make repairs to approval of Owner's Representative and at no cost to Owner's Representative.
- .2 Remove and store materials to be salvaged, in manner to prevent damage.
- .3 Store and protect in accordance with requirements for maximum preservation of material.

1.5 SITE CONDITIONS

- .1 In all circumstances ensure that demolition work does not adversely affect adjacent water courses groundwater and wildlife, or contribute to excess air and noise pollution.
- .2 Do not dispose, of waste or volatile materials such as mineral spirits, oil, petroleum based lubricants, or toxic cleaning solutions into watercourses, storm or sanitary sewers. Ensure proper disposal procedures are maintained throughout project.
- .3 Do not pump water containing suspended materials into watercourses, storm or sanitary sewers, or onto adjacent properties.
- .4 Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authorities.
- .5 Protect trees, plants and foliage on site and adjacent properties where indicated.

1.6 EXISTING CONDITIONS

- .1 Prior to start of any demolition work remove contaminated or hazardous materials as defined by authorities having jurisdiction from site and dispose of at designated disposal facilities

1.7 ASBESTOS AND DESIGNATED SUBSTANCES

- .1 Demolition of spray or trowel applied asbestos can be hazardous to health. The Owner's Representative is to be notified if material resembling spray or trowel-applied asbestos is encountered on site. Stop work and do not proceed removals until written instructions have been received from the Owner's Representative.

1.8 SCHEDULING

- .1 Employ necessary means to meet project time lines without compromising specified minimum rates of material diversion.
- .2 Notify Owner's Representative in writing when unforeseen delays occur.

1.9 SITE REVIEW

- .1 Notify the Owner's Representative for review and confirmation of the following items:
 - .1 Extent of all concrete removals;
 - .2 Measurement of removal areas prior to replacement; and
 - .3 Final repair review.

1.10 NOTICE

- .1 Provide a minimum 24 hour notice to the Owner's Representative and the Owner prior to proceeding with any work that may disrupt building access or services.

PART 2 - NOT USED

PART 3 - EXECUTION

3.1 PREPARATION

- .1 Inspect site with Owner's Representative and verify extent and location of items designated for removal, disposal, alternative disposal, recycling, salvage and items to remain.
- .2 Locate and protect utilities. Preserve active utilities traversing site in operating condition.
- .3 Notify and obtain approval of utility companies before starting demolition.

3.2 REMOVAL OF HAZARDOUS WASTES

- .1 Remove contaminated or dangerous materials defined by authorities having jurisdiction, relating to environmental protection, from site and dispose of in safe manner to minimize danger at site or during disposal.

3.3 REMOVAL OPERATIONS

- .1 Remove items as indicated.
- .2 Do not disturb items designated to remain in place.
- .3 Removal of Pavements, Curbs and Gutters
 - .1 Square up adjacent surfaces to remain in place by saw cutting or other method approved by Owner's Representative.
 - .2 Protect adjacent joints and load transfer devices.
 - .3 Protect underlying and adjacent granular material.
- .4 When removing asphalt pavement for subsequent incorporation into hot mix asphalt concrete paving, prevent contamination with base course aggregates.
- .5 When removing pipes under existing or future pavement area, excavate at least 300mm below pipe invert.
- .6 Decommission water wells and monitoring wells in accordance with Provincial guidelines and regulations.
- .7 Removal from site
 - .1 Interim removal of stockpiled material will be required by Owner's Representative, if it is deemed to interfere with operations of Owner's Representative, Owner or other contractors.
- .8 Sealing
 - .1 Seal pipe ends and walls of manholes or catch basins as indicated. Securely plug to form watertight seal.
- .9 Backfill

- .1 Backfill in areas as indicated

3.4 RESTORATION

- .1 Restore areas and existing works outside areas of demolition to match conditions of adjacent, undisturbed areas.
- .2 Use soil treatments and procedures which are not harmful to health, are not injurious to plants, and do not endanger wildlife, adjacent water courses or ground water.

3.5 CLEAN UP

- .1 Upon completion of work, remove debris, trim surfaces and leave work site clean.
- .2 Use cleaning solutions and procedures which are not harmful to health, are not injurious to plants, and do not endanger wildlife, adjacent water courses or ground water

END OF SECTION - 02 41 13

PART 1 - GENERAL

1.1 SUMMARY

- .1 Section Includes: Drilled in anchors for concrete.
- .2 Related Sections:
 - .1 Division 3 - Concrete Sections.
 - .2 Division 5 - Metals Sections.

1.2 SUBMITTALS

- .1 General: Submit in accordance with Conditions of the Contract and Division 1 Submittal Procedures Section.
 - .1 Product specifications with recommended design values and physical characteristics for all adhesive/chemical anchors.
 - .2 Samples: Representative length and diameters of each type anchor shown on the Drawings.
 - .3 Quality Assurance Submittals:
 - .1 Test Reports: Certified test reports showing compliance with specified performance characteristics and physical properties.
 - .2 Certificates:
 - .1 ICC ES Evaluation Reports.
 - .2 ASTM Approvals.
 - .4 Manufacturer's installation instructions.
 - .5 Installer Qualifications & Procedures: Submit installer qualifications as stated in Section 1.03.A. Submit a letter of procedure stating method of drilling, the product proposed for use, the complete installation procedure, manufacturer training date, and a list of the personnel to be trained on anchor installation.
- .2 Closeout Submittals: Submit the following:
 - .1 Record Documents: Project record documents for installed materials in accordance with Division 1 Closeout Submittals Section.

1.3 QUALITY ASSURANCE

- .1 Installer Training: Conduct a thorough training with the manufacturer or the manufacturer's representative for the installer on the project. Training to consist of a review of the complete installation process for drilled-in anchors, to include but not limited to:
 - .1 hole drilling procedure
 - .2 hole preparation & cleaning technique
 - .3 adhesive injection technique & dispenser training / maintenance
 - .4 rebar dowel preparation and installation

- .5 proof loading/torquing
- .2 Certifications: Unless otherwise authorized by the Engineer, anchors shall have one of the following certifications:
 - .1 ICC ES Evaluation Report indicating conformance with current applicable ICC ES Acceptance Criteria.
 - .1 ICC ESR-1967, or
 - .2 ICC ESR-2262

1.4 DELIVERY, STORAGE AND HANDLING

- A. General: Comply with Division 1 Section–Product Storage and Handling Requirements.
 - 1. Store anchors in accordance with manufacturer’s recommendations.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Fasteners and Anchors:
 - .1 Bolts and Studs: ASTM A307; ASTM A449 where “high strength” is indicated on the Drawings.
 - .2 Carbon and Alloy Steel Nuts: ASTM A563.
 - .3 Carbon Steel Washers: ASTM F436.
 - .4 Carbon Steel Threaded Rod: ASTM A36; or ASTM A193 Grade B7; or ISO 898 Class 5.8.
 - .5 Wedge Anchors: ASTM A510; or ASTM A108.
 - .6 Stainless Steel Bolts, Hex Cap Screws, and Studs: ASTM F593.
 - .7 Stainless Steel Nuts: ASTM F594.
 - .8 Zinc Plating: ASTM B633.
 - .9 Hot-Dip Galvanizing: ASTM A153.
 - .10 Metric Anchor Bolts, Screws, and Studs: ISO 898 Part 1.
 - .11 Metric Anchor Nuts: EN 24033.
 - .12 Metric Anchor Stainless Steel Bolts, Screws, and Studs: ISO 3506 Part 1.
 - .13 Metric Anchor Stainless Steel Nuts: ISO 3506 Part 2.
 - .14 Reinforcing Dowels: ASTM A615

2.2 DRILLED-IN ANCHORS

- .1 Cartridge Injection Adhesive Anchors: Threaded steel rod, inserts or reinforcing dowels, complete with nuts, washers, polymer or hybrid mortar adhesive injection system, and manufacturer’s installation instructions. Type and size as indicated on Drawings.

- .1 Interior Use: Unless otherwise indicated on the Drawings, provide carbon steel threaded rods conforming to ASTM A36, ASTM A 193 Type B7 or ISO 898 Class 5.8 with zinc plating in accordance with ASTM B633, Type III Fe/Zn 5 (SC1).
- .2 Exterior Use: As indicated on the Drawings, provide stainless steel anchors. Stainless steel anchors shall be AISI Type 304 and Type 316 stainless steel provided with stainless steel nuts and washers of matching alloy group and minimum proof stress equal to or greater than the specified minimum full-size tensile strength of the externally threaded fastener. All nuts shall conform to ASTM F594 unless otherwise specified. Avoid installing stainless steel anchors in contact with galvanically dissimilar metals.
- .3 Reinforcing dowels shall be A615 Grade 60.
- .4 Anchor capacity used in design shall be based on the technical data published by an industry recognized source or such other method as approved by the structural engineer of record. **SUBSTITUTION REQUESTS FOR ALTERNATE PRODUCTS MUST BE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD PRIOR TO USE.** Contractor shall provide calculations demonstrating that the substituted product is capable of achieving the performance values of the specified product. Substitutions will be evaluated for compliance with the relevant building code for seismic uses, load resistance, installation category, and availability of comprehensive installation instructions. Adhesive anchor evaluation will also consider creep, in-service temperature and installation temperature
- .5 Anchor capacity is dependant upon spacing between adjacent anchors and proximity of anchors to edge of concrete. Install anchors in accordance with spacing and edge clearances as indicated on drawings.

PART 3 - EXECUTION

3.1 INSTALLATION

- .1 Drilled-In Anchors:
 - .1 Drill holes with rotary impact hammer drills using carbide-tipped bits. Drill bits shall be of diameters as specified by the anchor manufacturer. Unless otherwise shown on the Drawings, all holes shall be drilled perpendicular to the concrete surface.
 - .1 Cored Holes: Where anchors are to be installed in cored holes, use core bits with matched tolerances as specified by the manufacturer.
 - .2 Embedded Items: Identify position of reinforcing steel and other embedded items prior to drilling holes for anchors. Exercise care in coring or drilling to avoid damaging existing reinforcing or embedded items. Notify the Departmental Representative if reinforcing steel or other embedded items are encountered during drilling. Take precautions as necessary to avoid damaging prestressing tendons, electrical and telecommunications conduit, and gas lines.
 - .3 Base Material Strength: Unless otherwise specified, do not drill holes in concrete or masonry until concrete, mortar, or grout has achieved full design strength.
 - .2 Perform anchor installation in accordance with manufacturer instructions.
 - .3 Cartridge Injection Adhesive Anchors: Clean all holes per manufacturer instructions to remove loose material and drilling dust prior to installation of adhesive. Inject adhesive into holes proceeding from the bottom of the hole and progressing toward the surface in such a manner as to avoid introduction of air pockets in the adhesive. Follow manufacturer recommendations to ensure proper mixing of adhesive components.

Sufficient adhesive shall be injected in the hole to ensure that the annular gap is filled to the surface. Remove excess adhesive from the surface. Shim anchors with suitable device to center the anchor in the hole. Do not disturb or load anchors before manufacturer specified cure time has elapsed

- .4 Observe manufacturer recommendations with respect to installation temperatures for cartridge injection adhesive anchors and capsule anchors.

3.2 REPAIR OF DEFECTIVE WORK

- .1 Remove and replace misplaced or malfunctioning anchors. Fill empty anchor holes and patch failed anchor locations with high-strength non-shrink, nonmetallic grout. Anchors that fail to meet proof load or installation torque requirements shall be regarded as malfunctioning.

3.3 FIELD QUALITY CONTROL

- .1 Testing: 25% of each type and size of drilled-in anchor shall be proof loaded by the independent testing laboratory. Adhesive anchors and capsule anchors shall not be torque tested unless otherwise directed by the Departmental Representative. If any of the tested anchors fail to achieve the specified torque or proof load within the limits as defined on the Drawings, all anchors of the same diameter and type as the failed anchor shall be tested, unless otherwise instructed by the Departmental Representative.
 - .1 Tension testing should be performed in accordance with ASTM E488.
 - .2 Torque shall be applied with a calibrated torque wrench.
 - .3 Proof loads shall be applied with a calibrated hydraulic ram. Displacement of adhesive and capsule anchors at proof load shall not exceed $D/10$, where D is the nominal anchor diameter.
- .2 Minimum anchor embedment's shall be as shown on the Drawings.

END OF SECTION - 03 16 00

PART 1 - GENERAL

1.1 RELATED SECTIONS

- .1 Division 3 – Concrete Sections

1.2 MEASUREMENT PROCEDURES

- .1 No measurement will be made under this section. Include costs in items of concrete work for which reinforcement is required.

1.3 REFERENCES

- .1 All codes, standard specifications and by-laws referred to in this section shall be current editions including all revisions, addenda and supplements.
 - .1 CAN/CSA-A23.1, Concrete Materials and Methods of Concrete Construction.
 - .2 CAN/CSA-A23.3, Design of Concrete Structures for Buildings.
 - .3 CAN/CSA-G40.21, Structural Quality Steel.
 - .4 CAN/CSA-W186, Welding of Reinforcing Bars in Reinforced Concrete Construction.
 - .5 CAN/CSA-S413, Parking Structures.
 - .6 ASTM A775/A775M, Standard Specification for Epoxy-Coated Steel Reinforcing Bars.
 - .7 ACI SP-66, ACI Detailing Manual.
 - .8 Reinforcing Steel Institute of Canada (RSIC) Reinforcing Steel Manual of Standard Practice.
 - .9 OPSS 1442, Epoxy Coated Reinforcing Steel Bars.

1.4 SHOP DRAWINGS

- .1 Submit shop drawings including placing of reinforcement in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Indicate on shop drawings, bar bending details, lists, quantities of reinforcement, sizes, spacings, locations of reinforcement with identifying code marks to permit correct placement without reference to structural drawings. Indicate sizes, spacings and locations of chairs, spacers and hangers. Prepare reinforcement drawings in accordance with Reinforcing Steel Manual of Canada.
- .3 Detail lap lengths and bar development lengths to CAN/CSA-A23.3, (unless otherwise indicated). Provide type A tension lap splices where indicated.
- .4 Structural Drawings shall take precedence over placement drawings and bar schedules unless otherwise indicated in writing by the Structural Consultant.
- .5 Review of the Shop Drawings is for general conformance with the design concept of the project and general compliance with the information given in the Contract Documents. The Contractor is responsible for confirming; correlating all quantities and dimensions, and is not relieved of the responsibility for compliance with the intent of the drawings and specifications or for accuracy of the work.
- .6 Only shop drawings bearing the review stamps shall be kept at site.

1.5 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials as required by local regulations. Include for all tipping fees associated with landfills and recycling depots.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Substitution of different size bars only if permitted in writing by Structural Consultant.
- .2 Reinforcing steel:
 - .1 Deformed “Hi-Bond” grade 400 conforming with CAN/CSA-G40.21, unless indicated otherwise. All bars to have Typical Identification Patterns of Canadian Producers and standard identification requirements as shown in the RSIC Manual of Standard Practice.
- .3 Bonding Agent:
 - .1 Sika® Armatec® 110 EpoCem by Sika
- .4 Chairs, bolsters, bar supports, spacers: to CAN/CSA-A23.1. Provide sufficient quantity for the support of the reinforcing under the construction conditions. Provide bracing as required to ensure that there is no possibility of displacement or deformation of the reinforcement during installation, inspection and concrete placement. For epoxy coated bars, support bars shall be epoxy coated or non-metallic.
- .5 Mechanical splices are subject to approval by a Structural Engineer.
- .6 Plain round bars conforming to CAN/CSA-G40.21.
- .7 Welded wire mesh reinforcement for sidewalks to be 150 mm x 150 mm weave, MW18.7 x MW18.7 unless noted otherwise.

2.2 FABRICATION

- .1 Fabricate reinforcing steel in accordance with CAN/CSA-A23.1 and Reinforcing Steel Manual of Standard Practice by the Reinforcing Steel Institute of Canada.
- .2 Epoxy coated bars shall not be re-bent or welded after coating.
- .3 Obtain Consultants approval for locations of reinforcement splices other than those shown on placing drawings.
- .4 Upon approval of Consultant weld reinforcement in accordance with CAN/CSA-W186.
- .5 Ship bundles of bar reinforcement, clearly identified in accordance with bar bending details and lists. For epoxy coated bars, method of bundling and transportation should be in accordance with ASTM A775/A775M.
- .6 Provide reinforcing bars for all miscellaneous items as shown or implied by the drawings and/or specifications.

2.3 SOURCE QUALITY CONTROL

- .1 Upon request, provide Engineer with certified copy of mill test report of reinforcing steel, showing physical and chemical analysis, minimum 4 weeks prior to commencing reinforcing work.
- .2 Upon request inform Consultant of proposed source of material to be supplied.

PART 3 - EXECUTION

3.1 SHIPPING, HANDLING AND STORAGE

- .1 Ship bundles clearly identified to co-ordinate with bar schedule.
- .2 Reinforcement shall be stored in such a manner that it is off the ground, and kept free of mud and foreign matter.
- .3 Epoxy-Coated Bars:
 - .1 Bars shall be unloaded and handled with padded contact areas and strong backs or spreader bars to minimize bar to bar abrasion.
 - .2 Bars shall be stored above ground with adequate non-abrasive support to prevent sags in the bundles.
 - .3 If the exposure time of partially embedded, exposed or stored bars is expected to exceed 30 days, they shall be fully covered with opaque polyethylene or other equivalent protective material. Allowance for air circulation below cover is required to prevent condensation.
- .4 Epoxy-Coating Repair:
 - .1 Prior to, and after installation, bars shall be inspected for visible coating damage, and rejected or repaired. Coating damage totaling more than 1% of the surface area in any 1m length shall be rejected.
 - .2 Repair of epoxy coating shall not be carried out when the temperature of the steel or ambient air is 5°C or below, or when moisture is present on the steel.
 - .3 Repair materials and procedures shall be in accordance with the coating manufacturer's instructions. If upon request, supply the specification for repair material to the Consultant.

3.2 FIELD BENDING

- .1 Do not field bend or field weld reinforcement except where indicated or authorized by Structural Engineer.
- .2 When field bending is authorized bend without heat, applying a slow and steady pressure.
- .3 Replace bars which develop cracks or splits.

3.3 PLACING REINFORCEMENT

- .1 Place reinforcing steel as indicated on reviewed placing drawings and in accordance with CAN/CSA-A23.1.
- .2 Prior to placing concrete, obtain Engineer's approval of reinforcing material and placement.
- .3 Ensure cover to reinforcement is maintained during concrete pour.
- .4 Tolerances for Placing Reinforcement:
- .5 Conform to CAN/CSA-A23.1, CAN/CSA-S413, ASTM A775/A775M
- .6 Concrete Cover (but the concrete cover shall in no case be reduced more than one-third of the specified cover).

- .1 Where the depth of a slab or beam, the thickness of a wall, or the smallest dimension (d) of a column is:
- .1 $d < 200 \text{ mm (8") } \pm 8 \text{ mm (5/16")}$.
 - .2 $200 \text{ mm} > d < 600 \text{ mm } \pm 12 \text{ mm (1/2")}$.
 - .3 $d > 600 \text{ mm } \pm 20 \text{ mm (3/4")}$.
 - .4 Lateral spacing of bars $\pm 30 \text{ mm (1-3/16")}$.
 - .5 Longitudinal location of bends and ends of bars $\pm 50 \text{ mm (2")}$.
 - .6 As Item .4 at discontinuous ends of members $\pm 20 \text{ mm (3/4")}$.
- .7 Chairs of the required size to accurately set bars at the cover required shall be used in all horizontal applications.
- .8 Side form spacers shall be used for all column, beam, parapet and wall construction to secure reinforcement against displacement and maintain required coverage to the vertical formwork.

END OF SECTION - 03 20 00

PART 1 - GENERAL

1.1 RELATED SECTIONS

- .1 Division 3 - Concrete Sections

1.2 MEASUREMENT PROCEDURES

- .1 Heating of water and aggregates and providing cold weather protection will not be measured but considered incidental to work.
- .2 Cooling of concrete and providing hot weather protection will not be measured but considered incidental to work.
- .3 Supply and installation of anchor bolts, nuts and washers and anchor grouting will not be measured but considered incidental to work of related Section.

1.3 REFERENCES

- .1 All codes, standard specifications and by-laws referred to in this section shall be current editions including all revisions, addenda and supplements.
 - .1 Conform to the Ontario Building Code and the Occupational Health and Safety Act
 - .2 CAN/CSA-A3000, Cement
 - .3 CAN/CSA-A23.1, Concrete Materials and Methods of Concrete Construction
 - .4 CAN/CSA-A23.2, Test Methods and Standard Practices for Concrete
 - .5 CAN/CSA-A23.3, Design of Concrete Structures
 - .6 CAN/CSA-A283, Qualification Code for Concrete Testing Laboratories
 - .7 SSPC, Surface Preparation Standards

1.4 SUBMISSIONS

- .1 Submit samples in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Provide certification that mix proportions selected will produce concrete of quality, yield and strength as specified in concrete mixes, and will comply with CAN/CSA-A23.1.
- .3 Provide certification that plant, equipment, and materials to be used in concrete comply with requirements of CAN/CSA-A23.1.
- .4 Upon request submit to Consultant and Toronto Zoo specifications of the chosen acceptable proprietary materials as listed under Part 2 of this Section.
- .5 Shop drawings showing complete details of connections to the structure, including pockets, inserts and loadings for items to be connected to and supported by the structure.
- .6 Shop drawings showing typical shoring details signed and sealed by a professional Engineer licensed in Ontario or applicable Province.

1.5 QUALITY ASSURANCE

- .1 Upon request, submit proposed quality control procedures to Consultant and Toronto Zoo for review for the following items:

- .1 Falsework erection.
- .2 Hot weather concrete.
- .3 Cold weather concrete.
- .4 Curing.
- .5 Finishes.
- .6 Formwork removal.
- .7 Joints.

1.6 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials in accordance with applicable local, provincial and national regulations. Include for tipping fees associated with landfills and recycling depots.
- .2 Use trigger operated spray nozzles for water hoses.
- .3 Designate a cleaning area for tools to limit water use and runoff. Designated area will be assigned by Toronto Zoo.
- .4 Carefully coordinate the specified concrete work with weather conditions.
- .5 Ensure emptied containers are sealed and stored safely for disposal away from the public.
- .6 Prevent plasticizers, water-reducing agents and air-entraining agents from entering drinking water supplies or streams and from entering the exhibit and exhibit drains. Using appropriate safety precautions collect liquid or solidify liquid with an inert, non-combustible material and remove for disposal.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Portland cement: to CAN/CSA-A3000.
- .2 Supplementary cementing materials: to CAN/CSA-A3000.
- .3 Cementitious hydraulic slag: to CAN/CSA-A3000.
- .4 Water: to CAN/CSA-A23.1.
- .5 Aggregates: to CAN/CSA-A23.1. Coarse aggregates to be normal density unless noted otherwise on drawings.
- .6 Air entraining admixture: to ASTM C260.
- .7 Chemical admixtures: to ASTM C494/C494M. Engineer to approve accelerating or set retarding admixtures during cold and hot weather placing. Calcium chloride or calcium chloride based admixtures are **NOT** permitted.
- .8 Concrete retarders to conform to ASTM C494/C494M.
- .9 Non premixed dry pack grout: composition of non metallic aggregate, Portland cement with sufficient water for the mixture to retain its shape when made into a ball by hand and capable of developing compressive strength of 35 MPa at 28 days.

- .10 Pre-moulded joint fillers:
 - .1 Bituminous impregnated fiber board: to ASTM D1751.
 - .2 Sponge rubber: to ASTM D1752, Type I, flexible grade.
- .11 Weep hole tubes: galvanized steel or plastic with minimum 40 mm (1½") inside diameter.
- .12 Wedge anchors and Chemical Adhesive anchors shall be stainless steel unless written approval by Consultant.
- .13 Patching Mortar:
 - .1 Overhead or vertical hand patch repair mortars:
 - .1 Sika Top 123 Plus by Sika
 - .2 Gel Patch by BASF
 - .3 Meadowcrete H/OV by W.R. Meadows of Canada
 - .2 Mechanical overhead or vertical repair mortars
 - .1 Shotcrete: King Shotcrete by King
 - .2 Pressure Grout: Provide grout mix design. Max slump before the addition of Super Plastisizers of 50 mm (2")
- .14 Top side, Through Slab, Slab Edge or Formed Vertical:
 - .1 Ready Mix: 35 MPa C-1 exposure, 50 mm (2") slump before the addition of Super Plastisizers
 - .2 Ready Mix: For sidewalks 35 MPa C-2 exposure, 75 mm (3") slump
- .15 Cement Slurry Bonder:
 - .1 Shall consist of one part Portland Type 10 Cement to one part fine aggregate with sufficient water to form a heavy cream consistency.
- .16 Epoxy Anchorage:
 - .1 Hilti Hit Hy150 by Hilti
 - .2 Epcon Ceramic 6 by Epcon
- .17 Formwork Materials:
 - .1 For concrete without special architectural features, use wood and wood product formwork materials to CSA-O121: SEL TF grade.
 - .2 For concrete with special architectural features, use high density formwork materials to CAN/CSA-A23.1.
- .18 Form ties:
 - .1 For concrete not designated 'Architectural', use removable or snap-off metal ties, fixed or adjustable length, free of devices leaving holes larger than 25 mm dia. in concrete surface.

- .2 For Architectural concrete, use snap ties complete with plastic cones and light grey concrete plugs.
- .19 Fillets for Chamfered Corners:
 - .1 Rigid formed plastic type; 20 mm x 20 mm size; maximum possible lengths.
- .20 Form release agent:
 - .1 Colourless mineral oil with non-toxic, biodegradable and low VOC properties, which will not stain concrete or impair natural bonding or colour characteristics of coating intended for use on concrete.

PART 3 - EXECUTION

3.1 PREPARATION

- .1 Obtain Engineer's approval before placing concrete. Provide 48 hours notice prior to placing of concrete.
- .2 In locations where new concrete is dowelled to existing work, drill holes in existing concrete. Place steel dowels of deformed steel reinforcing bars and pack solidly with epoxy anchorage; hold dowels in position until set time has elapsed in accordance with the epoxy manufacturers' written specification and requirements.
- .3 Provide equipment and materials capable of maintaining adequate temperature, humidity, and protection during the placement of concrete.
- .4 Formwork is to be clean of all dirt, chips, sawdust, water, snow, ice and other foreign matter prior to placement of new concrete.
- .5 Prior to placing concrete obtain Consultant's approval of proposed method of concrete protection during placement and curing.
- .6 Reinforcement:
 - .1 Ensure reinforcement and inserts are braced or sufficiently anchored as not to be displaced or disturbed during concrete placement.
 - .2 Reinforcing shall be prepared by sandblasting to a near white condition to remove all corrosion including underside. Wire cleaning will not be permitted.
 - .3 Cover to reinforcing is as follows:
 - .1 Vertical wall 30 mm (1 3/16").
 - .2 Vertical column 50 mm (2").
 - .3 Parking deck slab bottom 30 mm (1 3/16").
 - .4 Where cover cannot be obtained seek direction from Consultant to chase reinforcement allowing the bar to be pushed in or to burm out the repair concrete/mortar.
 - .5 Where existing reinforcement has a steel loss of 10% or more replace, or add new providing the following tension lap beyond corrosion at both ends:
 - .1 10M 380 mm (15").
 - .2 15M 560 mm (22").

- .3 20M 760 mm (30").
- .4 25M 1170 mm (46").
- .5 for larger bars request direction from Consultant.
- .6 For a contact lap secure new bar tight to existing, and for a spaced lap, install no greater than 1/5 lap length away from existing.
- .7 Prior to placing of concrete obtain Engineer's approval of proposed method for protection of concrete during placing and curing.
- .8 Concrete Surface:
 - .1 After sandblasting is complete the repair area shall be thoroughly cleaned with compressed air. Review the repair areas and remove any loose or cracked concrete material.
 - .2 All repair areas are to be saturated with potable water a minimum 2 hours prior to concrete placement.
 - .3 Just prior to placement of new concrete apply a cement slurry to the concrete substrates using a stiff brush. Do not allow slurry to dry prior to concrete placement. Mix the cement slurry with Portland cement and potable water to a 'cream-like' consistency.
- .9 Pumping of concrete is permitted only after review of equipment and mix.
- .10 Maintain accurate records of poured concrete items to indicate date, location of pour, quality, air temperature and test samples taken.
- .11 Maintain shoring and formwork at newly placed concrete areas until written confirmation has been issued by the Consultant. Formwork is to be maintained until the newly placed concrete has attained a minimum 75% of its specified strength.

3.2 FORMWORK

- .1 Fabricate and install formwork for the underside of slab soffits, and vertical faces.
- .2 Forms are to be aligned and fitted to match the lines and levels of the existing adjacent concrete.
- .3 Where possible provide for and install a drip edge provided for in the formwork. Ensure drip edge joints are tight and fit together. Mitre 90-degree joints. Size to be 5/8" half round diameter or as required matching existing.

3.3 CONSTRUCTION

- .1 Complete cast-in-place concrete work in accordance with CAN/CSA-A23.1.
- .2 Anchor bolts:
 - .1 Set anchor bolts to templates under supervision of appropriate trade prior to placing concrete.
 - .2 With approval of Engineer, epoxy anchor bolts in preformed holes or holes drilled after concrete has set. Drilled holes to be as per manufacturer's recommendations.
 - .3 Protect anchor bolt holes from water accumulations, snow and ice build-up.
- .3 Placing Concrete:

- .1 Notify the Consultant, for review of the preparations, at least 48 hours prior to any concrete placement operations are to proceed.
 - .2 Concrete are to be conveyed to the site by methods that will prevent the segregation or loss of material. Maximum time between adding mix water and complete discharge of the concrete into the forms is 120 minutes. Exemptions to this time frame will only be permitted with the approval of the Consultant.
 - .3 Conveying and placement equipment shall be such that when concreting has started, the depositing of concrete shall be at such a rate and of such sequence that the concrete is at all times sufficiently plastic to ensure proper bonding of successive layers or panels.
 - .4 Internal vibrators shall be applied at the point of deposit in the areas of freshly placed concrete, allowed to sink by their own weight in the concrete until they penetrate into the previous layer of concrete. They shall be withdrawn immediately at the same rate at which they sank, moved about 300 mm (12") to a new location and the process repeated. Extreme care shall be taken to ensure that internal type vibrators due not disturb the reinforcing steel or the forms.
 - .5 Plastic coated vibrators shall be used to consolidate concrete reinforced with epoxy coated bars.
 - .6 Where concrete is exposed to exterior, do not place concrete when it is raining or likely to rain. If rain begins after concrete is placed and before it is set, protect with waterproof covers until set.
 - .7 Placement of repair mortars is to at maximum lifts and intervals as recommended by manufacturer.
- .4 Cold Weather Conditions:
- .1 When air temperature is at or below or expected to be at or below 5°C, conform to the requirements of CAN/CSA A23.1 including, but not limited to the following:
 - .1 Job Preparation.
 - .2 Concrete temperature.
 - .3 Concrete Placing.
 - .4 Protection Requirements and Methods.
 - .5 Heated Enclosures.
 - .6 Protective Covers and Insulation.
 - .7 Cooling after protection.
 - .8 Cold-Weather Curing.
 - .2 All materials and equipment needed for adequate protection and curing shall be on hand and ready for use before concrete placement has started.
- .5 Hot Weather Protection:
- .1 Conform with the requirements of CAN/CSA A23.1 and the recommendations of ACI Standard 305.

3.4 FINISH TREATMENT OF SLAB SURFACES

- .1 Finishing:
 - .1 Finish concrete in accordance with CAN/CSA-A23.1.
 - .2 Screed and finish the surface of the repairs to provide for drainage, or to match surrounding concrete inclusive of texture, architectural detail, etc.
 - .3 Finish edges to match the existing adjacent surfaces.
 - .4 Clean rough edges and rub or grind smooth transitions between new and existing surfaces.
 - .5 Clean leakage and other spillage marks from the adjacent surfaces.
 - .6 Repair using repair mortar, any honeycomb or minor voids in the concrete. If Engineer deems honeycomb or new repair unacceptable and non-repairable, area to be removed and repaired according this Section at Contractors expense.
 - .7 Unless otherwise shown or specified, slabs to receive waterproofing shall be finished with a Steel Trowel Finish to Class A classification.
 - .8 Rub exposed sharp edges of concrete with carborundum to produce 3 mm radius edges unless otherwise indicated.
- .2 Sealing and Curing:
 - .1 Curing to conform to the requirements of CAN/CSA A23.1 and to CAN/CSA S413 including but not limited to the following:
 - .1 Basic Curing Period.
 - .2 Additional Curing for Durability.
 - .3 Additional Curing for Structural Safety.
 - .4 Methods for Curing.
 - .5 Cold Weather Curing.
 - .6 Hot Weather Curing.
 - .7 Curing for Accelerated Strength Development.
 - .8 Additional Curing for Mass Concrete.

3.5 FIELD QUALITY CONTROL

- .1 General:
 - .1 Conform to the requirements of CAN/CSA A23.1
 - .2 Provide a competent and experienced supervisor or foreman who shall be present on the site continuously throughout each working day.
 - .3 Review by Consultant or materials testing will not augment or replace Contractor quality control nor relieve him of his contractual responsibility.

- .4 Notify the Consultant(s) 48 hours in advance of closing-in of formwork for a review of the preparations.
- .2 Routine Review and Testing:
 - .1 Upon request, submit the quality control logs of the Redi-Mix Concrete Supplier.
 - .2 Review and testing of concrete and concrete materials will be carried out by an approved Testing Laboratory designated by Owner in accordance with CAN/CSA-A23.1. Costs will be carried from allowances in Contract.
 - .3 Obtain representative samples of fresh concrete for each fraction over 5 cubic metres placed in one day, or if directed by Consultant.
 - .4 Perform a standard slump test to conform to CAN/CSA A23.2 for every batch of concrete delivered to site.
 - .5 Where concrete is specified to be air entrained, perform standard air entrainment tests to conform with CAN/CSA A-23.2 for each set of specimens.
 - .6 Three specimens moulded in cylindrical moulds, stored, and laboratory cured to conform with CAN/CSA-A23.2 shall comprise a strength test. One specimen shall be compression tested at 7 days and the remaining two at 28 days.
 - .7 During Cold Weather placement, one additional specimen shall be made and shall be stored on the job site under conditions similar to the concrete it represents. This specimen shall be compression tested at 7 days after sampling.
 - .8 Non-destructive Methods for Testing Concrete shall be in accordance with CAN/CSA-A23.2.
- .3 Reports:
 - .1 Concrete cylinder reports shall contain the following information: whether specimens laboratory or field cured, date cast, date received in lab, date tested, unit weight of concrete, specified 28 day strength, correlate the exact location of each pour with the test cylinders in question, concrete supplier, person who cast the specimen, time mixer charged, time cylinder cast, measured slump before and after super plasticizers, temperature of concrete and air, air content(if specified), whether water was added at the site, and by who's authority, nominal aggregate size, type of admixtures (including synthetic fibres), exposure classification or mix designation, project identification and with sequential numerical identification.
 - .2 Should a crushed cylinder show a test result below that which is anticipated, the reviewing company shall immediately advise the Structural Consultant by telephone of such occurrence in order to expedite curing or remedial measures which may be waived.
 - .3 The reviewing company shall supply written reports of tests of materials and reinforcing steel, giving all pertinent information required by the appropriate standard.
- .4 Defective Concrete:
 - .1 Concrete not meeting the requirements of the specification and drawings shall be considered Defective Concrete.
 - .2 Defective Concrete and concrete not conforming to lines, details, quality and grade specified or as shown on the drawings shall be modified or replaced at no cost to the Bid Price.

- .3 Cores drilled and tested from areas in question, as directed by the Consultant and in accordance with CAN/CSA A23.1 and/or load testing of the structural elements in accordance with the requirements of the Consultant shall be done at no increase to the Bid Price.
- .5 Protection:
 - .1 Fully protect exposed concrete finishes from damage and staining.

END OF SECTION - 03 30 00

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PART 1 - GENERAL

1.1 APPLICABLE PUBLICATIONS

- .1 All codes, standard specifications and by-laws referred to in this section shall be current editions including all revisions, addenda and supplements.
 - .1 CAN/CSA-G40.20/G40.21-98, General Requirements for Rolled or Welded Structural Quality Steel.
 - .2 CAN/CSA-S16.1-01, Limit States Design of Steel Structures.
 - .3 CSA W48-01, Filler Metals and Allied Materials for Metal Arc Welding (Developed in co-operation with the Canadian Welding Bureau).
 - .4 CSA W59-1989(R2001), Welded Steel Construction (Metal Arc Welding) (Imperial Version).
 - .5 Ontario Ministry of Labour – Engineering Data Sheet 2-04
 - .6 Ontario Building Code and associated regulations
 - .7 National Building Code of Canada

1.2 SHOP DRAWINGS

- .1 Submit shop drawings in accordance with Section 01 33 00 – Submittal Procedures.
- .2 Submit drawings stamped and signed by qualified professional engineer licensed in Province of Ontario, Canada.
- .3 Show complete layout including plan views and elevations for each specific case.
- .4 Submit manufacturer's specifications and installation instructions for all components of each product.
- .5 Indicate materials inclusive of alloy and temper for each member indicating extrusion, bar, plate or cast.
- .6 Indicate finishes, connections, joints, method of anchorage, number of anchors, supports, reinforcement, details, and accessories.
- .7 Indicate cuts, copes, connections, holes, threaded fasteners, welds and other items. Indicate welds using welding symbols as shown in Appendix A of CSA W59.2.

1.3 SAMPLES AND MOCK UPS

- .1 Submit one complete sample containing appropriate finishes to Owner/Consultant for approval in accordance with Section 01 33 00 – Submittal Procedures. One complete sample includes all contained between two posts inclusive.
- .2 A mock up railing shall be installed following approval of the sample. Mock up to be of same finish and style as approved sample, and will become the expected quality for remainder of job.

1.4 PROTECTION

- .1 Deliver, store, handle and protect materials for normal shipping conditions.

- .2 Cover exposed stainless steel surfaces with pressure sensitive heavy protection paper or apply strippable plastic coating, before shipping to job site.
- .3 Leave any protective coverings in place until final cleaning of building. Provide instructions for removal of protective covering.
- .4 All necessary precautions are to be taken to maintain the newly installed this system waterproofing membrane at all balcony locations.
- .5 Glass components are fragile and subject to shattering and shall be handled and stored as such.

1.5 QUALITY ASSURANCE

- .1 At the request of the Owner/Consultant, submit test reports covering each type of railing used. Testing shall be conducted by an independent testing laboratory and shall show compliance with Ontario Building Code and National Building Code.
- .2 The company completing work of this Section shall have previous Canadian experience in the successful manufacture and installation of work, type and quality shown and specified over a minimum 5-year period.
- .3 Provide all similar components of railing system from single source.

1.6 PROJECT CONDITIONS

- .1 Field Measurements: Verify actual locations of walls and other construction contiguous with railings by field measurements before fabrication and indicate measurements on shop drawings. Provide allowance for trimming and fitting as site.

1.7 COORDINATION AND SCHEDULING

- .1 Coordinate installation of anchorages for railings. Furnish setting drawings, templates and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts and items with integral anchors that are to be embedded in concrete and masonry. Deliver such items to the project site in time for installation
- .2 Schedule installation so wall attachments are made only to completed walls. Do not support railings temporarily by means that do not satisfy structural performance requirements

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Materials: Pre-welded Iron railing panels.
 - .1 Rails and Pickets: Grade A cold rolled steel formed and welded tubing conforming to ASTM A500/A500M-13 with G-60 zinc coating (0.60 oz/ft² or 0.27 kf/M²) on both inside and outside surfaces in accordance with ASTM A123/A123M-13 hot dipped electroplating process.
 - .2 Tests: ASTM E935-13e1 testing (Methods A, B, C, and D) and loading testing in accordance with ICC-ES AC273.
- .2 Components:
 - .1 Rails: 17 gauge (1.4 mm) wall thickness by 1 inch (25mm) square galvanized welded steel tubing with powder-coated factory finish.

- .2 Pickets: 19 gauge (1.1 mm) wall thickness by 0.625 inch (1.6 mm) square galvanized steel tubing with powder-coated factory finish.
- .3 Posts: 13 gauge (2.5 mm) 2 inch (51 mm) or 15 gauge (1.8 mm) 3 inch (76 mm) square formed and welded galvanized steel tubing with welded base and powder-coated factory finish.
- .4 Brackets: Bracket shall come from same manufacturer as railings and posts. Brackets shall have powder-coated factory finish.
- .5 Fasteners: All nuts, bolts, sheet metal screws, wood screws and washers shall be stainless steel.
- .3 Style:
 - .1 To match existing
- .4 Fabrication:
 - .1 Metal rail sections shall comply with all requirements indicated for materials, thickness, design, and details for construction.
 - .2 Welded connections shall comply with AWS D1.1/D1.1M:2010 standards for recommended practice in shop welding. Welds behind finished surfaces shall be without distortion or discoloration of exposed side.
 - .3 Components shall be accurately cut, drilled, and/or tapped to receive hardware, fasteners, and accessories.
- .5 Finish:
 - .1 Metal parts shall be assembled and finished individually prior to shipment.
 - .2 Individual parts and welded assemblies shall be made from G60 pre-galvanized material.
 - .3 Galvanized steel railing components shall be cleaned with a non-petroleum solvent followed by the application of a sealing zinc phosphate coating.
 - .4 Following cleaning and pre-treatment parts and welded assemblies shall be electro-coated.
 - .5 Electro coating of parts and welded assemblies shall be a two-component cathodic electrodeposition primer with high corrosion protection followed by a sealing and drying process.
 - .6 Immediately after sealing, a two-step powder finish coating shall be applied by the electrophoresis and electrostatic spray process.
 - .7 Electro coating and Powder Coating of parts and welded assemblies shall be done by a certified powder coater.
 - .8 Fasteners:
 - .9 Fasteners used for mounting metal parts and welded assemblies shall be stainless steel as supplied by recommended railing supplier.
 - .10 Hexalobular Internal Drive, Flat Head Stainless Steel Thread Cutting Screw.

- .11 Immediately after cleaning and drying, a two-step coating shall be applied by the electrophoresis and electrostatic spray process. This consists of a thermosetting carboxyl polyester resin top coat with a minimum dry film thickness of 60 to 80 microns.
- .6 Stainless Steel Bolts:
 - .1 ASTM A 307;
 - .2 All retrofit anchorage shall be by chemical anchorage u/n alternative is accepted by Consultant.
 - .3 Stainless steel threaded rod with chemical anchorage using Hilti Hit HY 150

2.2 FABRICATION

- .1 Fabricate work square, true, straight and accurate to required size, with joints closely fitted and properly secured.
- .2 Use self-tapping shake-proof round headed screws on items requiring assembly by screws or as indicated.
- .3 Where possible, fit and shop assemble work, ready for erection.
- .4 Ensure exposed welds are continuous for length of each joint. File or grind exposed welds smooth and flush.
- .5 Fabricate in accordance with CAN/CSA-S157 and in accordance with approved shop drawings.
- .6 All fabrication to conform to the spacing, size and height requirements of applicable codes.

PART 3 - EXECUTION

3.1 EXAMINATION

- .1 Take site measurements to ensure that Work is fabricated to fit surrounding construction, around obstructions and projections in place, or as shown on drawings, and to suit service locations.
- .2 Before commencing Work, verify at the site that the locations of railing installation have been prepared as specified under the Work of other sections to meet the installation requirements of this section.
- .3 Defective Work resulting from application to unsatisfactory concrete conditions, improper fastening or lack of site measurement will be considered the responsibility of those performing the Work of this section.
- .4 Verify that all modification details will not interfere with full scope of work. Report any discrepancies to Engineer.

3.2 ERECTION

- .1 Erect new railing as indicated on approved shop drawings.
- .2 Field cutting or altering structural members shall be approved by Engineer responsible for stamping shop drawings.
- .3 Erect work square, plumb, straight, and true, accurately fitted, with tight joints and intersections.
- .4 Exposed fastening devices to match finish and be compatible with material through which they pass.

- .5 Provide components for building by other sections in accordance with shop drawings and schedule.
- .6 Touch-up field welds and burnt or scratched surfaces after completion of erection.
- .7 Insulate between dissimilar metals, or between metal, and masonry or concrete with bituminous paint to prevent electrolytic action.

3.3 FIELD QUALITY CONTROL

- .1 Inspection and testing of materials and workmanship will be carried out by a testing laboratory designated by the Owner and at their discretion.
- .2 Provide safe access and working areas for testing on site, as required by testing agency and as authorized by Consultant.
- .3 Submit test reports to Engineer within one (1) week of completion of inspection.

3.4 JOINT SEALING AND PAINTING

- .1 All locations to be treated as if they are in presence of moisture.
- .2 Paint to match existing. Toronto Zoo to provide required paint specifications.

3.5 PROTECTION

- .1 Protect finishes of railings from damage during construction period with temporary protective coverings approved by railing manufacturer. Remove protective coverings at time of Substantial Completion.
- .2 Restore finishes damaged during installation and construction period so no evidence remains of correction work. Return items that cannot be refinished in field to shop; make required alterations and refinish entire unit, or provide new units.

3.6 FINAL CLEANING

- .1 Immediately upon completion of installations clean all railing system surfaces using clean water and mild soap or detergent. Do not use abrasive agents or harsh chemicals that will damage the material finishes. Provide adequate protection for all surfaces of completed installations to prevent damage during remainder of construction activities.

END OF SECTION - 05 73 00

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PART 1 - GENERAL

1.1 SECTION INCLUDES

- .1 Surface preparation
- .2 Application of rolled, self-adhering waterproofing membrane system used with asphaltic overlays.

1.2 RELATED SECTIONS

- .1 Section 01 11 00 – Summary of Work
- .2 Section 01 33 00 – Submittal Procedures
- .3 Section 03 30 00 – Concrete and Concrete Repairs
- .4 Section 03 31 00 – Structural Concrete
- .5 Section 07 92 00 – Joint Sealants
- .6 Section 32 12 16 – Asphalt Paving

1.3 REFERENCES

- .1 American Society for Testing and Materials (ASTM)
 - .1 American Railway Engineering & Maintenance of Way Association (AREMA) Specification Chapter 29 - Waterproofing.
 - .2 ASTM D146-97 - Standard Test Methods for Sampling and Testing Bitumen-Saturated Felts and Fabrics Used in Roofing and Waterproofing.
 - .3 ASTM D1970-01 Standard Specification for Self-Adhering Polymer Modified Bituminous Sheet Materials Used as Steep Roofing Underlayment for Ice Dam Protection.
 - .4 ASTM D882-02 - Standard Test Method for Tensile Properties of Thin Plastic Sheeting.
 - .5 ASTM D1228-64(1976) - Methods of Testing Asphalt Insulating Siding Surfaced with Mineral Granules.
 - .6 ASTM E96-00e1 (Method B) - Standard Test Methods for Water Vapor Transmission of Materials.
 - .7 ASTM E154-99 - Standard Test Methods for Water Vapor Retarders Used in Contact with Earth Under Concrete Slabs, on Walls, or as Ground Cover.
 - .8 ASTM D6153-97(2003) - Standard Specification for Materials for Bridge Deck Waterproofing Membrane Systems.
- .2 Canadian General Standards Board (CGSB)
 - .1 CAN/CGSB-37.9MA: Primer, Asphalt, Unfilled for Asphalt Roofing, Dampproofing and Waterproofing.

1.4 SUBMITTALS

- .1 Upon request provide references of sub-contractor which has been engaged to install waterproofing.

- .2 Manufacturer's Instructions: Provide to indicate special handling criteria, installation sequence, cleaning procedures and agreement of manufacturer to review site preparation and installation.

1.5 PRODUCT DATA

- .1 Submit product data in accordance with Section 01 33 00 - Submittal Procedures.

1.6 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, handle, store and protect materials of this section in accordance with manufacturer's description.
- .2 Store materials in accordance with manufacturer's written instructions, raised off the ground and cover with a weather proof flame resistant sheeting or tarpaulin.
- .3 Store materials in a clean dry area in accordance with manufacturer's instructions.
- .4 Store adhesives and primers at temperatures of 40° F (5° C) and above to facilitate handling.
- .5 Store membrane cartons on pallets.
- .6 Do not store at temperatures above 90° F (32° C) for extended periods.
- .7 Keep away from sparks and flames.
- .8 Completely cover when stored outside. Protect from rain.
- .9 Protect materials during handling and application to prevent damage or contamination.

1.7 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate and recycle waste materials in accordance with applicable local, provincial and national regulations. Include for tipping fees associated with landfills and recycling depots
- .2 Place materials defined as hazardous or toxic waste in designated containers.
- .3 Ensure emptied containers are sealed and stored safely for disposal away from children.
- .4 Close and seal, tightly, all partly used sealant and adhesive containers and store protected in well ventilated, fire-safe area at moderate temperature.
- .5 Place used hazardous sealant tubes and adhesive containers in areas designated for hazardous materials.

1.8 PROJECT/SITE ENVIRONMENTAL REQUIREMENTS

- .1 Temperature, relative humidity, moisture content.
 - .1 Apply membranes only when surfaces and ambient temperatures are within manufacturers' prescribed limits.
 - .2 Product not intended for uses subject to abuse or permanent exposure to the elements.
 - .3 Protect rolls from direct sunlight until ready for use.
 - .4 Do not install membrane when air and substrate temperature remains below 4°C (40°F), or when wind chill gives equivalent cooling effect.
 - .5 Install membrane on dry substrate, free of snow and ice, use only dry materials and apply only during weather that will not introduce moisture into system.

- .6 Ensure new concrete surfaces are fully cured.
- .2 Safety: Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of rubberized asphalt, sealing compounds, primers and caulking materials.
- .3 In enclosed spaces provide continuous ventilation during and after waterproofing application. Run ventilation system 24 hours per day during installation; provide continuous ventilation for 7 days after completion of installation.

1.9 WARRANTY

The waterproofing work covered by this section must be repaired at no cost to the owner for a warranty period of two (2) years. The warranty will cover any defects related to material failure or deficient installation procedures, including but not limited to: de-bonding materials and leaking.

PART 2 - PRODUCTS

2.1 MANUFACTURER

- .1 W. R. MEADOWS, INC., PO Box 338, Hampshire, Illinois 60140-0338. (800) 342-5976. (847) 683-4500. Fax (847) 683-4544. Web Site www.wrmeadows.com.

2.2 MATERIALS

- .1 Rolled, Self-Adhering Waterproofing Membrane: Self-adhering roll-type membrane with a nominal 53 mil thick layer of polymeric waterproofing on a shrink-resistant, heavy-duty 12 mil thick, polypropylene woven carrier fabric. Both edges of the membrane to have exposed polymeric membrane protected with a 2" (50 mm) pull-off release strip,
 - .1 Performance Based Specification: Waterproofing membrane shall have the following characteristics:
 - .1 Thickness:
 - .1 Carrier Film: 12 mils.
 - .2 Polymeric Membrane: 53 mils.
 - .2 Tensile Strength, ASTM D882:
 - .1 Warp: 90 lbs/in. (1.6 kg/mm)
 - .2 Fill: 90 lbs/in. (1.6 kg/mm)
 - .3 Elongation, ASTM D882:
 - .1 Polymeric Membrane: 410%
 - .2 Fabric, Warp: 35%
 - .3 Fabric, Fill: 45%
 - .4 Flexibility, ASTM D146:
 - .1 180° Bend, 1/4" (6.35 mm) mandrel @ -26° F (-32° C): Pass
 - .5 Water Vapor Permeance, ASTM E96, Method B: 0.03 perms.

- .6 Water Absorption:
 - .1 ASTM D1970: 0.06%
 - .2 ASTM D1228: 0.06%
- .7 Color:
 - .1 Carrier Film: Black
 - .2 Polymeric Membrane: Black
- .2 Proprietary Based Specification: MEL-DEK Waterproofing System by W. R. MEADOWS.

2.3 ACCESSORIES

- .1 Primer:
 - .1 Temperatures Above 40o F (4o C): MEL-PRIME™ W/B water-based primer.
 - .2 Temperatures Above 20o F (-7o C): MEL-PRIME VOC Compliant Solvent-Base Primer or Standard Solvent-Base Primer.
- .2 Flashing and Fillets: MEL-ROL® LIQUID MEMBRANE
- .3 Pointing Mastic: POINTING MASTIC
- .4 Joint Tape: DETAIL STRIP

2.4 TERMINATION BARS

- .1 Stainless steel bars 3 mm thick x 25 mm wide, predrilled for fasteners at 250 mm o/c. Use dog legged bars for sealant terminations as detailed in drawings.

2.5 CLAMPING RINGS

- .1 Adjustable, non-corrosive metal rings.

2.6 PROTECTION BOARD

- .1 Approved material for specified Rubberized Asphalt and overburden use. Asphalt impregnated fiberglass mat with a minimum thickness of 3mm for applications below asphalt.
- .2 Adjacent overburden, use extruded flexible hollow core polypropylene board.

2.7 BACKER ROD

- .1 Non-gassing heat resistant backer rod.
Cera-Rod by W.R. Meadows

PART 3 - EXECUTION

3.1 EXAMINATION

- .1 Examine surfaces to receive membrane. Notify Architect/Engineer if surfaces are not acceptable. Do not begin surface preparation or application until unacceptable conditions have been corrected.
- .2 Deck surface must provide proper pitch to gutters and drains.

- .3 Drainage openings should be provided at the structural deck level to drain any water that penetrates the asphaltic concrete surface.

3.2 PROTECTION

- .1 Cover walls and adjacent work where materials hoisted or used.
- .2 Use warning signs and barriers as per Occupational Health and Safety Act. Maintain in good order until completion of work.
- .3 Dispose of rain water away from face of building until drains or hoppers installed and connected.
- .4 Protect from traffic and damage. Comply with precautions deemed necessary by manufacturer.
- .5 Place plywood runways over work to enable movement of material and other traffic.
- .6 At end of each day's work or when stoppage occurs due to inclement weather, provide protection for completed work and materials out of storage.

3.3 SUBSTRATE EXAMINATION

- .1 Examine surfaces to receive membrane. Notify Architect/Engineer if surfaces are not acceptable. Do not begin surface preparation or application until unacceptable conditions have been corrected.
- .2 Deck surface must provide proper pitch to gutters and drains.
- .3 Drainage openings should be provided at the structural deck level to drain any water that penetrates the asphaltic concrete surface.
- .4 Prior to commencement of work ensure:
 - .1 Minimum of 14 days dry/cure time has elapsed on new concrete or manufacturers recommendations, whichever is the longest duration.
 - .2 Substrates are firm, straight, smooth, dry, and free of snow, ice or frost, contamination and swept clean of dust and debris which could alter the performance of the membrane.
 - .3 All cracks, voids and honeycombs have been corrected or marked for reinforcing.
 - .4 Drains have been installed at proper elevations relative to finished surfaces.
 - .5 Sleeves, vents, pipes and other items passing through substrates receiving work of this Section are properly and rigidly installed.
- .5 Request manufacturer to review surface preparation and provide report to be forwarded to Consultant.

3.4 PREPARATION

- .1 Once existing membrane is mechanically removed, free substrates from dust and loose particles, grease, paint, frost, form oil and other material detrimental to bond of membrane materials by sandblasting. Burning of any remaining membrane material is not permitted.
- .2 Protect adjacent surfaces not designated to receive waterproofing.
- .3 Clean and prepare concrete to CPS-4 as per ICRI (International Concrete Repair Institute) prior to receive waterproofing in accordance with manufacturer's instructions.

- .4 Ensure existing concrete surfaces have a smooth, sound, monolithic surface, free of voids, spalled areas, sharp protrusions and loose aggregate.
- .5 Remove all traces of old membranes, oil, grease or other contaminants.
- .6 Concrete surfaces must be clean, smooth and free of standing water.
- .7 Notify Architect/Engineer if surfaces are not acceptable.

3.5

3.6 APPLICATION

- .1 Apply waterproofing membrane system in accordance with manufacturer's instructions.
- .2 Ensure accessory materials are compatible with membrane and approved by membrane manufacturer.
- .3 Apply a reinforcing strip of joint tape over all non-working joints or cracks over 3/16" (4.76 mm) wide before proceeding with membrane application.
- .4 Seal all terminations with mastic.
- .5 Prime surfaces to be covered in one working day with applicable primer. Reprime uncovered surfaces next day.
- .6 Apply membrane from low point to high point in both the longitudinal and transverse directions.
- .7 In the transverse direction, overlap in shingle fashion 2 1/2" (63.5 mm) after removing the white polyethylene strip that exposes the 3/4" rubberized asphalt.
- .8 Longitudinally, overlap 6" (150 mm) and seal with mastic.
- .9 Position membrane and immediately hand rub onto the surface, followed by a pressure-applied roll pressing of the complete surface to assure positive adhesion.
- .10 Seal all terminations with mastic.
- .11 Inspect membrane before covering and repair as necessary. Cover tears and inadequate overlaps with membrane. Seal edges of patches with pointing mastic.
- .12 Perform flood testing of horizontal applications, as required. Mark leaks and repair when membrane dries.

3.7 PAVING

- .1 Place minimum 2" (50 mm) thick compacted asphalt concrete overlay as soon as possible after application of membrane.
- .2 Ensure the temperature of the asphalt concrete at the time of compaction is a minimum of 290° F (143° C), and not exceeding 340° F (171° C).
- .3 Paving equipment should be rubber track variety.
- .4 Protect the membrane surface from unnecessary traffic.
- .5 Place the overlay from low point to high point with care and caution

3.8 FIELD QUALITY CONTROL

- .1 Inspection and testing of membrane application will be carried out by an independent testing laboratory or representative of manufacturer. Inspector to provide written report to confirm that the membrane has been applied in conformance to specifications and manufacturers recommendations.

3.9 PROTECTION OF COMPLETED WORK

- .1 Ensure membrane is undamaged before application of protection board. Apply protection board to cover membrane.

3.10 CLEANING

- .1 Clean to Consultant's approval, soiled surfaces, spatters, and damage caused by work of this Section.
- .2 Check area drains to ensure cleanliness and proper function, and remove debris, equipment and excess material from site.

END OF SECTION – 07 13 26

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PART 1 - GENERAL

1.1 REFERENCES

- .1 All codes, standard specifications and by-laws referred to in this section shall be current editions including all revisions, addenda and supplements.
- .2 ASTM D4263 Standard Test Method for Indicating Moisture in Concrete by The Plastic Sheet Method.

1.2 SCOPE

- .1 This section specifies the surface preparation and installation of thin traffic topping waterproofing system.
- .2 Where details are not provided for on drawings submit, to the Consultant, discrepancies or proposed detailing in writing.

1.3 MOCK-UP

- .1 At the discretion of the Consultant, carry out repairs at a location pre-determined or agreed upon by the Consultant to confirm the procedures, materials, and standards for future work.
- .2 Approved mock-up installations will establish the minimum acceptable quality of workmanship and will serve as the standard by which subsequent work will be compared for acceptance.
- .3 Allow 48 hours for inspection of mock-up before proceeding with work.
- .4 Approved mock-ups may be part of the finished work.
- .5 Provide a letter from the manufacturer verifying that the surface preparation and installation are in accordance with the manufacturer's specifications and recommendations.

1.4 SUBMITTALS

- .1 Upon request provide references of sub-contractor which has been engaged to install toppings.
- .2 Manufacturer's Instructions: Indicating special handling criteria, installation sequence, cleaning procedures and agreement of manufacturer to review substrate preparation and membrane installation.

1.5 PROJECT/SITE ENVIRONMENTAL REQUIREMENTS

- .1 Temperature, relative humidity, moisture content.
 - .1 Apply toppings only when surfaces and ambient temperatures are within manufacturers' prescribed limits.
 - .2 Do not install toppings when air and substrate temperature is below 5°C or when wind chill gives equivalent cooling effect.
 - .3 Install toppings on dry substrate, free of snow and ice, using only dry materials and apply only during weather that will not introduce moisture into system.
 - .4 If manufacturer's standards differ from the above the more stringent requirements will govern.

- .2 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials. Provide material safety data sheets (MSDS) acceptable to local Labour regulations.
- .3 In enclosed spaces provide continuous ventilation during and after application. Run ventilation system 24 hours per day during installation; provide continuous ventilation for 7 days after completion of installation, or until it can be proven that gases and odours are non-existent.

1.6 DELIVERY, STORAGE, AND HANDLING

- .1 Deliver and store materials in original wrappings and containers with manufacturer's seals and labels intact.
- .2 Protect from freezing, moisture, water and contact with ground or floor.
- .3 Use canvas tarpaulins to protect and cover materials when required. Polyethylene covers are not acceptable.

1.7 WASTE MANAGEMENT AND DISPOSAL

- .1 Place materials defined as hazardous or toxic waste in designated containers.
- .2 Ensure emptied containers are sealed and stored safely for disposal away from public and private property.
- .3 Dispose of surplus chemical and finishing materials in accordance with provincial and federal regulations.
- .4 Use the least toxic sealants, adhesives, sealers, and finishes necessary to comply with the requirements of this section.
- .5 Close and seal tightly all partly used sealant containers and store protected in well-ventilated fire-safe area at moderate temperature.
- .6 Place used containers in areas designated for hazardous materials.

1.8 WARRANTY

- .1 The Contractor shall provide a two (2) year warranty.
- .2 Warranty will include for all defects or deficiencies which are to be rectified by the approved constructor at no additional cost to the Owner during the warranty period. The warranty will include defects resulting from workmanship and/or defects in materials.
- .3 The warranty will not include for defects resulting from continued deterioration of the concrete substrate.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Concrete repair material include:
 - .1 SikaTop Polymer modified mortar by Sika Canada Inc.
- .2 Acceptable sealant joint materials include:
 - .1 Dymeric 240FC by Tremco

- .3 Acceptable bond breaker materials include:
 - .1 Spectrem 3 by Tremco
- .4 Acceptable thin system waterproofing membrane includes:
 - .1 **Base Coat:** Vulkem 350 by Tremco;
 - .2 **Wear Coat:** Vulkem 351 by Tremco;
 - .3 **Substrate Primer:**
 - .1 Concrete or traffic coating: Vulkem Primer 191 by Tremco;
 - .2 Metal: TREMprime Non-Porous Primer by Tremco;
 - .4 **Aggregate:** 0.4mm – 0.5mm diameter silica sand or aluminum oxide.
- .5 Acceptable Cleaning Solvents Include:
 - .1 Isopropyl Alcohol

PART 3 - EXECUTION

3.1 EXAMINATION

- .1 Examine substrates and immediately inform Consultant in writing of defects.
- .2 Prior to commencement of work ensure:
 - .1 Minimum dry/cure time has elapsed for application on new concrete as recommended by the manufacturer.
 - .2 Moisture content of substrate is in accordance with manufacturers recommendations.
 - .3 Substrates are firm, straight, smooth, dry, free of snow, ice or frost, or other contamination and swept clean of dust and debris which could affect the performance of the topping or otherwise adversely affect execution, permanence, or quality of work.
- .3 At the direction of the Consultant, request manufacturer to review surface preparation and provide report to be forwarded to Consultant.

3.2 PREPARATION

- .1 Prepare surfaces to receive traffic topping in accordance with manufacturer's instructions.
- .2 Remove areas of loose or debonded traffic toppings as per Consultant's directions and manufacturer's requirements.
- .3 Prepare cracks by mechanically routing the existing substrate to allow for joint sealant application. Prime the concrete surface prior to application of joint sealant. Arrange for joint sealant manufacturer's review of substrate preparation and sealant application. Letter reports for each stage of the system application will be required for every phased area of installation. Upon completion of the project, the Manufacturer must submit a final letter indicating that the traffic topping system has been installed in general conformance with their requirements and these specifications.
- .4 Remove any existing crack treatment materials that are not compatible with the new traffic topping system.

- .5 Apply surface conditioner if required by product. Refer to manufacturer's standards and apply at recommended rate.
- .6 At delaminated or otherwise unsuitable concrete topping locations, clean and repair concrete to achieve recommended surfaces for membrane application. Mix and install concrete repair mortars in general accordance with manufacturer's written instructions.
- .7 At locations where tie in is required to a modified bitumen waterproofing system trim the existing modified bitumen waterproofing system extending past the existing termination bar. Mix and apply primer in general accordance with the manufacturer's written instructions.

3.3 GENERAL

- .1 Detailing to be completed as per manufacturer's requirements, or as specified herein, which ever is more stringent.
- .2 At the direction of the Consultant, arrange for the Manufacturer's review of application at each stage of the work. The Manufacturer must submit letter reports for each stage confirming that surface preparation, application procedures and rates of material application meet with their requirements and those of this specification. Letter reports for each stage of the system application will be required for every phased area of installation. Upon completion of the project, the Manufacturer must submit a final letter indicating that the traffic topping system has been installed in general conformance with their requirements and these specifications.

3.4 INSTALLATION

- .1 Clean the substrate with clean cloth which has been wet with solvent to ensure that the surface is free of oils, grease, tar, soil, or other contaminants.
- .2 Apply primer in strict accordance with manufacturer's written procedures at rate of 450-600 sq. ft. per gallon. Coating to be applied within 2 hours of primer application or the substrate shall be re-primed.
- .3 Base Coat: Thoroughly mix the membrane solution in strict accordance with manufacturer's instructions and apply to achieve a wet film thickness of 30 mils. Extend base coat over crack and control joint treatments.
- .4 Top Coat: Thoroughly mix the waterproofing system wear coat in strict accordance with manufacturer's written instructions to achieve a wet film thickness of 15 mils (exclusive of aggregate). Immediately broadcast aggregate into wet coating at a rate of 0.5 kg/L and back roll to evenly distribute over the surface.
- .5 Total average traffic coating dry film thickness: **45 mils (exclusive of aggregate)**

3.5 TEMPORARY PROTECTION

- .1 Provide temporary barriers to protect topping membrane during curing period.
- .2 Apply temporary protection board to protect topping membrane from construction activity.

END OF SECTION – 07 18 16

PART 1 - GENERAL

1.1 RELATED SECTIONS

- .1 Section 01 11 00 – Scope of Work
- .2 Section 01 33 00 - Submittal Procedures.
- .3 Section 01 78 00 - Closeout Submittals.
- .4 Section 07 82 00 – Joint Sealants.
- .5 Section 05 73 00 – Metal Railing.

1.2 REFERENCES

- .1 All codes, standard specifications and by-laws referred to in this section shall be current editions including all revisions, addenda and supplements.
 - .1 American National Standards Institute (ANSI).
 - .1 ANSI/ASTM E330, Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
 - .2 American Society for Testing and Materials (ASTM)
 - .1 ASTM C542, Specification for Lock-Strip Gaskets.
 - .2 ASTM D2240, Test Method for Rubber Property – Durometer Hardness.
 - .3 Canadian General Standards Board (CGSB).
 - .1 CAN/CGSB-12.1, Tempered or Laminated Safety Glass.
 - .2 CAN/CGSB-12.3, Clear Float Glass
 - .3 CAN/CGSB-12.5, Mirrors, Silvered.
 - .4 CAN/CGSB-12.8, Insulating Glass Units.
 - .5 CAN/CGSB-12.11, Wired Safety Glass.
 - .6 CAN/CGSB-19-GP-14M, Sealing Compound, One Component, Butyl-Polyisobutylene Polymer Base, Solvent Curing
 - .7 CAN/CGSB-41-GP-20M, Extrusions, Vinyl, Nonrigid, for Windows and Doors (Reaffirmation of December 1976)
 - .8
 - .4 Canadian Standards Association (CSA).
 - .1 CSA A440.2, Energy Performance Evaluation of Windows and Sliding Glass Doors.
 - .2 CSA Certification Program for Windows and Doors.
 - .5 Glass Association of North American (GANA)
 - .1 GANA Glazing Manual.

- .2 GANA Laminated Glazing Reference Manual.
- .6 Ontario Building Code
- .7 National Building Code of Canada

1.3 SYSTEM DESCRIPTION

- .1 Performance Requirements:
 - .1 Provide continuity of building enclosure vapour and air barrier using glass and glazing materials as follow:
 - .1 Utilize inner light of multiple light sealed units for continuity of air and vapour seal.
 - .2 Size glass to withstand wind loads, dead loads and positive and negative live loads as measured in accordance with ANSI/ASTM E330 and NBC latest edition.
 - .3 Limit glass deflection to 1/200 with full recovery of glazing materials.

1.4 SUBMITTALS

- .1 Submit to the Owner and Consultant all glazing details and technical data, including the written installation recommendations from the manufacturer for each product which will be used on this project.
- .2 Provide to the Consultant, written confirmation from the manufacturer as to the compatibility of all materials to be used.
- .3 Insulated Glass Units (IGUs) must bear the IGMAC stamp. IGUs without a stamp will be rejected and will require replacement at no additional cost to the Owner or Consultant.

1.5 QUALITY ASSURANCE

- .1 Perform work in accordance with GANA Glazing Manual and Laminated Glazing Reference Manual for glazing installation methods.
- .2 Provide shop inspection and testing for glass.
- .3 Provide certificate of quality compliance from manufacturer.

1.6 JOB CONDITIONS

- .1 Before commencing work each day, ensure that all surfaces to receive glazing tapes, sealants or primers are clean and dry.
- .2 Apply glazing tapes and sealants at air and substrate temperatures not less than the minimum recommended by the material manufacturer. Work shall not be carried out during inclement weather conditions.
- .3 Proceed with glazing only when glazing surfaces are accumulating no moisture from rain, mist or condensation.
- .4 Obtain approval from the manufacturer, when temperature of glazing surfaces is below 4°C, for the glazing methods and protective measures, which will be used during glazing operations.

1.7 MOCK-UPS

- .1 Construct mock-ups in accordance with Section 01 45 00 - Quality Control.
- .2 Construct mock-up to including glass glazing, and perimeter air barrier and vapour retarder seal.
- .3 Mock-up will be used to judge workmanship, substrate preparation, operation of equipment and material application.
- .4 Construct mock-up where directed.
- .5 When accepted, mock-up will demonstrate minimum standard for this work. Mock-up may remain as part of finished work.
- .6 Allow two (2) working days for inspection of mock-up by Owner's Representative before proceeding with work.

1.8 WARRANTY

- .1 Provide a warranty stating that the installation of new sealed insulating glass units specified in this Section shall not cause any deleterious effect on the air and water tightness and wind load resistance performance of the window, remain watertight and free of defects, which shall include without being limited to breakage and loss of seal. Fogging of glass inside sealed units or failure of a field dew point test will be considered sufficient evidence of loss of seal. This warranty shall be for a period of ten (10) years from date of Substantial Performance. The warranty shall include all required materials and their installation, at no additional cost to the Owner.
- .2 Repair leaks into building within 24 hours of notification. Any repairs required shall be carried out in accordance with the recommendations of the Consultant.
- .3 Inspect glazing 30 days before expiry of warranty period and correct defects within 15 days of inspection.
- .4 The cost of all warranties shall be included in the Contract price.

PART 2 - PRODUCTS

2.1 MATERIALS: FLAT GLASS

- .1 Tempered & Laminated Glass : ASTM C 1048, Kind FT (fully tempered), Condition A (uncoated), Type 1 (transparent flat glass), Quality Q3, Provide products that have been tested for surface and edge compression according to ASTM C 1048-12e1 and for impact strength according to 16 CFR Part 1201 for Category II materials. Meet requirements of ANSI Z97.1 and 16 CFR Part 1201 to qualify as safety glass.
 - .1 Clear Glass: Class 1 (Clear)
 - .2 Thickness for Structural Glass Balusters: As required by structural loads.
 - .3 Thickness for Glass Infill Panels: As required by structural loads, but not less than 8 mm (0.3125") with chamfered edges.
 - .4 Marking: Provide safety glass permanently marked with certification label of Safety Glazing Certification Council.
- .2 Components:
 - .1 Glass: Tempered safety glass balusters 8 mm (0.3125") thick, conforming to the standards set forth elsewhere in this Section.

2.2 GLAZING ACCESSORIES

- .1 Ensure that glazing tapes, sealants, splines, and setting blocks are completely compatible with insulating glass unit sealants.
- .2 Setting Blocks: Neoprene, EPDM or Silicone with Durometer hardness of Shore "A" 85 to 90. Thickness to be 6 mm. Width of setting blocks to slightly exceed width of sealed insulating glass unit. Length of setting blocks to be 25 mm for every 1 square metre of glass with a minimum length of 50 mm. Setting blocks shall be compatible with all adjacent components, including edge seal and must not inhibit water by blocking weep holes. Wood spacers, shims or setting blocks are not acceptable.
- .3 Preshimmed Glazing Tape:
 - .1 POLYshim II Tape by Tremco Ltd.
 - .2 or approved equivalent.
- .4 Glazing Spline will be neoprene, silicone or polyvinyl chloride standard glazing spline to suit glass stops:
 - .1 Polyshim II glazing Spline by Tremco Ltd.
 - .2 or an approved equivalent.
- .5 Spacer shims to be Durometer hardness of Shore A 40 to 50
- .6 Glazing Gaskets: extruded neoprene, or EPDM conforming to CAN/CGSB 41-GP-20M
- .7 Lock Strip Gaskets: Black Neoprene to ASTM C542, H type for cavities, spline type of recessed reglets. Provide internal drainage channel with drainage holes in sill section. Use injection moulded one-piece corner sections and heat-seal to main gaskets.
- .8 Cleaning Material: MEK, Xylol, Toluol, or as recommended by glazing and sealant manufacturer.
- .9 Primers: to glass and sealant manufacturer's recommendation.

2.3 FABRICATION

- .1 Fabricate glass to fit openings and to allow clearances, which will ensure that glass, is held firmly in place while providing clearances for thermal expansion and contraction, but not less than 3mm on each side.
- .2 Replace oversize or flared lights with entirely new units of proper dimensions.
- .3 Label each piece of glass to indicate manufacturer, type, and quality. Remove labels on glass units at time of installation.

PART 3 - EXECUTION

3.1 MANUFACTURER'S INSTRUCTIONS

- .1 Compliance: Comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.

3.2 EXAMINATION

- .1 Verify that openings for glazing are correctly sized and within tolerance.

- .2 Verify that surfaces of glazing channels or recesses are clean, free of obstructions, and ready to receive glazing.

3.3 WINDOW PREPARATION

- .1 Ensure that glazing tape or spline projects 1.5 mm above site line
- .2 Clean glazing surfaces of all traces of existing glazing tapes, sealants, dirt, dust, or other contaminants.
- .3 Ensure that projections have been removed from the glazing surfaces and that sufficient width and depth clearances are provided for the glass units.
- .4 Prime all surfaces to receive glazing tapes, splines or sealants per sealant manufacturer's recommendations to provide a positive and permanent adhesion and to prevent staining. Apply primers per manufacturer's directions and test substrates for adhesion. Primer shall be suitable for materials affected.
- .5 Do not cut or nip tempered glass to fit. Replace oversize or flared lights with new units of correct dimensions.

3.4 INSTALLATION

- .1 Position and glaze units into the framing, in accordance with IGMAC glazing recommendations and as indicated on the reviewed Shop Drawings. Centre glass in the openings of the railing frame between vertical and horizontal members.
- .2 When requested by the owner or consultant, arrange for the presence of a technical representative of the glazing materials manufacturer to advise on procedures and methods when glazing commences.
- .3 Support the bottom of the glass on setting blocks placed at quarter points of each lite (1/4 of the unit width from each corner) but not closer than 150 mm (6") from the corners of the glass.
- .4 Set shims when required to allow a space of no less than 6 mm (1/4") between shim edges and sight lines.
- .5 Provide edge clearance of 3 mm (1/8") or to manufacturer's recommendation.
- .6 Apply sealants with backing where indicated on reviewed shop drawings as specified in Section 07 92 00 – Joint Sealing. Use glazing sealants without addition of thinners from new and unopened containers clearly marked with the product name, batch number, and product manufacturer. Tool newly applied sealants with a slight bevel away from the glass surface.
- .7 Ensure that glazing sealants, gaskets, tapes, and splines are in full contact with glazing surfaces.
- .8 Install glass, achieve compression to glazing tape.
- .9 Remove protective coating from new glazing.

3.5 CLEANING

- .1 Remove as work progresses all corrosive and foreign materials which may set or become difficult to remove at time of final cleaning or which may damage components of the window system. Examine all surfaces as often as required to ensure cleanliness.
- .2 Clean and polish interior and exterior surfaces of glass after installation to the satisfaction of the Consultant and Owner, with a commercial glass cleaner or water and household hand dishwashing detergent solution.

- .3 Remove excess sealants, stains, deposits, marks or blemishes from work of this section and all adjacent surfaces, by methods not harmful to the surfaces. Replace or make good all defective, scratched or damaged materials.
- .4 Remove labels and perform final cleaning after completion of entire installation and immediately prior to Date of Substantial Performance.
- .5 Collect broken glass and cuttings in boxes and remove from site.

3.6 PROTECTION OF FINISHED WORK

- .1 After installation, mark light with an "X" by using removable plastic tape or paste. Do not mark heat absorbing or reflective glass units.
- .2 Repair damage to adjacent materials caused by glazing installation.

END OF SECTION – 08 80 00

PART 1 - GENERAL

1.1 RELATED SECTIONS

- .1 not used

1.2 MEASUREMENT PROCEDURES

- .1 The asphaltic concrete pavement will be measured and paid for in square meters of asphalt concrete actually incorporated into work, including asphalt cement and all materials, equipment and labour needed.
- .2 Granular base and subbase will be measured in tonnes of granular material accepted into the project. Payment tonnage quantity will be based on tonnage total from weigh tickets submitted to the Engineer. Tickets will only be accepted on the same day that material was placed at the site.
- .3 Removal of existing asphalt pavement will be measured and paid for in square metres of area actually removed, regardless of thickness. Payment under this item will include all operations involved in removing, hauling and disposing of asphalt off the property.

1.3 APPLICABLE PUBLICATIONS

- .1 Except where specified otherwise herein, the most recent revision of Ontario Provincial Standard Specifications as follows:
 - .1 OPSS 310, Construction Specification for Hot Mix Asphalt.
 - .2 OPSS 1010, Material Specification for Aggregates – Base, Subbase, Select Subgrade, and Backfill Material.
 - .3 OPSS 501, Construction Specification For Compacting.
 - .4 OPSS 1150, Material Specification for Hot Mix Asphalt.
 - .5 OPSS 1103, Material Specification for Emulsified Asphalt.
 - .6 OPSS 341, Construction Specification for Routing and Sealing Cracks in Hot Mix Asphalt Pavement.
 - .7 OPSS 1212, Material Specification for Hot Poured Rubberized Asphalt Joint Sealing Compound.
- .2 Except where specified otherwise herein, the most recent revision of Ministry of Transportation (MTO) test specifications as follows:
 - .1 MTO Standard Test No. LS-602, Sieve Analysis of Aggregates.
 - .2 MTO Standard Test No. LS-264, Theoretical Maximum Relative Density of Bituminous Paving Mixtures.

1.4 PRODUCT DATA

- .1 Submit asphalt concrete mix design Consultant/Owner for review at least two weeks in advance.
- .2 Materials to be tested by independent testing laboratory when requested by Consultant or Owner.

1.5 WARRANTY

- .1 The paving work covered by this section must be repaired at no cost to the owner for a warranty period of two (2) years. The warranty will cover any defects related to material failure or deficient installation procedures, including but now limited to, debonding materials, settlement and cracking.

PART 2 - PRODUCTS

2.1 MATERIALS

- .1 Asphalt cement: Unless otherwise specified, the asphalt cement will be PG 58-28.
- .2 Granular base and subbase material:
 - .1 Granular (see table for designation gradations)
 - .1 New crushed limestone
 - .2 To OPSS 1010
 - .3 Granular B for subbase
 - .4 Granular A for base
 - .5 Granular M for base dressing prior to asphaltting

Gradation requirements Percentage Passing by Mass			
MTO Sieve Designation	Granular A	Granular B Type II	Granular M
150 mm	n/a	100	n/a
37.5 mm	n/a	n/a	n/a
26.5 mm	100	50-100	n/a
19 mm	85-100	n/a	100
13.2 mm	65-90	n/a	75-95
9.5 mm	50-73	n/a	55-80
4.75 mm	35-55	20-55	35-55
1.18 mm	15-40	10-40	15-40
300 um	5-22	5-22	5-22
150 um	n/a	n/a	n/a
75 um	2-8	0-10	2-8

Modifications to percentage passing shall be incorporated for aggregate obtained from an iron blast furnace or from a quarry.

- .3 Asphalt cement to OPSS 310.
- .4 Sand blotter: clean granular material passing 4.75 mm sieve and free from organic matter or other deleterious materials.
- .5 Asphalt tack coat to OPSS 310, grade SS-1.

- .6 Crack Sealant shall be hot poured Rubberized Asphalt Joint Sealant compound conforming to OPSS 1212. All dirt, loose asphalt and other foreign materials should be removed from the cracks using a compressed air lance.
- .7 HMA to meet the Minimum Marshal Stability at 60°C, with an assumed A.A.D.T. (Annual Average Daily Traffic) greater than 5000 for a:
 - .1 Surface Course **HL3 HS (High Stability) – 12,000N**
 - .2 Base Course **HL8 – 8,000N**

PART 3 - EXECUTION

3.1 PREPARATION

- .1 Verify grades of paving area for conformity with elevations and sections before placing granular base and sub-base material.
- .2 Where areas are removed and will tie into existing, provide sawcut full depth of existing, see Joints.
- .3 Immediately following excavation, proof roll the exposed subgrade using suitable compaction equipment and place the granular materials immediately following compaction of subgrade.

3.2 PROTECTION

- .1 Provide access to buildings as required. Arrange paving schedule so as not to interfere with normal use of premises.
- .2 Protect pedestrians from excavations with appropriate signage.
- .3 Protect bottoms of excavations from softening or freezing. Should softening occur, remove softened soil and replace with Granular B, at no cost to the Owner.
- .4 Promptly remove all excavated material from site. Do not stockpile excavated materials to interfere with traffic flow at the site.
- .5 Take all measures necessary to control dust.
- .6 Keep vehicular traffic off newly paved areas until paving surface temperature has cooled below 38°C. Do not permit stationary loads on pavement until 24 hours after placement.

3.3 SUB- BASE AND GRANULAR BASE

- .1 Excavating
 - .1 Inform Engineer in advance of excavation operations.
 - .2 Notify Engineer whenever unsuitable materials are encountered in cut sections and remove unsuitable materials to depth and extend directed.
 - .3 Maintain crowns and cross slopes to provide good surface drainage.
 - .4 Where subgrade is on transition from excavation to embankment treat ground slopes as directed by Engineer.
 - .5 Dispose of waste material off project limits at appropriate or approved sites.
- .2 Subgrade Fill

- .1 Place granular base and sub-base material on clean unfrozen surface, free from snow and ice.
- .2 Place granular base and sub-base to compacted thicknesses as indicated. Do not place frozen material.
- .3 Place and compact to full width in uniform layers not exceeding 200 mm loose thickness using OPSS 501 - Construction Specification For Compacting.

3.4 EQUIPMENT

- .1 Pavers: mechanical grade controlled self-powered pavers capable of spreading mix within specified tolerances, true to line, grade and crown indicated.
- .2 Rollers: sufficient number of rollers of type and weight to obtain specified density of compacted mix.
- .3 Vibratory rollers for parking lots and driveways:
 - .1 Minimum drum diameter: 750 mm.
 - .2 Frequency of vibrations of the vibratory roller: greater than 2,200 vibrations per minute.
 - .3 Equipped with provision for automatic shutoff of vibrations before coming to a stop.
 - .4 Operating speed of steel-drum rollers: not to exceed 5 km/h and be operated in a manner to avoid undue displacement of the mix.
- .4 Haul trucks: of sufficient number and of adequate size, speed and condition to ensure orderly and continuous operation and as follows:
 - .1 Boxes with tight metal bottoms.
 - .2 Covers of sufficient size and weight to completely cover and protect asphalt mix when truck fully loaded.
 - .3 In cool weather or for long hauls, insulate entire contact area of each truck box.
- .5 Suitable hand tools.

3.5 ASPHALT CONCRETE PAVING

- .1 OPSS 310 governs the laying of the surface course and padding.
- .2 Obtain approval of base and primer from Consultant before placing asphalt mix.
- .3 Place asphalt mix only when base or previous course is dry and air temperature is above 5°C.
- .4 When temperature of surface on which material is to be placed falls below 10°C, provide extra rollers as necessary to obtain required compaction before cooling.
- .5 Do not place hot mix asphalt when pools of standing water exist on surface to be paved, during rain, or when surface is damp.
- .6 Minimum 135°C mix temperature required when spreading.
- .7 Maximum 160°C mix temperature permitted at any time.
- .8 Compact each course with roller as soon as it can support roller weight without undue cracking or displacement.

- .9 Compact HMA to density between 92.0 and 97.5 % of maximum relative density (MRD) obtained with specimens prepared in accordance with MTO LS-264. Roll until roller marks are eliminated.
- .10 Keep roller speed slow enough to avoid mix displacement and do not stop roller on fresh pavement.
- .11 Moisten roller wheels with water to prevent pick up of material.
- .12 Compact mix with hot tampers or other equipment approved by Consultant, in areas inaccessible to roller, with sufficient effort to obtain required density.
- .13 Prior to placing any HMA, all HMA and concrete surfaces shall be clean of all loose, broken, and foreign materials. Milled surfaces shall be swept with a power broom. The surface of a pavement upon which HMA is to be placed shall be dry at the time of HMA placement. An HMA course shall not be placed on a previously laid course until a minimum 4 hours have elapsed, following final compaction of the previous course, and the temperature of the previous course is 50°C or less.
- .14 Apply undiluted SS-1 emulsion (tack coat) to all of the prepared milled surfaces at a rate of 0.5 l/m². Allow the tack coat to dry and place asphalt against the emulsion while it remains “tacky”.
- .15 Spread and strike off mixture with self-propelled mechanical finisher.
 - .1 If segregation occurs, immediately suspend spreading operation until cause is determined and corrected.
 - .2 Correct irregularities in alignment left by paver by trimming directly behind machine.
 - .3 Correct irregularities in surface of pavement course directly behind paver. Remove by shovel or lute excess material forming high spots. Fill and smooth indented areas with hot mix. Do not broadcast material over such areas.

3.6 JOINTS

- .1 Remove surplus material from surface of previously laid strip. Do not deposit on surface of freshly laid strip.
- .2 Paint contact surfaces of existing structures such as manholes, curbs or gutters with bituminous material prior to placing adjacent pavement.
- .3 For cold joints, cut back to full depth vertical face and tack face with hot asphalt.
- .4 For multiple lifts of HMA, the width of subsequent courses shall be staggered to an offset of 150 to 300 mm so that longitudinal joints do not coincide.
- .5 When resurfacing against a rigid object, a butt joint shall be constructed by milling the existing pavement to provide an exposed vertical surface of at least 25 mm at the face of the rigid object. The milling shall be feathered out to zero over a minimum length of 1.25 m from and parallel to the exposed face of the rigid object providing a minimum of 40 mm of resurfacing material over the area of removal.
- .6 Joints between HMA pavement laid under this Contract and existing HMA courses not laid under this Contract shall be constructed as follows:
 - .1 Where a binder course is placed flush against an existing HMA pavement and a butt joint is to be made, the existing pavement shall be trimmed back to form a straight vertical surface.
 - .2 Where a surface course is placed flush against an existing HMA pavement, a stepped joint shall be prepared by removing the existing surface course to its full depth for a

minimum length of 0.5 m and the remaining face shall be trimmed to form a straight vertical surface.

- .3 Where a binder course and surface course are not placed flush against an existing HMA pavement, the binder course shall be feathered out and the surface course shall be butt jointed by removing the existing surface course to a minimum depth of 40 mm and for a longitudinal distance not less than 3m.

3.7 TOLERANCES AND APPEARANCE

- .1 After final compaction, each course shall be smooth and true to the established crown and grade. HMA binder and surface courses shall be free from deviations exceeding 6 and 3 mm, respectively, as measured in any direction with a 3 m straight edge.
- .2 Each course after final compaction shall be of uniform texture and shall be free of defects such as segregation, fat spots, oil spills, roller marks, and any other defects. Defective areas shall be removed and replaced with HMA of the same type and compacted to the satisfaction of the Consultant.

3.8 INSPECTION AND TESTING

- .1 Inspection and testing of asphalt pavement will be carried out by independent testing laboratory as approved by Consultant/Owner.
- .2 Costs of tests will be paid under testing allowance (Lump sum). Testing invoices to be attached at invoicing without mark up. In the event of extra site visits and hours of working by the testing company should justify with the proof of work performed. Any delays, cancellations and wait occur due to contractor change in schedule will be paid by the contractor.
- .3 Asphalt pavement (Binder and Surface Course) shall be tested regularly during paving operation for compaction. The testing company shall provide the compaction test points using the site drawing or handmade sketch on the company letterhead.
- .4 The testing company site visit dates should match with contractor schedule or in case of change in schedule a proof of 48 hours' notice required by the contractor.
- .5 The testing company days of work should reflect hours on site and millage from office to site
- .6 Inspection and testing of asphalt pavement will be carried out by independent testing laboratory as approved by Consultant/Owner.
- .7 Cooperate with the Consultant and testing company by scheduling the placing and the compacting of backfill so tests can be progressively taken. Notice of any required inspection must be given 48 hours in advance.
- .8 Base and subbase course testing will include standard sieve analysis for gradation for each type placed. Random sampling of compacted layers of base courses will be completed using a Nuclear Density Gauge.
- .9 Asphalt laboratory testing will include a standard set of Marshall Property tests for each type of asphaltic concrete placed at the site, including one standard sieve analysis for gradation for each Marshall test.
- .10 Field testing of asphalt will include random sampling of compaction using a Nuclear Radiation Backscatter Gauge. If any daily average of the compaction test is below specified density, or if any single test falls below 92% of that specified, the Contractor must at their own expense have an independent testing agency extract cores for laboratory testing. If tests yield data confirming

that compaction does not meet specified densities, the deficient asphalt pavement must be replaced at the Contractor's expense.

- .11 Obtain approval of subgrade by Consultant before placing granular subbase and base.

3.9 CLEAN UP

- .1 At the completion of this Work, remove any excess materials, debris and equipment from the site.
- .2 Where perimeter landscaping has been disturbed as a result of the asphalt paving work, make good with existing.
- .3 All spatter or staining on existing elements as the result of the asphalt paving work shall be removed at the Contractor's cost. Contractor shall assume responsibility of existing elements and new asphalt where solvents required to remove spatter and staining will adversely affect the elements to be cleaned.

END OF SECTION – 32 16 12

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This Form is presented here in Word format for information purposes only when drafting a RFT.

PART 4 Bid Submission Form

1. Supplier Information

Please fill out the following information, naming one individual to be the Supplier’s contact for the RFT process and for any clarifications or communication that might be necessary.	
Full Legal Name of Supplier:	
Any Other Relevant Name under which Supplier Carries on Business:	
Street Address:	
City, Province/State:	
Postal Code:	
Phone Number:	
Fax Number:	
Company Website (if any):	
Supplier Contact Name and Title:	
Supplier Contact Phone:	
Supplier Contact Fax:	
Supplier Contact Email:	

2. Acknowledgment of Binding Procurement Process

The Supplier:

- (a) acknowledges and agrees that the RFT process will be governed by the terms and conditions of the RFT and the Toronto Zoo's Policies and Legislation;
- (b) hereby confirms it has read and understand such terms and conditions;
- (c) hereby confirms its compliance with such terms and conditions; and
- (d) hereby confirms it has submitted a Bid Bond with your submission The Supplier further acknowledges and agrees that its Bid will remain legally binding for the Bid Validity Period, or if the Supplier is selected, as the Successful Supplier, until the Supplier executes a written Contract for the Work and furnishes all other documents required by Part 1 - Section 2.3.2 (Contract Execution).

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3. Ability to Provide Work

The Supplier has carefully examined the RFT documents and has a clear and comprehensive knowledge of the Work required. The Supplier represents and warrants its ability to provide the Work in accordance with the requirements of the RFT for the pricing set out in the Pricing Form completed by the Supplier.

4. Binding Pricing

The Supplier has submitted its pricing in accordance with the instructions in the RFT and in the Pricing Form. The Supplier confirms that the pricing information provided is accurate and binding for the Bid Validity Period. The Supplier acknowledges that any inaccurate, misleading or incomplete information, including withdrawn or altered pricing, could adversely impact the acceptance of its Bid, the forfeiture of its Bid Bond, or its eligibility for future work.

5. Addenda

The Supplier acknowledges all Addenda issued by the Toronto Zoo prior to the Deadline for Issuing Addenda set out in the RFT timetable in Part 1 - Section 1.5 (RFT Timetable) in accordance with Part 1 – 1.7 (Addenda).

6. The Toronto Zoo Policies

The Supplier has read, understood and agrees to comply with the Toronto Zoo's Policies.

Without limiting the Supplier's acknowledgement of the Policies, the Supplier makes the following declarations and agrees to provide the Toronto Zoo with ongoing disclosure of any changes to the declarations and information provided below during the RFT process or the term of any contract. The Supplier shall provide the City with ongoing disclosure, should the Supplier be awarded the Contract and any of the information declared below changes.

(i) Collusion and Unethical Bidding

If the Supplier declares an affiliation or other relationship with other Suppliers that might be seen to compromise the principle of fair competition, the Supplier must set out the details below. If no details are provided, the Supplier is deemed to declare that it has no such affiliation or relationship.

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(ii) Illegality

If the Supplier declares any previous convictions of itself or its Affiliated Persons for collusion, Bid-rigging, price-fixing, bribery, fraud or other similar behaviours or practices prohibited under the *Criminal Code*, the *Competition Act* or other applicable law, for which they have not received a pardon, the Supplier must set out the details below. If no details are provided, the Supplier is deemed to declare that it or its Affiliated Persons have no such convictions.

(iii) Conflicts of Interest or Unfair Advantage

Potential Conflicts of Interest and unfair advantages include:

- (A) engaging current or former Toronto Zoo employees or public office holders to take any part in the preparation of the Bid or the performance of the contract if awarded, any time within two (2) years of such individuals having left the employ or public office of the Toronto Zoo;
- (B) engaging any family members, friends or private business associates of any public office holder which may have, or appear to have, any influence on the procurement process, or subsequent performance of the contract;

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Organizations/individuals in Ontario, including the Toronto Zoo, have obligations under the *Ontario Human Rights Code*, the *Occupational Health and Safety Act*, the *Employment Standards Act*, the *Accessibility for Ontarians with Disabilities Act*, the *Criminal Code* and the *Charter of Rights and Freedoms*.

7. The following irregularities contained in bids such as quotation, tenders or proposal (“Response”) received by the Toronto Zoo shall result in the following actions:

IRREGULARITIES	ACTION
Late Response	Automatic rejection and not read publicly.
Unsealed Envelopes	Automatic rejection.
Insufficient Financial Security (No deposit or bid bond or agreement to bond or insufficient deposit or bid bond or agreement to bond).	Automatic rejection.
Response not completed in non-erasable medium and signed in ink.	Automatic rejection.
Incomplete Response	Automatic rejection unless, in the opinion of the Purchasing Agent, the incomplete nature is trivial or insignificant.
Qualified Response (qualified or restricted by an attached statement, unless allowed for), the qualification or restriction is trivial or not significant.	Automatic rejection unless, in the opinion of the Purchasing Agent the incomplete nature is trivial or insignificant.
Response received on documents other than those provided by the Toronto Zoo.	Automatic rejection unless, in the opinion of the Purchasing Agent, the matter is trivial or insignificant.
Execution of Bid Bond (Financial Security) - Corporate Seal or signature of bidder missing. - Both corporate seal and signature of the bidder missing. Corporate seal or signature of authorized agents of bonding company missing.	Two (2) business days to correct. Automatic rejection. Automatic rejection.
Other Bid Security – Uncertified Cheque	Automatic rejection.
Documents – Execution	

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<ul style="list-style-type: none"> - Corporate seal or signature missing. - Corporate seal and signature missing. 	<p>Two (2) business days to correct.</p> <p>Automatic rejection.</p>
<p>Erasures, Overwriting or Strike-Outs which are not Initialed:</p> <p>Uninitialed changes to response which are minor (example: the respondent’s address is amended by over-writing but not initiated).</p> <p>Unit prices have been changed but not initialed and the contract totals are consistent with the price as amended.</p> <p>Unit prices have been changed but not initialed and the contract totals are not consistent with the price as amended.</p>	<p>Two (2) business days to initial.</p> <p>Two (2) business days to initial.</p> <p>Automatic rejection.</p>
<p>Minor Irregularities</p>	<p>The Purchasing Agent shall have the authority to waive irregularities deemed to be minor.</p>

(a) **Declaration of Compliance with the City’s Fair Wage** By completing this Bid Submission Form, the Supplier declares that the Supplier and its proposed Subcontractors agree to abide by the City’s as applicable.

(b) **Declaration of Compliance with Accessible Customer Service Training Requirements**

By completing this Bid Submission Form, the Supplier declares that the Supplier and its proposed Subcontractors agree to comply with the Toronto Zoo’s [Accessible Customer Service Training Requirements](#).

YES_____ NO_____

If yes, the Supplier confirms the following brief statement of the environmental benefit of the product/service:

(c) **The Toronto Zoo Contractor Performance Evaluation**

The Toronto Zoo follows a Contractor Performance Evaluation procedure which provides guidance to Toronto Zoo staff on creating and maintaining an evaluative record of a Contractor's performance on Toronto Zoo projects for the purpose of Contract management and future purchasing decisions.

(d) **Disclosure of Information**

The Supplier hereby agrees that any information provided in this Bid, even if it is identified as being supplied in confidence, may be disclosed in accordance with the terms or the RFT or where required by law or by order of a court or tribunal.

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APPENDIX I- PROJECT EXPERIENCE FORM

The bid must include Project Experience Form(s). Please include details of a minimum of three (3) and no more than five (5) projects within the last five (5) years where the bidder was the lead contractor and the work was similar in scope and/or size as the project described in the Bid Documents. **Do not include the Toronto Zoo as a named reference.**

Project/Contract:	
Start Date:	End Date:
Completed on Schedule: Yes or No	
Contract Value (CDN dollars) \$	
Owner:	
Address/Location:	
Names of Key Personnel assigned and Subcontractors	
PROJECT DETAILS: Scope of the Work, Contingency Planning, Challenges Overcome, electrical, mechanical, structural, access to materials, e.g. project management, etc.:	
REFERENCE: Name, Title, Telephone, Email	

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APPENDIX II – LIST OF SUBCONTRACTORS FORM

Pursuant to Section 1.9.5 (List of Subcontractors Form), the Supplier shall provide each Subcontractor’s and the Work type the Subcontractor is expected to perform in the table below or indicate “OWN FORCES” in the “Subcontractor Name” column if a Subcontractor will not be used for the Work type indicated. The names of all Subcontractors to be used for each Work type indicated must be provided.

The Supplier submits that in proposing the under mentioned subcontractors, the Supplier has consulted each and have ascertained to our completed satisfaction that those names are fully acquainted with the extent and nature of the work and that they will execute their work with the requirements of the contract documents. The Toronto Zoo reserves the right to accept or reject any sub-contractor or persons named below.

Work or Services to be Performed	Name/Address	Company Contact & Tel #	Licence #	% of overall of Work to be performed by the Sub-Contractor
Concrete				
Metals				
Waterproofing				
Openings				
Exterior Improvements				
Interior Improvements				
Asphalt				
Glass				

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Demolition				
Shoring				
Shoring Engineer				
Railing				

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APPENDIX III - STATUTORY DECLARATION OF TENDERER

STATUTORY DECLARATION OF TENDERER

CANADA) IN THE MATTER of a Tender by*
PROVINCE OF ONTARIO)
JUDICIAL DISTRICT OF YORK) for
)
) BUILDING ENVELOPE REHABILITATION AT
AMERICAS PAVILION – BELVEDERE ROOF AND
INTERIOR

TO WIT:) **TZC T 06-2020-02**
)
)

**I/We _____ the _____

_____ in the _____ of _____

DO SOLEMNLY DECLARE as follows:

If Tenderer is a corporation, **complete 1A** and strike out 1B and 1C.

If Tenderer is an individual carrying on business under firm name, **complete 1B** and strike out 1A and 1C.

If Tenderer is a partnership, **complete 1C** and strike out 1A and 1B

) 1A. I am (state “President”, “Secretary”, or
) as the case may be)
)
) of the Tenderer above referred to.
)

) 1B. I am the Tenderer above referred to,
) and there is no other person
) associated with me in partnership.
)

) 1C. We are the Tenderers herein carrying on
) business in Partnership, under the name of
)

) and we are the only members of such
) partnership.
)

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)

****I/We** have carefully read through the attached Tender Form and to the best of my/our** information, knowledge and belief the several matters stated in the said Form are in all respects correct and true.

-
- * Insert Tenderer's name
 - ** Delete inapplicable word

3. *I AM/WE ARE, each of the full age of eighteen years or over.

*AND I/WE make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath.

*(SEVERALLY) DECLARED before me)
)
at the of)
in the)
)
this day of , 2020.)
)
)

A Commissioner, etc.

NOTE:

This Declaration must be sworn before a Notary Public or other Commissioner for Oaths.

* Delete inapplicable word

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APPENDIX IV - BID BOND

Bond No. _____

Amount: 10% of net contract amount

KNOW ALL MEN BY THESE PRESENTS, that

as Principal, hereinafter called “the Principal”, and

as Surety, hereinafter called the Surety, are held and firmly bound unto the Board of Management of the Toronto Zoo as Obligee, each in the amount of

Dollars (\$ _____) lawful money of Canada, for the payment of which sum, well and truly to be made, the Principal and the Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS the Principal submitted a written Tender (hereinafter called “the Tender”) to the Obligee dated the ____ day of _____, 20____, for _____ at _____ in the _____ in the City of Toronto (hereinafter called “the Work”),

NOW THEREFORE THE CONDITION OF THIS OBLIGATION is such that if, on acceptance of the Tender in accordance with the terms and conditions of the Tender within 90 days from the closing date of the call for Tenders, the Principal shall, within the time required, enter into a formal contract and give good and sufficient bonds to secure the performance of the Work under the terms and conditions of the contract and the payment of its obligations thereunder for all labour, materials and services used or reasonably required for use in the performance of same, then this obligation shall be null and void; otherwise the Principal and Surety will pay unto the Obligee the difference in money between the amount of the price set out in the Tender and the amount for which the Obligee legally contracts with another party to perform the Work if the latter amount be in excess of the former.

The Surety shall not be liable for a greater sum than the specified penalty of this Bond. Any suit under this Bond must be instituted before the expiration of six months from the date of this Bond.

AND IT IS HEREBY DECLARED AND AGREED that the Surety shall be liable as principal and that nothing of any kind or matter whatsoever that will not discharge the Principal, shall operate as a discharge or release of liability of the Surety, any law or usage relating to the liability of sureties to the contrary notwithstanding.

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IN TESTIMONY WHEREOF, the Principal has duly executed these presents under seal, and the Surety has caused these presents to be seated with its corporate seal duly attested by the signatures of its duly authorized officers, this ____ day of _____, A.D. 2019.

SIGNED, SEALED AND DELIVERED
in the presence of:

) *
)
)
)
) _____
)
)
)
) _____
) **
)
)
)
) _____
)
)
)
)
)

NOTE:

The NOTE on the signing page of the Tender Form applies equally to execution of this Bond.

* Type or print name of Principal here
** Type name of Surety here

**TZC T 06-2020-02 BUILDING ENVELOPE REHABILITATION AT AMERICAS PAVILION –
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APPENDIX V - AGREEMENT TO BOND

(to be attached to and to form part of Bid Bond)

We, the undersigned, the Surety on the attached Bid Bond hereby undertake and agree with the Board of Management of the Toronto Zoo as Obligee if our Principal's Tender is accepted by you to become bound as Surety for our Principal

(Name of Tenderer)

of _____

(Place)

the Tenderer to you by Tender Form dated _____

for _____

(hereinafter _____

(Description of work)
(called "the Work")

in an amount equal to Fifty Per Cent (50%) of the Contract Price for the due and proper performance of the Work as shown and described in the Contract between the Obligee and our Principal for the Work, including a period of maintenance of one (1) year after the final completion of the Work and, in addition, in an equal amount for the due and proper payment of those having direct contracts with our Principal for labour, material and/or services for the Contract Work, removal of registered lien claims and certificates of action from the title to the lands on which the Work is performed and full reimbursement of the Obligee for all liability and payments to such persons in connection with the Contract, such performance and payment bonds both to be in the forms indicated by the Obligee in the Tender documents.

It is a condition that this Agreement shall become null and void if the bonds mentioned above are not required from our Principal within ninety (90) days of the award of the Contract to our Principal.

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In witness whereof we have hereunto affixed our Corporate Seal, testified by the hand(s) of the proper officer in that behalf.

Dated this _____ day of _____, 2019.
(name of Surety)
(Address of Local Office)



2020-02-19

TZC T 06-2020-02 BUILDING ENVELOPE REHABILITATION AT AMERICAS PAVILION – BELVEDERE ROOF AND INTERIOR PART 5– PRICING FORMS

Tender Pricing Form Submission

Complete and return this section Part 5– *Form of Tender* including Appendices I to V

Project/Contract: BUILDING ENVELOPE REHABILITATION AT AMERICAS PAVILION – BELVEDERE ROOF AND INTERIOR

Project/Contract No.: TZC T 06-2020-02

OWNER: TORONTO ZOO

I/We, the undersigned have received, allowed for and included as part of our submission all issued Addendum numbered _____.

This form must be completed, properly signed and received on or before the date and time specified or your submission will not be considered. Quoted prices shall remain in effect for a period of ninety (90) days from the stipulated closing date.

The Board of Management of the Toronto Zoo reserves the right to reject any or all Quotations or to accept any Quotation, should it deem such action to be in its interests.

By signing and submitting this FORM, you are agreeing to the release of your quotation information, as deemed necessary by the Board, in order to conduct business associated with this quotation or project.

I/We, the undersigned, **having the authority to bind the Company**, certify, that I/we have examined the Instruction to Bidders, Construction Agreement and General Conditions, Specifications, Scope of Work, Drawings and Form of Tender, do hereby offer and agree to enter into an agreement with The Toronto Zoo, tBuilding Envelope Rehabilitation at Americas Pavilion – Belvedere Roof and Interior at the Americas Pavilion at the Toronto Zoo as described herein for a Total Tender Price, including HST in Canadian funds, equal to the total of the amounts in the following clauses (A) to (B).

THIS TENDER is submitted by

PLEASE
USE INK9999

Name of Firm

Address

Postal Code



2020-02-19

**TZC T 06-2020-02 BUILDING ENVELOPE REHABILITATION AT AMERICAS PAVILION –
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Telephone Number

Fax Number

Name of Authorized Signing Officer for Firm

Title of Authorized Signing Officer for Firm

Name and Title of Project Contact Person

Email and fax # of Project Contact person

**TZC T 06-2020-02 NAME OF PROJECT
PART 5- PRICING FORMS**

FORM OF TOTAL TENDER PRICE

(A) PRICE of *TENDER, which excludes HST is:*

In lawful money of Canada. (State in writing)

\$ _____
(State in numbers)

(B) PRICE of HST of (13 %) payable by the Owner to the Contractor

In lawful money of Canada. (State in writing)

\$ _____
(State in numbers)

(C) TOTAL TENDER PRICE, which includes the Tender (A) and HST (B) price is:

In lawful money of Canada. (State in writing)

\$ _____
(State in numbers)

DISCOUNT	Discount and/or Other	Days
Discount allowed for prompt payment and period within which invoice must be paid to qualify.	%	
Charity Status: The Toronto Zoo is a registered charitable organization (registration #BN 119216398RR0001) and accordingly may be eligible for preferred pricing which should be reflected in the Quotation as submitted.		

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The following appendix(s) must be completed and returned with the tender submission. **("Not applicable" indicated where completion of a section is not required.)**

Appendix I	Schedule of Values
Appendix II	Unit Prices
Appendix III	Additional Prices
Appendix IV	Alternative Prices
Appendix V	Unsolicited Prices

**TZC T 06-2020-02 NAME OF PROJECT
PART 5- PRICING FORMS**

APPENDIX I- SCHEDULE OF VALUES (Due 24 hours after stipulated closing date)

(**included** in Total Tender Price)

All prices are to include the supply and installation of all labour, material, taxes (excluding Harmonized Sales Tax), charges, payroll, burden, and profit, and would be deducted from the Tender Tender Price should the specified work be excluded from the contract work.

ITEM	DESCRIPTION	PRICE
1.	General Items	
1.1.	Provide all General Conditions, including Contractor's insurance coverage, mobilization, site protection, demobilization and clean-up, labour and project coordination to complete work as specified.	\$
1.2.	Allowance for Permits	\$ 2,000.00
1.3.	Allowance for Testing	\$ 2,000.00
1.4.	Bonds	\$
2.	Exterior Removals	
2.1.	Remove existing asphalt layers to expose existing concrete slab at the road and observation deck.	\$
2.2.	Remove metal flashing and guardrail at the observation deck.	\$
3.	Interior Removals	
3.1.	Remove existing interior finishes to expose existing substrate, under the observation deck.	\$
4.	Waterproofing	
4.1.	Installation of new waterproof system at the exposed concrete slabs.	\$
5.	Concrete	

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5.1.	Installation of new concrete curb on the perimeter of the observation deck.	\$
6.	Asphalt Pavement	
6.1.	Supply, place and compact 75 mm minimum of HL3 (HS) Surface Course Asphalt at the road section and observation deck.	\$
7.	Metal Railing	
7.1.	Installation of new metal railing complete with safety glass.	\$
8.	Interior Finishes	
8.1.	Installation of new interior finishes to match the existing.	\$
		<hr/> <hr/>
	Total Bulk Tender Price*	\$

The sum of the amounts shown in the Schedule of Values above **should equal the Total Tender Price stipulated in Item (A) provided in the Form of Total Tender Price.



2020-02-19

**TZC T 06-2020-02 NAME OF PROJECT
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APPENDIX II - UNIT PRICES (Due 24 hours after stipulated closing date)

All prices are to include the supply and installation of all labour, material, charges, taxes (excluding Harmonized Sales Tax), payroll, burden and profit.

ITEM	UNIT	ADD	DEDUCT
Foreman	/hr		
Tradesman	/hr		
Labourer	/hr		
Asphalt Replacement	/sqm		
Expose and Prepare (CPS-4) road concrete slab for new waterproofing system	/sqft		
Waterproofing	/sqft		
Guardrail System	/l.ft		
Perimeter Sealant (DYMONIC 100 by Tremco)	/l.ft		
Prepare concrete to CSP-4 as per ICRI and apply new waterproofing system Vulkem 350/351 by Tremco	/sqft		

**TZC T 06-2020-02 NAME OF PROJECT
PART 5- PRICING FORMS**
APPENDIX III - ADDITIONAL PRICES (Due 24 hours after stipulated closing date)

(**not included** in Total Tender Price)

All prices are to include the supply and installation of all labour, material, taxes (excluding Harmonized Sales Tax), charges, payroll, burden and profit.

ITEM	DESCRIPTION	PRICE
1.12. 1-9.1	Top Surface Concrete Repairs	\$ _____ Increase / Reduction
1.12. 2-9.2	Underside Surface Concrete Repairs	\$ _____ Increase / Reduction
1.12. 3-9.3	Through Slab Concrete Repairs	\$ _____ Increase / Reduction

* For each item, insert amount in the appropriate column to indicate whether the price change will result in an increase in, or a reduction of, the Total Tender Price.

**TZC T 06-2020-02 NAME OF PROJECT
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APPENDIX IV- ALTERNATIVE PRICES (Due 24 hours after stipulated closing date)

(**not included** in Total Tender Price)

All prices are to include the supply and installation of all labour, material, taxes (excluding Harmonized Sales Tax), charges, payroll, burden and profit.

Item	Description	Increase or Reduction From Total Tender Price
-------------	--------------------	--

1.	Insert description of alternative	\$
----	-----------------------------------	----

2.	Insert description of alternative.	\$
----	------------------------------------	----

* For each item, insert amount in the appropriate column to indicate whether the price change will result in an increase in, or a reduction of, the Total Tender Price.

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APPENDIX V - *UNSOLICITED ALTERNATIVES (Due 24 hours after stipulated closing date IF APPLICABLE)
(prices not used for Total Tender Price)

All alternatives must conform to the requirements of Section 01 25 00 – Product Substitution Procedures.

All prices are to include the supply and installation of all labour, material, taxes (including Harmonized Sales Tax), charges, payroll, burden and profit.

Number of Item	Description of Item	Change in Total Tender Price Substituted in Work	
		Increase	Reduction
