



**T E N D E R**  
**Tender # 2021-082704T –**  
**MUNICIPAL OPERATIONS BUILDING CLADDING AND GLAZING REPLACEMENT**

Hand-delivered or couriered tenders, addressed to Monic MacVicar, CCLP, CPPB, Procurement Specialist, Materials Management, and bearing the title:

**"Tender # 2021-082704T –**  
**Municipal Operations Building Cladding and Glazing Replacement"**

**will be received until 2:30 pm, Tuesday, June 1, 2021** for the supply of all labour, materials, and equipment necessary for the replacement of the cladding and glazing at the Municipal Operations Building, 175 Rothesay Avenue, in accordance with the enclosed specifications, drawings, terms and conditions.

The lowest or any tender not necessarily accepted.

Monic MacVicar, CCLP, CPPB  
Procurement Specialist

*Issued for Tender: Friday, May 14, 2021*



**City of Saint John**

# Contract Specifications

**TENDER NO. 2021-082704T  
MUNICIPAL OPERATIONS BUILDING CLADDING AND GLAZING  
REPLACEMENT**



City of Saint John

**CONTRACT SPECIFICATIONS**

**FOR**

**TENDER NO. 2020-082704T  
MUNICIPAL OPERATIONS BUILDING CLADDING AND GLAZING  
REPLACEMENT**

MAY 2021



City of Saint John

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## **CONTRACT SPECIFICATIONS**

### **DIVISION 1**

### **PROJECT DESCRIPTION**

MAY 2021



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## **PROJECT DESCRIPTION**

### **1.1 GENERAL DESCRIPTION**

The work consists generally of supplying all labour, materials, and equipment for 2021-082704T - Municipal Operations Building Cladding and Glazing Replacement as per the Specifications and Drawings.

### **1.2 CONTRACT DOCUMENTS**

- a) General Specifications, City of Saint John, New Brunswick, with all applicable Divisions as listed in the Table of Contents of the Contract Specifications.
- b) Contract Specifications,  
Tender No.: 2021-082704T  
Contract: MUNICIPAL OPERATIONS BUILDING CLADDING AND  
GLAZING REPLACEMENT  
City of Saint John, New Brunswick

- c) List of Drawings

<u>Sheet No.</u>	<u>Title</u>
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A-5	Panel Details

### **1.3 AUTHORIZED ENQUIRIES CONTACT**

During the procurement phase of this project, all inquiries shall be referred to:

Monic MacVicar, CCLP, CPPB  
Procurement Specialist  
Supply Chain Management  
City of Saint John  
175 Rothesay Avenue, Saint John, NB  
monic.macvicar@saintjohn.ca





City of Saint John

## **CONTRACT SPECIFICATIONS**

### **DIVISION 2**

## **INSTRUCTIONS TO TENDERERS AND TENDERING PROCEDURES**

MAY 2021



City of Saint John

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## **INSTRUCTIONS TO TENDERERS AND TENDERING PROCEDURES**

### **2.1 TRADE TREATIES AND TENDERING POLICY**

#### **2.1.01 Internal Trade Agreements**

Tenderers should note that the within procurement is subject to internal trade agreements including the Canadian Free Trade Agreement and the Atlantic Procurement Agreement and the Agreement on opening public procurement for Quebec and NB.

#### **2.1.02 Tendering Policy**

Tenderers should note that the within Procurement shall conform with The City of Saint John “Tendering Policy for Construction Contracts” which is attached hereto as Appendix “A”.

### **2.2 MATERIAL DISCLOSURES**

#### **2.2.01 General**

The City makes the following material disclosures with respect to this Request for Tender. While the City has used considerable efforts to ensure the accurate representation of all information in this Request for Tender, including these material disclosures, such information is supplied solely as a guideline for Tenderers. The City does not warrant or guarantee the accuracy of such information, nor is such information necessarily comprehensive or exhaustive. Nothing in this Request for Tender is intended to relieve Tenderers of the obligation to form their own opinions and reach their own conclusions with respect to the matters addressed in this Request for Tender.

#### **2.2.02 Permits Required for Project**

Except as stated otherwise in the Tender Document, any and all permits and approvals required by the Authorities having jurisdiction, and arrangements for all inspections of the Work by these Authorities shall be obtained and paid for by the Contractor. The cost of such approvals, permits and inspection shall be included in the Tender Price.

#### **2.2.03 Deemed Examination and Acceptance**

Tenderers should note that by submission of a Tender they will be deemed to have examined and accepted the Specifications and Drawings, visited the site, and informed themselves as to existing conditions and limitations.

#### **2.2.04 Availability of Services**

The Tenderer shall ascertain from the relevant Authorities the availability of services, including, but not limited to, electricity, sewer, water, telephone, natural gas and transportation to the project and shall ascertain what prior notice each Authority will require for the installation of the service to the project.

## **2.2 MATERIAL DISCLOSURES (Cont'd)**

### **2.2.05 Tax**

- a) Tenderers are advised to make special note of all applicable tax procedures.
- b) The City is required to pay the Harmonized Sales Tax (HST).
- c) The total tendered amount shall include the appropriate taxes on all labour, material and equipment to be incorporated into the Work.
- d) Tenderers shall submit their Tenders on the basis that the total amount of the Tender shall include all taxes for which the City is liable.
- e) Any increase or decrease in costs to the Tenderer due to the changes in such taxes and duties, after the date of the Tender Closing, shall increase or decrease the value of the Contract accordingly.

### **2.2.06 Performance Guarantees Required Prior to Contract Execution**

Within five (5) Working Days following the City's notice of selection, the selected Tenderer shall provide the City with the required Performance Guarantees, in the form of either:

- a) A Performance Bond and a Labour and Material Payment Bond, each at fifty percent (50%) of the Tender Price covering the faithful performance of the full Contract. The bonds shall be in favour of *The City of Saint John* and show *The City of Saint John* as obligee; or
- b) A certified cheque in the amount of twenty percent (20%) of the Tender Price covering the faithful performance of the full contract.

### **2.2.07 Insurance**

Tenders should refer to Division 6 (section 6.8) for details regarding insurance requirements.

## **2.2 MATERIAL DISCLOSURES (Cont'd)**

### **2.2.08 WorkSafeNB Certificate and Business Corporations Act Certificate**

- a) New Brunswick Tenderers shall provide to the City a WorkSafeNB certificate which confirms proper registration and good standing with WorkSafeNB and a *Business Corporations Act* Certificate which confirms proper registration with the Province of New Brunswick - Corporate Affairs (of which the Contractor must be in good standing) within five (5) Working Days following the City's notice of selection.
- b) Out-of-province Tenderers shall provide to the City a WorkSafeNB certificate which confirms proper registration and good standing with WorkSafeNB or a letter or certificate issued under the equivalent applicable legislation in the province of origin of the Tenderer confirming extension of coverage from said legislation to the Province of New Brunswick for the term of the Contract. Subject to paragraph c), out-of-province Tenderers shall also provide a *Business Corporations Act* Certificate which confirms proper registration with the Province of New Brunswick - Corporate Affairs (of which the Contractor must be in good standing) within five (5) Working Days following the City's notice of selection.
- c) Tenderers from Nova Scotia may submit the appropriate *Business Corporations Act* Certificate from the Province of Nova Scotia.

### **2.2.09 New Brunswick Construction Safety Association**

If the total Tender Price for the work, inclusive of HST, is two hundred and fifty thousand dollars (\$250,000.00) or more, Tenderers shall supply a Letter of Good Standing under the Certificate of Recognition Program from the New Brunswick Construction Safety Association. Out-of-Province Tenderers shall supply an equivalent from the Tenderer's Province of origin acceptable to the Engineer.

### **2.2.10 Timetable for Completion of the Work**

The Substantial Completion date of the Work is December 31, 2021.

## 2.3 SCHEDULE FOR THE TENDER PROCESS

Issue Date of Request for Tender	<b>Thursday, May 13<sup>th</sup>, 2021</b>
<b>Job Site Meeting</b>	<b>Wednesday, May 19<sup>th</sup>, 2021 at 10:30AM Atlantic Time</b>
Deadline for Enquiries	<b>Friday, May 21<sup>st</sup>, 2021 at 4:00 PM Atlantic Time</b>
Deadline for Issuing Addenda	<b>Tuesday, May 25<sup>th</sup>, 2021 at 4:00 PM Atlantic Time</b>
Tender Closing	<b>Tuesday, June 1<sup>st</sup>, 2021 at 2:30 PM Atlantic Time</b>

The Schedule for the Tender Process is tentative only and may be changed by the City in its sole discretion at any time prior to Tender Closing.

## 2.4 TENDER DOCUMENTS

### 2.4.01 Tender Documents to be Obtained in Prescribed Manner

Tender Documents shall be obtained by emailing a request to [supplychainmanagement@saintjohn.ca](mailto:supplychainmanagement@saintjohn.ca).

Tenderers must register on the City's official list of bidders for this project, as follows:

- (i) registration of the full legal name, contact person, telephone number and email address of the Tenderer obtaining the Tender Documents; or, if applicable,
- (ii) the registration of the full legal name, contact person, telephone number and email address of the Tenderer on whose behalf the Tender Documents are being obtained.

The names of the Tenderers having complied with the above criteria will be consolidated onto the City's official bidders list. Only Tenderers listed on the City's official bidders list shall be entitled to submit a Tender. Any Tender received from a Tenderer who has not obtained the Tender Documents from the City of Saint John and is not registered on the City's official list of bidders for this project in the manner set out above will not be evaluated.

## 2.5 **COMMUNICATIONS AFTER ISSUANCE OF TENDER**

### 2.5.01 **Tenderers to Review Tender Documents**

Tenderers shall promptly examine all Tender Documents and:

- a) shall report any errors, omissions or ambiguities; and
- b) may direct enquiries or seek additional information

in writing by email before the Deadline for Enquiries to the Authorized Enquiries Contact or the Designated Alternate Contact (in the event of absence) as set out below. No such communications are to be directed to anyone other than the Authorized Enquiries Contact or the Designated Alternate Contact.

<b><u>Authorized Enquiries Contact</u></b>	<b><u>Designated Alternate Contact</u></b>
Monic MacVicar, CCLP, CPPB Procurement Specialist Supply Chain Management City of Saint John Email: supplychainmanagement@saintjohn.ca	Chris Roberts, SCMP, CPPB Supervisor Supply Chain Management City of Saint John Email: supplychainmanagement@saintjohn.ca

It is the Tenderer's responsibility to seek clarification from the City on any matter it considers unclear. The City shall not be responsible for any misunderstanding on the part of the Tenderer concerning this Tender or its process.

The City intends to confirm receipt of a Tenderer's communication by way of an email in reply. If a Tenderer has not received a reply, the Tenderer may wish to resend its communication as the lack of reply may have resulted from a technical problem. The City is under no obligation to respond to enquiries or provide additional information but may do so at its sole discretion.



## 2.5 **COMMUNICATIONS AFTER ISSUANCE OF TENDER (Cont'd)**

### 2.5.02 **Email Communication**

The following provisions shall apply to any communications with the Authorized Enquiry Contact or the Designated Alternate Contact by email where such email communication or delivery is permitted by the terms of this Tender:

- a) The City does not assume any risk or responsibility or liability whatsoever to any Tenderer:
  - (i) for ensuring that any email system being operated for the City is in good working order, able to receive transmissions, or is not engaged in receiving other transmissions such that a Tenderer's transmission cannot be received;
  - (ii) if a permitted email communication or delivery is not received by the City, or is received in less than its entirety, within any time limit specified by this Tender; and
  - (iii) for any error that may occur in the submission of communications or enquiries.
- b) All permitted communications submitted by a Tenderer by email to the Authorized Enquiries Contact or the Designated Alternate Contact shall be deemed to have been received on the dates and times indicated on the Authorized Enquiry Contact's or the Designated Alternate Contact's email system

### 2.5.03 **Addenda: Responses to Enquiries and Amendments or Clarifications to Tender Documents**

The City may, in its sole and absolute discretion, through the Authorized Enquiry Contact or the Designated Alternate Contact, respond to enquiries and/or amend the Tender Documents before Tender Closing.

Written Addenda are the only means of responding to enquiries or amending the Tender Documents. Only the Authorized Enquiry Contact or the Designated Alternate Contact, and no other employee or agent of the City, is authorized to respond to enquiries and amend the Tender Documents by issuing an Addendum.

Responses to enquiries, changes, clarifications or corrections prepared and circulated by the City form part of the Tender Documents and will be issued as Addenda. Responses will be made in writing and distributed by email to all Tenderers who are registered on the City's official bidders list in accordance with the procedure outlined in section 2.4.01 b) above, as of the date the response is prepared by the City. Each Addendum will contain a signature page(s) which each Tenderer is required to sign and include with its Tender submission. While the City will make reasonable efforts to deliver each Addendum to all Tenderers, it makes no guarantee of timely delivery of any Addendum to any Tenderer.

**2.5.03 Addenda: Responses to Enquiries and Amendments or Clarifications to Tender Documents (Cont'd)**

The City will not identify the source of the question in the response. If a Tenderer requests that an enquiry be treated as confidential, the City, in its sole discretion, will either treat the enquiry or any reply as confidential or inform the Tenderer that it will not respond to the enquiry unless the Tenderer withdraws in writing its request that the enquiry be treated as confidential.

Orally communicated information shall not be binding upon the City. Information offered from sources other than the Authorized Enquiry Contact or the Designated Alternate Contact with regard to the content, intent or interpretation of this Tender is not official, may be inaccurate and should not be relied on in any way, by any Tenderer, for any purpose.

**2.6 SUBMISSION OF TENDER**

**2.6.01 Location of Tender Box for the Submission of Tender**

Supply Chain Management Department  
175 Rothesay Avenue, 1<sup>st</sup> Floor  
Saint John, New Brunswick  
E2J 2B4

**2.6.02 Tenders Must be Submitted Only in the Prescribed Manner**

- a) Tenders must be submitted in the prescribed *Form of Tender* together with the prescribed *Schedule of Quantities and Unit Prices*. The *Form of Tender* and the *Schedule of Quantities and Unit Prices* shall be filled out in ink or typewritten and bear the signature in longhand.
- a) Tenderers must submit one completely filled out original *Form of Tender* signed by an authorized representative and should include the following information written on the outside of the sealed envelope:
  - (i) Tender No.: 2021-082704T
  - (ii) Title of Work: Municipal Operations Building Cladding and Glazing Replacement
  - (iii) The full legal name and return address of the Tenderer; and
  - (iv) Tender Closing date and time.
- c) Each Tender shall be accompanied by a Tender (Bid) Bond or certified cheque in the amount of ten percent (10%) of the Tender Price.
- d) Each Tender must be sealed and be addressed to the attention of the Purchasing Agent, City of Saint John, Supply Chain Management Department, 1<sup>st</sup> Floor, 175 Rothesay Avenue, Saint John, New Brunswick, E2J 2B4.
- e) All Tenders shall include a surety consent letter or agreement to bond as per the requirements in the Form of Tender.

## **2.6 SUBMISSION OF TENDER (Cont'd)**

### **2.6.03 Contingency Allowance**

The Tender Price shall include the contingency allowance as specified in the *Schedule of Quantities and Unit Prices*, to cover additional costs that may occur during the execution of the Contract attributed to approved additional work not originally contemplated. No part of this allowance shall be expended without the written direction of the Engineer, and any part not so expended shall be deducted from the contingency allowance.

### **2.6.04 Tenders Must be Submitted Before Tender Closing**

It is the responsibility of each Tenderer to ensure that its Tender is submitted before Tender Closing.

Tenders submitted after Tender Closing will be deemed late and disqualified. For the purpose of calculating time, the time on the email shall govern.

The City assumes no responsibility for improperly submitted Tenders.

### **2.6.05 Amending or Withdrawing Tender Prior to Tender Closing**

At any time prior to Tender Closing, a Tenderer may amend or withdraw a submitted Tender by submitting an amending letter via email before the Tender Closing.

The amending letter should clearly specify that the Tenderer intends to withdraw its Tender or, in the case of an amendment, clearly indicate the part of the Tender that the amending letter is intending to replace. In the case of a unit price contract, the amending letter shall show the revision to the Tender Price. In the case of a lump sum contract, the amending letter shall state the amount to be added or subtracted from the Tender Price.

The email should clearly indicate the Tender No., and Title of Work.

### **2.6.06 Tenderers Shall Bear the Costs of Preparing and Submitting a Tender**

Under no circumstances will the City be responsible for a Tenderer's costs of preparing or submitting a Tender.

## **2.6 SUBMISSION OF TENDER (Cont'd)**

### **2.6.07 Tenders in English**

All Tenders are to be in English only. Any Tenders that are not entirely in the English language may be disqualified.

### **2.6.08 Tender Acceptance Period**

Tenders submitted before Tender Closing shall remain open to acceptance in the form submitted by the Tenderer for a period of sixty (60) calendar days after Tender Closing. Failure of the Tenderer to keep the Tender open for sixty (60) calendar days will result in the enforcement of the Tender (Bid) Bond or the cashing of the certified cheque submitted in lieu of the Tender (Bid) Bond pursuant to section 2.6.02 c).

### **2.6.09 Tender Documents Incorporated into Tender**

By submission of a Tender, a Tenderer is deemed to have accepted and incorporated all the instructions and terms and conditions contained in the Tender Documents into its Tender. Submission of a Tender shall also confirm that the Tenderer is satisfied as to the correctness and sufficiency of the Tender, the Tender Price and the prices entered in the *Schedule of Quantities and Unit Prices*.

## **2.7 AMENDMENT OR WITHDRAWAL OF TENDER POST TENDER CLOSING**

### **2.7.01 No Amendment Post Tender Closing**

No Tenderer is permitted to amend or withdraw its Tender after Tender Closing. A Tenderer who discovers an error in his Tender after Tender Closing may leave the Tender as is or request permission from Common Council to withdraw its Tender. A request to withdraw a Tender after Tender Closing must be delivered, along with the reasons for the request, to the Common Clerk for consideration by Common Council within twenty-four (24) hours of Tender Closing.

### **2.7.02 Withdrawal Requests**

Common Council, in its sole discretion, will decide whether or not to grant the withdrawal request based on the information supplied by the Tenderer and a recommendation from City staff. Where Common Council, in its sole discretion, decides to not allow the withdrawal, Common Council may require the Tenderer to perform the Contract or forfeit the Tender (Bid) Bond or the certified cheque submitted in lieu thereof pursuant to section 2.6.02 c).

## **2.8 TENDER EVALUATION PROCESS**

### **2.8.01 Delivery of Tender Box to Tender Opening Room**

Immediately following Tender Closing, the Purchasing Agent shall deliver the Tender Box to the tender opening room where it will be opened by the Tender Opening Committee.

### **2.8.02 Tender Opening Process**

All Tenders shall be removed from Tender Box, opened, evaluated pursuant to Section 2.8.03, then read and recorded by the Tender Opening Committee in the Tender Opening Location. The Tender Opening Committee shall open each Tender individually. The Tender Opening Committee will conduct the evaluation of the Tenders in two stages.

### **2.8.03 Stage 1: Evaluation of Mandatory Requirements**

Stage 1 will consist of a review to determine which Tenders comply with all of the mandatory requirements. Tenders which do not comply with all of the mandatory requirements set out below, shall be Disqualified and not evaluated further.

Tenders shall be deemed as not complying with the mandatory requirements where:

- a) The Tender is not in a sealed envelope which bears on its face the full legal name and address of the Tenderer, the Tender number, Title of Work and Tender Closing date and time.
- b) The Tender is illegible or its pricing terms or conditions cannot be understood by the Tendering Opening Committee.
- c) Where it is a Tender for more than one item and where it is required that all items be bid, there is a failure to bid an item or it does not contain a unit price or extended total of all items to be bid.
- d) The Tender contains a bid on an item not included in the *Schedule of Quantities and Unit Prices*.
- e) The Tender does not contain the total tender price, the unit prices or the fixed price written in words or does not have the words “dollars” and, where applicable, “cents” set out in the written total tender price, unit prices or fixed price on the *Schedule of Quantities and Unit Prices*.
- f) The Tender is not accompanied by the required Tender (Bid) Bond or certified cheque pursuant to section 2.6.02 c).
- g) The Tender does not include a fully completed prescribed Form of Tender, signed by an authorized agent, which bears the Tenderer’s corporate seal, pursuant to section 2.6.02 a) and Division 4.

### **2.8.03 Stage 1: Evaluation of Mandatory Requirements (Cont'd)**

- h) The Tender does not include all required documents specified in the Form of Tender, does not comply with the provisions of the Tender Documents, or does not include the signature page(s) of all addenda issued to the Tenderers signed by the Tenderer.
- i) The Form of Tender contains a change in price that is not initialed by the person signing the Form of Tender.
- j) The Tender contains an unsolicited alternative or a qualification to the terms of the Tender Documents.
- k) Where a Tenderer submits more than one Tender in response to the Request for Tender, all such Tenders shall be Disqualified.

In the case(s) where a Tender which are Disqualified by the Tender Opening Committee, the Tenderer(s) shall be notified accordingly. Tender Prices of Disqualified Tenders will not be made public.

### **2.8.04 Stage 2: Evaluation of Tender Price**

Stage 2 will consist of a recording of the Tender Prices by the Tender Opening Committee.

### **2.8.05 Selection of the Successful Tenderer**

At the conclusion of Stage 1 and Stage 2 of the evaluation process and, subject to the approval of selection by Common Council and the reserved rights of the City, the selected Tenderer will enter into the Contract, as set out in the Tender Documents.

## **2.9 NOTICE OF SELECTION AND EXECUTION OF CONTRACT**

### **2.9.01 Selection of Tenderer**

Notice of selection by the City to the selected Tenderer will be in writing. Within five (5) Working Days following the City's notice of selection, the Tenderer shall provide to the City:

- a) those items listed at section 6.8.04 ("Insurance Policies and Certificates");
- b) an executed Form of Agreement (Division 5); and
- c) the required Performance Guarantees pursuant to section 2.2.06

This provision is solely to the benefit of the City and may be waived by the City at its sole discretion.

## **2.9 NOTICE OF SELECTION AND EXECUTION OF CONTRACT (Cont'd)**

### **2.9.02 Over-Budget Bids**

If the Tender Price of the lowest compliant Tender exceeds the City's project budget or the Engineer's estimate for the Project, the City may proceed with negotiations with the lowest compliant Tenderer. Said negotiations shall be conducted within a prescribed timeframe to identify changes in scope and/or quantities of work, in exchange for a corresponding bid price reduction. Where the City and lowest compliant Tenderer establish acceptable changes and a corresponding bid price reduction, those changes shall be documented as post-bid addendum.

Any such negotiations or resulting recommendations shall be conditional and subject to the approval of Common Council and, in accordance with the Limitation of Liability and Waiver set out in section 2.12 below, there shall be no liability resulting from any failure to award a contract.

Where acceptable changes and a corresponding bid price reduction cannot be successfully negotiated with the lowest compliant Tenderer, the City may proceed with a new tender call at a later date.

### **2.9.03 Failure to Enter into the Contract**

In addition to all of the City's other remedies, such as the enforcement of the Tender (Bid) Bond, if a selected Tenderer fails to execute the Contract, or satisfy any of the applicable conditions set out above at section 2.9.01 within five (5) Working Days of the notice of selection, the City may, in its sole and absolute discretion and without incurring any liability rescind the selection of the Tenderer and proceed with the selection of the next lowest compliant Tenderer.

## **2.10 CONFIDENTIAL INFORMATION AND MEDIA COMMUNICATIONS**

### **2.10.01 Tenderer's Confidential Commercial Information**

The City is committed to an open and transparent Tendering Process while understanding the Tenderers' need for protection of confidential commercial information. To assist the City in meeting this commitment, Tenderers will cooperate and extend all reasonable accommodation to this endeavour.

### **2.10.02 Tenderer Not to Communicate With Media and Public**

To ensure that all public information generated about the Work is fair and accurate, and will not inadvertently or otherwise influence the outcome of the Tendering Process, all public information generated in relation to the Work, including communications with the media and the public, must be coordinated with, and is subject to the prior approval of, the City.

### **2.10.02 Tenderer Not to Communicate With Media and Public (Cont'd)**

Tenderers will notify the City of requests for information or interviews from the media.

Tenderers will ensure that all of the Tenderers' Subcontractors and others associated with the Tenderer comply with the foregoing requirements.

### **2.11 RESERVED RIGHTS**

The City reserves the right to:

- a) Reject an unbalanced Tender. For the purpose of this section, an unbalanced tender is a tender containing a unit price which deviates substantially from, or does not fairly represent reasonable and proper compensation for the unit of work bid or one that contains prices which appear to be so unbalanced as to adversely affect the interests of the City. The City reserves the right to use tenders submitted in response to this Request for Tender or for other like or similar work as a guideline in determining if a bid is unbalanced.
- b) Amend or modify the scope of the Work, and/or cancel or suspend the Tender award, at any time for any reason;
- c) Require Tenderers to provide additional information after the Tender Closing to support or clarify their Tender;
- d) Not accept any or all Tenders;
- e) Not accept a Tender from a Tenderer who is itself, or whose principals, owners or directors are also principals, owners or directors of another entity which is, involved in litigation, arbitration or any other similar proceeding against the City;
- f) Reject any or all Tenders without any obligation, compensation or reimbursement to any Tenderer or any of its team members;
- g) Withdraw this Request for Tender and cancel or suspend the Tendering Process;
- h) Extend, from time to time, any date, any time period or deadline provided in this Tender (including, without limitation, the Tender Closing), upon written notice to all Tenderers;
- i) Assess and reject a Tender on the basis of:
  - (i) information provided by references;
  - (ii) the Tenderer's past performance on previous contracts;
  - (iii) the information provided by a Tenderer pursuant to the City exercising its clarification rights under this Tendering Process;
  - (iv) the Tenderer's experience with performing the type and scope of work specified including the Tenderer's experience as a general contractor;
  - (v) other relevant information that arises during this Tendering Process;



## 2.11 **RESERVED RIGHTS (Cont'd)**

- j) Waive formalities and accept Tenders which substantially comply with the requirements of this Request for Tender;
- k) Verify with any Tenderer or with a third party any information set out in a Tender;
- l) Disqualify any Tenderer whose Tender contains misrepresentations or any other inaccurate or misleading information;
- m) Disqualify any Tenderer who has engaged in conduct prohibited by the Tender Documents;
- n) Disqualify any Tenderer who is guilty of an offence listed in Schedule C of the New Brunswick Regulation 2014-93 under the Procurement Act;
- o) Disqualify any Tenderer for documented significant or persistent deficiencies in fulfilling or performing a substantive requirement or obligation under a prior contract or contracts. The disqualification for past performance shall be conducted in accordance with sections 64 thru 81 of the New Brunswick Regulation 2014-93 under the Procurement Act;
- p) Make changes, including substantial changes, to the Tender Documents provided that those changes are issued by way of addenda in the manner set out in these Instructions to Tenderers;
- q) Select any Tenderer other than the Tenderer whose Tender reflects the lowest cost to the City;
- r) Cancel this Tendering Process at any stage, for any reason;
- s) Cancel this Tendering Process at any stage and issue a new Request for Tender for the same or similar deliverables;
- t) Accept any Tender in whole or in part; or
- u) Accept a Tender which contains the following errors:
  - (i) error in mathematics – whether this involves the extension of a unit price or an error in addition, the mistake will be corrected and the correct total will be used for evaluation purposes and will be binding on the Tenderer.
  - (ii) conflict between the written and numerical bid prices. In all cases, the total bid price will be corrected to reflect the written bid price, whether lump sum or unit price.
  - (iii) failure to include the contingency allowance in the total Tender Price. If the contingency allowance was not included in the addition, the Tender Price shall be corrected to reflect its inclusion.

and these reserved rights are in addition to any other express rights or any other rights which may be implied in the circumstances and the City shall not be liable for any expenses, costs, losses or any direct or indirect damages incurred or suffered by any Tenderer or any third party resulting from the City exercising any of its express or implied rights under this Request for Tender.

**2.11 RESERVED RIGHTS (Cont'd)**

By submitting a Tender, the Tenderer authorizes the collection by the City of the information set out at paragraph 2.11 i) in the manner contemplated in that subparagraph.

**2.12 LIMITATION OF LIABILITY AND WAIVER**

Each Tenderer, by submitting a Tender, agrees that:

- a) Neither the City nor any of its employees, agents, advisors or representatives will be liable, under any circumstances, for any Claim arising out of this Tendering Process including but not limited to costs of preparation of the Tender, loss of profits, loss of opportunity or for any other Claim; and
- b) The Tenderer waives any Claim for any compensation of any kind whatsoever, including Claims for cost of preparation of the Tender, loss of profit or loss of opportunity by reason of the City's decision to not accept the Tender submitted by the Tenderer, to award a Contract to any other Tenderer or to cancel this Tendering Process, and the Tenderer shall be deemed to have agreed to waive such right or Claim.

**2.13 INVOICES**

- a) In light of the requirements of Section 169 of the *Excise Tax Act*, R.S.C. 1985,c. E-15, and amendments thereto, the selected Tenderer shall provide to the City properly documented invoices with all requests for payments. This includes a government issued business number and the amount of tax included on the invoice.
- b) Failure to provide properly documented invoices may result in delays in processing payments or outright rejection of the payment request.



City of Saint John

## **APPENDIX 'A'**

### **TENDERING POLICY FOR CONSTRUCTION CONTRACTS**



## City of Saint John

### TENDERING POLICY FOR CONSTRUCTION CONTRACTS

#### PREAMBLE

Whereas the City of Saint John seeks to duly represent the public interest in the management of its public tendering process for construction contracts;

And whereas taxpayers/ratepayers have the right to expect the benefits of free and open competition, that is, the best goods and services at the lowest possible prices;

And whereas municipal tendering should duly respect the place of other stakeholders, including vendors and contractors, in the process;

And whereas the values of integrity, effectiveness, due process and efficiency must be inherent in the process;

Common Council establishes this tendering policy for construction contracts.

#### POLICY AND APPLICABLE STATUTES

Persons and/or companies that submit tenders for construction contracts are deemed to have understood and agreed to the requirements of this policy and all applicable tender documentation, as well as all applicable Municipal by-laws and Federal or Provincial statutes. Applicable federal and provincial statutes include, but are not limited to: the *Canada Competition Act*; the *New Brunswick Public Procurement Act*; the *New Brunswick Crown Construction Act*; and the *New Brunswick Municipalities Act*.

### **APPLICATION OF POLICY**

The City of Saint John seeks to optimize fair, open and independent competition for municipal construction work and to afford interested and qualified contractors the opportunity to seek the business.

This policy has been established for construction contracts valued in excess of \$100,000 (before HST). The procedures detailed herein shall apply to all publicly advertised tender calls issued on behalf of the City of Saint John for construction contracts, but do not apply to publicly advertised tenders for the supply of goods and/or services or to invited bids or calls for proposal.

The following divisions of tender specifications for construction contracts form part of this policy: *Instruction to Tenderers and Tendering Procedures* (Division 2); *Form of Tender* (Division 4); and *Form of Agreement* (Division 5).

### **PUBLIC NOTICE OF TENDER/TENDER ADVERTISEMENT**

A public notice of tender shall be issued for all construction contracts valued in excess of one hundred thousand dollars (\$100,000). The notice shall state the contract number, a brief description, the date and the time for the closing of tenders, the location of the locked box for receipt of tenders, and the date, time and location of the tender opening.

### **TENDER DOCUMENTATION**

The following documentation shall be provided to those persons or companies who wish to submit a tender, at an appropriate cost as determined by the Chief City Engineer:

1. Division 1: *Project Description* – as determined by the Chief City Engineer or his designate;
2. Division 2: *Instruction to Tenderers and Tendering Procedures* – forming part of this policy;
3. Division 3: *Particular Specifications* - as determined by the Chief City Engineer or his designate;
4. Division 4: *Form of Tender* - forming part of this policy, and including a Certificate of Independent Tender Determination;
5. Division 5: *Form of Agreement* - forming part of this policy;
6. A notice that Division 6: *General Administration of Contract* and Division 7: *Construction of Municipal Services* of the General Specifications apply to all contracts, and that it is the responsibility of the tenderer to familiarize himself with the provisions in Divisions 6 and 7, as well as those of any other division in the General Specifications determined by the Chief City Engineer or his designate to be applicable to the contract; and
7. Applicable contract drawings, as determined by the Chief City Engineer or his designate.

### **TENDER PROCESSING**

Tenders shall be received and processed in accordance with the provisions set out in Division 2: *Instruction to Tenderers and Tendering Procedures*.

### **TENDER OPENING COMMITTEE**

A tender opening committee is hereby established, consisting of a chairman and two members, as follows:

*Chairman:* Purchasing Agent or his designate

*Member:* Chief City Engineer or his designate

*Member:* A member of staff designated by the City Manager

The committee shall proceed in accordance with the provisions set out in Division 2.

### **TENDER REJECTION AND AWARD OF CONTRACT**

The City of Saint John reserves the right to reject any or all tenders, or to accept a tender other than the lowest tender and to accept the tender deemed to be in its best interests, based on evaluation of relevant criteria, including quality, service and price.

Common Council shall make the decision as to whether or not a contract shall be awarded and to whom it will be awarded.

### **GENERAL SPECIFICATIONS**

The Chief City Engineer may, from time to time, revise the technical provisions of the General Specifications to reflect changes in technology, methods or construction industry practices.

### **APPROVAL AND EFFECTIVE DATE**

This policy, adopted by Common Council on November 19, 2003, shall become effective on January 1<sup>st</sup>, 2004.



City of Saint John

## **CONTRACT SPECIFICATIONS**

### **DIVISION 3**

## **PARTICULAR SPECIFICATIONS**

MAY 2021



City of Saint John

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### DIVISION 3 – PARTICULAR SPECIFICATIONS

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## **PARTICULAR SPECIFICATIONS**

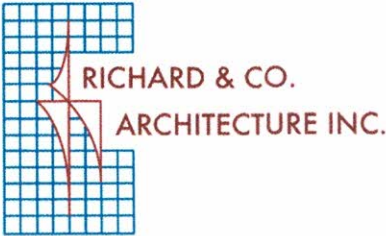
This division shall be read in conjunction with and take precedence where they may prove at variance with the City of Saint John, General Specifications.

### **3.1 SPECIFICATIONS FOR THIS PROJECT**

See Attached

**Project Title:**

City of Saint John  
Municipal Operations Building  
Cladding and Glazing Replacement  
Saint John, NB



38 WATER STREET  
SAINT JOHN, N.B. E2L 2A5



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**DRAWING NO.            DESCRIPTION**

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**ARCHITECTURAL:**

A1	KEY PLAN, NOTES, EXTERIOR ELEVATIONS AND DETAILS, EXISTING CONDITIONS
A2	EXTERIOR ELEVATIONS, EXTERIOR CONDITIONS
A3	EXTERIOR ELEVATIONS AND DETAILS, EXISTING CONDITIONS
A4	EXTERIOR ELEVATIONS, NEW CONDITIONS
A5	PANEL DETAILS

PART 1 - GENERAL

1.1 SUMMARY OF WORK

- .1 This contract includes the supply of all plant, labour, materials and equipment necessary to complete the following project as per drawings and specifications.
  - .1 General Contractor to survey existing conditions and details of existing construction, and to undertake site dimensioning of all areas and aspects of the Work prior to Shop Drawing submittal.
  - .2 The Phasing of the work is to be fully coordinated with the CoSJ Facilities Management assigned Project Manager. Contractor to ensure the full cooperation and integration of Sub-Contractor's in the undertaking of the Work of the Cladding and Glazing replacement ensuring the least possible disruption to the building Users and Operations.
  - .3 The successful bidder shall be a General Contractor experienced in the delivery of similar type projects.
  - .4 Substantial Completion is required prior to December 31, 2021.
  - .5 The scope of work is such that multiple Sub Contractors will be simultaneously fully involved in the work of cladding and glazing replacement.
- .2 Work at the Municipal Operations Building at 175 Rothesay Avenue includes, but is not necessarily limited to the following:
  - .1 Removal of horizontal metal siding, flashings and accessories to facilitate the installation of z-bar designed to support new metal cladding and composite panels. The existing horizontal metal siding is to be removed and disposed of noting environmental responsibilities related to disposal. Wall mounted elements; cameras, lighting, posts, etc. to be carefully removed and reinstalled following installation of steel siding.
  - .2 Removal of existing glazing at second floor level as identified on the drawings.
  - .3 Following removal, the existing glazing is to be replaced. The glazing specified is tinted and is complete with argon gas and a third layer reflective film.
  - .4 The perimeter cladding adjacent the strip window sections where existing horizontal siding is scheduled for removal is to be re-clad with an architectural panel. The panel sizes are to be provided as shown on the drawings and complete with the described and defined horizontal and vertical panel size and colour. Mid-point of panel is to be aligned with centre line of window mullion as shown on drawings. Provide as scheduled and as specified.
  - .5 Install new metal cladding to dimensions indicated, colour pattern and profiles as shown and specified. The existing horizontal steel siding is to be replaced with a 22mm (7/8") corrugated factory painted steel siding. Three standard colours of 26 gauge steel siding shall be installed vertically with sheet install height as shown on the drawings.
  - .6 For each type of cladding, architectural panels and corrugated steel siding, Z-bars are to be installed of the type, shape, profile, gauge and size required by the product manufacturer and at locations as necessary, to both structurally support the steel siding and architectural panel with fastenings in straight lines and colour matched to the cladding.
  - .7 All cladding materials are to be installed based on the rain screen principle with sealants, caulking installed accordingly.
  - .8 Existing roof, window head and sill flashings together with flashings at interface of cladding and masonry are to remain. Following removal of screws, caulking and related materials to facilitate panel and steel siding installations, the existing roof flashings are to be re-caulked, secured with colour matched screws and re-installed to establish flashings watertight and fully integrated with the installed claddings. Similarly, metal flashings at the head and sill of the existing strip windows are to remain with seals and caulking replaced with new materials.
  - .9 Existing 150mm steel stud cladding support framing is to remain and shall be used in the support of the new cladding materials and associated z-bar type support systems.

- .10 The contractor is to install a Tyvek air barrier sealed to weather at its perimeter over all metal studs prior to installation of Z-bars.
- .11 Installation of new glazing as per specification section 08 80 00. Provide particular gas, films, coatings, etc. as specified and as scheduled for each window location and type. Each window is to be completely weathertight with fittings, trims, flashings, sealants and caulking in place and meeting or exceeding applicable standards.
- .12 Thoroughly clean aluminium window frames and trims together with existing aluminium panels to remain. Install replacement silicone caulking at perimeters of panels and frames.
- .13 Re-establishment of flashing to suit new conditions.
- .14 Existing insulation where damaged or otherwise compromised is to be removed and replaced with new matching the existing batt insulation to remain. Contractor is to include, within the Tender Price, replacement of 5% of the batt insulation based on overall area of existing cladding.
- .15 Provide and schedule hoarding, scaffolding, scissor lifts and staging as required to safely and efficiently provide access for the demolition and removals, installations, inspection and testing requirements required for the sequential phases of the project. Note, the CoSJ Project Manager, the Architect and their assigned representatives are to be provided full and unfettered access to hoarding, scaffolding, scissor lifts and staging with removal of same subject to authorization of the CoSJ Project Manager. Access to window locations is to be maintained in place or otherwise provided by the General Contractor to permit inspection of installations. Coordination of Inspections is by the General Contractor in cooperation with the CoSJ Project Manager.
- .16 Provide clear, safe and fully protected access at all existing exit locations and associated pathways/sidewalks for the duration of the work. Provide 24/7 lighting of the preceding ensuring adequacy of exterior lighting at temporary exits and pathways to B651 Accessibility requirements and to limits acceptable to the Architect/CoSJ Project Manager.
- .17 Construct exterior hoarding as necessary to ensure the security of the building. The General Contractor is responsible to maintain the security of access to the building interior from openings created through the Work of this Contract.
- .18 Construct interior hoarding as necessary to ensure the safety and isolation of occupants through separation of building staff from work activities.
- .19 Remove existing blinds, store and protect and reinstall good to existing at all locations to facilitate the installation of new glazing.
- .20 Clean all areas of building affected by work of this contract on a daily basis.
- .21 Building is to remain fully operational and secure throughout the duration of the Work of this Contract. Protect existing finishes to remain and protect building personnel, users and visitors from exposure to construction processes and materials as well as from odours, dust and debris. The presence of fumes from paint/solvents/adhesives during normal office hours will not be permitted.
- .22 Fully coordinate the work of all Sub-Contractors involved in the fulfilment of the work of this contract including the coordination of work to be accomplished by others.
- .23 Complete all specified administrative requirements.
- .24 The co-ordination of the work is a high priority with occupied offices requiring ample notification of disturbance and the opportunity to avail themselves to a designated swing space to complete necessary preparations. The sequence of the work will require a co-operative planning with the CoSJ Project Manager and designated User representatives.

1.2 CONTRACTOR'S USE OF PREMISES

- .1 Installation/Removal
  - .1 Provide construction facilities and temporary controls in order to execute work expeditiously.
  - .2 Remove from site all such work after use.
- .2 Site Storage/Loading
  - .1 Confine the Work and operations of employees to limits indicated by Contract Documents. Do not unreasonably encumber premises with Products.
  - .2 Do not load or permit to be loaded any part of the Work with a weight or force that will endanger the Work.
- .3 Sanitary Facilities
  - .1 The Contractor is to provide Sanitary Facilities.
- .4 Water Supply
  - .1 Existing potable water supply as designated may be used during construction period, if permission is granted by CoSJ Project Manager.
- .5 Temporary Power
  - .1 CoSJ Project Manager/Owner will provide for temporary power required during construction for temporary lighting and operating of power tools.

1.3 USER OCCUPANCY

- .1 User will occupy premises during entire construction period for execution of normal working hours.
- .2 This Contractor will schedule all work causing noise, dust or odours after normal working hours unless otherwise permitted by the CoSJ Project Manager.

1.4 DOCUMENTS REQUIRED

- .1 Maintain at job site, one copy of each of the following:
  - .1 Contract drawings.
  - .2 Specifications.
  - .3 Addenda.
  - .4 Set of documents for recording changes or deviation from drawings.
  - .5 Reviewed shop drawings.
  - .6 Change orders.
  - .7 Modifications to Contract.
  - .8 Copy of approved work schedule.
  - .9 Manufacturers' installation and/or application instructions.
  - .10 Manufacturers SDS product sheets.

1.5 PROJECT COORDINATION

- .1 Coordinate progress of the Work, Work schedules, submittals, use of site, temporary utilities, construction facilities and controls and material and equipment location.
- .2 Work on this project is to begin immediately following award of contract.
- .3 Schedule verification of site dimensions, shop drawing review and ordering of materials before work commences on site so that no delays will occur.

1.6 CUTTING AND PATCHING

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

- .2 Inspection
  - .1 Inspect existing conditions, including elements subject to damage or movement during cutting and patching.
  - .2 After uncovering, inspect all conditions affecting performance of work.
  - .3 Beginning of cutting or patching means acceptance of existing conditions.
- .3 Execution
  - .1 Perform cutting, fitting, and patching to complete the Work.
  - .2 Remove and replace defective and non-conforming work.
  - .3 Perform work so as to avoid damage to other work.
  - .4 Prepare proper surfaces to receive patching and finishing.
  - .5 Cut rigid materials using power saw or core drill. Pneumatic or impact tools not allowed.
  - .6 Restore work with new products in accordance with Contract Documents.
  - .7 Refinish surfaces to match adjacent finishes; for continuous surfaces refinish to nearest intersection; for an assembly, refinish entire unit.

### 1.7 SCHEDULE

- .1 Schedules Required.
  - .1 Construction Schedule. See Section 01 32 16.16 Construction Progress Schedule – Critical Path method
  - .2 Submittal Schedule for Shop Drawings, Product Data and Samples.
- .2 Format.
  - .1 Prepare schedule as per Specification Section 01 32 16.16 Construction Progress Schedule.
- .3 Submission
  - .1 Submit initial schedules within 7 days after award of Contract.
  - .2 Submit both electronically and printed, with 8 printed copies to Standard Drawing B1 Size provided for review by Architect and CoSJ Project Manager.
  - .3 CoSJ Project Manager will summarize comments and return reviewed schedule within 7 days of receipt.
  - .4 Contractor to resubmit finalized schedule within 5 days after return of reviewed copy.

### 1.8 SITE INSTRUCTION

- .1 When a clarification or modification of the Work is required which does not require an adjustment of the Contract Price or Contract Time, the CoSJ Project Manager will issue a Site Instruction.
- .2 Upon receipt of a Site Instruction, the Contractor to proceed promptly with the Work.

### 1.9 VALUATION OF CHANGES IN THE WORK

- .1 The value of any changes in the work will be determined in one or more of the following ways, as determined by the Architect/o CoSJ Project Manager:
  - .1 Lump Sum: An agreement between the CoSJ Project Manager and the Contractor on a fixed price.
  - .2 Unit Price: Refer to the Tender Form for unit prices agreed upon or as listed in the Contract.
  - .3 Cost Plus: Cost of work and percentage; or cost and fixed fee.
- .2 When determining costs using the Lump Sum or Cost Plus method, the Contractor to submit an itemized account of the cost of expenditures and savings that includes, but is not limited to, the subcontractors' and suppliers' signed quotations and breakdown estimates for material and labour (i.e. itemized materials lists and labour, including labour rates and number of hours to perform work).
- .3 When determining costs using the Lump Sum or Cost Plus method, the itemized account to include all documents and supporting data required to certify the adjustments to the Contract Price, as determined by the COSJ Project Manager.



- .4 For changes where the individual trade cost is anticipated to be less than \$1,000.00, the requirement for the itemized account may be waived, however individual trade quotations must be supplied.
- .5 If appropriate submittals are not provided as required above, the Architect/CoSJ Project Manager will not be held responsible for costs of delays associated with this Work.

#### 1.10 QUALITY CONTROL

- .1 Inspection
  - .1 CoSJ Project Manager and Architect shall have unrestricted access to the Work.
  - .2 Give timely notice requesting inspection if Work is designated for special tests, inspections, or approvals by CoSJ Project Manager, or instructions or law of Place of the Work.
  - .3 If Contractor covers or permits to be covered Work that has been designated for special tests, inspections or approvals before such is made, uncover such Work, have inspections or tests satisfactorily completed and make good such Work.

#### 1.11 DISPOSAL OF DEMOLITION DEBRIS

- .1 Submit certified weigh bills, bills of lading and/or receipts from authorized disposal sites and/or reuse and recycling facilities for all materials removed from site upon request of CoSJ Project Manager.

#### 1.12 CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

- .1 Project Cleanliness
  - .1 Maintain the Work in tidy condition, free from accumulation of waste products and debris.
  - .2 Remove waste material and debris from site at end of each working day.
  - .3 Clean interior areas prior to start of finish work, maintain areas free of dust and other contaminants during finishing operations.

#### 1.13 PROJECT CLOSEOUT

- .1 Final Cleaning
  - .1 When the Work is Substantially Performed, remove surplus products, tools construction machinery and equipment not required for performance of remaining Work.
  - .2 Remove waste materials and debris from site at regularly scheduled times or dispose of as directed by CoSJ Project Manager.
  - .3 Leave work broom clean before inspection process commences.
- .2 Documents
  - .1 Collect reviewed submittals and assemble documents executed by suppliers, and manufacturers.
  - .2 Submit material to Architect and CoSJ PM prior to final Application for Payment.
  - .3 Submit operation and maintenance data, record (project record copies) drawings.
  - .4 Provide warranties fully executed and notarized.
  - .5 Submit a final statement of accounting to Architect and CoSJ PM giving total adjusted Contract Price, previous payments, and monies remaining due.
  - .6 CoSJ Project Manager will issue a final change order reflecting approved adjustments to Contract Price not previously made.

#### 1.14 INSPECTION AND DECLARATION PROCEDURES

- .1 Contractor's Inspection: Contractor and all Subcontractors shall conduct an inspection of the Work, identify deficiencies and defects; repair as required to conform to Contract Documents. Notify CoSJ Project Manager in writing of satisfactory completion of Contractor's Inspection and that corrections have been made. The Contractor may then request the Architect/CoSJ Project Manager to perform an interim completion inspection.

- .2 Interim Completion Inspection: CoSJ Project Manager, Architect, and Contractor will perform an inspection of the Work to identify obvious defects or deficiencies. Contractor shall correct the deficiencies within a time period agreeable to Contractor and CoSJ Project Manager/Architect after all deficiencies are completed the Contractor may call for a final inspection.
- .3 Interim Certificate of Completion: Upon completion of the interim inspection, if CoSJ Project Manager/Architect is satisfied that work is substantially completed and acceptable for use, he may issue an Interim Certificate of Completion, describing portions of work not completed to his satisfaction.
- .4 Final Completion is when Architect and CoSJ Project Manager consider final deficiencies and defects have been corrected and it appears requirements of contract have been totally performed. CoSJ Project Manager/Architect may issue to Contractor a final certificate of completion.
- .5 Interim/Final Certificates of Completion: If the CoSJ Project Manager/Architect does not find the Work to be substantially completed and an Interim/Final Certificate is not issued, the costs associated with extra inspections shall be borne by the Contractor.
- .6 Commencement of Lien and Warranty periods: all lien and warranty periods shall commence at date of Interim Certificate of Completion.

**END OF SECTION**

PART 1– GENERAL

1.1 ACCESS AND EGRESS

- .1 Design, construct and maintain temporary "access to" and "egress from" work areas independent of finished surfaces and in accordance with relevant municipal regulations.
- .2 Ensure temporary barrier is occupying least amount of area to perform construction work and does not interfere with daily functions of building employees and users.

1.2 USE OF SITE AND FACILITIES

- .1 Execute work with least possible interference or disturbance to normal use of premises. Make arrangements with CoSJ Project Manager/Architect to facilitate work as stated.
- .2 Maintain existing services to building and provide for personnel and vehicle access.
- .3 Where security is reduced by work provide temporary means to maintain security.
- .4 Closures: protect work temporarily until permanent enclosures are completed.

1.3 ALTERATIONS, ADDITIONS OR REPAIRS TO EXISTING BUILDING

- .1 Execute work with least possible interference or disturbance to building operations and occupants, public and normal use of premises. Arrange with CoSJ Project Manager to facilitate execution of work.

1.4 EXISTING SERVICES

- .1 Construct barriers in accordance with Section 01 56 00 - Temporary Barriers and Enclosures.

1.5 SPECIAL REQUIREMENTS

- .1 Submit schedule in accordance with Specification Section 01 32 16.16 Construction Progress Schedule – Critical Path Method.
- .2 Ensure that Contractor personnel employed on site become familiar with and obey regulations including safety, fire, traffic and security regulations.
- .3 Keep within limits of work and avenues of ingress and egress.
- .4 Ingress and egress of Contractor vehicles at site shall not conflict with normal user parking and access requirements. Limited on-site parking is available as assigned by CoSJ PM.

1.6 SECURITY

- .1 Where security is reduced by Work of Contract; provide temporary means to maintain security.

1.7 BUILDING SMOKING ENVIRONMENT

- .1 Comply with smoking restrictions. Smoking is not allowed in this building.

2 PRODUCTS

2.1 NOT USED

- .1 Not Used.

3 EXECUTION

3.1 NOT USED

- .1 Not Used.

**END OF SECTION**

1 GENERAL

1.1 ADMINISTRATIVE

- .1 Attend project meetings throughout the progress of the work at the call of Architect/CoSJ Project Manager.
- .2 CoSJ Project Manager and Contractor to review agenda for meetings.
- .3 CoSJ Project Manager to distribute written notice of each meeting a minimum of four days in advance of meeting date to Architect, Contractor and all other participants.
- .4. CoSJ Project Manager to preside at meetings.
- .5 CoSJ Project Manager/Richard & Co. Architecture (RCA) to record the meeting minutes. Include significant proceedings and decisions. Identify actions by parties.
- .6 CoSJ Project Manager to reproduce and distribute electronic copy of minutes within five days after meetings and distribution to meeting participants and, affected parties not in attendance.
- .7 Representative of Contractor, Subcontractor and suppliers attending meetings will be qualified and authorized to act on behalf of party each represents.

1.2 PRECONSTRUCTION MEETING

- .1 Within 15 days after award of Contract, request a meeting of parties in contract to discuss and resolve administrative procedures and responsibilities.
- .2 Senior representatives of Architect and Consultants/Inspectors together with representatives of CoSJ and Owner, Contractor, major Subcontractors, and supervisors will be in attendance.
- .3 Establish time and location of meeting and notify parties concerned minimum 5 days before meeting.
- .4 Incorporate mutually agreed variations to Contract Documents into Agreement, prior to signing.
- .5 Agenda to include:
  - .1 Appointment of official representative of participants in the Work.
  - .2 Schedule of Work: in accordance with Section 01 32 16.16 - Construction Progress Schedule - Critical Path Method (CPM).
  - .3 Schedule of submission of shop drawings, samples, and colour chips. Submit submittals in accordance with Section 01 33 00 - Submittal Procedures.
  - .4 Requirements for temporary facilities, site sign, offices, storage sheds, utilities, fences in accordance with Section 01 52 00 - Construction Facilities.
  - .5 Delivery schedule of specified equipment in accordance with Section 01 32 16.16 - Construction Progress Schedule - Critical Path Method (CPM).
  - .6 Site security in accordance with Section 01 56 00 - Temporary Barriers and Enclosures.
  - .7 Proposed changes, change orders, procedures, approvals required, mark-up percentages permitted, time extensions, overtime, administrative requirements.
  - .8 Owner provided products.
  - .9 Record drawings in accordance with Section 01 33 00 - Submittal Procedures.
  - .10 Maintenance manuals in accordance with Section 01 78 00 - Closeout Submittals.
  - .11 Take-over procedures, acceptance, warranties in accordance with Section 01 78 00 - Closeout Submittals.
  - .12 Monthly progress claims, administrative procedures, photographs, hold backs.
  - .13 Appointment/introduction of inspection and testing agencies or firms.
  - .14 Insurances, transcript of policies.

1.3 **PROGRESS MEETINGS**

- .1 During course of Work and 2 weeks prior to project completion, schedule progress meetings bi-weekly.
- .2 Contractor, major Subcontractors involved in Work, CoSJ Project Manager and as requested by CoSJ, the Architect, are to be in attendance.
- .3 Notify parties minimum 4 days prior to meetings.
- .4 Record minutes of meetings and circulate to attending parties and affected parties not in attendance within 3 days after meeting.
- .5 Agenda to include the following:
  - .1 Review, approval of minutes of previous meeting.
  - .2 Review of Work progress since previous meeting.
- .6 Field observations, problems, conflicts.
  - .1 Review, approval of minutes of previous meeting.
  - .2 Review of Work progress since previous meeting.
  - .3 Field observations, problems, conflicts.
  - .4 Problems which impede construction schedule.
  - .5 Review of off-site fabrication delivery schedules.
  - .6 Corrective measures and procedures to regain projected schedule.
  - .7 Revision to construction schedule.
  - .8 Progress schedule, during succeeding work period.
  - .9 Review submittal schedules: expedite as required.
  - .10 Maintenance of quality standards.
  - .11 Review proposed changes for effect on construction schedule and on completion date.
  - .12 Other business.

2 **PRODUCTS**

- 2.1 NOT USED
  - .1 Not Used.

3 **EXECUTION**

- 3.1 NOT USED
  - .1 Not Used.

**END OF SECTION**

## 1 GENERAL

### 1.1 RELATED REQUIREMENTS

- .1 Sections related to the provision and installations of products and materials.

### 1.2 ALLOWANCES

- .1 n/a

### 1.3 REFERENCE STANDARDS

- .1 Project Management Institute (PMI Standards)
  - .1 A Guide to the Project Management Body of Knowledge (PMBOK Guide) - Fifth Edition.
  - .2 Practice Standard for Scheduling - 2011.

### 1.4 DEFINITIONS

- .1 Activity: Distinct, scheduled portion of work performed during course of a project.
- .2 Activity Duration: time in calendar units between start and finish of a scheduled activity. See also Duration.
- .3 Assumption: factor in planning process that is considered true, real, or certain without proof or demonstration.
- .4 Bar Chart (Gantt Chart): graphic display of schedule-related information.
  - .1 In typical bar chart, schedule activities or work breakdown structure components are listed down left side of chart, dates are shown across the top, and activity durations are shown as date-placed horizontal bars.
- .5 Baseline: approved version of a work product that can be changed only through formal change control procedures and is used as a basis for comparison.
- .6 Budget: approved estimate for a project or work breakdown structure component or schedule activity.
- .7 Cash Flow: projection of progress payment requests based on cash loaded construction schedule.
- .8 Change Control: process whereby modifications to documents, deliverables, or baselines associated with a project are identified, documented, approved, or rejected.
- .9 Completion Milestones: they are firstly Interim Certificate, Substantial Completion and secondly Final Certificate.
- .10 Constraint: scheduled limiting factor that effects execution of a project, program, portfolio, or process.
- .11 Contract: mutually binding agreement that obligates a seller to provide a specified product or service or result and obligates a buyer to pay for it.
- .12 Control: comparing actual performance with planned performance, analyzing variance, assessing trends, to effect process improvements, evaluating possible alternatives, and recommending appropriate corrective action as needed.
- .13 Corrective Action: intentional activity that realigns performance of project work with project management plan.
- .14 Critical Path: sequence of activities that represents longest path through a project, which determines shortest possible duration.
- .15 Critical Path Activity: activity on critical path in a project schedule.
- .16 Critical Path Method (CPM): method used to estimate minimum project duration and determine amount of scheduling flexibility on logical network of paths within schedule model.

- .17 Data Date: point in time when the status of the project is recorded.
- .18 Decomposition: technique used for dividing and subdividing project scope and project deliverables into smaller, more manageable parts.
- .19 Deliverable: unique and verifiable product, result, or capability to perform a service that is required to be produced to complete a process, phase, or project.
- .20 Duration: total number of work periods (not including holidays or other non-working periods) required to complete a schedule activity or work breakdown structure component.
  - .1 Usually expressed as workdays or work weeks.
- .21 Early Finish Date (EF): in Critical Path Method, earliest possible point in time when uncompleted portions of schedule activity can finish based on schedule network logic, data date, and schedule constraints.
  - .1 Early finish dates can change as Project progresses and changes are made to Project plan.
- .22 Early Start Date (ES): in Critical Path Method, earliest possible point in time when uncompleted portions of a schedule activity can start based on schedule network logic, data date, and schedule constraints.
  - .1 Early start dates can change as Project progresses and changes are made to Project Plan.
- .23 Execute: directing, managing, performing, and accomplishing project work; providing deliverables, and providing work performance information.
- .24 Finish Date: point in time associated with a schedule activity's completion.
  - .1 Usually qualified by one of following: actual, planned, estimated, scheduled, early, late, baseline, target, or current.
- .25 Float: (also known as slack) amount of time a schedule activity can be delayed without delaying early start date of a successor or violating a schedule constraint.
  - .1 This resource is available to both CoSJ Project Manager and Contractor.
- .26 Forecast: estimate or prediction of conditions and events in project future based on information and knowledge available at time of forecast.
  - .1 Information is based on projects past performance and expected future performance, and includes information that could impact project in future, such as estimate at completion and estimate to complete.
- .27 Gantt Chart: see Bar Chart.
- .28 Impact Analysis: schedule analysis technique that adds a modeled delay to an accepted construction schedule to determined possible outcome of that delay on project completion.
- .29 Imposed Date: a fixed date imposed on a schedule activity or schedule milestone, usually in form of a "start no earlier than" and "finish no later than" date.
- .30 Lag: amount of time whereby a successor activity is required to be delayed with respect to a predecessor activity.
- .31 Late Finish Date (LF): in critical path method, latest possible point in time when uncompleted portions of a schedule activity can finish based on schedule network logic, project completion date, and schedule constraints.
- .32 Late Start Date (LS): in critical path method, latest possible point in time when uncompleted portions of a schedule activity can start based on schedule network logic, project completion date, and schedule constraints.
- .33 Lead: amount of time whereby a successor activity can be advanced with respect to a predecessor activity.
- .34 Logic Diagram: see Project network diagram.

- .35 Logical Relationship: dependency between two activities or between an activity and a milestone.
- .36 Master Schedule: summary-level schedule that identifies major deliverable; work breakdowns structure components, and key schedule milestones.
- .37 Milestone: significant point or event in a project, program, or portfolio.
- .38 Monitor: collect project performance data with respect to a plan, procedure performance measures, and report and disseminate performance.
- .39 Network: see Project Schedule Network Diagram.
- .40 Non-Critical Activities: activities which when delayed, do not affect specified Contract duration.
- .41 Project Control System: fully computerized system utilizing commercially available software packages.
- .42 Project Management: application of knowledge, skills, tools, and techniques, to project activities to meet project requirements.
- .43 Project Management Plan: approved document that describes how project will be executed, monitored, and controlled.
  - .1 Primary uses of Project management plan are to document planning assumptions and decisions, facilitate communication among stakeholders, and document approved scope, cost, and schedule baselines.
  - .2 Project management plan may be summary or detailed.
- .44 Project Management Planning: development and maintenance of Project Management Plan.
- .45 Project Management Planning, Monitoring and Control System: overall system operated to enable monitoring of Project Work in relation to established milestones.
- .46 Project Schedule: planned dates for performing activities and planned dates for meeting milestones.
- .47 Project Schedule Network Diagram: graphical representation of logical relationships among project schedule activities.
  - .1 Always drawn from left to right to reflect Project chronology.
- .48 Project Scope: work performed to deliver a product, service, or result with specified features and functions.
- .49 Quantified days duration: working days based on 5 day work week, discounting statutory holidays.
- .50 Risk: uncertain event or condition that, if it occurs, has positive or negative effect on one or more project objectives.
- .51 Schedule: see Project Schedule.
- .52 Schedule Data: collection of information for describing and controlling schedule.
- .53 Scope: see Project Scope.
- .54 Start Date: point in time associated with activity's start, usually qualified by one of following: actual, planned, estimated, scheduled, early, late, target, baseline, or current.
- .55 Work Breakdown Structure (WBS): hierarchical decomposition of total scope of work to be carried out by project team to accomplish project objectives and create the required deliverables.

## 1.5 ADMINISTRATIVE REQUIREMENTS

- .1 Project Meeting:
  - .1 Meet with Architect/CoSJ Project Manager within 5 working days of Award of Contract date, to establish Work requirements and approach to project construction operations.



- .2 Participate in regular project progress meetings with Architect/CoSJ Project Manager specifically intended to discuss update of detailed schedule and contract changes.
- .2 Scheduling:
  - .1 Ensure that planning process is iterative and results in generally top-down processing with more detail being developed as planning progresses, and decisions concerning options and alternatives are made.
  - .2 Ensure project schedule efficiencies through monitoring of project in detail to ensure integrity of Critical Path, by comparing actual completions of individual activities with their scheduled completions, and review progress of activities that has started but are not yet completed.
  - .3 Monitor sufficiently often so that causes of delays can immediately be identified and mitigated.
- .3 Project monitoring and reporting:
  - .1 Keep team aware of changes to schedule, and potential consequences as project progresses.
  - .2 Use narrative reports to provide advice on seriousness of challenges and measures to overcome them.
  - .3 Begin narrative reporting with statement on general status of project followed by summarization of delays, potential problems, corrective measures and project status criticality.
- .4 Critical Path Method (CPM) Requirements:
  - .1 Ensure Master Plan and Detail Schedule are practical and remain within specified contract duration.
  - .2 Revise Master Schedule and Detail Schedule deemed impractical Architect/COSJ Project Manager and resubmit for approval.
  - .3 Change to Contract Duration:
    - .1 Acceptance of Master Schedule and Detail Schedule showing scheduled Contract duration shorter than specified Contract duration does not constitute change to Contract.
    - .2 Duration of Contract may only be changed through bilateral Agreement.
  - .4 Consider Master Schedule and Detail Schedule deemed practical by Architect/CoSJ Project Manager, showing Work completed in less than specified Contract duration, to have float.
  - .5 First Milestone on Master Schedule and Detail Schedule will identify start Milestone with an Early Start, "ES", constraint date equal to Award of Contract date.
  - .6 Calculate dates for completion of milestones from Plan and Schedule using specified time periods for Contract.
  - .7 Interim Certificate, Substantial Completion with Late Finish, "LF", constraint equal to calculated date.
  - .8 Calculations on updates such that if early finish of Interim Certificate falls later than specified Contract duration then float calculation to reflect negative float.
  - .9 Delays to non-critical activities with float may not be basis for time extension.
  - .10 Do not use float suppression techniques such as software constraints, preferential sequencing, special lead/lag logic restraints, extended activity times or imposed dates other than required by Contract.
  - .11 Allow for adverse weather conditions normally anticipated and show in Master Plan and Detail Schedule.
    - .1 Specified Contract duration has been predicated assuming normal amount of adverse weather conditions.
  - .12 Provide necessary crews and manpower to meet schedule requirements for performing Work within specified Contract duration.
    - .1 Simultaneous use of multiple crews on multiple fronts on multiple critical paths may be required.

- .13 Arrange participation on and off site of subcontractors and suppliers, as required by Architect/CoSJ Project Manager, for purpose of network planning, scheduling, updating and progress monitoring.
  - .1 Approvals by Architect/CoSJ Project Manager of original networks and revisions do not relieve Contractor from duties and responsibilities required by Contract.
- .14 Ensure that it is understood that Award of Contract or time of beginning, rate of progress, Interim Certificate and Final Certificate as defined times of completion are of essence of this contract.

#### 1.6 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit to Architect/CoSJ Project Manager Project Control System for planning, scheduling, monitoring and reporting of project progress.
- .3 Submit Project Control System to Architect/CoSJ Project Manager for approval.
  - .1 Failure to comply with each required submission, may result in progress payment being withheld in accordance with Federal Government's GC 5 Terms of Payment.
- .4 Include costs for execution, preparation and reproduction of schedule submittals in bid documents.
- .5 Submit letter ensuring schedule has been prepared in co-ordination with major sub-contractors.
- .6 Refer to article "PROGRESS MONITORING AND REPORTING" of this specification Section for frequency of Project control system submittals.
- .7 Submit impact analysis of schedule for changes that result in extension of contract duration.
  - .1 Include draft schedule update and report as outlined in article "PROGRESS MONITORING AND REPORTING".
- .8 Submit Project planning, monitoring and control system data [as part of initial schedule submission and monthly status reporting, as required Architect/CoSJ PM in following form.
  - .1 D or USB Drive files in original scheduling software containing schedule and cash flow information, labelled with data date, specific update, and person responsible for update.
  - .2 Master Schedule Bar Chart.
  - .3 Construction Detail Schedule Bar Chart.
  - .4 Listing of project activities including milestones and logical connectors, networks (sub-networks) from Project start to end. Sort activities by activity identification number and accompany with descriptions. List early and late start and finish dates together with durations, codes and float.
  - .5 Criticality report listing activities and milestones with negative, zero and up to 5 days total float used as first sort for ready identification of critical or near critical paths through entire project. List early and late starts and finishes dates, together with durations, codes and float for critical activities.
  - .6 Progress report in early start sequence, listing for each trade, activities due to start, underway, or finished within 2 months from monthly update date. List activity identification number, description and duration. Provide columns for entry of actual start and finish dates, duration remaining and remarks concerning action required.

#### 1.7 QUALITY ASSURANCE

- .1 Use experienced personnel, fully qualified in planning and scheduling to provide services from start of construction to Final Certificate, including Commissioning.

#### 1.8 WORK BREAKDOWN STRUCTURE (WBS)

- .1 Prepare construction Work Breakdown Structure (WBS) within 5 working days of Contract Award
  - .1 Develop WBS through at least five levels: project, stage, element, sub-element and work package.

## 1.9 PROJECT MILESTONES

- .1 Mandatory and recommended project milestones form targets for both Master Schedule and Detail Schedule of CPM construction network system.
  - .1 Mandatory: interim Certificate (substantial completion) 12 23 2021.

## 1.10 MASTER SCHEDULE

- .1 Structure and base CPM construction networks system on WBS coding in order to ensure consistency throughout Project.
- .2 Prepare comprehensive construction Master Schedule (CPM logic diagram) and dependent Cash Flow Projection within 5 working days of finalizing Agreement to confirm validity or alternates of identified milestones.
  - .1 Master Schedule will be used as baseline.
    - .1 Revise baseline as conditions dictate and as required Architect/CoSJ PM.
    - .2 Architect/CoSJ Project Manager as Project progresses will review and return revised baseline within 5 work days.
- .3 Reconcile revisions to Master Schedule and Cash Flow Projections with previous baseline to provide continuous audit trail.
- .4 Initial and subsequent Master Schedule will include:
  - .1 CD or USB Drive containing schedule and cash flow information, clearly labelled with data date, specific update, and person responsible for update.
  - .2 Bar chart identifying coding, activity durations, early/late and start/finish dates, total float, completion as percentile, current status and budget amounts.
  - .3 Network diagram showing coding, activity sequencing (logic), total float, early/late dates, current status and durations.
  - .4 Actual/projected monthly cash flow: expressed monthly and shown in both graphical and numerical form.

## 1.11 DETAIL SCHEDULE

- .1 Provide detailed project schedule (CPM logic diagram) within 5 working days of Award of Contract date showing activity sequencing, interdependencies and duration estimates. Include listed activities as follows:
  - .1 Shop drawings.
  - .2 Samples.
  - .3 Approvals.
  - .4 Procurement.
  - .5 Construction.
  - .6 Installation.
  - .7 Site works.
  - .8 Acceptance.
- .2 Detail CPM schedule to cover in detail minimum period of 2 months beginning from Award of Contract date with duration of each activity approximately 2 days.
  - .1 Show remaining activities for CPM construction network system up to Final Certificate and develop complete detail as project progresses.
  - .2 Detail activities completely and comprehensively throughout duration of project.
- .3 Relate Detail Schedule activities to basic activities and milestones developed and approved in Master Schedule.
- .4 Clearly show sequence and interdependence of construction activities and indicate:
  - .1 Start and completion of all items of Work, their major components, and interim milestone completion dates.
  - .2 Activities for procurement, delivery, installation and completion of each major piece of equipment, materials and other supplies, including:
    - .1 Time for submittals, resubmittals and review.

- .2 Time for fabrication and delivery of manufactured products for Work.
- .3 Interdependence of procurement and construction activities.
- .3 Include sufficient detail to assure adequate planning and execution of Work. Activities generally range in duration from 3 to 15 workdays each.
- .5 Provide level of detail for project activities such that sequence and interdependency of Contract tasks are demonstrated and allow co-ordination and control of project activities. Show continuous flow from left to right.
- .6 Ensure activities with no float are calculated and clearly indicated on logical CPM construction network system as being, whenever possible, continuous series of activities throughout length of Project to form "Critical Path". Increased number of critical activities is seen as indication of increased risk.
- .7 Insert Change Orders in appropriate and logical location of Detail Schedule. After analysis, clearly state and report to Architect/CoSJ Project Manager for review effects created by insertion of new Change Order.

#### 1.12 REVIEW OF CONSTRUCTION DETAIL SCHEDULE

- .1 Allow minimum 5 work days for review by Architect/CoSJ Project Manager of proposed construction Detail Schedule unless otherwise specified.
- .2 Upon receipt of reviewed Detail Schedule make necessary revisions and resubmit to Architect/CoSJ Project Manager for review within maximum 5 work days unless otherwise specified.
- .3 Promptly provide additional information to validate practicability of Detail Schedule as required by Architect/CoSJ Project Manager.
- .4 Submittal of Detail Schedule indicates that it meets Contract requirements and will be executed generally in sequence.

#### 1.13 COMPLIANCE WITH DETAIL SCHEDULE

- .1 Comply with reviewed Detail Schedule.
- .2 Proceed with significant changes and deviations from scheduled sequence of activities that cause delay, only after written receipt of approval by Architect/CoSJ Project Manager.
- .3 Identify activities that are behind schedule and causing delay. Provide measures to regain slippage.
  - .1 Corrective measures may include:
    - .1 Increase of personnel with more experience/qualifications on site for effected activities or work package.
    - .2 Increase in materials and equipment.
    - .3 Overtime work, Additional work shifts.
- .4 Submit to Architect/CoSJ Project Manager, justification, project schedule data and supporting evidence for approval of extension to Contract completion date or interim milestone date when required. As part of supporting evidence, include:
  - .1 Written submission of proof of delay based on revised activity logic, duration and costs, showing time impact analysis illustrating influence of each change or delay relative to approved contract schedule.
  - .2 Prepared schedule indicating how change will be incorporated into overall logic diagram. Demonstrate perceived impact based on date of occurrence of change and include status of construction at that time.
  - .3 Other supporting evidence requested by Architect/CoSJ Project Manager.
  - .4 Do not assume approval of Contract extension prior to receipt of written approval from Architect/CoSJ Project Manager.

- .5 In event of Contract extension, display in Detail Schedule that scheduled float time available for work involved has been used in full without jeopardizing earned float.
  - .1 Architect/CoSJ Project Manager will determine and advise Contractor number of allowable days for extension of Contract based on project schedule updates for period in question, and other factual information.
  - .2 Construction delays affecting project schedule will not constitute justification for extension of contract completion date.

#### 1.14 PROGRESS AND REPORTING

- .1 On an ongoing basis, Detail Schedule on job site to show "Progress to Date". Arrange participation on and off site of subcontractors and suppliers, as, and when necessary, for purpose of network planning, scheduling, updating and progress monitoring. Inspect Work with Architect/CoSJ Project Manager at least twice monthly to establish progress on each current activity shown on applicable networks.
- .2 Update and reissue project Work Breakdown Structure and relevant coding structures as project develops and changes.
- .3 Perform Detail Schedule update bi-weekly with status dated (Data Date) on last working day of month. Update to reflect activities completed to date, activities in progress, logic and duration changes.
- .4 Do not automatically update actual start and finish dates by using default mechanisms found in project management software.
- .5 Submit to Architect/CoSJ Project Manager copies of updated Detail Schedule.
- .6 Requirements for monthly progress monitoring and reporting are basis for progress payment request.
- .7 Submit monthly written report based on Detail Schedule, showing Work to date performed, comparing Work progress to planned, and presenting current forecasts. Report summarize progress, defining problem areas and anticipated delays with respect to Work schedule, and critical paths. Explain alternatives for possible schedule recovery to mitigate potential delay. Include in report:
  - .1 Description of progress made.
  - .2 Pending items and status of: permits, shop drawings, change orders, possible time extensions.
  - .3 Status of Contract completion date and milestones.
  - .4 Current and anticipated problem areas, potential delays and corrective measures.
  - .5 Review of progress and status of Critical Path activities.

## 2 PRODUCTS

### 2.1 NOT USED

- .1 Not used.

## 3 EXECUTION

### 3.1 NOT USED

- .1 Not used.

**END OF SECTION**

1 GENERAL

1.1 RELATED REQUIREMENTS

- |    |                     |   |
|----|---------------------|---|
| .1 | Section 02 41 00    | Demolition – Minor Works                                    |
| .2 | Section 01 32 16.16 | Construction Progress Schedule – Critical Path Method (CPM) |
| .3 | Section 07 42 00    | Reinforced Polymer Architectural Panels                     |
| .4 | Section 07 46 19    | Steel Siding  |
| .5 | Section 07 92 00    | Joint Sealants  |
| .6 | Section 08 80 00    | Glazing   |

1.2 ADMINISTRATIVE

- .1 Submit to CoSJ Project Manager submittals listed for review. Submit promptly and in orderly sequence to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .2 Do not proceed with Work affected by submittal 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 CoSJ Project Manager. This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and co-ordinated with requirements of Work and Contract Documents.  
**Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and considered rejected.**
- .6 Notify CoSJ Project Manager, 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 co-ordinated.
- .8 Contractor's responsibility for errors and omissions in submission is not relieved by CoSJ Project Manager nor Architect's review of submittals.
- .9 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by CoSJ Project Manager nor Architect's review.
- .10 Keep one reviewed copy of each submission on site.

1.3 SHOP DRAWINGS AND PRODUCT DATA

- .1 Refer to CCDC 2 GC 3.11.
- .2 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.
- .3 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been coordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.
- .4 Allow 7 days for CoSJ Project Manager nor Architect's review of each submission.
- .5 Adjustments made on shop drawings by CoSJ Project Manager or Architect are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to CoSJ Project Manager prior to proceeding with Work.

- .6 Make changes in shop drawings as CoSJ Project Manager or Architect may require, consistent with Contract Documents. When resubmitting, notify CoSJ Project Manager and Architect in writing of revisions other than those requested.
- .7 Accompany submissions with transmittal containing:
  - .1 Date.
  - .2 Project title and number.
  - .3 Contractor's name and address.
  - .4 Identification and quantity of each shop drawing, product data and sample.
  - .5 Other pertinent data.
- .8 Submissions include:
  - .1 Date and revision dates.
  - .2 Project title and number.
  - .3 Name and address of:
    - .1 Subcontractor.
    - .2 Supplier.
    - .3 Manufacturer.
  - .4 Contractor's stamp, signed by Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
  - .5 Details of appropriate portions of Work as applicable:
    - .1 Fabrication.
    - .2 Layout, showing dimensions, including identified field dimensions, and clearances.
    - .3 Setting or erection details.
    - .4 Capacities.
    - .5 Performance characteristics.
    - .6 Standards.
    - .7 Operating weight.
    - .8 Relationship to adjacent work.
- .9 After CoSJ Project Manager and Architect's review, distribute copies.
- .10 Submit electronic copy of shop drawings for each requirement requested in specification Sections and as CoSJ Project Manager and Architect may reasonably request.
- .11 Submit electronic copies of product data sheets or brochures for requirements requested in specification Sections and as requested by CoSJ Project Manager and Architect where shop drawings will not be prepared due to standardized manufacture of product.
- .12 Submit electronic copies of test reports for requirements requested in specification Sections and as requested by CoSJ Project Manager and Architect.
  - .1 Report signed by authorized official of testing laboratory that material, product or system identical to material, product or system to be provided has been tested in accord with specified requirements.
  - .2 Testing must have been within 3 years of date of contract award for project.
- .13 Submit electronic copies of certificates for requirements requested in specification Sections and as requested by CoSJ Project Manager and Architect.
  - .1 Statements printed on manufacturer's letterhead and signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements.
  - .2 Certificates must be dated after award of project contract complete with project name.

- .14 Submit electronic copies of manufacturer's instructions for requirements requested in specification Sections and as requested by CoSJ Project Manager and Architect.
  - .1 Pre-printed material describing installation of product, system or material, including special notices and Safety Data Sheets concerning impedances, hazards and safety precautions.
- .15 Submit electronic copies of Manufacturer's Field Reports for requirements requested in specification Sections and as requested by CoSJ Project Manager and Architect.
- .16 Documentation of the testing and verification actions taken by manufacturer's representative to confirm compliance with manufacturer's standards or instructions.
- .17 Submit electronic copies of Operation and Maintenance Data for requirements requested in specification Sections as follows:
  - .1 **Two weeks prior to Substantial Performance of the Work or Training**, submit to Architect/CoSJ Project Manager, one electronic copy of operating and maintenance manual for review. Modify operating maintenance manuals as required by review. On approval, submit 1 hard copy and an electronic copy on a Memory Stick.
- .18 Delete information not applicable to project.
- .19 Supplement standard information to provide details applicable to project.
- .20 If upon review by COSJ Project Manager and Architect, no errors or omissions are discovered or if only minor corrections are made, copies will be returned and fabrication and installation of Work may proceed. If shop drawings are rejected, noted copy will be returned and resubmission of corrected shop drawings, through same procedure indicated above, must be performed before fabrication and installation of Work may proceed.
- .21 The review of shop drawings by CoSJ Project Manager and Architect is for sole purpose of ascertaining conformance with general concept.
  - .1 This review shall not mean that CoSJ Project Manager and Architect approves detail design inherent in shop drawings, responsibility for which shall remain with Contractor submitting same, and such review shall not relieve Contractor of responsibility for errors or omissions in shop drawings or of responsibility for meeting requirements of construction and Contract Documents.
  - .2 Without restricting generality of foregoing, Contractor is responsible for dimensions to be confirmed and correlated at job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of Work of sub-trades.

#### 1.4 SAMPLES

- .1 Submit for review samples in triplicate as requested in respective specification Sections. Label samples with origin and intended use.
- .2 Deliver samples prepaid to Architect at 38 water Street, Saint John, NB E2L2A5.
- .3 Notify CoSJ Project Manager and Architect 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 CoSJ Project Manager and Architect are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to CoSJ Project Manager and Architect prior to proceeding with Work.
- .6 Make changes in samples which CoSJ Project Manager and Architect 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.



1.5 MOCK-UPS

- .1 Erect mock-ups in accordance with 01 45 00 - Quality Control.

1.6 PHOTOGRAPHIC DOCUMENTATION

- .1 Submit electronic copy of digital photography in jpg format, fine resolution, weekly and with monthly with progress statement and as directed by CoSJ Project Manager and Architect.
- .2 Project identification: name and number of project and date of exposure indicated.
- .3 Number of viewpoints: 4 of each work location.
  - .1 Viewpoints and their location as determined by CoSJ Project Manager and Architect in cooperation with Contractor.

1.7 CERTIFICATES AND TRANSCRIPTS

- .1 Immediately after award of Contract, submit Workers' Compensation Board status.
- .2 Submit transcription of insurance immediately after award of Contract.

2 PRODUCTS

2.1 NOT USED

- .1 Not Used.

3 EXECUTION

3.1 NOT USED

- .1 Not Used.

**END OF SECTION**

1 GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 02 41 00.08 Demolition – Minor Works.
- .2 Section 01 77 00 Closeout Procedures.

1.2 REFERENCE STANDARDS

- .1 Canada Labour Code, Part 2, Canada Occupational Safety and Health Regulations
- .2 Province of New Brunswick
  - .1 Occupational Health and Safety Act, S.N.B.- Updated 2009.
- .3 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
  - .1 Safety Data Sheets (SDS).

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Submit site-specific Health and Safety Plan: Within 7 days after date of Notice to Proceed and prior to commencement of Work. Health and Safety Plan must include:
  - .1 Results of site specific safety hazard assessment.
  - .2 Results of safety and health risk or hazard analysis for site tasks and operation found in work plan.
- .3 Submit copy of Contractor's authorized representative's work site health and safety inspection reports to CoSJ Project Manager and authority having jurisdiction, weekly.
- .4 Submit copies of reports or directions issued by Federal, Provincial and Territorial health and safety inspectors.
- .5 Submit copies of incident and accident reports.
- .6 Submit WHMIS Safety Data Sheets (SDS) in accordance with Section 02 82 00.01 – Asbestos Abatement Minimum Precautions. SDS submittals are required in both official languages.
- .7 CoSJ Project Manager will review Contractor's site-specific Health and Safety Plan and provide comments to Contractor within 5 days after receipt of plan. Revise plan as appropriate and resubmit plan to CoSJ Project Manager within 2 days after receipt of comments from CoSJ Project Manager.
- .8 CoSJ Project Manager review of Contractor's final Health and Safety plan should not be construed as approval and does not reduce the Contractor's overall responsibility for construction Health and Safety.
- .9 Medical Surveillance: where prescribed by legislation, regulation or safety program, submit certification of medical surveillance for site personnel prior to commencement of Work, and submit additional certifications for any new site personnel to CoSJ Project Manager.
- .10 On-site Contingency and Emergency Response Plan: address standard operating procedures to be implemented during emergency situations.

1.4 FILING OF NOTICE

- .1 File Notice of Project with Provincial authorities prior to beginning of Work.
- .2 Contractor shall agree to install proper site separation and identification in order to maintain time and space at all times throughout life of project.

### 1.5 SAFETY ASSESSMENT

- .1 Perform site specific safety hazard assessment related to project.

### 1.6 MEETINGS

- .1 Schedule and administer Health and Safety meeting with CoSJ Project Manager prior to commencement of Work.

### 1.7 PROJECT/SITE CONDITIONS

- .1 Work at site will involve working at heights, working in areas with loading restrictions, areas where overhead electrical is a consideration.

### 1.8 GENERAL REQUIREMENTS

- .1 Develop written site-specific Health and Safety Plan based on hazard assessment prior to beginning site Work and continue to implement, maintain, and enforce plan until final demobilization from site. Health and Safety Plan must address project specifications.
- .2 CoSJ Project Manager may respond in writing, where deficiencies or concerns are noted and may request re-submission with correction of deficiencies or concerns.

### 1.9 RESPONSIBILITY

- .1 Be responsible for health and safety of persons on site, safety of property on site and for protection of persons adjacent to site and environment to extent that they may be affected by conduct of Work.
- .2 Comply with and enforce compliance by employees with safety requirements of Contract Documents, applicable federal, provincial, territorial and local statutes, regulations, and ordinances, and with site-specific Health and Safety Plan.

### 1.10 COMPLIANCE REQUIREMENTS

- .1 Comply with Occupational Health and Safety Act, General Regulation, N.B. Reg.
- .2 Comply with Canada Labour Code, Canada Occupational Safety and Health Regulations.

### 1.11 UNFORSEEN HAZARDS

- .1 When unforeseen or peculiar safety-related factor, hazard, or condition occur during performance of Work, follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of Province having jurisdiction and advise Architect/COSJ Project Manager verbally and in writing.
- .2 When unforeseen or peculiar safety-related factor, hazard, or condition occur during performance of Work, advise Health and Safety coordinator and follow procedures in accordance with Acts and Regulations of Province having jurisdiction and advise CoSJ Project Manager verbally and in writing.

### 1.12 HEALTH AND SAFETY CO-ORDINATOR

- .1 Employ and assign to Work, competent and authorized representative as Health and Safety Coordinator. Health and Safety Coordinator must:
  - .1 Have site-related working experience specific to activities associated with WHIMIS Health and Safety Standards.
  - .2 Have working knowledge of occupational safety and health regulations.
  - .3 Be responsible for completing Contractor's Health and Safety Training Sessions and ensuring that personnel not successfully completing required training are not permitted to enter site to perform Work.

- .4 Be responsible for implementing, enforcing daily and monitoring site-specific Contractor's Health and Safety Plan.
- .5 Be on site during execution of Work and report directly to and be under direction of site supervisor.

#### 1.13 POSTING OF DOCUMENTS

- .1 Ensure applicable items, articles, notices and orders are posted in conspicuous location on site in accordance with Acts and Regulations of Province having jurisdiction, and in consultation with COSJ Project Manager.

#### 1.14 CORRECTION OF NON-COMPLIANCE

- .1 Immediately address health and safety non-compliance issues identified by authority having jurisdiction or by CoSJ Project Manager.
- .2 Provide CoSJ Project Manager with written report of action taken to correct non-compliance of health and safety issues identified.
- .3 CoSJ Project Manager may stop Work if non-compliance of health and safety regulations is not corrected.

#### 1.15 BLASTING

- .1 Blasting or other use of explosives is not permitted.

#### 1.16 POWDER ACTUATED DEVICES

- .1 Use powder actuated devices only after receipt of written permission from CoSJ Project Manager.

#### 1.17 WORK STOPPAGE

- .1 Give precedence to safety and health of public and site personnel and protection of environment over cost and schedule considerations for Work.

### 2 PRODUCTS

#### 2.1 NOT USED

- .1 Not used.

### 3 EXECUTION

#### 3.1 NOT USED

- .1 Not used.

**END OF SECTION**

## 1 GENERAL

### 1.1 REPORTING FIRES

- .1 Inform CoSJ Project Manager of fire incidents at construction site, regardless of size.
- .2 Know location of nearest fire alarm pull station and telephone, including emergency phone number.
- .3 Report immediately fire incidents to Fire Department as follows:
  - .1 Activate nearest fire alarm pull station.
  - .2 Telephone.
- .4 Person activating fire alarm pull station will remain at main entrance of site to direct Fire Department to scene of fire.
- .5 When reporting fire by telephone, give location of fire, name or number of building and be prepared to verify location.

### 1.2 FIRE SAFETY PLAN

- .1 Prepare a fire safety plan for construction site prior to commencement of on site work.
- .2 Submit fire safety plan to CoSJ Project Manager for review by local fire department. Implement changes or recommendations made by local fire department into fire safety plan.
- .3 Limit scope of fire safety plan to area of construction only. Existing fire safety plans covering existing buildings are not responsibility of this construction contract.
- .4 Post fire safety plan at entrance to construction site and/or near construction site's health and safety board.
- .5 Prepare fire safety plan in conformance with National Fire Code of Canada. Include:
  - .1 Emergency procedures in case of fire, including:
    - .1 Sounding fire alarm.
    - .2 Notifying fire department.
    - .3 Instructing occupants on procedures followed when fire alarm sounds.
    - .4 Evacuating occupants, including special provisions for persons requiring assistance.
    - .5 Confining, controlling and extinguishing fires.
  - .2 Appointment and organization of designated supervisory staff to carry out fire safety duties.
  - .3 Training of supervisory staff and other occupants in their responsibilities for fire safety.
  - .4 Documents including diagrams, showing type, location and operation of building fire emergency systems.
  - .5 Holding of fire drills (where applicable).
  - .6 Control of fire hazards in the building.
  - .7 Inspection and maintenance of building facilities provided for the safety of occupants.

### 1.3 FIRE WARNING SYSTEM

- .1 Provide a fire warning system for entire construction site, capable of notifying construction personnel of a fire emergency in construction area.
- .2 Provide system with sufficient coverage so that alarms are capable of being heard throughout building and anywhere on site.

### 1.4 FIRE PROTECTION SYSTEM IMPAIRMENT

- .1 Maintain existing systems in an operational state at all times during construction.
- .2 Use of fire hydrants, standpipes or hose systems for purposes other than firefighting prohibited.
- .3 Existing fire protection and alarm systems will not be obstructed, shut off, disabled or left inactive at end of each working day or shift without written authorization from Fire Department Chief.

- .4 Submit written notification to CoSJ Project Manager and CoSJ Fire Department Chief 48 hours in advance of planned interruption of services. Submit written notification for operation including shutting down active fire protection system, including water supply, fire suppression, fire detection and life safety systems.
- .5 Where a fire protection system that provides fire alarm monitoring is impaired in an existing building, provide a fire watch as directed by CoSJ Fire Department Chief.
- .6 Conduct work on fire protection system where systems are affected or impaired in accordance with National Fire Code of Canada.

#### 1.5 FIRE EXTINGUISHERS

- .1 Supply fire extinguishers, as scaled by CoSJ Fire Department Chief, necessary to protect work in progress and contractor's physical plant on site.
- .2 Provide supplemental fire extinguishers to these areas and otherwise as directed by COSJ Project Manager:
  - .1 Adjacent to hot works.
  - .2 Areas where combustibles materials are stored.
  - .3 Adjacent to areas where flammable liquids or gases are stored or handled.
  - .4 Near or on internal combustion engines.
  - .5 Adjacent to temporary oil fired or gas fired equipment.
  - .6 Adjacent to bitumen heating equipment.
- .3 Provide extinguishers rated as follows: 4A:40BC. Minimum 20 pounds unless otherwise directed by CoSJ Fire Department Chief.
- .4 Provide dry chemical type extinguishers unless otherwise required by hazard being protected.
- .5 Provide sufficient numbers of extinguishers based on a maximum travel distance between extinguishers of 23.0 meters (75 feet).

#### 1.6 ACCESS FOR FIRE FIGHTING

- .1 Provide and maintain access for firefighting in accordance with National Fire Code of Canada.
- .2 Provide written notification to CoSJ Fire Department Chief a minimum of 5 working days in advance of operation that would impede fire apparatus response including:
  - .1 Violation of minimum horizontal and overhead clearances.
  - .2 Other operations as directed by CoSJ Fire Department Chief.
  - .3 Erecting of barricades and digging of trenches.
- .3 Maintain a minimum clear horizontal width on access routes of 5.0 meters or otherwise as defined by Senior Fire Fighter.
- .4 Maintain a minimum vertical clearance of 6.0 meters or otherwise as defined by CoSJ Fire Department Chief.

#### 1.7 SMOKING PRECAUTIONS

- .1 Smoking is prohibited in buildings including buildings under construction.

#### 1.8 RUBBISH AND WASTE MATERIALS

- .1 Keep rubbish and waste materials to a minimum.
- .2 Burning of rubbish is prohibited.
- .3 Remove rubbish from work site at end of each work day or shift or more frequently as directed by CoSJ Project Manager.
- .4 Storage:
  - .1 Store oily waste in approved receptacles to ensure maximum cleanliness and safety.
  - .2 Deposit greasy or oily rags and materials subject to spontaneous combustion in approved receptacles and remove at end of each work day.

**1.9 FLAMMABLE AND COMBUSTIBLE LIQUIDS**

- .1 Handle, store and use flammable and combustible liquids in accordance with National Fire Code of Canada and as otherwise directed by the Senior Fire Fighter.
- .2 Store flammable and combustible liquids such as gasoline, kerosene and naphtha in quantities not exceeding 45 litres. Store in approved safety cans bearing Underwriters' Laboratory of Canada or Factory Mutual seal of approval. Obtain written authorization from Senior Fire Fighter for storage of quantities of flammable and combustible liquids exceeding 45 litres.
- .3 Transfer of flammable or combustible liquids within buildings or on jetties is prohibited.
- .4 Transfer of flammable or combustible liquids in vicinity of open flames or any type of heat-producing devices is prohibited.
- .5 Use of flammable liquids having flash point below 38 degrees C such as naphtha or gasoline as solvents or cleaning agents is prohibited.
- .6 Storing flammable and combustible waste liquids on site is prohibited. Remove daily or more frequently as directed by Senior Fire Fighter.

**1.10 HOT WORKS**

- .1 Implement a hot works program in accordance with National Fire Code of Canada and [NFPA 51B](#) Standard for Fire Prevention. Apply hot works program to processes involving welding, cutting, roofing and other hot works as defined by CoSJ Project Manager and CoSJ Fire Department Chief.
- .2 Obtain a "Hot Works" permit from CoSJ Project Manager for hot works in construction area. Frequency of renewal for hot works permits is at discretion of the CoSJ Project Manager.
- .3 When work is carried out in dangerous or hazardous areas involving use of heat, provide fire watchers equipped with sufficient fire extinguishers. Determination of dangerous or hazardous areas along with level of protection necessary for Fire Watch is at discretion of the CoSJ Project Manager.
- .4 Provide fire watch service for work as directed by CoSJ Project Manager and as defined in Fire Department Briefing. Provide fire watchers trained in use of fire extinguishing equipment.
- .5 Carry out hot works processes in areas free of combustible and flammable content.
- .6 Where hot works must be carried out in areas where combustibles are present:
  - .1 Protect flammable and combustible materials within 15.0 meters of hot works in accordance with National Fire Code of Canada.
  - .2 Provide a fire watch during hot work and for a minimum of 60 minutes after work is complete unless otherwise directed by CoSJ Fire Department Chief.
  - .3 Conduct a final inspection of area not less than 4 hours after completion of hot works.
- 7 Where there is a possibility of sparks leaking onto combustible materials in areas adjacent to areas where the hot work is carried out:
  - .1 Cover or close openings in walls, floors or ceilings to prevent passage of sparks to such adjacent areas.
  - .2 Provide a fire watch during hot works and for a minimum of 60 minutes after work is complete.
  - .3 Conduct a final inspection not less than 4 hours after completion of hot works unless otherwise directed by Senior Fire Fighter.
- .8 Protection of flammable or combustible materials:
  - .1 Remove flammable and combustible materials including combustible or flammable dust or residue from area where hot works is carried out.
  - .2 When removal is not possible, protect materials with a non-combustible covering.
- .9 Provide a fire extinguisher within 3.0 meters of hot works. Provide a minimum size of 20 lbs Type ABC extinguisher unless otherwise directed by Senior Fire Fighter.

1.11 HAZARDOUS SUBSTANCES

- .1 Perform work involving the use of toxic or hazardous materials, chemicals or explosives, or otherwise creating hazard to life, safety or health, in accordance National Fire Code of Canada (NFC).
- .2 Provide ventilation where flammable liquids, such as lacquers or urethanes are used. Eliminate sources of ignition. Provide written notification to the COSJ Project Manager a minimum of 5 days prior to starting work and immediately at completion of work.

1.12 PARTIAL OCCUPANCY

- .1 Implement partial occupancy procedures as defined in General Conditions of the Contract. Partial occupancy is defined as when construction occurs adjacent to work occupied areas. This includes:
  - .1 Phased new construction.
  - .2 Early or partial occupancy of new construction.
  - .3 New construction being added onto an existing building.
  - .4 Renovation or recapitalization of an existing building.
  - .5 Phased renovation or recapitalization of an existing building.
- .2 Where partial occupancy occurs, implement requirements as indicated in drawings and specifications. This may include construction of a rated fire separation between occupied and construction areas as required by National Fire Code.
- .3 If work is carried out in an occupied building, provide regular inspections every hour, throughout entire period of demolition.
- .4 If work is carried out in an occupied building and where building does not have a Fire Alarm system or similar automatic monitoring or protection equipment, provide regular inspections every hour for entire period of construction.

1.13 QUESTIONS OR CLARIFICATION

- .1 Direct questions or clarification on Fire Safety to CoSJ Project Manager.
- .2 CoSJ Project Manager will obtain clarifications from CoSJ Fire Department Chief. Do not contact directly with CoSJ Fire Department Chief for notification, authorization or any requests unless situation constitutes an immediate emergency.

1.14 FIRE INSPECTION

- .1 Co-ordinate site inspections by CoSJ Fire Department Chief through CoSJ Project Manager.
- .2 Allow CoSJ Fire Department Chief unrestricted access to work site.
- .3 Co-operate with CoSJ Fire Department Chief during routine fire safety inspection of work site.
- .4 Immediately remedy unsafe fire situations observed by CoSJ Fire Department Chief.

2 PRODUCTS

2.1 NOT USED

- .1 NOT USED

3 EXECUTION

3.1 NOT USED

- .1 NOT USED

**END OF SECTION**



1 GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 02 41 00.08 – Demolition - Minor Works

1.2 DEFINITIONS

- .1 Environmental Pollution and Damage: presence of chemical, physical, biological elements or agents which adversely affect human health and welfare; unfavourably alter ecological balances of importance to human life; affect other species of importance to humans; or degrade environment aesthetically, culturally and/or historically.
- .2 Environmental Protection: prevention/control of pollution and habitat or environment disruption during construction.

1.3 REFERENCE STANDARDS

- .1 Canadian Environmental Protection Act 1999

1.4 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
- .1 Submit manufacturer's instructions, printed product literature and data sheets and include product characteristics, performance criteria, physical size, finish and limitations.
- .2 Submit WHMIS Safety Data Sheets (SDS) in accordance with Section 01 47 15 - Sustainable Requirements: Construction.
- .3 Submit Environmental Protection Plan (EPP) for review and approval by CoSJ Project Manager before delivering materials to site or commencing construction activities.
- .4 EPP shall include comprehensive overview of known or potential environmental issues to be addressed on site during construction.
- .5 Address topics at level of detail commensurate with environmental issue and required construction tasks.
- .6 Include in Environmental Protection Plan (EPP):
- .1 Name of person responsible for ensuring adherence to EPP.
- .2 Name and qualifications of person responsible for manifesting hazardous waste to be removed from site.
- .3 Name and qualifications of person responsible for training site personnel.
- .4 Descriptions of environmental protection personnel training program.
- .5 Submit a Site Work Plan (SWP) showing work areas for proposed activities in each portion of area and identifying areas of limited use or non-use.
- .1 SWP to include measures for marking limits of use areas and methods for protection of features to be preserved within authorized work areas.
- .6 Submit a Spill Control Plan (SCP) including procedures, instructions, and reports to be used in event of unforeseen spill of regulated substance.
- .7 Submit a Solid Waste Disposal Plan (SWDP) for non-hazardous solid wastes identifying methods and locations for solid waste disposal including clearing debris.
- .8 Submit an Air Pollution Control Plan (APCP) detailing provisions to ensure that dust, debris, materials, and trash, are contained within the project site.
- .9 Submit a Wastewater Management Plan (WMP) identifying methods and procedures for management and or discharge of waste waters which are directly derived from construction activities, such as water testing of windows, clean-up water, hydrostatic test water.

1.5 FIRES

- .1 Fires and burning of rubbish on site is not permitted.

1.6 HISTORICAL/ ARCHAEOLOGICAL CONTROL

- .1 Refer to the site-specific IPP for procedures in identifying and protecting historical and archaeological resources previously known to be on project site or discovered during construction.
  - .1 Plan to include methods to ensure protection of known or discovered resources and identify lines of communication between Contractor personnel and CoSJ Project Manager.

1.7 NOTIFICATION

- .1 CoSJ Project Manager will notify Contractor in writing of observed noncompliance with Federal, Provincial environmental laws and regulations or Municipal environmental bylaws, permits, and other elements of site-specific plans as applicable.
- .2 Contractor after receipt of such notice, shall inform CoSJ Project Manager of proposed corrective action and take such action to obtain the approval of CoSJ Project Manager.
  - .1 Take action only after receipt of written approval by CoSJ Project Manager.
- .3 CoSJ Project Manager will issue stop order of work until satisfactory corrective action has been taken.
- .4 No time extensions granted or equitable adjustments allowed to Contractor for such suspensions.

2 PRODUCTS

2.1 NOT USED

- .1 Not Used.

3 EXECUTION

3.1 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 00 - Cleaning.
  - .1 Leave Work area clean at end of each day.
- .2 Bury rubbish and waste materials on site is not permitted.
- .3 Ensure public waterways, storm and sanitary sewers remain free of waste and volatile materials disposal.
- .4 Proceed with final cleaning upon completion and removal of surplus materials, rubbish, tools and equipment in accordance with Section 01 74 00 - Cleaning.
- .5 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 19 - Waste Management and Disposal.
  - .1 Remove recycling containers and bins from site and dispose of materials at appropriate facility.

**END OF SECTION**

1 GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 02 41 00 Demolition – Minor Works
- .2 Section 01 32 16.16 Construction Progress Schedule – Critical Path Method (CPM)
- .3 Section 07 42 00 Reinforced Polymer Architectural Panels
- .4 Section 07 46 19 Steel Siding
- .5 Section 07 92 00 Joint Sealants
- .6 Section 08 80 00 Glazing

1.2 REFERENCE STANDARDS

- .1 Canadian Construction Documents Committee (CCDC)
  - .1 CCDC 2-2020, Stipulated Price Contract.

1.3 DEFINITIONS

- .1 Application Specialist: [An individual who performs surface preparation and application of protective coatings and linings to steel and concrete surfaces of complex industrial structures.

1.4 INSPECTION

- .1 Refer to CCDC 2, GC 2.3.
- .2 Allow CoSJ Project Manager, Consultant and Architect access to Work. If part of Work is in preparation at locations other than Place of Work, allow access to such Work whenever it is in progress.
- .3 Give timely notice requesting inspection if Work is designated for special tests, inspections or approvals by CoSJ Project Manager, Consultant and Architect instructions.
- .4 If Contractor covers or permits to be covered Work that has been designated for special tests, inspections or approvals before such is made, uncover such Work, have inspections or tests satisfactorily completed and make good such Work.
- .5 CoSJ Project Manager will order part of Work to be examined if Work is suspected to be not in accordance with Contract Documents. If, upon examination such work is found not in accordance with Contract Documents, correct such Work and pay cost of examination and correction. If such Work is found in accordance with Contract Documents, CoSJ Project Manager will pay cost of examination and replacement.

1.5 INDEPENDENT INSPECTION AGENCIES

- .1 Independent Inspection/Testing Agencies have been engaged by CoSJ Project Manager for purpose of inspecting and/or testing portions of Work. Cost of such services will be borne by CoSJ Project Manager.
- .2 Provide staging equipment, lifts, etc. required for executing inspection and testing by appointed agencies.
- .3 Employment of inspection/testing agencies does not relax responsibility to perform Work in accordance with Contract Documents.
- .4 If defects are revealed during inspection and/or testing, appointed agency will request additional inspection and/or testing to ascertain full degree of defect. Correct defect and irregularities as advised by Consultant through CoSJ Project Manager, at no cost to CoSJ Project Manager. Pay costs for retesting and re-inspection.

1.6 ACCESS TO WORK

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

1.7 PROCEDURES

- .1 Notify appropriate agency and CoSJ Project Manager in advance of requirement for tests, in order that attendance arrangements can be made.
- .2 Submit samples and/or materials required for testing, as specifically requested in specifications. Submit with reasonable promptness and in orderly sequence to not cause delays in Work.

1.8 REJECTED WORK

- .1 Refer to CCDC, GC 2.4.
- .2 Remove defective Work, whether result of poor workmanship, use of defective products or damage and whether incorporated in Work or not, which has been rejected by CoSJ Project Manager as failing to conform to Contract Documents. Replace or re-execute in accordance with Contract Documents.
- .3 Make good other Contractor's work damaged by such removals or replacements promptly.
- .4 If in opinion of CoSJ Project Manager it is not expedient to correct defective Work or Work not performed in accordance with Contract Documents, Owner will deduct from Contract Price difference in value between Work performed and that called for by Contract Documents, amount of which will be determined by CoSJ Project Manager.

1.9 REPORTS

- .1 Submit 4 copies of inspection and test reports to CoSJ Project Manager.
- .2 Provide copies to subcontractor of work being inspected or tested, manufacturer or fabricator of material being inspected or tested.

1.10 CERTIFICATES

- .1 Submit certifications for Application Specialists to demonstrate compliance to the requirements of ANSI/NACE No.13.

1.11 QUALIFICATIONS

- .1 Maintain a current and valid ACS certification during project period.
  - .1 Application specialists who perform surface preparation and coating application work on this project must have a current ACS.
- .2 Notify CoSJ Project Manager of any change in application specialist certification status.
  - .1 Any delays to the completion of the Project due to invalid certifications will not be considered, and liquidated damages shall not be waived for any non-performance by Contractor.

1.12 TESTS AND MIX DESIGNS

- .1 Furnish test results as requested.
- .2 Cost of tests and mix designs beyond those called for in Contract Documents or beyond those required by law of Place of Work will be appraised by CoSJ Project Manager and may be authorized as recoverable.

1.13 MOCK-UPS

- .1 Prepare mock-ups for Work specifically requested in specifications. Include for Work of Sections required to provide mock-ups.
- .2 Construct in locations acceptable CoSJ Project Manager.
- .3 Prepare mock-ups for CoSJ Project Manager review with reasonable promptness and in orderly sequence, to not cause delays in Work.
- .4 Failure to prepare mock-ups in ample time is not considered sufficient reason for extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .5 If requested, CoSJ Project Manager will assist in preparing schedule fixing dates for preparation.
- .6 Remove mock-up at conclusion of Work or when acceptable to CoSJ Project Manager.
- .7 Specification section identifies whether mock-up may remain as part of Work or if it is to be removed following review.

2 PRODUCTS

2.1 NOT USED

- .1 Not Used.

3 EXECUTION

3.1 NOT USED

- .1 Not Used.

**END OF SECTION**

1 GENERAL

1.1 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.

1.2 INSTALLATION AND REMOVAL

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

1.3 WATER SUPPLY

- .1 CoSJ Project Manager will provide continuous supply of potable water for construction use.

1.4 TEMPORARY HEATING AND VENTILATION

- .1 Provide temporary heating required during construction period, including attendance, maintenance and fuel.
- .2 Construction heaters used inside building must be vented to outside or be flameless (vent free) type. Solid fuel salamanders are not permitted.
- .3 Provide temporary heat and ventilation in enclosed areas as required to:
  - .1 Facilitate progress of Work.
  - .2 Protect Work and products against dampness and cold.
  - .3 Prevent moisture condensation on surfaces.
  - .4 Provide ambient temperatures and humidity levels for storage, installation and curing of materials.
  - .5 Provide adequate ventilation to meet health regulations for safe working environment.
- .4 Maintain temperatures of minimum 10 degrees Celsius in areas where construction is in progress.
- .5 Ventilating:
  - .1 Prevent accumulations of dust, fumes, mists, vapours or gases in areas occupied during construction.
  - .2 Provide local exhaust ventilation to prevent harmful accumulation of hazardous substances into atmosphere of occupied areas.
  - .3 Dispose of exhaust materials in manner that will not result in harmful exposure to persons.
  - .4 Ventilate storage spaces containing hazardous or volatile materials.
  - .5 Ventilate temporary sanitary facilities.
  - .6 Continue operation of ventilation and exhaust system for time after cessation of work process to assure removal of harmful contaminants.
- .6 Permanent heating system of building, not to be used without prior permission from CoSJ Project Manager. Be responsible for damage to heating system if use is permitted.
- .7 On completion of Work for which permanent heating system is used, replace filters, clean and ensure system is operational to satisfaction of CoSJ Project Manager.
- .8 Pay costs for maintaining temporary heat, when using permanent heating system. CoSJ Project Manager will pay utility charges when temporary heat source is a permitted use of the existing building equipment.
- .9 Maintain strict supervision of operation of temporary heating and ventilating equipment to:
  - .1 Conform with applicable codes and standards.
  - .2 Enforce safe practices.
  - .3 Prevent abuse of services.
  - .4 Prevent damage to finishes.
  - .5 Vent direct-fired combustion units to outside.

- .10 Be responsible for damage to Work due to failure in providing adequate heat and protection during construction.

1.5 TEMPORARY POWER AND LIGHT

- .1 CoSJ Project Manager will arrange for temporary power during construction for operating of power tools, to a maximum supply of 230 volts 30 amps.

1.6 TEMPORARY COMMUNICATION FACILITIES

- .1 Provide and pay for temporary telephone, fax, data, hook up, lines and equipment necessary for own use.

1.7 FIRE PROTECTION

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

2 PRODUCTS

2.1 NOT USED

- .1 Not Used.

3 EXECUTION

- .1 Not Used.

**END OF SECTION**

## 1 GENERAL

### 1.1 RELATED REQUIREMENTS

- .1 Section 02 41 00 Demolition – Minor Works
- .2 Section 01 32 16.16 Construction Progress Schedule – Critical Path Method (CPM)
- .3 Section 07 42 00 Reinforced Polymer Architectural Panels
- .4 Section 07 46 19 Steel Siding
- .5 Section 08 80 00 Glazing

### 1.2 REFERENCE STANDARDS

- .1 Canadian Construction Documents Committee (CCDC)
  - .1 CCDC 2-2020, Stipulated Price Contract.
- .2 Canadian General Standards Board (CGSB)
  - .1 [CAN/CGSB 1.189-00](#), Exterior Alkyd Primer for Wood.
  - .2 [CGSB 1.59-97](#), Alkyd Exterior Gloss Enamel.
- .3 CSA Group (CSA)
  - .1 CSA-0121-M1978(R2003), Douglas Fir Plywood.
  - .3 [CAN/CSA-S269.2-M1987\(R2003\)](#), Access Scaffolding for Construction Purposes.
  - .4 [CAN/CSA-Z321-96\(R2001\)](#), Signs and Symbols for the Occupational Environment.

### 1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.

### 1.4 INSTALLATION AND REMOVAL

- .1 Prepare site plan indicating proposed location and dimensions of area to be fenced and used by Contractor, number of trailers to be used, avenues of ingress/egress to fenced area and details of fence installation.
- .2 Identify areas which have to be gravelled to prevent tracking of mud.
- .3 Indicate use of supplemental or other staging area.
- .4 Provide construction facilities in order to execute work expeditiously.
- .5 Remove from site all such work after use.

### 1.5 SCAFFOLDING

- .1 Scaffolding in accordance with [CAN/CSA-S269.2](#).
- .2 Provide and maintain scaffolding, ramps, ladders, swing staging, platforms, temporary stairs and other means of construction access.

### 1.6 HOISTING

- .1 Provide, operate and maintain hoists, cranes required for moving of workers, materials and equipment. Make financial arrangements with Subcontractors for their use of hoists by CoSJ Project Manager and Architect.
- .2 Hoists, cranes to be operated by qualified operator.

### 1.7 SITE STORAGE/LOADING

- .1 Refer to CCDC 2, GC 3.12.
- .2 Confine work and operations of employees by Contract Documents. Do not unreasonably encumber premises with products.
- .3 Do not load or permit to load any part of Work with weight or force that will endanger Work.



1.9 CONSTRUCTION PARKING

- .1 Parking will be as directed by CoSJ Project Manager. Deliveries to be coordinated with CoSJ Project Manager.
- .2 Provide and maintain adequate access to project site.
- .3 Clean runways and taxi areas where used by Contractor's equipment.

1.10 SECURITY

- .1 AS necessary, provide and pay for responsible security personnel to guard site and contents of site after working hours and during holidays.

1.11 OFFICES

- .1 Provide office heated to 22 degrees C, lighted 750 lx and ventilated, of sufficient size to accommodate site meetings and furnished with drawing laydown table.
- .2 Provide marked and fully stocked first-aid case in a readily available location.
- .3 Subcontractors to provide their own offices as necessary. Direct location of these offices.

1.12 EQUIPMENT, TOOL AND MATERIALS STORAGE

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

1.13 SANITARY FACILITIES

- .1 Provide sanitary facilities for work force in accordance with governing regulations and ordinances.
- .2 Post notices and take precautions as required by local health authorities. Keep area and premises in sanitary condition.

1.14 CONSTRUCTION SIGNAGE

- .1 Provide and erect project sign, within three weeks of signing Contract, in a location designated by CoSJ Project Manager.
- .2 Construction sign 1500 x 3000 mm, of wood frame and plywood construction painted with exhibit lettering produced by a professional sign painter.
- .3 Indicate on sign, name of Owner, Architect, Contractor and Subcontractor, of design style established by CoSJ Project Manager.
- .4 No other signs or advertisements, other than warning signs, are permitted on site.
- .5 Signs and notices for safety and instruction in both official languages Graphic symbols to [CAN/CSA-Z321](#).
- .6 Maintain approved signs and notices in good condition for duration of project, and dispose of 'off site' on completion of project or earlier if directed by CoSJ Project Manager.

1.15 PROTECTION AND MAINTENANCE OF TRAFFIC

- .1 Provide access and temporary relocated roads as necessary to maintain traffic.
- .2 Maintain and protect traffic on affected roads during construction period except as otherwise specifically directed by CoSJ Project Manager.
- .3 Provide measures for protection and diversion of traffic, including provision of watch-persons and flag-persons, erection of barricades, placing of lights around and in front of equipment and work, and erection and maintenance of adequate warning, danger, and direction signs

- .4 Protect travelling public from damage to person and property.
- .5 Contractor's traffic on roads selected for hauling material to and from site to interfere as little as possible with public traffic.
- .6 Provide necessary lighting, signs, barricades, and distinctive markings for safe movement of traffic.
- .7 Dust control: adequate to ensure safe operation at all times.

1.16 CLEAN-UP

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

2 PRODUCTS

2.1 NOT USED

- .1 Not Used.

3 EXECUTION

3.1 TEMPORARY EROSION AND SEDIMENTATION CONTROL

- .1 Not Used.

**END OF SECTION**

## 1 GENERAL

### 1.1 RELATED REQUIREMENTS

- .1 Section 02 41 00 Demolition – Minor Works
- .2 Section 01 32 16.16 Construction Progress Schedule – Critical Path Method (CPM)
- .3 Section 07 42 00 Reinforced Polymer Architectural Panels
- .4 Section 07 46 19 Steel Siding
- .5 Section 08 80 00 Glazing

### 1.2 REFERENCE STANDARDS

- .1 Canadian General Standards Board (CGSB)
  - .1 [CGSB 1.59-97](#), Alkyd Exterior Gloss Enamel.
  - .2 [CAN/CGSB 1.189-00](#), Exterior Alkyd Primer for Wood.
- .2 CSA Group (CSA)
  - .1 [CSA-O121-M1978 \(R2003\)](#), Douglas Fir Plywood.

### 1.3 INSTALLATION AND REMOVAL

- .1 Provide temporary controls in order to execute Work expeditiously.
- .2 Coordinate with the defined phases of the work.
- .2 Remove from site all such work after use.

### 1.4 HOARDING

- .1 Erect temporary exterior site enclosures using 38 x 89 mm construction grade lumber framing at 600 mm centres and 1200 x 2400 x 13 mm exterior grade fir plywood to [CSA O121](#).
- .2 Provide dust tight screens to localize dust generating activities, and for protection of workers, existing equipment, finished areas of work and public areas.
- .3 Erect temporary Type H1, H2 and H3 interior dust tight screens as schedule and as described on the Contract Drawings.
- .4 Apply plywood panels vertically flush and butt jointed.
- .5 Provide lockable truck entrance gates and at least one pedestrian door as directed and conforming to applicable traffic restrictions on adjacent streets. Equip gates with locks and keys.
- .6 Erect and maintain pedestrian walkways including roof and side covers, complete with signs and electrical lighting as required by law and otherwise described within the drawings and specifications.
- .7 Paint public side of site enclosure in selected colours with one coat primer to [CAN/CGSB 1.189](#) and one coat exterior paint to [CGSB 1.59](#). Maintain public side of enclosure in clean condition.
- .8 Provide barriers around trees and plants in area of the Work. Protect from damage by equipment and construction procedures. Replace with equal if damaged.

### 1.5 GUARD RAILS AND BARRICADES

- .1 Provide secure, rigid guard rails and barricades around deep excavations, open shafts, open stair wells, open edges of floors and roofs, and at window well and associated entry to south side of building adjoining south side courtyard.
- .2 Provide specialized safety harness for ladder access to window well, making safety harness available to Architect upon request.

1.6 WEATHER ENCLOSURES

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

1.7 DUST TIGHT INTERIOR HOARDING TYPE SCREENS

- .1 Erect temporary Type H1, H2 and H3 interior dust tight screens as schedule and as described on the Contract Drawings.
  - .1 Screens to provide degrees of privacy and separation between Construction Work areas and Occupied User Work areas.
  - .2 Dust type interior hoarding shall provide visual, noise, construction dust generating activities and odour separation between Construction areas and User occupied areas.
  - .3 Screens shall act to protect to localize work activities and for protection of workers occupying adjoining spaces and finished areas of Work and the Public.
- .2 Maintain and relocate protection until such work is complete.

1.8 ACCESS TO SITE

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

1.9 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 public.

1.10 FIRE ROUTES

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

1.11 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.

1.12 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 COSJ Project Manager locations and installation schedule 3 days prior to installation.
- .4 Be responsible for damage incurred due to lack of or improper protection.

1.13 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 19 - Waste Management and Disposal.

2 PRODUCTS

2.1 NOT USED

.1 Not Used.

3 EXECUTION

3.1 NOT USED

.1 Not Used.

**END OF SECTION**

1 GENERAL

1.1 RELATED REQUIREMENTS

- |    |                     |   |
|----|---------------------|---|
| .1 | Section 02 41 00    | Demolition – Minor Works                                    |
| .2 | Section 01 32 16.16 | Construction Progress Schedule – Critical Path Method (CPM) |
| .3 | Section 07 42 00    | Reinforced Polymer Architectural Panels                     |
| .4 | Section 07 46 19    | Steel Siding  |
| .5 | Section 07 92 00    | Joint Sealants  |
| .6 | Section 08 80 00    | Glazing   |

1.2 REFERENCE STANDARDS

- .1 Canadian Construction Documents Committee (CCDC)
  - .1 CCDC 2-2020, Stipulated Price Contract.
- .2 Within text of each specifications section, reference may be made to reference standards.
- .3 Conform to these reference standards, in whole or in part as specifically requested in specifications.
- .4 If there is question as to whether products or systems are in conformance with applicable standards, CoSJ Project Manager reserves right to have such products or systems tested to prove or disprove conformance.
- .5 Cost for such testing will be borne by CoSJ Project Manager in event of conformance with Contract Documents or by Contractor in event of non-conformance.

1.3 QUALITY

- .1 Refer to CCDC 2.
- .2 Products, materials, equipment and articles incorporated in Work shall be new, not damaged or defective, and of best quality for purpose intended. If requested, furnish evidence as to type, source and quality of products provided.
- .3 Procurement policy is to acquire, in cost effective manner, items containing highest percentage of recycled and recovered materials practicable consistent with maintaining satisfactory levels of competition. Make reasonable efforts to use recycled and recovered materials and in otherwise utilizing recycled and recovered materials in execution of work.
- .4 Defective products, whenever identified prior to completion of Work, will be rejected, regardless of previous inspections. Inspection does not relieve responsibility, but is precaution against oversight or error. Remove and replace defective products at own expense and be responsible for delays and expenses caused by rejection.
- .5 Should disputes arise as to quality or fitness of products, decision rests strictly with CoSJ Project Manager based upon requirements of Contract Documents.
- .6 Unless otherwise indicated in specifications, maintain uniformity of manufacture for any particular or like item throughout building.
- .7 Permanent labels, trademarks and nameplates on products are not acceptable in prominent locations, except where required for operating instructions, or when located in mechanical or electrical rooms.

1.4 AVAILABILITY

- .1 Immediately upon signing Contract, review product delivery requirements and anticipate foreseeable supply delays for items. If delays in supply of products are foreseeable, notify CoSJ Project Manager of such, in order that substitutions or other remedial action may be authorized in ample time to prevent delay in performance of Work.

- .2 In event of failure to notify CoSJ Project Manager at commencement of Work and should it subsequently appear that Work may be delayed for such reason, CoSJ Project Manager reserves right to substitute more readily available products of similar character, at no increase in Contract Price or Contract Time.

#### 1.5 STORAGE, HANDLING AND PROTECTION

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

#### 1.6 TRANSPORTATION

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

#### 1.7 MANUFACTURER'S INSTRUCTIONS

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

#### 1.8 QUALITY OF WORK

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

1.9 CO-ORDINATION

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

1.10 CONCEALMENT

- .1 Before installation inform COSJ Project Manager if there is interference. Install as directed by CoSJ Project Manager.

1.11 REMEDIAL WORK

- .1 Refer to CCDC 2.
- .2 Perform remedial work required to repair or replace parts or portions of Work identified as defective or unacceptable. Co-ordinate adjacent affected Work as required.
- .3 Perform remedial work by specialists familiar with materials affected. Perform in a manner to neither damage nor put at risk any portion of Work.

1.12 LOCATION OF FIXTURES

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

1.13 FASTENINGS

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

1.14 FASTENINGS - EQUIPMENT

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

1.15 PROTECTION OF WORK IN PROGRESS

- .1 Prevent overloading of parts of building. Do not cut, drill or sleeve load bearing structural member, unless specifically indicated without written approval of CoSJ Project Manager.



1.16 EXISTING UTILITIES

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

2 PRODUCTS

2.1 NOT USED

- .1 Not Used.

3 EXECUTION

3.1 NOT USED

- .1 Not Used.

**END OF SECTION**

1 GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 01 32 16.16 Construction Progress Schedule – Critical Path Method (CPM)
- .2 Section 07 42 00 Reinforced Polymer Architectural Panels
- .3 Section 07 46 19 Steel Siding
- .4 Section 07 92 00 Joint Sealants
- .5 Section 08 80 00 Glazing

1.2 REFERENCE STANDARDS

- .1 Canadian Construction Documents Committee (CCDC)
  - .1 CCDC 2-2020, Stipulated Price Contract.

1.3 EXISTING SERVICES

- .1 Before commencing work, establish location and extent of mechanical equipment, louvers and vents and electrical power and data service lines in area of Work and fully incorporate findings into the scope of work, identifying same in Shop Drawing submittals. Cost of modifications to mechanical and electrical services are to be included within the Tender Price as submitted by the General Contractor. No additional cost based on the presence of mechanical or electrical services will be considered applicable to the established Contract Price.

1.4 LOCATION OF EQUIPMENT AND FIXTURES

- .1 Location of equipment, fixtures and outlets indicated or specified are to be considered as approximate.
- .2 Locate equipment, fixtures and distribution systems to provide minimum interference and maximum usable space and in accordance with manufacturer's recommendations for safety, access and maintenance.
- .3 Inform CoSJ Project Manager off impending installation and obtain approval for actual location.
- .4 Submit field drawings to indicate relative position of various services and equipment when required by CoSJ Project Manager.

1.5 RECORDS

- .1 Maintain a complete, accurate log of control and survey work as it progresses.
- .2 Record locations of maintained, re-routed and abandoned service lines.

1.6 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit documentation to verify accuracy of field engineering work.

2 PRODUCTS

2.1 NOT USED

- .1 Not Used.

3 EXECUTION

3.1 NOT USED

- .1 Not Used.

**END OF SECTION**

1 GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 02 41 00 Demolition – Minor Works
- .2 Section 01 32 16.16 Construction Progress Schedule – Critical Path Method (CPM)
- .3 Section 07 42 00 Reinforced Polymer Architectural Panels
- .4 Section 07 46 19 Steel Siding
- .5 Section 07 92 00 Joint Sealants
- .6 Section 08 80 00 Glazing

1.2 REFERENCE STANDARDS

- .1 Canadian Construction Documents Committee (CCDC)
  - .1 CCDC 2-2020, Stipulated Price Contract.

1.3 PROJECT CLEANLINESS

- .1 Maintain Work in tidy condition, free from accumulation of waste products and debris, other than that caused by Owner or other Contractors.
- .2 Remove waste materials from site at daily regularly scheduled times or dispose of as directed by CoSJ Project Manager. Do not burn waste materials on site.
- .3 Clear snow and ice from access to building, remove from site.
- .4 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .5 Provide on-site containers for collection of waste materials and debris only as permitted by CoSJ Project Manager.
- .6 Provide and use marked separate bins for recycling. Refer to Section 01 74 19 - Waste Management and Disposal.
- .7 Dispose of waste materials and debris at designated municipal land fill or as otherwise required by Provincial authority.
- .8 Clean interior areas prior to start of finishing work, and maintain areas free of dust and other contaminants during finishing operations.
- .9 Store volatile waste in covered metal containers, and remove from premises at end of each working day.
- .10 Provide adequate ventilation during use of volatile or noxious substances. Use of building ventilation systems is not permitted for this purpose.
- .11 Use only cleaning materials recommended by manufacturer of surface to be cleaned, and as recommended by cleaning material manufacturer.
- .12 Schedule cleaning operations so that resulting dust, debris and other contaminants will not fall on wet, newly painted surfaces nor contaminate building systems.

1.4 FINAL CLEANING

- .1 Refer to CCDC 2, GC 3.14.
- .2 When Work is Substantially Performed remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .3 Remove waste products and debris other than that caused by others, and leave Work clean and suitable for occupancy.
- .4 Prior to final review remove surplus products, tools, construction machinery and equipment.

- .5 Remove waste products and debris including that caused by Owner or other Contractors.
- .6 Remove waste materials from site at regularly scheduled times or dispose of as directed by CoSJ Project Manager. Do not burn waste materials on site.
- .7 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .8 Clean and polish glass, mirrors, hardware, wall tile, stainless steel, chrome, porcelain enamel, baked enamel, plastic laminate, and mechanical and electrical fixtures. Replace broken, scratched or disfigured glass.
- .9 Remove stains, spots, marks and dirt from decorative work, electrical and mechanical fixtures, furniture fitments, walls, windows, trims, ceilings and floors.
- .10 Clean lighting reflectors, lenses, and other lighting surfaces.
- .11 Vacuum clean and dust building interiors, behind grilles, louvres and screens.
- .12 Inspect finishes, fitments and equipment and ensure specified workmanship and operation.
- .13 Broom clean and wash exterior walks, steps and surfaces; rake clean other surfaces of grounds.
- .14 Remove dirt and other disfiguration from exterior surfaces.
- .15 Clean and sweep roofs, gutters, areaways, and sunken wells.
- .16 Sweep and wash clean paved areas.
- .17 Clean equipment and fixtures to sanitary condition; if compromised by the Work of the Contract, clean or replace filters of mechanical equipment as directed by CoSJ Project Manager.
- .18 Clean roofs, downspouts, and drainage systems.
- .19 Remove debris and surplus materials from crawl areas and other accessible concealed spaces.
- .20 Remove snow and ice from access to building.

1.5 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate waste materials for reuse and recycling in accordance with Section 01 74 19 - Waste Management and Disposal.

2 PRODUCTS

2.1 NOT USED

- .1 Not Used.

3 EXECUTION

3.1 NOT USED

- .1 Not Used.

**END OF SECTION**

## 1 GENERAL

### 1.1 SUMMARY

- .1 This Section includes requirements for management of construction waste and disposal, which forms the Contractor's commitment to reduce and divert waste materials from landfill and includes the following:
  - .1 Preparation of a Draft Construction Waste Management Plan that will be used to track the success of the Construction Waste Management Plan against actual waste diversion from landfill.
  - .2 Preparation of a Construction Waste Management Plan that provides guidance on a logical progression of tasks and procedures to be followed in a pollution prevention program to reduce or eliminate the generation of waste, the loss of natural resources, and process emissions through source reduction, reuse, recycling, and reclamation.
  - .3 Preparation of monthly progress reports indicating cumulative totals representing progress towards achieving diversion and reduction goals of waste materials away from landfill and identifying any special programs, landfill options or alternatives to landfill used during construction.
  - .4 Preparation of a Construction Waste Management Report containing detailed information indicating total waste produced by the project, types of waste material and quantity of each material, and total waste diverted and diversion rates indicated as a percentage of the total waste produced.
- .2 CoSJ has established that this project shall generate the least amount of waste possible and that processes that ensure the generation of as little waste as possible due to error, poor planning, breakage, mishandling, contamination, or other factors be employed by the Contractor.

### 1.2 RELATED REQUIREMENTS

- |    |                     |   |
|----|---------------------|---|
| .1 | Section 02 41 00    | Demolition – Minor Works                                    |
| .2 | Section 01 32 16.16 | Construction Progress Schedule – Critical Path Method (CPM) |
| .3 | Section 07 42 00    | Reinforced Polymer Architectural Panels                     |
| .4 | Section 07 46 19    | Steel Siding  |
| .5 | Section 07 92 00    | Joint Sealants  |
| .6 | Section 08 80 00    | Glazing   |

### 1.3 REFERENCE STANDARDS

- .1 ASTM International (ASTM)
  - .1 [ASTM E 1609](#) 01, Standard Guide for Development and Implementation of a Pollution Prevention Program
- .2 Recycling Certification Institute (RCI):
  - .1 RCI Certification Construction and Demolition Materials Recycling.

### 1.4 DEFINITIONS

- .1 Clean Waste: Untreated and unpainted; not contaminated with oils, solvents, sealants or similar materials.
- .2 Construction and Demolition Waste: Solid wastes typically including building materials, packaging, trash, debris, and rubble resulting from construction, re modeling], repair and demolition operations.
- .3 Hazardous: Exhibiting the characteristics of hazardous substances including properties such as ignitability, corrosiveness, toxicity or reactivity.
- .4 Non hazardous: Exhibiting none of the characteristics of hazardous substances, including properties such as ignitability, corrosiveness, toxicity, or reactivity.

- .5 Non toxic: Not poisonous to humans either immediately or after a long period of exposure.
- .6 Recyclable: The ability of a product or material to be recovered at the end of its life cycle and remanufactured into a new product for reuse by others.
- .7 Recycle: To remove a waste material from the project site to another site for remanufacture into a new product for reuse by others.
- .8 Recycling: The process of sorting, cleansing, treating and reconstituting solid waste and other discarded materials for the purpose of using the altered form; recycling does not include burning, incinerating, or thermally destroying waste.
- .9 Return: To give back reusable items or unused products to vendors for credit.
- .10 Reuse: To reuse a construction waste material in some manner on the project site.
- .11 Salvage: To remove a waste material from the project site to another site for resale or reuse by others.
- .12 Sediment: Soil and other debris that has been eroded and transported by storm or well production run off water.
- .13 Source Separation: The act of keeping different types of waste materials separate beginning from the first time they become waste.
- .14 Toxic: Poisonous to humans either immediately or after a long period of exposure.
- .15 Trash: Any product or material unable to be reused, returned, recycled, or salvaged.
- .16 Volatile Organic Compounds (VOC's): Chemical compounds common in and emitted by many building products over time through outgassing:
  - .1 Solvents in paints and other coatings;
  - .2 Wood preservatives; strippers and household cleaners;
  - .3 Adhesives in particleboard, fiberboard, and some plywood; and foam insulation.
  - .4 When released, VOC's can contribute to the formation of smog and can cause respiratory tract problems, headaches, eye irritations, nausea, damage to the liver, kidneys, and central nervous system, and possibly cancer.
- .17 Waste: Extra material or material that has reached the end of its useful life in its intended use. Waste includes salvageable, returnable, recyclable, and reusable material.
- .18 Construction Waste Management Plan: A project related plan for the collection, transportation, and disposal of the waste generated at the construction site; the purpose of the plan is to ultimately reduce the amount of material being landfilled.

#### 1.5 ADMINISTRATIVE REQUIREMENTS

- .1 Coordination: Coordinate waste management requirements with all Divisions of the Work for the project, and ensure that requirements of the Construction Waste Management Plan are followed.
- .2 Preconstruction Meeting: Arrange a pre-construction meeting in accordance with Section 01 31 19 - Project Meetings before starting any Work of the Contract attended by the Owner, Contractor, affected Subcontractor's and CoSJ Project Manager to discuss the Contractor's Construction Waste Management Plan and to develop mutual understanding of the requirements for a consistent policy towards waste reduction and recycling.

#### 1.6 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide required information in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Action Submittals: Provide the following submittals before starting any work of this Section:
  - .1 Draft Construction Waste Management Plan (Draft CWM Plan): Submit to CoSJ Project Manager a preliminary analysis of anticipated site generated waste by listing minimum of five (5) construction or demolition waste streams that have potential to generate the most volume of material indicating methods that will be used to divert construction waste from

- landfill and source reduction strategies; CoSJ Project Manager will provide commentary before development of Contractor's Construction Waste Management Plan.
- .2 Construction Waste Management Plan (CWM Plan): Submit a CWM Plan for this project prior to any waste removal from site and that includes the following information:
    - .1 Material Streams: Analysis of the proposed jobsite waste being generated, including material types and quantities forming a part of identified material streams in the Draft CWM Plan, Proposed Material Conservation Audit; materials removed from site destined for alternative daily cover at landfill sites and land clearing debris cannot be considered as contributing to waste diversion and will be included as a component of the total waste generated for the site.
    - .2 Recycling Haulers and Markets: Investigate local haulers and markets for recyclable materials, and incorporate into CWM Plan.
    - .3 Alternative Waste Disposal: Prepare a listing of each material proposed to be salvaged, reused, recycled or composted during the course of the project, and the proposed local market for each material.
    - .4 Landfill Materials: Identify materials that cannot be recycled, reused or composted and provide explanation or justification; energy will be considered as a viable alternative diversion strategy for these materials where facilities exist.
    - .5 Landfill Options: The name of the landfill where trash will be disposed of; landfill materials will form a part of the total waste generated by the project.
    - .6 Materials Handling Procedures: A description of the means by which any recycled waste materials will be protected from contamination, and a description of the means to be employed in recycling the above materials consistent with requirements for acceptance by designated facilities.
    - .7 Transportation: A description of the means of transportation of the recyclable materials, whether materials will be site separated and self-hauled to designated centers, or whether mixed materials will be collected by a waste hauler and removed from the site, and destination of materials.

## 1.7 PROJECT CLOSEOUT SUBMISSIONS

- .1 Record Documentation and Diversion Documentation: Submit as constructed information in accordance with Section 01 78 00 - Closeout Submittals as follows:
  - .1 Construction Waste Management Report (CWM Report): Submit a CWM Report for this project in a format acceptable to submittal requirements and that includes the following information:
    - .1 Accounting: Submit information indicating total waste produced by the project.
    - .2 Composition: Submit information indicating types of waste material and quantity of each material.
    - .3 Diversion Rate: Submit information indicating total waste diverted from landfill as a percentage of the total waste produced by the project.
    - .4 Transportation Documentation and Diversion Documentation: Submit copies of transportation documents or shipping manifests indicating weights of materials, and other evidence of disposal indicating final location of waste diverted from landfill and waste sent to landfill.
    - .5 Alternative Daily Cover (ADC): Submit quantities of material that were used as ADC at landfill sites, and that form a part of the total waste generated by the project.
    - .6 Multiple Waste Hauling: Compile all information into a single CWM Report where multiple waste hauling and diversion strategies were used for the project.

## 1.8 QUALITY ASSURANCE

- .1 Resources for Development of Construction Waste Management Report (CWM Report): The following sources may be useful in developing the Draft Construction Waste Management Plan:
  - .1 Recycling Haulers and Markets: Investigate local haulers and markets for recyclable materials, and incorporate into CWM Plan.

- .2 Waste-to-Energy Systems: Investigate local waste-to-energy incentives where systems for diverting materials from landfill for reuse or recycling are not available.
- .2 Certifications: Provide proof of the following during the course of the Work:
  - .1 Compliance Certification: Provide proof that recycling center is third party verified and is listed as a Certified Facility through the registration and certification requirements of the Recycling Certification Institute.

## 1.9 DELIVERY, STORAGE AND HANDLING

- .1 Storage Requirements: Implement a recycling/reuse program that includes separate collection of waste materials as appropriate to the project waste and the available recycling and reuse programs in the project area.
- .2 Handling Requirements: Clean materials that are contaminated before placing in collection containers and ensure that waste destined for landfill does not get mixed in with recycled materials:
  - .1 Deliver materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to recycling process.
  - .2 Arrange for collection by or delivery to the appropriate recycling or reuse facility.
- .3 Hazardous Waste and Hazardous Materials: Handle in accordance with applicable regulations.

## 2 PRODUCTS

### 2.1 NOT USED

- .1 Not Used.

## 3 EXECUTION

### 3.1 (CWM PLAN) IMPLEMENTATION

- .1 Manager: Contractor is responsible for designating an on-site party or parties responsible for instructing workers and overseeing and documenting results of the CWM Plan for the project.
- .2 Distribution: Distribute copies of the CWM Plan to the job site foreman, each Subcontractor, the Owner, the CoSJ Project Manager and other site personnel as required to maintain CWM Plan.
- .3 Instruction: Provide on-site instruction of appropriate separation, handling, and recycling, salvage, reuse, composting and return methods being used for the project to Subcontractor's at appropriate stages of the project.
- .4 Separation Facilities: Lay out and label a specific area to facilitate separation of materials for potential recycling, salvage, reuse, composting and return:
  - .1 Recycling and waste bin areas are to be kept neat and clean and clearly marked in order to avoid contamination of materials.
  - .2 Hazardous wastes shall be separated, stored, and disposed of in accordance with local regulations.
- .5 Progressive Documentation: Submit a monthly summary of waste generated by the project to ensure that waste diversion goals are on track with project requirements:
  - .1 Submission of waste summary can coincide with application for progress payment, or similar milestone event as agreed upon between the Owner, Contractor and CoSJ Project Manager.
  - .2 Monthly waste summary shall contain the following information:
    - .1 The amount in tonnes or m<sup>3</sup> and location of material landfilled,
    - .2 The amount in tonnes or m<sup>3</sup> and location of materials diverted from landfill, and
    - .3 Indication of progress based on total waste generated by the project with materials diverted from landfill as a percentage.



**3.2 SUBCONTRACTOR'S RESPONSIBILITY**

- .1 Subcontractor's shall cooperate fully with the Contractor to implement the CWM Plan.
- .2 Failure to cooperate may result in the Owner not achieving their environmental goals, and may result in penalties being assessed by the Contractor to the responsible Subcontractor's.

**END OF SECTION**

1 GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 01 32 16.16 Construction Progress Schedule – Critical Path Method.

1.2 REFERENCE STANDARDS

- .1 Canadian Construction Documents Committee (CCDC)  
.1 CCDC 2-2020, Stipulated Price Contract.

1.3 ADMINISTRATIVE REQUIREMENTS

- .1 Acceptance of Work Procedures:
- .1 Contractor's Inspection: Contractor: conduct inspection of Work, identify deficiencies and defects, and repair as required to conform to Contract Documents.
    - .1 Notify CoSJ Project Manager in writing of satisfactory completion of Contractor's inspection and submit verification that corrections have been made.
    - .2 Request CoSJ Project Manager and Architect's inspection.
  - .2 CoSJ Project Manager and Architect's Inspection:
    - .1 CoSJ Project Manager and Architect together with the Contractor to inspect Work and identify defects and deficiencies.
    - .2 Contractor to correct Work as directed.
  - .3 Completion Tasks: submit written certificates in English that tasks have been performed as follows:
    - .1 Work: completed and inspected for compliance with Contract Documents.
    - .2 Defects: corrected and deficiencies completed.
    - .3 Equipment and systems: tested, adjusted and fully operational.
    - .4 Certificates required by Commissioning: submitted.
    - .5 Operation of systems: demonstrated to Owner's personnel.
    - .6 Commissioning, Decommissioning: completed in accordance with 01 91 13 - GENERAL COMMISSIONING REQUIREMENTS and including CMMS Data Sheet document together with copies of final Commissioning Report submitted to CoSJ Project Manager.
    - .7 Work: complete and ready for final inspection.
  - .4 Final Inspection:
    - .1 When completion tasks are done, request final inspection of Work by CoSJ Project Manager and Architect together with Contractor.
    - .2 When Work incomplete according to Owner, Project Manager and Architect, complete outstanding items and request re-inspection.
  - .5 Declaration of Substantial Performance: when Project Manager and Architect considers deficiencies and defects corrected and requirements of Contract substantially performed, make application for Certificate of Substantial Performance.
  - .6 Commencement of Lien and Warranty Periods: date of Owner's acceptance of submitted declaration of Substantial Performance to be date for commencement for warranty period and commencement of lien period unless required otherwise by lien statute of Place of Work.
  - .7 Final Payment:
    - .1 When Project Manager and Architect considers final deficiencies and defects corrected and requirements of Contract met, make application for final payment.
    - .2 Refer to CCDC 2: when Work deemed incomplete by CoSJ Project Manager and Architect, complete outstanding items and request re-inspection.
  - .8 Payment of Holdback: after issuance of Certificate of Substantial Performance of Work, submit application for payment of holdback amount in accordance with contractual agreement.

1.4 FINAL CLEANING

- .1 Clean in accordance with Section 01 74 00 - Cleaning.
  - .1 Remove surplus materials, excess materials, rubbish, tools and equipment.
- .2 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 19 - Waste Management and Disposal.

2 PRODUCTS

2.1 NOT USED

- .1 Not Used.

3 EXECUTION

3.1 NOT USED

- .1 Not Used.

**END OF SECTION**

1 GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 01 77 00 Closeout Procedures.

1.2 ADMINISTRATIVE REQUIREMENTS

- .1 Pre-warranty Meeting:
- .1 Convene meeting one week prior to contract completion with contractor's representative and CoSJ Project Manager, in accordance with Section 01 31 19 - Project Meetings to:
    - .1 Verify Project requirements.
    - .2 Review manufacturer's installation instructions and warranty requirements.
  - .2 CoSJ Project Manager to establish communication procedures for:
    - .1 Notifying construction warranty defects.
    - .2 Determine priorities for type of defects.
    - .3 Determine reasonable response time.
  - .3 Contact information for bonded and licensed company for warranty work action: provide name, telephone number and address of company authorized for construction warranty work action.
  - .4 Ensure contact is located within local service area of warranted construction, is continuously available, and is responsive to inquiries for warranty work action.

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Provide submittals in accordance with Section 01 33 00 - Submittal Procedures.
- .1 **Two weeks prior to Substantial Performance of the Work or Training**, submit to Architect/CoSJ Project Manager, one electronic copy of operating and maintenance manual for review. Modify operating maintenance manuals as required by review. On approval, submit 1 hard copy and an electronic copy on a Memory Stick.
  - .2 Provide spare parts, maintenance materials and special tools of same quality and manufacture as products provided in Work.
  - .3 Provide evidence, if requested, for type, source and quality of products supplied.

1.4 FORMAT

- .1 Reference CoSJ Division 1 for Maintenance Manual Requirements.

2 PRODUCTS

2.1 NOT USED

- .1 Not Used.

3 EXECUTION

3.1 NOT USED

- .1 Not Used.

**END OF SECTION**

## 1 GENERAL

### 1.1 SUMMARY

- .1 This Section includes the following:
  - .1 Removal of steel siding.
  - .2 Removal of glazing.
  - .3 Removal of sealants and caulking.
  - .4 Removal of miscellaneous elements, including mechanical and electrical fittings.

### 1.2 RELATED REQUIREMENTS

- .1 Section 02 41 00 Demolition – Minor Works
- .2 Section 01 32 16.16 Construction Progress Schedule – Critical Path Method (CPM)
- .3 Section 07 42 00 Reinforced Polymer Architectural Panels
- .4 Section 07 46 19 Steel Siding
- .5 Section 07 92 00 Joint Sealants
- .6 Section 08 80 00 Glazing

### 1.3 REFERENCE STANDARDS

- .1 CSA Group (CSA)
  - .1 [CSA S350-M1980 \(R2003\)](#), Code of Practice for Safety in Demolition of Structures.
- .2 Department of Justice Canada (Jus)
  - .1 Canadian Environmental Assessment Act (CEAA), 2012
  - .2 Canadian Environmental Protection Act (CEPA), 2012
    - .1 SOR/2003-2, On-Road Vehicle and Engine Emission Regulations.
    - .2 SOR/2006-268, Regulations Amending the On-Road Vehicle and Engine Emission Regulations
    - .3 Transportation of Dangerous Goods Act (TDGA), 1992, c. 34
    - .4 Motor Vehicle Safety Act (MVSA), 1995
    - .5 Hazardous Materials Information Review Act, 1985
- .3 National Fire Protection Association (NFPA)
  - .1 [NFPA 241](#) - 96, Standard for Safeguarding Construction, Alteration, and Demolition Operations
- .4 National Research Council Canada (NRC)
  - .1 National Building Code of Canada 2015 (NBC).
  - .2 National Fire Code of Canada 2015 (NFC).
- .5 Underwriters' Laboratories of Canada (ULC)
  - .1 [CAN/ULC-S660-08](#), Standard for Nonmetallic Underground Piping for Flammable and Combustible Liquids
  - .2 ULC/ORD-C58.15-1992, Overfill Protection Devices for Flammable Liquid Storage Tanks
  - .3 ULC/ORD-C58.19-1992, Spill Containment Devices for Underground Flammable Liquid Storage Tanks

### 1.4 DEFINITIONS

- .1 Demolition: rapid destruction of building following removal of hazardous materials.
- .2 Hazardous Materials: dangerous substances, dangerous goods, hazardous commodities and hazardous products, may include but not limited to: asbestos PCB's, CFC's, HCFC's poisons, corrosive agents, flammable substances, ammunition, explosives, radioactive substances, or other material that can endanger human health or wellbeing or environment if handled improperly.
- .3 Waste Management Coordinator (WMC): Contractor representative responsible for supervising

waste management activities as well as coordinating related, required submittal and reporting requirements.

- .4 Construction Waste Management Plan (CWM Plan): Written plan addressing opportunities for reduction, reuse, or recycling of materials prepared in accordance with Section 01 74 19 - Construction Waste Management and Disposal.
- .5 Construction Waste Management Report (CWM Report): Written report identifying actual materials that formed CWM Plan for reduction, reuse, or recycling of materials prepared in accordance with Section 01 74 19 - Construction Waste Management and Disposal

#### 1.5 ADMINISTRATIVE REQUIREMENTS

- .1 Coordination: Coordinate with CoSJ Project Manager for the material ownership including but not limited to:
  - .1 Except for items or materials indicated to be reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, demolished materials shall become Contractor's property unless noted otherwise and shall be removed from Project site.
  - .2 Historic items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets, antiques, and other items of interest or value to Owner that may be encountered during demolition remain Owner's property.
- .2 Pre-Demolition Meetings:
  - .1 Convene pre-installation meeting 1 week prior to beginning work of this Section, with CoSJ Project Manager in accordance with Section 01 31 19 - Project Meetings.
- .3 Scheduling:
  - .1 Employ necessary means to meet project time lines without compromising specified minimum rates of material diversion.
  - .2 In event of unforeseen delay notify CoSJ Project Manager in writing.

#### 1.6 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Action Submittals: Provide the following submittals before starting any work of this Section:
  - .1 Submit in accordance with Section 01 33 00 - Submittal Procedures and 01 74 19 - Construction Waste Management and Disposal.
  - .2 Schedule of Demolition Activities: Coordinate with Section 01 32 16.16 - Construction Progress Schedule.
- .2 Informational Submittals: Provide the following submittals when requested by the Consultant:
  - .1 Qualification Data: Submit information for companies and personnel indicating their capabilities and experience to perform work of this Section including; but not limited to, lists of completed projects with project names and addresses, names and addresses of Consultants, for work of similar complexity and extent.
- .3 Sustainable Design Submittals:
  - .1 Construction Waste Management:
    - .1 Submit project Waste Management Plan and Waste Reduction Workplan highlighting recycling and salvage requirements. Reference Appendix 'C' and Appendix 'D'.

#### 1.7 QUALITY ASSURANCE

- .1 Regulatory Requirements: Ensure Work is performed in compliance with CEPA, CEAA, TDGA, and applicable Provincial/Territorial and Municipal regulations.
- .2 Comply with hauling and disposal regulations of Authority Having Jurisdiction.
- .3 Standards: Comply with **ANSI A10.6** and [NFPA 241](#).

## 1.8 SITE CONDITIONS

- .1 Review "Designated Substance Report" and take precautions to protect environment.
- .2 If material resembling spray or trowel-applied asbestos or other designated substance listed as hazardous be encountered, stop work, take preventative measures, and notify CoSJ Project Manager immediately.
  - .1 Proceed only after receipt of written instructions have been received from CoSJ Project Manager.
- .3 Notify CoSJ Project Manager before disrupting building access or services.
- .4 Environmental protection:
  - .1 Ensure Work is done in accordance with Section 01 35 43 - Environmental Procedures.

## 1.9 EXISTING CONDITIONS

- .1 The General Contractor is to provide for the removal and disposal of existing steel siding and aluminum window glazing.
- .2 Where electrical conduit and entrances to the building are encountered, (Reference Elevation 14 A2 and 14 A4) the Contractor is to do removals only as necessary to facilitate the installation of the scheduled steel siding.
- .3 All elements affixed to the sides of the Municipal Operations Buildings are to be removed, temporarily stored and reinstalled, good to existing and operational, following installation of new siding.
- .3 Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
  - .1 Hazardous materials will be as defined in the Hazardous Materials Act.

## 2 PRODUCTS

### 2.1 EQUIPMENT

- .1 Equipment and heavy machinery:
- .2 On-road vehicles to: CEPA-SOR/2003-2, On-Road Vehicle and Engine Emission Regulations and CEPA-SOR/2006-268, Regulations Amending the On-Road Vehicle and Engine Emission Regulations.
- .3 Off-road vehicles to: EPA CFR 86.098-10 and EPA CFR 86.098-11.
- .4 Machinery running only while in use, except where extreme temperatures prohibit shutting machinery down.

## 3 EXECUTION

### 3.1 EXAMINATION

- .1 Survey existing conditions and correlate with requirements indicated to determine extent of demolition required.
- .2 Inventory and record the condition of items being removed and salvaged.
- .3 When unanticipated mechanical, electrical, or structural elements are encountered, investigate and measure the nature and extent of the element.
- .4 Promptly submit a written report to CoSJ Project Manager.
- .5 Verify that hazardous materials have been remediated before proceeding with demolition operations.

### 3.2 PREPARATION

- .1 Protection of In-Place Conditions:
  - .1 Prevent movement, settlement, or damage to adjacent structures, utilities, and landscaping features and parts of building to remain in place. Provide bracing and shoring required.
  - .2 Keep noise, dust, and inconvenience to occupants to minimum.
  - .3 Protect building systems, services and equipment.
  - .4 Provide temporary dust screens, covers, railings, supports and other protection as required.
  - .5 Do Work in accordance with Section 01 35 29.06 - Health and Safety Requirements.
- .2 Demolition/Removal:
  - .1 Remove parts of existing building to permit new construction.
  - .2 At end of each day's work, leave Work in safe and stable condition.
  - .3 Protect interiors from exterior elements at all times.

### 3.3 SITE RESTORATION & REPAIRS

- .1 General: Promptly repair damage to adjacent construction caused by demolition operations.
- .2 Where repairs to existing surfaces are required, patch to produce surfaces suitable for new materials.
- .3 Restore exposed finishes of patched areas and extend restoration into adjoining construction in a manner that eliminates evidence of patching and refinishing.

### 3.4 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 00 - Cleaning.
  - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 00 - Cleaning.
- .3 Refer to demolition drawings and specifications for items to be salvaged for reuse.
- .4 Waste Management: separate waste materials for reuse and recycling in accordance with Section 01 74 19 - Waste Management and Disposal.
  - .1 Remove recycling containers/ bins from site and dispose of materials at appropriate facility.

**END OF SECTION**



## 1 GENERAL

### 1.1 DESCRIPTION OF WORK

- .1 Provide all materials, labour, tools, equipment and services required to install reinforced polymer architectural panels.

### 1.2 RELATED REQUIREMENTS

- .1 Section 07 46 19 – Steel Siding
- .2 Section 07 92 00 – Joint Sealants

### 1.3 REFERENCE STANDARDS

- .1 ASTM International
  - .1 [ASTM E-84-05](#), Standard Test Method for Surface Burning Characteristics of Building materials.
- .2 ULC Standards
  - .1 [CAN/ULC S-134](#), Standard Method of Fire Test of Exterior Wall Assemblies.

### 1.4 ADMINISTRATIVE REQUIREMENTS

- .1 Pre-Installation Meetings:
  - .1 Convene pre-installation meeting 1 week prior to beginning work of this Section and on-site installation, with Architect and CoSJ Project Manager in accordance with Section 01 31 19 - Project Meetings to:
    - .1 Verify project requirements.
    - .2 Review installation and substrate conditions.
    - .3 Co-ordination with other construction subtrades.
    - .4 Review manufacturer's written installation instructions and warranty requirements.
- .2 Sequencing: sequence with other work in accordance with Section 01 32 16\_16 Construction Progress Schedule. Comply with manufacturer's written recommendations for sequencing construction operations.
- .3 Scheduling: schedule with other work in accordance with Section 01 32 16\_16 Construction Progress Schedule.

### 1.5 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
  - .1 Submit manufacturer's instructions, printed product literature and data sheets for metal siding and include product characteristics, performance criteria, physical size, finish and limitations.
  - .2 Submit 2 copies of WHMIS SDS in accordance with Section 01 35 29.06 - Health and Safety Requirements and 01 35 43 - Environmental Procedures.
- .3 Shop Drawings:
  - .1 Indicate dimensions, profiles, attachment methods, schedule of wall elevations, schedule of colours, trim and closure pieces, furring, and related work.
- .4 Samples:
  - .1 Submit duplicate 300 x 300 mm samples of siding material and colours specified.
- .5 Sustainable Design Submittals:
  - .1 Construction Waste Management:
    - .1 Submit project Waste Management Plan, Waste Reduction Workplan highlighting recycling and salvage requirements.

#### 1.6 CLOSEOUT SUBMITTALS

- .1 Submit in accordance with Section 01 78 00 - Closeout Submittals.
- .2 Operation and Maintenance Data: submit maintenance data for incorporation into manual.
- .3 Warranty Documentation: submit warranty documents specified.

#### 1.7 QUALITY ASSURANCE

- .1 Test Reports: submit certified test reports showing compliance with specified performance characteristics and physical properties.
- .2 Certificates: submit product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
- .3 Installer Qualifications: Installer to have successfully completed installations of similar size and scope as specified in this section. References provided upon request.
- .4 Maximum deviation from vertical and horizontal alignment of erected panels shall be no more than 6mm in 6 l.m.
- .5 Mock-Up:
  - .1 Provide site mock-up for work of this Section indicating methods and materials, and procedures proposed to achieve final results in accordance with Section 01 45 00 - Quality Control, and to comply with following requirements, using materials indicated for completed work:
    - .1 Build mock-ups in location and of size as directed by Architect and CoSJ Project Manager.
    - .2 Obtain Architect and CoSJ Project Manager's acceptance of mock-ups before starting construction; mock-up used throughout construction period as standard of acceptance for subsequent work.

#### 1.8 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
  - .1 Store materials off ground, in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
  - .2 Store and protect panels from nicks, scratches, and blemishes.
  - .3 Replace defective or damaged materials with new.
- .4 Develop Construction Waste Management Plan, Waste Reduction Workplan related to Work of this Section.
- .5 Packaging Waste Management: remove for reuse of pallets, crates, padding, and packaging materials as specified in Construction Waste Management Plan, Waste Reduction Workplan in accordance with Section 01 74 19 - Waste Management and Disposal.

#### 1.9 SITE CONDITIONS

- .1 Execute work of this Section within environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer.

### 1.10 WARRANTY

- .1 Manufacturer's warranty: Submit, for CoSJ Project Managers' acceptance, manufacturer's standard 40 year warranty document executed by authorized company official. Manufacturer's warranty in addition to and shall not limit other rights Owner may have under Contract Documents.

## 2 PRODUCTS

### 2.1 MANUFACTURERS

- .1 The design is based on Steni Colour Composite Wall Panels as manufactured by Steni AS and distributed in Canada by: Colico Architectural Products Inc.; 4099, boul. St-Jean-Baptiste, Montreal, Qc., H1B 5V3, Telephone 1 877 640-8928 :
  - .1 Substitutions will only be considered if received in writing no less than 10 days prior to bid date and must comply fully with specified requirements.

### 2.2 MATERIALS

- .1 Panels shall be Steni Colour Composite Wall Panels as manufactured by Steni AS.
- .2 Composite panels shall have a Class A building material rating when tested in accordance with ASTM E84-05 and shall exhibit a flame spread of 25 or less and a smoke developed rating of 145 or less:
- .3 Composite panel thickness: 6mm or 15/64" (nominal).
- .4 Composite panel weight: 11 kg/square meter or 2.2 lbs/square foot.
- .5 Composite panel finish: Half Matt.
- .6 Composite panel colours: three (3) selected from manufacturer's standard colors range.

### 2.3 FABRICATION

- .1 Smooth polyester Fiberglass panel with color Electron cured acrylic finish manufactured by a continuous on-line process which chemically bonds the acrylic finish into the base matrix to form an integral composite of the elements.
2. Tolerances
  - a. Panel bow shall not exceed 0.8% of panel overall dimension.
  - b. Length and width shall not vary by more than 1.5mm or 1/16".
  - c. Panels shall be square.
3. Standard panel length shall not exceed 3.5m or 11'6".
4. Panel height and width are to be fabricated to match the pattern shown on the drawing elevations with colours coordinated to that scheduled. Maximum panel width is 1213mm or 3'11 3/4"
- .5 Fabricate trim, flashings, and accessories to detailed profiles.

### 2.4 ACCESSORIES

- .1 All exposed fasteners shall be #410 stainless and have a colored head to match the panel as closely as possible. Fasteners shall be supplied by panel distributor.
- .2 All extrusions shall have a Kynar 500 finish or equivalent and supplied by panel distributor. Colour to be selected from manufacturer's standard color chart. Extrusions for concealed fastener system shall be 700 series as indicated on drawings.
- .3 Furring: Furring to be Z-Bar 64 mm placed at uniform spacing horizontally and vertical to meet manufacturer's fastening and structural requirements.
  
- .4 Sealants: in accordance with Section 07 92 00 - Joint Sealants.

- .1 Sealant DOW "CWS" to be supplied by panel distributor.
- .1 Recommended adhesive/sealant shall be Dow 795 supplied by panel distributor for use on galvanized steel or aluminum substrate. All galvanized steel substrates must be cleaned with Isopropanol prior to applying Dow 795.
- .5 Exterior wall sheathing paper: existing air barrier to remain with patching and repair with like materials by G.C. to satisfaction of Architect and CoSJ Project Manager.

### 3 EXECUTION

#### 3.1 EXAMINATION

- .1 Verification of Conditions: verify conditions of substrate previously installed under other Sections or Contracts acceptable in accordance with manufacturer's written instructions.
  - .1 Visually inspect substrate in presence of Architect and CoSJ Project Manager.
    - a. Panel substructure shall be level and plumb
    - b. Panel substructure shall be structurally sound as determined by Architect
    - c. Panel substructure shall be free of defects detrimental to work
  - .2 Inform CoSJ Project Manager of unacceptable conditions immediately upon discovery.
  - .3 Proceed with installation only after unacceptable conditions are remedied.

#### 3.2 PREPARATION

- .1 Clean surfaces thoroughly prior to installation.
- .2 Repair substrate flaws or defects before applying panels.
- .3 Inspect existing air barrier to remain and ensure General Contractor has completed patching and repair of air barrier prior to installation of Panels. Air barrier type and installation method to match that of existing. Lap edges 150 mm all around.
- .4 Furr surfaces to even plane and free from obstructions.
- .5 Prepare surfaces using methods recommended by manufacturer for achieving best result for substrate under project conditions.

#### 3.3 MANUFACTURER'S INSTRUCTIONS

- .1 Comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.

#### 3.4 INSTALLATION

- .1 Erect panels level and plumb, in proper alignment and relation to substructure framing and established lines.
- .2 If field cutting or drilling of panels is required, follow manufacturer's instructions and recommendations.
- .3 Where panel and aluminum materials come in contact with dissimilar materials, PVC compressive tape shall be installed to insulate between the dissimilar materials.
- .4 Install to sizes and colour pattern as indicated.

#### 3.5 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 00 - Cleaning.
  - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 00 - Cleaning.
- .3 Waste Management: separate waste materials for recycling in accordance with Section 01 74 19

- Waste Management and Disposal.

**3.6**    PROTECTION

- .1      Protect installed products and components from damage during construction.
- .2      Repair damage to adjacent materials caused by panel installation.

**END OF SECTION**

## 1 GENERAL

### 1.1 RELATED REQUIREMENTS

- .1 Section 07 42 00 – Reinforced Polymer Architectural Panel.

### 1.2 REFERENCE STANDARDS

- .1 American Society of Mechanical Engineers (ASME)
  - .1 ASME B18.6.3-2013, Machine Screws, Tapping Screws, and Metallic Drive Screws (Inch Series).
- .2 ASTM International
  - .1 [ASTM A 653/A 653M-\[15e1\]](#), Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
  - .2 ASTM D 2369-10-2015e1, Test Method for Volatile Content of Coatings.
  - .3 [ASTM D 2832-\[92\(2016\)\]](#), Standard Guide for Determining Volatile and Nonvolatile Content of Paint and Related Coatings.
- .3 CSA Group (CSA)
  - .1 [CSA B111-1974\(R2003\)](#), Wire Nails, Spikes and Staples.
- .4 Underwriters Laboratories (UL)
  - .1 UL 2761 Sealants and Caulking Compounds
- .5 ULC Standards
  - .1 [CAN/ULC-S741](#) 08, Standard for Air Barrier Materials - Specification.

### 1.3 ADMINISTRATIVE REQUIREMENTS

- .1 Pre-Installation Meetings:
  - .1 Convene pre-installation meeting 1 week prior to beginning work of this Section and on-site installation, with Architect and CoSJ Project Manager in accordance with Section 01 31 19 - Project Meetings to:
    - .1 Verify project requirements.
    - .2 Review installation and substrate conditions.
    - .3 Co-ordination with other construction subtrades.
    - .4 Review manufacturer's written installation instructions and warranty requirements.
- .2 Sequencing: sequence with other work in accordance with Section 01 32 16\_16 Construction Progress Schedule. Comply with manufacturer's written recommendations for sequencing construction operations.
- .3 Scheduling: schedule with other work in accordance with Section 01 32 16\_16 Construction Progress Schedule.

### 1.4 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 - Submittal Procedures.
- .2 Product Data:
  - .1 Submit manufacturer's instructions, printed product literature and data sheets for metal siding and include product characteristics, performance criteria, physical size, finish and limitations.
  - .2 Submit 2 copies of WHMIS SDS in accordance with Section 01 35 29.06 - Health and Safety Requirements and 01 35 43 - Environmental Procedures.
- .3 Shop Drawings:
  - .1 Indicate dimensions, profiles, attachment methods, schedule of wall elevations, schedule of colours, trim and closure pieces, furring, and related work.

- .4 Samples:
  - .1 Submit duplicate 300 x 300 mm samples of siding materials and colours specified.
- .5 Sustainable Design Submittals:
  - .1 Construction Waste Management:
    - .1 Submit project Waste Management Plan, Waste Reduction Workplan highlighting recycling and salvage requirements.

#### 1.5 CLOSEOUT SUBMITTALS

- .1 Submit in accordance with Section 01 78 00 - Closeout Submittals.
- .2 Operation and Maintenance Data: submit operation and maintenance data for installed products for incorporation into manual.
- .3 Warranty Documentation: submit warranty documents specified.

#### 1.6 QUALITY ASSURANCE

- .1 Test Reports: submit certified test reports showing compliance with specified performance characteristics and physical properties.
- .2 Certificates: submit product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
- .3 Installer Qualifications: minimum three years documented experience with products specified.
- .4 Mock-Up:
  - .1 Provide site mock-up for work of this Section indicating methods and materials, and procedures proposed to achieve final results in accordance with Section 01 45 00 - Quality Control, and to comply with following requirements, using materials indicated for completed work:
    - .1 Build mock-ups in location and of size as directed by Architect and CoSJ Project Manager.
    - .2 Obtain Architect and CoSJ Project Manager's acceptance of mock-ups before starting construction; mock-up used throughout construction period as standard of acceptance for subsequent work.
    - .3 Mock-up may form part of permanent structure when accepted by Architect and CoSJ Project Manager; repair or replace unacceptable mock-ups at no additional cost to Owner.

#### 1.7 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with Section 01 61 00 - Common Product Requirements and with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
  - .1 Store materials off ground, in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
  - .2 Store and protect steel siding from nicks, scratches, and blemishes.
  - .3 Replace defective or damaged materials with new.
- .4 Develop Construction Waste Management Plan, Waste Reduction Workplan related to Work of this Section.
- .5 Packaging Waste Management: remove for reuse of pallets, crates, padding, and packaging materials as specified in Construction Waste Management Plan, Waste Reduction Workplan in accordance with Section 01 74 19 - Waste Management and Disposal.

## 1.8 SITE CONDITIONS

- .1 Execute work of this Section within environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer.

## 1.9 WARRANTY

- .1 Manufacturer's warranty: Submit, for CoSJ Project Manager acceptance, manufacturer's standard warranty document executed by authorized company official. Manufacturer's warranty in addition to and not limit other rights Owner may have under Contract Documents.

## 2 PRODUCTS

### 2.1 MATERIALS

- .1 Steel siding: Fabricated from commercial grade to ASTM A 652M with Z275 zinc coating:
  - .1 Profile: vertical metal siding, 7/8" 22 mm deep, preformed interlocking joints, fastener holes pre-punched.
  - .2 Pattern: smooth corrugated pattern surface.
  - .3 Finish coating: factory pre-coated WeatherXL paint finish system or approved equal. Dry paint film thickness of 0.039 mm.
  - .4 Colour: three (3) standard stock colours selected by Architect.
  - .5 Back coating: [ASTM A 653/A 653M](#), grade A.
  - .6 Gloss: Specular Gloss at 60 deg ASTM D523 – 25 -35 for matt Finish <10.
  - .7 Thickness: 26 gauge .045 mm base metal thickness.
- .2 Steel fascia facings and exposed trim: Fabricated from commercial grade to ASTM A 652M with zinc coating:
  - .1 Profile: manufacturer's standard as indicated.
  - .2 Finish coating: factory pre-coated WeatherXL paint finish system or approved equal. Dry paint film thickness of 0.039 mm.
  - .3 Colour: to match steel siding as selected by Architect.
  - .4 Gloss: Specular Gloss at 60 deg ASTM D523 – 25 -35 for matt Finish <10.
  - .5 Thickness: 26 gauge .045 mm base metal thickness..
- .3 Fasteners: screws to ASME B18.6.3 #10 Pre-painted Galvanized, purpose made.
- .4 Furring: Z-Bar 52 mm.
- .5 Sealants: in accordance with Section 7 92 00 - Joint Sealants.
  - .1 Test for acceptable VOC emissions in accordance with [ASTM D 2369](#) and [ASTM D 2832](#).
  - .2 Adhesives and sealants: VOC limit 30 g/L maximum to SCAQMD Rule 1168 GS-36.
- .6 Exterior wall sheathing paper: existing air barrier to remain with patching and repair with like materials by G.C. to satisfaction of Architect and CoSJ Project Manager.

### 2.2 ACCESSORIES

- .1 Exposed trim: inside corners, outside corners, cap strip, drip cap, under-sill trim, starter strip and window/door trim of same material, colour & gloss as cladding, with fastener holes pre-punched.
- .2 Non-exposed accessories: provide all material required for a complete installation.

## 3 EXECUTION

### 3.1 EXAMINATION

- .1 Verification of Conditions: verify conditions of substrate previously installed under other Sections or Contracts acceptable in accordance with manufacturer's written instructions.
  - .1 Visually inspect substrate in presence of Architect and CoSJ Project Manager.



- .2 Inform CoSJ Project Manager of unacceptable conditions immediately upon discovery.
- .3 Proceed with installation only after unacceptable conditions are remedied.

### 3.2 PREPARATION

- .1 Clean surfaces thoroughly prior to installation.
- .2 Repair substrate flaws or defects before applying siding or soffits.
- .3 Inspect existing air barrier to remain and ensure General Contractor has completed patching and repair of air barrier prior to installation of Steel Siding. Air barrier type and installation method to match that of existing. Lap edges 150 mm all around.
- .4 Fur surfaces to even plane and free from obstructions.
- .5 Prepare surfaces using methods recommended by manufacturer for achieving best result for substrate under project conditions.

### 3.3 MANUFACTURER'S INSTRUCTIONS

- .1 Comply with manufacturer's written data, including product technical bulletins, product catalogue installation instructions, product carton installation instructions, and data sheets.

### 3.4 INSTALLATION

- .1 Install steel siding in accordance with manufacturer's written instructions.
- .2 Install continuous starter strips, inside and outside corners, edgings, soffit, drip, cap, sill and window/door opening flashings as indicated.
- .3 Install outside corners, fillers and closure strips with carefully formed and profiled work.
- .4 Install soffit and fascia cladding as indicated.
- .5 Maintain joints in exterior cladding, true to line, tight fitting, hairline joints.
- .6 Attach components in manner not restricting thermal movement.
- .7 Caulk junctions with adjoining work with sealant. Do work in accordance with Section 07 92 00 - Joint Sealants.

### 3.5 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 00 - Cleaning.
  - .1 Leave Work area clean at end of each day.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 00 - Cleaning.
- .3 Waste Management: separate waste materials for recycling in accordance with Section 01 74 19 - Waste Management and Disposal.
  - .1 Remove recycling containers/bins from site. Dispose of materials at appropriate facility.

### 3.6 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by preformed metal siding installation.

**END OF SECTION**

1 GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 02 41 00.08 Demolition - Minor Works.
- .2 Section 07 42 00 Reinforced Polymer Architectural Panels.
- .3 Section 07 46 19 Steel Siding.
- .3 Section 08 80 00 Glazing.

1.2 REFERENCE STANDARDS

- .1 ASTM International
  - .1 ASTM C 919-08, Standard Practice for Use of Sealants in Acoustical Applications.
- .2 Canadian General Standards Board (CGSB)
  - .1 CGSB 19-GP-5M-1984, Sealing Compound, One Component, Acrylic Base, Solvent Curing (Issue of 1976 reaffirmed, incorporating Amendment No. 1).
  - .2 CAN/CGSB-19.13-M87, Sealing Compound, One-component, Elastomeric, Chemical Curing.
  - .3 CGSB 19-GP-14M-1984, Sealing Compound, One Component, Butyl-Polyisobutylene Polymer Base, Solvent Curing (Reaffirmation of April 1976).
  - .4 CAN/CGSB-19.17-M90, One-Component Acrylic Emulsion Base Sealing Compound.
  - .5 CAN/CGSB-19.24-M90, Multi-component, Chemical Curing Sealing Compound.
- .3 Health Canada/Workplace Hazardous Materials Information System (WHMIS)
  - .1 Safety Data Sheets (SDS).

1.3 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 – Submittal Procedures.
- .2 Product Data:
  - .1 Submit manufacturer's instructions, printed product literature and data sheets for joint sealants and include product characteristics, performance criteria, physical size, finish and limitations.
  - .2 Manufacturer's product to describe:
    - .1 Caulking compound.
    - .2 Primers.
    - .3 Sealing compound, each type, including compatibility when different sealants are in contact with each other.
  - .3 Submit 2 copies of WHMIS SDS in accordance with Section 01 33 00 Submittals.
  - .4 Samples:
    - .1 Submit 2 samples of each type of material and colour.
    - .2 Cured samples of exposed sealants for each colour where required to match adjacent material.
  - .5 Manufacturer's Instructions:
    - .1 Submit instructions to include installation instructions for each product used.

1.4 CLOSEOUT SUBMITTALS

- .1 Submit in accordance with Section 01 78 00 – Closeout Submittals.
- .2 Operation and Maintenance Data: submit operation and maintenance data for incorporation into manual.

### 1.5 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
  - .1 Store materials in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
  - .2 Store and protect joint sealants from nicks, scratches, and blemishes.
  - .3 Replace defective or damaged materials with new.

### 1.6 SITE CONDITIONS

- .1 Ambient Conditions:
  - .1 Proceed with installation of joint sealants only when:
    - .1 Ambient and substrate temperature conditions are within limits permitted by joint sealant manufacturer or are above 4.4 degrees C.
    - .2 Joint substrates are dry.
    - .3 Conform to manufacturer's recommended temperatures, relative humidity, and substrate moisture content for application and curing of sealants including special conditions governing use.
- .2 Joint-Width Conditions:
  - .1 Proceed with installation of joint sealants only where joint widths are more than those allowed by joint sealant manufacturer for applications indicated.
- .3 Joint-Substrate Conditions:
  - .1 Proceed with installation of joint sealants only after contaminants capable of interfering with adhesion are removed from joint substrates.

### 1.7 ENVIRONMENTAL REQUIREMENTS

- .1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS) regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and provision of Safety Data Sheets (SDS) acceptable to Health Canada.

## 2 PRODUCTS

### 2.1 SEALANT MATERIALS

- .1 Do not use caulking that emits strong odours, contains toxic chemicals or is not certified as mold resistant in air handling units.
- .2 When low toxicity caulks are not possible, confine usage to areas which off gas to exterior, are contained behind air barriers, or are applied several months before occupancy to maximize off gas time.
- .3 Where sealants are qualified with primers use only these primers.

### 2.2 SEALANT MATERIAL DESIGNATIONS

- .1 Polysulfide two part:
  - .1 Self-levelling to CAN/CGSB-19.24, Type 1, Class B, colour by CoSJ PM.
- .2 Polysulfide two part:
  - .1 Non-sag: to CAN/CGSB-19.24, Type 2, Class B, colour CoSJ PM.
- .3 Polysulfide one part:
  - .1 Self-levelling: to CAN/CGSB-19.13, MC-1-40-B-N, colour CoSJ PM.

- .4 Polysulfide one part:
  - .1 Non-sag: to CAN/CGSB-19.13, MC-2-40-B-N, MC-2-25-B-N, colour CoSJ PM.
- .5 Urethanes two part:
  - .1 Self-levelling: to CAN/CGSB-19.24, Type 1, Class B, colour CoSJ PM.
- .6 Urethanes two part:
  - .1 Non-sag: to CAN/CGSB-19.24, Type 2, Class B, colour CoSJ PM.
- .7 Urethanes one part:
  - .1 Self-levelling: to CAN/CGSB-19.13, Type 1, colour CoSJ PM.
- .8 Urethanes one part:
  - .1 Non-sag: to CAN/CGSB-19.13, Type 2, MCG-2-25 , colour CoSJ PM.
- .9 Silicones one part: to CAN/CGSB-19.13.
- .10 Acrylics one part: to CGSB 19-GP-5M.
- .11 Acrylic latex one part: to CAN/CGSB-19.17.
- .12 Acoustical sealant: to ASTM C 919.

### 2.3 PREFORMED COMPRESSIBLE AND NON-COMPRESSIBLE BACK-UP MATERIALS

- .1 Preformed compressible and non-compressible back-up materials:
  - .1 Polyethylene, urethane, neoprene or vinyl foam:
    - .1 Extruded open cell foam backer rod.
    - .2 Size: oversize 30 to 50 %.
  - .2 Neoprene or butyl rubber:
    - .1 Round solid rod, Shore A hardness 70.
  - .3 High density foam:
    - .1 Extruded closed cell polyvinyl chloride (PVC), extruded polyethylene, closed cell, Shore A hardness 20, tensile strength 140 to 200 kPa, extruded polyolefin foam, 32 kg/m<sup>3</sup> density, or neoprene foam backer, size as recommended by manufacturer.
  - .4 Bond breaker tape:
    - .1 Polyethylene bond breaker tape which will not bond to sealant.

### 2.4 SEALANT SELECTION

- .1 Perimeters of exterior openings where frames meet exterior facade of building (i.e. brick, block, precast masonry): sealant type: M.
- .2 Coping joints and coping-to facade joints: sealant type: M.
- .3 Exterior joints in horizontal wearing surfaces (as itemized): sealant type: M.
- .4 Seal interior perimeters of exterior openings as detailed on drawings: sealant type: S.
- .5 Perimeters of interior frames, as detailed and itemized: sealant type: S.

### 2.5 JOINT CLEANER

- .1 Non-corrosive and non-staining type, compatible with joint forming materials and sealant in accordance with sealant manufacturer's written recommendations.
- .2 Primer: in accordance with sealant manufacturer's written recommendations.

### 3 EXECUTION

#### 3.1 EXAMINATION

- .1 Verification of Conditions: verify that conditions of substrate previously installed under other Sections or Contracts are acceptable for joint sealants installation in accordance with manufacturer's written instructions.
  - .1 Visually inspect substrate in presence of CoSJ Project Manager and Consultant.
  - .2 Inform CoSJ Project Manager and Consultant of unacceptable conditions immediately upon discovery.
  - .3 Proceed with installation only after unacceptable conditions have been remedied and after receipt of written approval to proceed from CoSJ Project Manager and Consultant.

#### 3.2 SURFACE PREPARATION

- .1 Examine joint sizes and conditions to establish correct depth to width relationship for installation of backup materials and sealants.
- .2 Clean bonding joint surfaces of harmful matter substances including dust, rust, oil grease, and other matter which may impair Work.
- .3 Do not apply sealants to joint surfaces treated with sealer, curing compound, water repellent, or other coatings unless tests have been performed to ensure compatibility of materials. Remove coatings as required.
- .4 Ensure joint surfaces are dry and frost free.
- .5 Prepare surfaces in accordance with manufacturer's directions.

#### 3.3 PRIMING

- .1 Where necessary to prevent staining, mask adjacent surfaces prior to priming/caulking.
- .2 Prime sides of joints in accordance with sealant manufacturer's instructions immediately prior to caulking.

#### 3.4 BACKUP MATERIAL

- .1 Apply bond breaker tape where required to manufacturer's instructions.
- .2 Install joint filler to achieve correct joint depth and shape, with approximately 30% compression.

#### 3.5 MIXING

- .1 Mix materials in strict accordance with sealant manufacturer's instructions.

#### 3.6 APPLICATION

- .1 Sealant:
  - .1 Apply sealant in accordance with manufacturer's written instructions.
  - .2 Mask edges of joint where irregular surface or sensitive joint border exists to provide neat joint.
  - .3 Apply sealant in continuous beads.
  - .4 Apply sealant using gun with proper size nozzle.
  - .5 Use sufficient pressure to fill voids and joints solid.
  - .6 Form surface of sealant with full bead, smooth, free from ridges, wrinkles, sags, air pockets, embedded impurities.
  - .7 Tool exposed surfaces before skinning begins to give slightly concave shape.
  - .8 Remove excess compound promptly as work progresses and upon completion.

- .2 Curing:
  - .1 Cure sealants in accordance with sealant manufacturer's instructions.
  - .2 Do not cover up sealants until proper curing has taken place.

### 3.7 CLEANING

- .1 Progress Cleaning: clean in accordance with Section 01 74 00 - Cleaning.
  - .1 Leave Work area clean at end of each day.
  - .2 Clean adjacent surfaces immediately.
  - .3 Remove excess and droppings, using recommended cleaners as work progresses.
  - .4 Remove masking tape after initial set of sealant.
- .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 00 – Contract Closeout - Cleaning.

### 3.8 PROTECTION

- .1 Protect installed products and components from damage during construction.
- .2 Repair damage to adjacent materials caused by joint sealants installation.

**END OF SECTION**

1 GENERAL

1.1 RELATED REQUIREMENTS

- .1 Section 07 42 00 Reinforced Polymer Architectural Panels

1.2 REFERENCE STANDARDS

- .1 ASTM International
- .1 ASTM C 542-05, Standard Specification for Lock-Strip Gaskets.
  - .2 ASTM D 2240-05, Standard Test Method for Rubber Property - Durometer Hardness.
  - .3 ASTM E 330-02, Standard Test Method for Structural Performance of Exterior Windows, Doors, Skylights and Curtain Walls by Uniform Static Air Pressure Difference.
- .2 Canadian General Standards Board (CGSB)
- .1 CAN/CGSB-12.1-M90, Tempered or Laminated Safety Glass.
  - .2 CAN/CGSB-12.3-M91, Flat, Clear Float Glass.
  - .3 CAN/CGSB-12.8-97, Insulating Glass Units.
  - .4 CAN/CGSB-12.8-97 (Amendment), Insulating Glass Units.
- .3 Canadian Standards Association (CSA)
- .1 CSA A440.2, Energy Performance Evaluation of Windows and Sliding Doors.
  - .2 CSA Certification Program for Windows and Doors.
- .4 Environmental Choice Program (ECP)
- .1 CCD-045-95(R2005), Sealants and Caulking Compounds.
- .5 Glass Association of North American (GANA)
- .1 GANA Glazing Manual - 2008.
  - .2 GANA Laminated Glazing Reference Manual - 2009.

1.3 ADMINISTRATIVE REQUIREMENTS

- .1 Pre-Installation Meetings:
- .1 Convene pre-installation meeting 1 week prior to beginning work of this Section, with CoSJ Project Manager to:
    - .1 Verify project requirements.
    - .2 Review installation and substrate conditions.
    - .3 Co-ordination with other building subtrades.
    - .4 Review manufacturer's written installation instructions & warranty requirements.

1.4 ACTION AND INFORMATIONAL SUBMITTALS

- .1 Submit in accordance with Section 01 33 00 – Submittal Procedures.
- .2 Product Data:
- .1 Submit manufacturer's instructions, printed product literature and data sheets for glass, sealants, and glazing accessories and include product characteristics, performance criteria, physical size, finish and limitations.
  - .2 Shop Drawings:
    - .1 Submit in accordance with Section 01 33 00 – Submittal Procedures.
  - .3 Certificates: submit product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
  - .4 Test Reports: certified test reports showing compliance with specified performance characteristics and physical properties.

1.5 CLOSEOUT SUBMITTALS

- .1 Submit in accordance with Section 01 78 00 – Contract Closeout - Submittals.
- .2 Operation and Maintenance Data: submit operation and maintenance data for glazing for incorporation into manual.

## 1.6 QUALITY ASSURANCE

- .1 Certificates: product certificates signed by manufacturer certifying materials comply with specified performance characteristics and criteria and physical requirements.
- .2 Mock-ups:
  - .1 Construct mock-ups in accordance with Section 01 45 00 - Quality Control.
  - .2 Construct mock-up to include glazing, and perimeter air barrier and vapour retarder seal.
  - .3 Mock-up will be used:
    - .1 To judge quality of work, substrate preparation, operation of equipment and material application.
  - .4 Allow 24 hours for inspection of mock-up before proceeding with work.
  - .5 When accepted, mock-up will demonstrate minimum standard of quality required for this work. Approved mock-up may remain as part of finished work.

## 1.7 DELIVERY, STORAGE AND HANDLING

- .1 Deliver, store and handle materials in accordance with manufacturer's written instructions.
- .2 Delivery and Acceptance Requirements: deliver materials to site in original factory packaging, labelled with manufacturer's name and address.
- .3 Storage and Handling Requirements:
  - .1 Store materials in dry location and in accordance with manufacturer's recommendations in clean, dry, well-ventilated area.
  - .2 Store and protect glazing and frames from nicks, scratches, and blemishes.
  - .3 Protect prefinished aluminum surfaces with wrapping.
  - .4 Replace defective or damaged materials with new.

## 1.8 AMBIENT CONDITIONS

- .1 Ambient Requirements:
  - .1 Install glazing when ambient temperature is 10 degrees C minimum. Maintain ventilated environment for 24 hours after application.
  - .2 Maintain minimum ambient temperature before, during and 24 hours after installation of glazing compounds.

## 2 PRODUCTS

### 2.1 MATERIALS

- .1 Design Criteria:
  - .1 Ensure 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 to ASTM E330.
  - .3 Limit glass deflection to 1/200 with full recovery of glazing materials.
  - .4 Impact Protection Profile – 3M IPP
- .2 Flat Glass: (to fit existing openings)
  - .1 6mm Grey/Bronze/Green Tempered + 6mm ES 40 Annealed with Argon
    - .1 6mm (1/4") Solarshield Pure Grey (UNO) Thermally Toughened
    - .2 12.7mm (1/2") Argon (90%)
    - .3 6mm (1/4") Energy Select 40 Position 3 Annealed
- .3 Sealant: in accordance with Section 07 92 00 - Joint Sealants.



## 2.2 ACCESSORIES

- .1 Setting blocks: neoprene, 80-90 Shore A durometer hardness to ASTM D 2240, minimum 100 mm x width of glazing rabbet space minus 1.5 mm x height.
- .2 Spacer shims: neoprene, 50-60 Shore A durometer hardness to ASTM D 2240, 75 mm long x one half height of glazing stop x thickness to suit application. Self adhesive on one face. Glazing tape:
  - .1 Preformed butyl compound with integral resilient tube spacing device, 10-15 Shore A durometer hardness to ASTM D 2240; coiled on release paper; black colour.
- .3 Glazing splines: resilient polyvinyl chloride, extruded shape to suit glazing channel retaining slot, colour as selected.
- .4 Glazing clips: manufacturer's standard type.
- .5 Lock-strip gaskets: to ASTM C 542.

## 3 EXECUTION

### 3.1 EXAMINATION

- .1 Verification of Conditions: verify conditions of substrates previously installed are acceptable for glazing installation in accordance with manufacturer's written instructions.
  - .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 Visually inspect substrate in presence of CoSJ Project Manager.
  - .4 Inform CoSJ Project Manager and Consultant of unacceptable conditions immediately upon discovery.
  - .5 Proceed with installation only after unacceptable conditions have been remedied.

### 3.2 PREPARATION

- .1 Clean contact surfaces with solvent and wipe dry.
- .2 Seal porous glazing channels or recesses with substrate compatible primer or sealer.
- .3 Prime surfaces scheduled to receive sealant.

### 3.3 INSTALLATION: EXTERIOR WET/DRY METHOD (PREFORMED TAPE AND SEALANT)

- .1 Perform work in accordance with GANA Glazing Manual and GANA Laminated Glazing Reference Manual for glazing installation methods.
- .2 Cut glazing tape to length and set against permanent stops, 6 mm below sight line. Seal corners by butting tape and dabbing with sealant.
- .3 Apply heel bead of sealant along intersection of permanent stop with frame ensuring full perimeter seal between glass and frame to complete continuity of air and vapour seal.
- .4 Place setting blocks at 1/4 points, with edge block maximum 150 mm from corners.
- .5 Rest glazing on setting blocks and push against tape and heel head of sealant with sufficient pressure to attain full contact at perimeter of light or glass unit.
- .6 Install removable stops with spacer strips inserted between glazing and applied stops 6 mm below sight line.
- .7 Fill gap between glazing and stop with sealant to depth equal to bite of frame on glazing, maximum 9 mm below sight line.
- .8 Apply cap head of sealant along void between stop and glazing, to uniform line, flush with sight line. Tool or wipe sealant surface smooth.

**3.4 INSTALLATION: INTERIOR - DRY METHOD (TAPE AND TAPE)**

- .1 Perform work in accordance with GANA Glazing Manual and GANA Laminated Glazing Reference Manual for glazing installation methods.
- .2 Cut glazing tape to length and set against permanent stops, projecting 1.6 mm above sight line.
- .3 Place setting blocks at 1/4 points, with edge block maximum 150 mm from corners.
- .4 Rest glazing on setting blocks and push against tape for full contact at perimeter of light or unit.
- .5 Place glazing tape on free perimeter of glazing in same manner described.
- .6 Install removable stop without displacement of tape. Exert pressure on tape for full continuous contact.
- .7 Knife trim protruding tape.

**3.5 CLEANING**

- .1 Progress Cleaning: clean in accordance with Section 01 74 00 – Contract Closeout Cleaning.
  - .1 Leave Work area clean at end of each day.
    - .1 Thoroughly clean, with purpose made cleaner, all surfaces of existing aluminum windows prior to commencement of glazing installation procedures.
    - .2 Remove traces of primer, caulking.
    - .3 Remove glazing materials from finish surfaces.
    - .4 Remove labels.
    - .5 Clean glass and mirrors using approved non-abrasive cleaner in accordance with manufacturer's instructions.
  - .2 Final Cleaning: upon completion remove surplus materials, rubbish, tools and equipment in accordance with Section 01 74 00 - Cleaning.

**3.6 PROTECTION**

- .1 Protect installed products and components from damage during construction.
- .2 After installation, mark each light with an "X" by using removable plastic tape or paste.
  - .1 Do not mark heat absorbing or reflective glass units.
- .3 Repair damage to adjacent materials caused by glazing installation.

**END OF SECTION**



City of Saint John

## **CONTRACT SPECIFICATIONS**

### **DIVISION 4**

### **FORM OF TENDER**

MAY 2021



City of Saint John

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#### **4.1 TENDER IDENTIFICATION**

**Tender No:** 2021-082704T

**Title of Work:** MUNICIPAL OPERATIONS BUILDING CLADDING AND GLAZING  
REPLACEMENT

---

#### **4.2 TENDERER'S RESPONSIBILITIES AND AGREEMENT**

##### **TO THE CITY OF SAINT JOHN, NEW BRUNSWICK:**

The undersigned hereby agrees that failure to complete all required parts of the Form of Tender shall be subject to the reserved rights of the City and shall be grounds for rejection of the Tender in accordance with Section 2.11.

The undersigned Tenderer has carefully examined the site of the Work described herein, has become familiar with local conditions and the character and extent of the Work, has carefully examined every part of the proposed Contract, and thoroughly understands its stipulations, requirements and provisions and has carefully examined all of the following documents which together comprise the Tender Documents:

1. Project Description (Division 1)
2. Instructions to Tenderers and Tendering Procedures (Division 2)
3. The Particular Specifications (Division 3)
4. The Form of Tender (Division 4)
5. The Form of Agreement (Division 5)
6. The General Specifications (Divisions 6 through 31)
7. The Plans and Drawings
8. Addenda Issued

together, the "Tender Documents".

The undersigned Tenderer has determined the quality and quantity of materials required, has investigated the location and determined the source of supply of materials required, has investigated labour conditions, and has arranged for the continuous execution of the Work herein described.

The undersigned Tenderer hereby agrees to be bound by the award of the contract, and if awarded the Contract, to sign the Form of Agreement (Division 5) within five (5) working days following the City's Notice of Selection.

In the event the City accepts its Tender, the undersigned Tenderer hereby agrees to Substantially Complete the Work no later than December 31<sup>st</sup>, 2021.

The undersigned Tenderer agrees that he has received all Addenda and the Tender Price includes the provisions set out in the Addenda.



**4.2 TENDERER’S RESPONSIBILITIES AND AGREEMENT (Cont’d)**

The undersigned Tenderer further agrees to provide all necessary permits, approvals, labour, material, plant, equipment, tools, incidentals, products, water, light, heat, power, transportation, facilities, services and other means of the specified requirements which are necessary to complete the work in accordance with the contract and agrees to accept, therefore, in payment in full, the total sum of

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

in Canadian Funds, which price excludes HST (the “Tender Price”).

By submitting a Tender, the Tenderer absolutely waives any right, cause of action or claim for any compensation of any kind whatsoever as a result of participating in this Request for Tender Call or by reason of the City’s failure to accept the Tender submitted by the Tenderer, and the Tenderer shall be deemed to have agreed to waive such right, cause of action or claim.

*Place of Signing:* Signed, sealed and delivered at \_\_\_\_\_

*Date of Signing:* This \_\_\_\_\_ day of \_\_\_\_\_, in the year \_\_\_\_\_

*Name and Title:* By \_\_\_\_\_

*Legal Name of Tenderer:* \_\_\_\_\_ *PLACE*

*Signature of Tenderer or Authorized Agent:* \_\_\_\_\_ *SEAL*

*Signature of Witness:* \_\_\_\_\_ *HERE*

*Address of Tenderer:* \_\_\_\_\_  
\_\_\_\_\_

### 4.3 **BONDING AND INSURANCE COMMITMENTS**

Failure of the Tenderer to complete Sections 4.3.01, 4.3.02 and 4.3.03 may be grounds for rejection of the Tender.

#### 4.3.01 **Tender (Bid) Bond or Certified Cheque**

A certified cheque or Tender (Bid) Bond accompanies this Tender, as indicated below:

##### (a) **Certified Cheque**

Provided is a certified cheque payable to The City of Saint John in the amount of \_\_\_\_\_

**Signature of Tenderer or Authorized Agent:** \_\_\_\_\_

##### (b) **Tender (Bid) Bond**

Provided is a Tender (Bid) Bond payable to The City of Saint John in the amount of \_\_\_\_\_

The Tender (Bid) Bond has been negotiated for, procured from and the premium paid to a New Brunswick resident agent of an insurance company licensed to do business in New Brunswick.

**Signature of Tenderer or Authorized Agent:** \_\_\_\_\_

#### 4.3.02 **Performance Guarantees**

One of the following acceptable forms of Performance Guarantees will accompany the Contract, as indicated below:

##### (a) **Performance Bond**

The Performance Bond and the Labour and Material Payment Bond, each at fifty percent (50%) of the Tender Price covering the faithful performance of the full Contract, will be negotiated for, procured from and the premium paid to an insurance company licensed to do business in the Province of New Brunswick.

A surety consent letter or Agreement to Bond must accompany the Tender submission.

**Signature of Tenderer or Authorized Agent:** \_\_\_\_\_

**4.3.02 Performance Guarantees (Cont'd)**

**(b) Certified Cheque**

In lieu of the performance bond and the labour and material payment bond, we shall supply a certified cheque in the amount of twenty percent (20%) of the Tender Price.

**Signature of Tenderer or Authorized Agent:** \_\_\_\_\_

**4.3.03 Insurance**

The undersigned Tenderer has reviewed the insurance requirements in the Contract. The following provision for contract insurances will be utilized, as indicated below:

The insurance required in the contract will be negotiated for, procured from and the premium paid to an insurance company licensed to do business in the Province of New Brunswick.

**Signature of Tenderer or Authorized Agent:** \_\_\_\_\_

**4.4 STATEMENTS**

A Tender which does not include completed statements at Sections 4.4.01 to 4.4.07 hereunder and the duly completed Schedule of Quantities and Unit Prices at Appendix 4A may be Disqualified.

**4.4.01 Reference Regarding Tenderer's Financial Status**

*Name of Reference:* \_\_\_\_\_

*Address of Reference:* \_\_\_\_\_

\_\_\_\_\_

**4.4.02 Particulars of Tenderer's Recent Contracts**

The Tenderer shall provide hereunder particulars of at least three (3), and if possible, five (5) contracts which the Tenderer has successfully carried to completion within the last three (3) years, or is now carrying to completion.

Tenderers shall be actually engaged in performing the type and standard of work specified, and the projects referenced below shall be work of a similar character to the Work now being tendered and shall be of comparable or greater size.

Tenderers who have not performed work for The City of Saint John within the last three (3) years shall submit additional information with the Form of Tender that would demonstrate the Tenderer's ability to perform the type and standard of work specified and the Tenderer's financial, technical and project management reliability.





**4.4.02 Particulars of Tenderer's Recent Contracts (Cont'd)**

**Contract 1:** Brief description of contract: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Owner, contact name and telephone number: \_\_\_\_\_  
\_\_\_\_\_

Contractor's supervisor: \_\_\_\_\_

Year completed: \_\_\_\_\_ Contract Value: \_\_\_\_\_

**Contract 2:** Brief description of contract: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Owner, contact name and telephone number: \_\_\_\_\_  
\_\_\_\_\_

Contractor's supervisor: \_\_\_\_\_

Year completed: \_\_\_\_\_ Contract Value: \_\_\_\_\_

**Contract 3:** Brief description of contract: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Owner, contact name and telephone number: \_\_\_\_\_  
\_\_\_\_\_

Contractor's supervisor: \_\_\_\_\_

Year completed: \_\_\_\_\_ Contract Value: \_\_\_\_\_



**4.4.02 Particulars of Tenderer's Recent Contracts (Cont'd)**

**Contract 4:** Brief description of contract: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Owner, contact name and telephone number: \_\_\_\_\_  
\_\_\_\_\_

Contractor's supervisor: \_\_\_\_\_

Year completed: \_\_\_\_\_ Contract Value: \_\_\_\_\_

**Contract 5:** Brief description of contract: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Owner, contact name and telephone number: \_\_\_\_\_  
\_\_\_\_\_

Contractor's supervisor: \_\_\_\_\_

Year completed: \_\_\_\_\_ Contract Value: \_\_\_\_\_

**Contract 6:** Brief description of contract: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Owner, contact name and telephone number: \_\_\_\_\_  
\_\_\_\_\_

Contractor's supervisor: \_\_\_\_\_

Year completed: \_\_\_\_\_ Contract Value: \_\_\_\_\_



**4.4.03 Particulars of Current Construction Work by Tenderer**

If none of the projects described in 4.4.02 were in progress in Canada during the twelve (12) months immediately preceding this Tender, the Tenderer shall provide below particulars of a contract which the Tenderer satisfactorily carried out in Canada during that period.

Brief description of contract: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Owner, contact name  
and telephone number: \_\_\_\_\_

\_\_\_\_\_

Date of commencement: \_\_\_\_\_

Date of (anticipated) completion: \_\_\_\_\_

Contract value: \_\_\_\_\_

Contractor's supervisor: \_\_\_\_\_

**4.4.04 Tenderer's Senior Supervisory Staff**

The Tenderer shall identify their senior supervisory staff in the spaces below.

Tenderers who have not performed work for the City within the last three (3) years shall submit with their Form of Tender a completed resume for each staff member listed hereunder outlining their experience, education, designations/certificates and continued training/education.)

<u>Name</u>	<u>Position</u>	<u>Qualifications</u>	<u># Years Experience</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____



**4.4.05 Tenderer's Plant**

The Tenderer shall list below the construction plant (type of machinery, equipment, trucks, etc.) the Tenderer proposes to use, other plant under the Tenderers control, and the plant the Tenderer proposes to hire, to complete the work within the time allowed.

<u>Type</u>	<u>Make</u>	<u>Model # &amp; Year</u>	<u>Gas/ Diesel</u>	<u>Net Engine Horsepower</u>	<u>Bucket Size Excavator GVW</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

**4.4.06 Tenderer's Other Resources**

The Tenderer shall list below the batch plant, gravel pits or quarries, and the like that the Tenderer proposes to use to complete the work within the time allowed.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



**4.4.07 Sub-Contractors and Suppliers**

Tenderers shall state the name and address of each proposed sub-contractor or supplier.

The listing of more than one sub-contractor or supplier for any one sub-trade or failure to submit a complete list of sub-contractors and suppliers may be grounds for rejection of the Tender. After the City has provided the selected Tenderer with written notification of the City’s acceptance of its Tender, the selected Tenderer shall not substitute other sub-contractors or suppliers in place of those named below without the written approval of the Engineer.

<u>Sub-Trade or Supplier</u>	<u>Name of Sub-Contractor/Supplier</u>	<u>Address</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

**4.5 SCHEDULE OF QUANTITIES AND UNIT PRICES**

The tenderer shall complete and attach as Appendix 4A the required *Schedule of Quantities and Unit Prices* for the Work tendered, in the format specified by the Engineer.

**4.6 CERTIFICATE OF INDEPENDENT TENDER DETERMINATION**

I, the undersigned, in submitting the accompanying Tender to The City of Saint John for:

**Tender No.:** 2021-082704T

**Title of Work:** MUNICIPAL OPERATIONS BUILDING CLADDING AND GLAZING REPLACEMENT

do hereby make the following statements that I certify to be true and complete in every respect:

I certify, on behalf of \_\_\_\_\_ that:

(Corporate Name of Tenderer)

**4.6 CERTIFICATE OF INDEPENDENT TENDER DETERMINATION (Cont'd)**

1. I have read and I understand the contents of this Certificate;
2. I understand that the accompanying Tender will be disqualified if this Certificate is found not to be true and complete in every respect;
3. I am authorized by the Tenderer to sign this Certificate, and to submit the accompanying Tender, on behalf of the Tenderer;
4. Each person whose signature appears on the accompanying Tender has been authorized by the Tenderer to determine the terms of, and to sign, the Tender, on behalf of the Tenderer;
5. For the purposes of this Certificate and the accompanying Tender, I understand that the word “competitor” shall include any individual or organization, other than the Tenderer, whether or not affiliated with the Tenderer, who:
  - (a) may submit a Tender in response to this Request for Tender;
  - (b) could potentially submit a Tender in response to this Request for Tender, based on their qualifications, abilities or experience;
6. The Tenderer discloses that (check one of the following only, as applicable):
  - the Tenderer has arrived at the accompanying Tender independently from, and without consultation, communication, agreement or arrangement with, any competitor; or
  - the Tenderer has entered into consultations, communications, agreements or arrangements with one or more competitors regarding this Request for Tender, and the Tenderer discloses, in the attached document(s), complete details thereof, including the names of the competitors and the nature of, and reasons for, such consultations, communications, agreements or arrangements.
7. In particular, without limiting the generality of paragraphs (6)(a) or (6)(b) above, there has been no consultation, communication, agreement or arrangement with any competitor regarding:
  - (a) prices;
  - (b) methods, factors or formulas used to calculate prices;
  - (c) the intention or decision to submit, or not to submit, a Tender; or
  - (d) the submission of a Tender which does not meet the specifications of the Request for Tender;except as specifically disclosed pursuant to paragraph (6)(b) above;



**4.6 CERTIFICATE OF INDEPENDENT TENDER DETERMINATION (Cont'd)**

- 8. In addition, there has been no consultation, communication, agreement or arrangement with any competitor regarding the quality, quantity, specifications or delivery particulars of the products or services to which this Request for Tender relates, except as specifically authorized by The City of Saint John or as specifically disclosed pursuant to paragraph (6)(b) above;
- 9. The terms of the accompanying Tender have not been, and will not be, knowingly disclosed by the Tenderer, directly or indirectly, to any competitor, prior to the date and time of the official Tender Opening, or of the awarding of the Contract, whichever comes first, unless otherwise required by law or as specifically disclosed pursuant to paragraph (6)(b) above.

*Name of Tenderer or Authorized Agent:* \_\_\_\_\_

*Signature of Tenderer or Authorized Agent:* \_\_\_\_\_

*Position Title:* \_\_\_\_\_

*Date:* \_\_\_\_\_

*Address of Tenderer:* \_\_\_\_\_

\_\_\_\_\_

**ATTACHMENT: TENDERER'S CHECKLIST**

(The onus is entirely on the Tenderer to understand all the requirements of the tendering process and the Tender Documents. This checklist is provided for information only and is not required to be submitted with the Form of Tender.)

**BEFORE SUBMITTING YOUR TENDER, CHECK THE FOLLOWING POINTS:**

- Has your Tender been signed and witnessed?
- Have you sealed the *Form of Tender* with your corporate seal?
- Have you enclosed your Tender (Bid) Bond or certified cheque?
- Have you enclosed the surety consent letter?
- Have you completed all sections of the *Form of Tender*?
- Have you completed all schedules and prices in the *Form of Tender*?
- Have you written each unit price or lump sum price out in words, including the words "dollars" and "cents"?
- Have you included signed copies of all addenda signature pages?
- Have you listed your Subcontractors and suppliers?
- Have you listed your experience in similar work?
- Have you listed your senior staff?
- Have you listed the Tenderer's plant?
- Have you attached required appendices and required supplemental information?
- Are the documents complete?
- Is everything legible?



**DIVISION 4.5**

**SCHEDULE OF QUANTITIES AND UNIT PRICES**

**UNIT PRICE TO BE EITHER  
TYPEWRITTEN OR PRINTED IN  
INK IN WORDS AND PRINTED  
NUMERICALLY**

**CONTRACT NUMBER 2021-082704T**

**TITLE: MUNICIPAL OPERATIONS BUILDING CLADDING AND GLAZING  
REPLACEMENT**

*NOT APPLICABLE*



City of Saint John

## **CONTRACT SPECIFICATIONS**

### **DIVISION 5**

### **FORM OF AGREEMENT**

MAY 2021



City of Saint John

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**5.1 AGREEMENT BETWEEN OWNER AND CONTRACTOR**

THIS AGREEMENT made in triplicate between **THE CITY OF SAINT JOHN** herein (and in the Specifications) called the "Owner" or the "City"

AND

---

herein (and in the Specifications) called the "Contractor".

WITNESSETH: That the Owner and the Contractor agree as follows:

- a) The Contractor shall provide all the materials and perform all the work shown on the drawings and described in the Contract Specifications titled:  
**Contract No:** 2021-082704T  
**Title:** MUNICIPAL OPERATIONS BUILDING CLADDING AND GLAZING REPLACEMENT
- b) The Contractor shall do and fulfill everything indicated by this Agreement; and
- c) The Contractor shall Substantially Complete the Work no later than December 31<sup>st</sup>, 2021.

**5.2 CONTRACT DOCUMENTS**

**5.2.01 General Specifications**

General Specifications, City of Saint John, New Brunswick, with all applicable divisions, as updated and as listed in the Table of Contents of the Contract Specifications.

**5.2.02 Contract Specifications**

Contract specifications for

**Contract No:** 2021-082704T

**Title:** MUNICIPAL OPERATIONS BUILDING CLADDING AND GLAZING REPLACEMENT

**5.2.02 Drawings**

<u>Sheet No.</u>	<u>Title</u>
A-1	Key Plan, Notes, Exterior Elevations and Details, Existing Conditions
A-2	Exterior Elevations, Existing Conditions
A-3	Exterior Elevations and Details, Existing Conditions
A-4	Exterior Elevations, New Conditions
A-5	Panel Details

**5.3 ADDENDA**

The Contractor agrees that he has received addenda \_\_\_ to \_\_\_ inclusive, and that the tender price includes the provisions set out in the addenda.

**5.4 CONTRACT PRICE**

The Owner shall pay to the Contractor, in lawful money of Canada for the performance of the Contract, the amounts determined for each of the items of work completed at the unit prices as listed in the Schedule of Quantities and Unit Prices, submitted with the tender, which is to be attached with this Agreement, for the total tender price of:

---

---

(Excluding Taxes)

---

If the Engineer orders in writing the performance of any work not covered by the drawings or included in the specifications that cannot be classified as coming under any of the contract units and for which a unit price can be agreed upon, then such additional work shall be paid for as described under the General Administration of Contract, Division 6.

**5.5 PAYMENT**

The Owner shall pay on account of thereof upon the Engineer's Certificate, as invoiced by the Contractor and approved by the Engineer, in the manner described in the Specifications.

**5.6 AGREEMENT DOCUMENTS**

The General Administration of Contract, Division 6 and the aforesaid Specifications and Drawings are all to be read into and form part of this Agreement and the whole shall constitute the Contract between the parties and it shall inure to the benefit of and be binding upon them and their successors, executors, administrators, and subject to the General Administration of Contract, their assigns.



**5.8 AFFIDAVIT OF CORPORATE EXECUTION**

CANADA

PROVINCE OF NEW BRUNSWICK

CITY OF SAINT JOHN

I, \_\_\_\_\_, of the \_\_\_\_\_  
in the County of \_\_\_\_\_, and Province of New Brunswick

MAKE OATH AND SAY:

(1) THAT I am the \_\_\_\_\_ of \_\_\_\_\_, and \_\_\_\_\_ is the \_\_\_\_\_ of the said Company, as such I am/we are duly authorized officer(s) of the said Company to execute the foregoing instrument.

(2) THAT the signature \_\_\_\_\_ subscribed to the within instrument is my signature and in my own proper handwriting and that the signature \_\_\_\_\_ so subscribed is his signature made thereto by him in my presence.

(3) THAT the Seal affixed to the said instrument purporting to be the Corporate Seal of the said \_\_\_\_\_ is the Corporate Seal of the said Company and was affixed to the said instrument by me and by order of the Board of Directors of the Company.

SWORN TO BEFORE ME at the \_\_\_\_\_ )  
 )  
of \_\_\_\_\_ )  
 )  
in the Province of \_\_\_\_\_ )  
 )  
this \_\_\_\_\_ day of \_\_\_\_\_ A.D., \_\_\_\_\_. )  
 )  
\_\_\_\_\_ ) \_\_\_\_\_ )  
COMMISSIONER OF OATHS ) CONTRACTOR )  
 )

Note: The blank spaces are to be filled in with the name or names of the signing officer(s).

## **5.9 CHECKLIST FOR INSURANCE REQUIREMENTS**

The insurance coverage required by the City is set out in General Administration of Contract, Division 6, of the General Specifications. An Insurance Certificate is to be deposited with the City.

The certificate of insurance should contain at least the following information:

- Be addressed to the City of Saint John.
- Be signed by an authorized representative on behalf of the insurance company.
- Contain a Wrap-up (Project Specific) Liability policy with inclusive limits of at least five million dollars (\$5,000,000.00).
- Show that the City of Saint John, the Contractor and Sub-Contractors, the Engineer and the Architect, are added as Additional Insured with respect to the operations of the Contractor.
- Confirm coverage for bodily injury and property damage and set forth the amount.
- Confirm that there is coverage for Contractual Liability with respect to this Contract.
- Confirm that the policy contains a cross liability clause.
- Confirm that there is Contingent Employer's Liability Coverage.
- Confirm that there is coverage for Broad Form Property Damage.
- Confirm that there is Completed Operations coverage with respect to this contract and that such coverage shall continue to be in force for the duration of the guarantee period (maintenance period) which is a period of twelve (12) months from the date of issuance of the Certificate of Final Completion.
- Confirm that there is coverage for Non-Owned Automobiles or licensed vehicles.
- Confirm that there is coverage for Owned Automobiles or licensed vehicles.
- Confirm that the indicated policies will not be cancelled, substantially amended, or allowed to lapse without the City first being given a thirty (30) day written notice.