



**THE CORPORATION OF THE TOWNSHIP OF NORTH STORMONT
REQUEST FOR QUOTATION
FOR
CRYSLER FIRE STATION
NEW FIREHALL, CRYSLER, ON
RFQ-FD02-2021**

CONTRACT NO. RFQ-FD02-2021

EEG FILE NO. 9655

The Tenderer is advised that the following **CHECK LIST** is provided to assist in the completion of an accurate and acceptable Tender Form. While every effort has been made to include all information necessary, this **CHECK LIST** may not be complete, therefore the Tenderer is reminded to check all the requirements outlined in Section A, General Special Provisions, prior to delivery of the completed Tender Form.

TENDERER'S CHECK LIST

- Tenderer's name and address (page 2) completed
- Addenda numbers inserted in page 4 (as applicable)
- All tender items bid
- Unit price(s) inserted
- Mathematical extension(s) complete with total(s)
- Mathematical summation complete with TOTAL TENDER AMOUNT
- TOTAL TENDER AMOUNT BID indicated on page 5
- List of Sub-contractors provided
- Erasures, over-writing or strike-outs initialled by person signing on behalf of the Tenderer
- Tender Form dated, signed and witnessed on last page
- Bid Bond Included.
- Agreement to Bond.
- Deliver Tender to Township of North Stormont, 15 Union Street, Box 99, Berwick, ON K0C 1G0 on Friday, November 26th, 2021, before 2:00 o'clock, p.m., (Local Time).
- During the preparation of tenders, all queries are to be submitted in writing. Send all written questions to Mr. B. Campbell, P.Eng. by e-mail to bcampbell@easteng.com
- Last day for queries is Wednesday, November 24th, 2021, by 4:30 p.m.

CRYSLER FIRE STATION

NEW FIREHALL

CONTRACT NO. RFQ-FD02-2021

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TENDER FORM

CRYSLER FIRE STATION

CONTRACT FOR

NEW FIREHALL

CONTRACT NO. RFQ-FD02-2021

Crysler Fire Station
18 Second St.
Crysler, ON K0A 1R0

TENDER FOR: FIRE HALL

CONTRACT NO. RFQ-FD02-2021

NAME OF TENDERER (Firm or Individual)

ADDRESS OF TENDERER (Telephone Number)

NAME OF PERSON SIGNING FOR TENDERER

OFFICE OF PERSON SIGNING FOR TENDERER

NOTE: If the Tender is submitted by or on behalf of any Corporation, it must be signed in the name of such Corporation by some duly authorized officer or agent thereof. The said officer or agent shall subscribe his own name and office and affix the seal of the Corporation thereto.

Sealed Tenders, duly completed on the loosely bound Tender Form, complete with attached statements and information requested in the Tender Form, will be received as follows:

Tender for: Crysler Fire Station
Fire Hall, Crysler, ON
Contract No. RFQ-FD02-2021

TENDERS TO BE RECEIVED BY:

Township of North Stormont
15 Union Street, Box 99
Berwick, ON K0C 1G0

BEFORE: 2:00 o'clock, p.m. (local time) Friday, November 26th, 2021.

Deposit Required with Tender: as specified in General Special Provisions

Time for Completion of Work and Delivery of Materials Under This Contract:

- .1 Start Date of project June 1st, 2022.
- .2 Demolition Date May 21st, 2022.
- .3 Total project to be completed by November 4th, 2022.

The Township reserves the right to reject any Tender if it is deemed advisable to do so, and the lowest or any tender will not necessarily be accepted.

Crysler Fire Station
18 Second St.
Crysler, ON K0A 1R0

Attention:

The Tenderer has carefully examined and understands and accepts the Provisions, Specifications, Conditions and Drawings referred to in the Schedule of Provisions, Specifications, Conditions and Drawings and Addenda Nos. ___ to ___* attached hereto as part of this Tender, and has carefully examined the site, including the nature of the utilities and location of the work to be done under this Contract and, for the prices set forth in this Tender, hereby offers to furnish all labour, materials, machinery, tools, apparatus and other means of construction necessary to complete the work in strict accordance with the Provisions, Specifications, Conditions and Drawings referred to in the said Schedule.

Notification of acceptance and delivery of the Form of Agreement shall be made by the Township by prepaid and registered post, addressed to the Tenderer at the address contained in the Tender and, upon such notification of acceptance, the Tenderer shall complete the form of Agreement between the parties and execute the Contract and furnish necessary proof of insurance, within 14 days of mailing of said notification to the Tenderer.

Attached to this Tender is a Bid Bond in the amount required by the General Special Provisions and made payable to: The Township of North Stormont. If the Tenderer fails to file with the Township the Form of Agreement duly executed, together with proof of insurance and proof of Workplace Safety and Insurance Board coverage, all as specified.

* The Tenderer will insert the numbers of the Addenda received by him/her during the tendering period and taken into account by him/her in his/her Tender.

In accordance with the first paragraph of this Tender the Contractor hereby offers to complete the work specified in the Contract for the following prices:

DESCRIPTION	CONTRACTOR'S TOTAL BID IN FIGURES
CONSTRUCTION	
Firehall	\$ _____
All Site Works (brought over from page 6)	\$ _____
TOTAL BID	\$ _____

SITE WORK

ITEM BREAKDOWN (See Section 020000)

ITEM NO.	SPEC NO.	DESCRIPTION OF ITEM	Quantity	Unit Price	Total Bid
1	201 510	Preparation of Site Including Removals	L.S.	\$ _____	\$ _____
2	206	Earth Excavation (Grading)	L.S.	\$ _____	\$ _____
3	310	Hot Mix H.L. 3	75 tonne	\$ _____/t	\$ _____
4	310	50mm dia. Water Service	Per Each	\$ _____ /each	\$ _____
5	314	Granular 'A'	180 tonne	\$ _____/t	\$ _____
6	314	Granular 'B', Type II (Modified)	300 tonne	\$ _____/t	\$ _____
7	410	100mm dia. Sanitary Service and connection	Per Each	\$ _____ /each	\$ _____
8		Line Painting	L.S.	\$ _____	\$ _____
9	802 804	Topsoil and Hydroseed	850 m²	\$ _____/m ²	\$ _____
10	201	Environmental Protection	L.S.	\$ _____	\$ _____
11		Pinned Curbs	3	\$ _____ /each	\$ _____
Total Bid (Insert this total on page 5 – All Site Works)				\$ _____	

EXTRA WORK

The Contractor further agrees that all extra work not provided for in the bid shall be based on actual cost of labour and materials plus 15 percent or on negotiated prices.

The Contractor further agrees to provide credit for deletions of work based on the actual cost used to determine the total tender bid without any provisions for profit and overhead.

HOURLY RATES

The following labour rates excluding the 15% mark-up shall be used for additions and deletions to the contract.

Apprentice/Hr. _____

Plumber/Hr. _____

Electrician/Hr. _____

Labourer/Hr. _____

Carpenter/Hr. _____

Foreman/Hr. _____

Superintendent/Hr. _____

Note: Labour rates are to be calculated based on hourly rates paid plus fringe benefits.

CERTIFICATION RESPECTING COMPLETION OF WORK

The Township requires completion of the work as follows:

- .1 Total project to be complete by Friday, November 4th, 2022.

Please indicate whether you can guarantee completion of the work in accordance with the aforesaid dates.

Yes _____ No _____

If the answer is “No” please insert the date of completion that you can guarantee and for which the Liquidated Damages Provisions of this Contract would apply.

- a) Final completion date of the work _____, 2022.

The Township reserves the right to award a contract based on both tender bid and dates of completion whichever is in the Township’s best interests.

The Contractor submits the following list of sub-contractors who will be employed on this job with this tender.

- 1. Site Work _____
- 2. Concrete Work _____
- 3. Framer _____
- 4. Exterior Finishes (Siding and Roofing) _____
- 5. Wall Finishes _____
- 6. Millwork _____
- 7. Misc. Metals _____
- 8. Overhead Doors _____
- 9. Mechanical _____
- 10. Electrical _____

The Township reserves the right to refuse some sub-contractors from working on the project.

The following form or an acceptable alternative must be completed and attached to the tender submitted.

AGREEMENT TO BOND

Bond No. _____

We, the undersigned, hereby agree to become bound as Surety for

(Name of Tenderer)

in a bond totaling One Hundred Percent (100%) of the Contract Amount and conforming to the Instruments of the Contract attached hereto, for the full and due performance of the work shown as described herein if the Tender for Contract No. RFQ-FD02-2021 is accepted by the Township.

It is a Condition of this Agreement, that, if the above-mentioned Tender is accepted, application for the required Performance Bond shall be made to the undersigned within ten (10) days of acceptance of the Tender related thereto, otherwise this Agreement shall be null and void.

Dated this _____ day of _____, 2021.

Name of Bonding Company

(Company Seal)

Signature of Authorized Person
Signing for Bonding Company

Position

SCHEDULE OF PROVISIONS, SPECIFICATIONS, CONDITIONS AND DRAWINGS

The work specified in the Contract will be performed in strict accordance with the following:

- SECTION A General Special Provisions

- SECTION B Item Special Provisions - N/A

- SECTION C Standard Specifications

- SECTION D General Conditions of Contract
 (CCDC 2, 2008)

- SECTION E Standard Drawings

- SECTION F Soils Report - N/A

- SECTION G Contract Drawings

- SECTION H Shop Drawings

The Tenderer, by this Tender, offers to complete this Contract in accordance with the terms and conditions contained herein.

Dated at _____ this _____ day of _____, 2021.

Witness _____

Signature of Authorized Person
Signing for Tenderer

Position

This is the 11th and last page of 11 pages of the Tender Form to be submitted.

SECTION A

GENERAL SPECIAL PROVISIONS

1. TENDER REQUIREMENTS

- a) The correct Tender Form, as supplied by the Township, for the Contract being bid on, must be used and must be delivered to:

Township of North Stormont
15 Union Street, Box 99
Berwick, ON K0C 1G0

Attention: Mr. Craig Calder

before: 2:00 o'clock, p.m., (Local Time), Friday, November 26, 2021.

Bids received after closing time will not be considered.

- b) The entire work is to be awarded to (1) one Contractor and therefore ALL ITEMS must be included in the bid price on the tender form.
- c) When so required by the Township, the Contractor shall produce evidence as to his qualifications and previous experience in the types of work contemplated by this Contract.
- d) All unit prices must be clearly indicated. Erasures, over-writing or strike-outs must be initialled by the person signing on behalf of the Contractor.
- e) The total bid must not be restricted by a statement added to the Tender Form, or a covering letter, or alterations to the Tender Form provided by the Township. Adjustments by e-mail or letter to a Tender already submitted will not be considered. A bidder wishing to make any adjustments to a Tender must withdraw the Tender and/or supersede it with a later submission.
- f) The Tender Form must be signed and witnessed in the spaces provided on the form, with the signature of the bidder or of a responsible official of the organization bidding.
- g) Each amount in the Tender shall be a reasonable price for each item. Unbalanced Tenders will not be considered. The Consultant shall be the sole judge of such matters, and should any Tender be considered, to be unbalanced, it may be rejected.

- h) The Tender must be accompanied by a 10% Bid Bond or a certified cheque made payable to "Township of North Stormont." The bid bond or cheque is to be made equal to or greater than the amount shown in the following table:

<u>TOTAL TENDER AMOUNT BID FOR CONTRACT No. RFQ-FD02-2021</u>	<u>MINIMUM DEPOSIT REQUIRED</u>
\$20,000.00 or less	\$1,000.00
\$20,000.01 to \$50,000.00	\$2,000.00
\$50,000.01 to \$100,000.00	\$5,000.00
\$100,000.01 to \$250,000.00	\$10,000.00
\$250,000.01 to \$500,000.00	\$25,000.00
\$500,000.01 to \$1,000,000.00	\$50,000.00
\$1,000,000.01 to \$2,000,000.00	\$75,000.00
\$2,000,000.01 and over	\$150,000.00

- (i) Each amount in the Tender shall be a reasonable price for each item. Unbalanced Tenders will not be considered. The Township Engineer shall be the sole judge of such matters and should any Tender be considered to be unbalanced it may be rejected.
- (j) The Tender Deposits of the three (3) lowest acceptable bidders shall be retained until the successful bidder has executed the Contract documents. All remaining Tender Deposits shall be returned to the respective bidders on the next business day following the Tender opening.

The Tender Deposit of the successful bidder will be returned when he has fully complied with the conditions outlined in the Contract documents.

2. PERFORMANCE BOND

A Performance Bond is not required for this project. The deposit cheque shall be retained as surety until substantial completion of the project.

3. EXECUTION OF CONTRACT

Tenders shall be open for acceptance for a period of 60 calendar days after closing date. After this time, the Tender may only be accepted with the consent of the successful bidder.

Failure by the selected bidder to meet the Contract criteria will entitle the Township to rescind the acceptance of the Contract and to retain the Tender Deposit as compensation for damages sustained due to the successful bidder's default. The Township may then

award the Contract to one of the other bidders or take other action as the Township may choose.

4. LIABILITY INSURANCE

Sub-section GC 11.1.1.1 of General Conditions of Contract, is hereby amended by the following provisions:

The Certificate of Insurance required under this Section shall be submitted to the Consultant as soon as practical after notification of acceptance of the Tender. The liability insurance coverage shall specifically include coverage to the limit of not less than five million dollars (\$5,000,000.00), exclusive of interest and cost, in respect of any one accident.

The Certificate of Insurance shall name the following as additional insured:

- a) Township of North Stormont
- b) Eastern Engineering Group Inc.

Sub-section GC11.1.1.2, General Conditions of Contract, is hereby amended by the following:

The automobile liability insurance coverage shall include coverage of not less than five million dollars (\$5,000,000.00), inclusive per occurrence.

5. OCCUPATIONAL HEALTH AND SAFETY

The Contractor's attention is drawn to Sub-section GC3.6, General Conditions of Contract.

In order to avoid any misunderstanding as to the nature of the work to be performed herein, the Contractor, by executing this Contract, acknowledges that he is the Constructor within the meaning of the Occupational Health and Safety Act and Regulation.

6. SCOPE OF WORK

Work on this contract consists of the supply of all materials, equipment, and labour to construct the new firehall and complete all site works as prescribed in the Eastern Engineering Group Inc. drawings File No. 9655.

General

The contractor shall complete all works in accordance with the permit drawings and provisions made by the building department having jurisdiction and consulting engineers for the project. All work shall be performed to good practice and craftsmanship. S

7. CONTRACTOR'S SCHEDULE OF WORK

Forthwith upon acceptance of this Contract, the Contractor shall provide a "Contractor's Schedule of Work" to the Consultant. The Contractor must prepare and submit his Schedule to the Consultant within ten (10) calendar days of Contract acceptance and prior to start of construction.

8. PROGRESSION OF WORK AND COMPLETION TIME

Time shall be of the essence of this Contract.

The Contractor shall diligently prosecute his work on this Contract to completion. The Contractor shall schedule the work for progression of same in a continuous and orderly manner to prevent the least amount of delay in completing the total works. The Contractor shall start work on this Contract within 15 days from receipt of written notice from the Township to commence and shall work continuously to the completion of the Contract.

The total work shall be completed by the Contractor by November 4, 2022.

If the time limit specified above is not sufficient to permit completion of the work by the Contractor working a normal number of hours each day or week on a single daylight shift basis, it is expected that additional and/or augmented daylight and night shifts will be required throughout the life of the Contract to the extent deemed necessary by the Contractor to insure that the work will be completed within the time limit specified. Any additional costs occasioned by compliance with these provisions will be considered to be included in the prices bid for the various items of work and no additional compensation will be allowed therefore.

Working time shall be charged until the date of acceptance of the work by the Township, at which time all work required in the Contract, including all final clean-up and trimming, shall be completed.

1. PAYMENT:

Part A

- a) One payment will be made upon completion.
- b) Or, an approved payment schedule.

10. SALES TAX

a) Harmonized Sales Tax (HST)

The Harmonized Sales Tax (HST) is not to be considered an applicable tax for the purposes of this Contract. The Tenderer shall not include any amount in his bid prices for the said HST. The Township is subject to payment of the Harmonized Sales Tax, therefore the HST will be shown on each payment certificate and will be paid to the Contractor in addition to the amount certified for payment and will therefore not affect the Contract prices.

c) Changes To Government Taxes

Where a change in Canadian federal or provincial taxes occurs after the tender closing date for this Contract, and this change could not have been anticipated at the time of bidding, the Township will increase or decrease contract payments to account for the exact amount of tax change involved.

Claims for compensation for additional tax cost shall be submitted by the Contractor to the Consultant. Such claims for additional tax costs shall be submitted not later than 30 days after the date of acceptance of the work.

Where the Contractor benefits from a change in Canadian federal or provincial taxes, the Contractor shall submit to the Consultant a statement of such benefits. This statement shall be submitted no later than 30 days after the date of acceptance of the work.

The Consultant reserves the right to make deductions from regular progress payments to compensate for the estimated benefit from decreased tax costs. Such deductions will be set-off from Contract payments pending receipt of the statement itemizing the benefits which have resulted from a decrease in tax costs, at which time the final payment adjustment will be determined.

11. EMPLOYMENT

The Contractor and any Sub-contractor of the Contractor will, irrespective of the construction to be carried out under this Contract:

- a) Employ only residents of Canada, and
- b) In employing persons, refrain from discrimination against any person by reason of race, colour, religious views or political affiliations.
- c) Give preference to local labour if it is necessary to augment his regular forces.

12. USE OF SUB-CONTRACTORS

Sub-section GC3.8 of Section D, General Conditions of Contract, is amended by the addition of the following.

The Contractor agrees to submit a list of any Sub-contractors who will be carrying out any part of this Contract. This list shall show the names of the proposed Sub-contractors and for what work each Sub-contractor will be responsible. The Township has the right to reject any of the Sub-contractors so named. In this event the Contractor shall arrange to have the proposed work done by such other Sub-contractor as may be approved by the Township.

Should the Contractor cease operations, under no circumstances shall Sub-contractors be allowed to continue the work on the site unless an authorized representative of the Contractor is present on the site at all times. The Contractor shall notify the Consultant, in writing, of the names and positions of the person or persons so representing the Contractor.

13. DUST CONTROL

The Contractor will be solely responsible for controlling dust nuisance resulting from his operations, within the work area.

Should the Contractor refuse or neglect to carry out proper dust control, the Consultant may authorize the work to be carried out by other persons, and the cost of such work shall be deducted from any payments to the Contractor.

14. EMERGENCY MEASURES

General Conditions of Contract is amended by the addition of the following.

Whenever the construction site is unattended by the general superintendent, the name, address and telephone number of a responsible official of the Contractor shall be given to the Consultant. This official shall be available at all times and have the necessary authority to mobilize workers and machinery and to take any action as directed by the Consultant in case emergency measures are required.

15. SPILLS REPORTING

Spills or discharges of pollutants or contaminants under the control of the Contractor, and spills or discharges of pollutants or contaminants that are a result of the Contractor's operations, that cause or are likely to cause adverse effects shall forthwith be reported to the Consultant. Such spills or discharges and their adverse effects shall be as defined in the Environmental Protection Act.

All spills or discharges of liquid, other than accumulated rain water, from luminaries, internally illuminated signs, lamps and liquid type transformers under the control of the Contractor, and all spills or discharges from this equipment that are a result of the Contractor's operations, shall, unless otherwise indicated in the Contract, be assumed to contain PCB's and shall forthwith be reported to the Consultant.

This reporting will not relieve the Contractor of his legislated responsibilities regarding such spills or discharges.

16. SAFETY ON SITE

The Contractor is solely responsible for safety on site.

Public access to the area of work shall be restricted by use of a construction fence with lock and key. All equipment and materials stored on site shall be retained within the protected area. A detour route will be mapped by the contractor and the routes shall be provided with clear signage which are clear and legible.

The selected detour route to be provided shall be required to have final approval from both the Operations Director for the Township of North Stormont and/or the Consulting Firm.

SECTION B
NOT APPLICABLE

SECTION C

STANDARD SPECIFICATIONS

1. GENERAL

The following Standard Specifications apply to and form part of this Contract:

ACI	- American Concrete Institute
AISC	- American Institute of Steel Construction
ANSI	- American National Standards Institute
ASTM	- American Society for Testing and Materials
CEC	- Canadian Electrical Code (published by CSA)
CEMA	- Canadian Electrical Manufacturer's Association
CGSB	- Canadian General Standards Board
CISC	- Canadian Institute of Steel Construction
CLA	- Canadian Lumberman's Association
CPCA	- Canadian Painting Contractor's Association
CPCI	- Canadian Prestressed Concrete Institute
CRCA	- Canadian Roofing Contractors Association
CSA	- Canadian Standards Association
FM	- Factory Mutual Engineering Corporation
IEEE	- Institute of Electrical and Electronic Engineers
IPCEA	- Insulated Power Cable Engineers Association
NAAMM	- National Association of Architectural Metal Manufacturers
NBC	- National Building Code
NEMA	- National Electrical Manufacturers Association
OBC	- Ontario Building Code
TTMAC	- Terrazzo, Tile and Marble Association of Canada
ULC	- Underwriters' Laboratories of Canada

*Most current editions apply.

2. SUPPLY OF MATERIALS

All materials necessary for the proper completion of the work shall be supplied by the Contractor and the payment provided in the Contract shall be deemed to include full compensation for the supply of such materials, unless specifically stated otherwise.

SECTION D

GENERAL CONDITIONS OF CONTRACT

GENERAL CONDITIONS OF THE STIPULATED PRICE CONTRACT

CCDC 2, 2008

**(COPY IS AVAILABLE FOR VIEWING AT THE OFFICE OF
EASTERN ENGINEERING GROUP INC.)**

SECTION E
NOT APPLICABLE

SECTION F
NOT APPLICABLE

SECTION G
CONTRACT DRAWINGS

<u>DRAWING NO.</u>	<u>TITLE</u>
C0	Existing and Removals Plan
C1	Site, Grading and Servicing Plan
F1	Foundation Plan/Details
F2	Trench Drain Details/Foundation Details
S0	Structural Notes
S1	Structural Floor Plan
S2	Stair Details
A1	Floor Plan
A2	Elevations
A3	Elevations/Wall Sections
A4	Cross Section/Wall Sections
A5	Cross Section/Mezz. Floor Plan
A6	Floor Plan/Wall Type Schedule
M1	Mechanical Notes & Legends
M2	Mechanical Schedules
M3	Plumbing Main Floor Plan
M4	HVAC Main Floor Mezzanine
E1	Electrical Notes & Schedules
E2	Electrical Schedules & Details
E3	Electrical Power Systems
E4	Electrical Lighting

SECTION H
NOT APPLICABLE

H.1

CONTRACTOR'S SCHEDULE OF WORK

DIVISION 1 – GENERAL REQUIREMENTS

Part 1 General

1.1 RELATED SECTIONS

- .1 All

1.2 WORK COVERED BY CONTRACT DOCUMENTS

- .1 Work of this Contract comprises general construction of the Crysler Fire Station, located at 18 Second St. Crysler, ON.

1.3 CONTRACT METHOD

- .1 Construct Work under a single stipulated price contract, additional cost allowances may be issued upon contractor selection at the Owners discretion.
- .2 Employ suppliers and subcontractors authorized by the Owner for required work.
- .3 Relations and responsibilities between the Contractor and subcontractors authorized by the Owner are as defined in Conditions of Contract. Assigned Subcontractors must, in addition:
 - .1 Furnish to the Contractor, bonds covering faithful performance of subcontracted work and payment of obligations there under when the Contractor and subcontractors are required to furnish such bonds to the Owner.
 - .2 Purchase and maintain liability insurance to protect Contractor and subcontractors from claims for not less than limits of liability which the Contractor and subcontractors are required to provide to the Owner.

1.4 WORK BY OTHERS

- .1 Co-operate with other Contractors in carrying out their respective works and carry out instructions from the Consultant.
- .2 Co-ordinate work with that of other Contractors. If any part of work under this Contract depends for its proper execution or result upon work of another Contractor, report promptly to the Consultant, in writing, any defects which may interfere with proper execution of Work.
- .3 Work of Project which will be executed prior to completion of Work in this Contract, and which is specifically excluded from this Contract:
 - .1 Demolition of existing building.

1.5 CONTRACTOR USE OF PREMISES

- .1 Unrestricted use of site until substantial completion.
- .2 Limit use of premises for Work, storage, and access, to allow:
 - .1 Owner occupancy.
 - .2 Work by other contractors.
 - .3 Parking.

- .4 Daily operations.
- .3 Co-ordinate use of premises under direction of the Consultant and Owner.
- .4 Obtain and pay for use of additional storage or work areas needed for operations under this Contract.
- .5 Remove or alter existing work to prevent injury or damage to portions of existing work which remain.

1.6 OWNER OCCUPANCY

- .1 Owner will not occupy premises during entire construction period.
- .2 Co-operate with Owner in scheduling removals and storage of vehicles to minimize conflict with the Owner temporary storage solutions.

1.7 EXISTING SERVICES

- .1 Notify, the Consultant, Owner and utility companies of intended interruption of services and obtain required permission.
- .2 Where Work involves breaking into or connecting to existing services, give the Consultant a minimum 48 hour notice for necessary interruption of mechanical or electrical service throughout course of work. Minimize duration of interruptions. Carry out work at times as directed by governing authorities with minimum disturbance to owner tenant operations.
- .3 Provide alternative routes for operational and employee vehicular traffic.
- .4 Establish location and extent of service lines in area of work before starting Work. Notify the Consultant of the findings.
- .5 Submit schedule to and obtain approval from the Consultant and the Owner for any shut-down or closure of active service or facility including power and communications services. Adhere to approved schedule and provide notice to affected parties.
- .6 Provide temporary services when directed by the Consultant to maintain critical building and tenant systems.
- .7 Provide adequate bridging over trenches which cross sidewalks or roads to permit normal traffic.
- .8 Where unknown services are encountered, immediately advise the Consultant and confirm findings in writing.
- .9 Protect, relocate or maintain existing active services. When inactive services are encountered, cap off in manner approved by authorities having jurisdiction.
- .10 Record locations of maintained, re-routed and abandoned service lines.
- .11 Construct barriers in accordance with Section 015600 - Temporary Barriers and Enclosures.

1.8 DOCUMENTS REQUIRED

- .1 Maintain at job site, one copy each document as follows:
 - .1 Contract Drawings.
 - .2 Specifications.
 - .3 Addenda.
 - .4 Reviewed Shop Drawings.
 - .5 List of Outstanding Shop Drawings.
 - .6 Change Orders.
 - .7 Other Modifications to Contract.
 - .8 Field Test Reports.
 - .9 Copy of Approved Work Schedule.
 - .10 Health and Safety Plan and Other Safety Related Documents. Other documents as specified.

END OF SECTION

Part 1 General

1.1 RELATED SECTIONS

- .1 All.

1.2 ACCESS AND EGRESS

- .1 Design, construct and maintain temporary "access to" and "egress from" work areas, including stairs, runways, ramps or ladders, and scaffolding; independent of finished surfaces and in accordance with relevant municipal, provincial and other regulations.

1.3 USE OF SITE AND FACILITIES

- .1 Execute work with least possible interference or disturbance to normal use of premises. Make arrangements with the Consultant and Owner 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 The Owner will not assign sanitary facilities for use by Contractor's personnel. The contractor shall provide sufficient temporary facilities on site.
- .5 Closures: protect work temporarily until permanent enclosures are completed.

1.4 ALTERATIONS, ADDITIONS OR REPAIRS TO EXISTING BUILDING

- .1 Execute work with least possible interference or disturbance to building operations and normal use of premises. Arrange with the Consultant and Owner to facilitate execution of work.

1.5 EXISTING SERVICES

- .1 Notify, the Consultant, Owner and utility companies of intended interruption of services and obtain required permission.
- .2 Where Work involves breaking into or connecting to existing services, give the Consultant a minimum 48 hour of notice for necessary interruption of mechanical or electrical service throughout course of work. Keep duration of interruptions minimum. Carry out interruptions after normal working hours of occupants, preferably on weekends.
- .3 Provide for routes for vehicular traffic.
- .4 Construct barriers in accordance with Section 015600 - Temporary Barriers and Enclosures.

1.6 SPECIAL REQUIREMENTS

- .1 Finishes in normally occupied areas shall be completed Monday to Friday outside hours of normal operation and on Saturdays, Sundays, and statutory holidays. Co-ordinate with Owner for hours of normal operation.
- .2 Carry out noise generating Work in accordance with the requirements of the Owner. Noise generating work shall be performed as to not disturb livestock on site.
- .3 Submit a short form schedule the Consultant and Owner with expected completion times of the various phases of work. This shall include site work, foundations, steel building erection, partition erection, finishes, mechanical and electrical and commissioning the building.
- .4 Ensure that Contractor personnel employed on site become familiar with and obey regulations including safety, fire, traffic, security regulations or facility requirements as specified by the owner.
- .5 Keep within limits of work and avenues of ingress and egress.
- .6 Ingress and egress of Contractor vehicles at site is limited to normal construction hours.
- .7 Deliver materials outside of peak traffic hours unless otherwise approved by the Consultant and/or Owner.

1.7 SECURITY CLEARANCES

- .1 Personnel employed on this project will be subject to security check. Obtain clearance, as instructed, for each individual who will require to enter premises.
- .2 Personnel will be checked daily at start of work shift and provided with pass which must be worn at all times. Pass must be returned at end of work shift and personnel checked out.

1.8 SECURITY ESCORT

- .1 Personnel employed on this project must be escorted when executing work in non-public areas during normal working hours. Personnel must be escorted in all areas after normal working hours.
- .2 Submit an escort request to the facility manager at least 5 days before service is needed. For requests submitted within time noted above, costs of security escort will be paid for by the Owner. Cost incurred by late request will be Contractor's responsibility.
- .3 Any escort request may be cancelled free of charge if notification of cancellation is given at least 8 hours before scheduled time of escort. Cost incurred by late request will be Contractor's responsibility.
- .4 Calculation of costs will be based on average hourly rate of security officer for minimum of 8 hours per day for late service request and of 4 hours for late cancellations.

1.9 BUILDING SMOKING ENVIRONMENT

- .1 Comply with smoking restrictions. Smoking is allowed only in areas designated on site and approved by the Owner.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

- .1 Applications for payments.
- .2 Substantial performance procedures.
- .3 Release of holdback procedures.
- .4 Schedule of values.

1.2 REFERENCES

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

1.3 APPLICATIONS FOR PROGRESS PAYMENT

- .1 Refer to CCDC 2.
- .2 Make applications for payment on account monthly as Work progresses.
- .3 Date applications for payment last day of agreed monthly payment period and ensure amount claimed is for value, proportionate to amount of Contract, of Work performed and Products delivered to Place of Work at that date.
- .4 Submit to Consultant, at least 10 days before first application for payment. Schedule of values for parts of Work, aggregating total amount of Contract Price, so as to facilitate evaluation of applications for payment.

1.4 SCHEDULE OF VALUES

- .1 Refer to CCDC 2.

1.5 PROGRESS PAYMENT

- .1 Consultant will issue to Owner, no later than 10 days after receipt of an application for payment, certificate for payment in amount applied for or in such other amount as Consultant determines to be properly due. If Consultant amends application, Consultant will give notification in writing giving reasons for amendment.

1.6 SUBSTANTIAL PERFORMANCE OF WORK

.1 Refer to CCDC 2.

1.7 PAYMENT OF HOLDBACK UPON SUBSTANTIAL PERFORMANCE OF WORK

.1 Refer to CCDC 2.

1.8 PROGRESSIVE RELEASE OF HOLDBACK

.1 Refer to CCDC 2.

1.9 FINAL PAYMENT

.1 Refer to CCDC 2, GC 5.7.

Part 2 Products

2.1 NOT USED

.1 Not Used.

Part 3 Execution

3.1 NOT USED

.1 Not Used.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

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

1.2 RELATED SECTIONS

- .1 Section 014500 - Quality Control.
- .2 Section 017700 - Closeout Procedures.

1.3 REFERENCES

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

1.4 ADMINISTRATIVE

- .1 Submit to Consultant submittals listed for review. Submit with reasonable promptness and in orderly sequence so as to not cause delay in Work. Failure to submit in ample time is not considered sufficient reason for an extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .2 Work affected by submittal shall not proceed until review is complete.
- .3 Present shop drawings, product data, samples and mock-ups in Imperial units.
- .4 Where items or information is not produced in Imperial units converted values are acceptable.

- .5 **Review submittals prior to submission to Consultant.** This review represents that necessary requirements have been determined and verified, or will be, and that each submittal has been checked and co-ordinated with requirements of Work and Contract Documents. Submittals not stamped, signed, dated and identified as to specific project will be returned without being examined and shall be considered rejected.
- .6 Notify Consultant, in writing at time of submission, identifying deviations from requirements of Contract Documents stating reasons for deviations.
- .7 Verify field measurements and affected adjacent Work are coordinated.
- .8 Contractor's responsibility for errors and omissions in submission is not relieved by Consultant's review of submittals.
- .9 Contractor's responsibility for deviations in submission from requirements of Contract Documents is not relieved by Consultant review.
- .10 Keep one reviewed copy of each submission on site.

1.5 SHOP DRAWINGS AND PRODUCT DATA

- .1 The term "shop drawings" means drawings, diagrams, illustrations, schedules, performance charts, brochures and other data which are to be provided by Contractor to illustrate details of a portion of Work.
- .2 Indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Where articles or equipment attach or connect to other articles or equipment, indicate that such items have been coordinated, regardless of Section under which adjacent items will be supplied and installed. Indicate cross references to design drawings and specifications.
- .3 Allow 10 days for Consultant's review of each submission.
- .4 Adjustments made on shop drawings by Consultant are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Consultant prior to proceeding with Work.
- .5 Make changes in shop drawings as Consultant may require, consistent with Contract Documents. When resubmitting, notify Consultant in writing of any revisions other than those requested.

- .6 Accompany submissions with transmittal letter, containing:
 - .1 Date.
 - .2 Project title and number.
 - .3 Contractor's name and address.
 - .4 Identification and quantity of each shop drawing, product data and sample.
 - .5 Other pertinent data.
- .7 Submissions shall include:
 - .1 Date and revision dates.
 - .2 Project title and number.
 - .3 Name and address of:
 - .1 Subcontractor.
 - .2 Supplier.
 - .3 Manufacturer.
 - .4 Contractor's stamp, signed by Contractor's authorized representative certifying approval of submissions, verification of field measurements and compliance with Contract Documents.
 - .5 Details of appropriate portions of Work as applicable:
 - .1 Fabrication.
 - .2 Layout, showing dimensions, including identified field dimensions, and clearances.
 - .3 Setting or erection details.
 - .4 Capacities.
 - .5 Performance characteristics.
 - .6 Standards.
 - .7 Operating weight.
 - .8 Wiring diagrams.
 - .9 Single line and schematic diagrams.
 - .10 Relationship to adjacent work.
- .8 After Consultant's review, distribute copies.
- .9 Submit 3 prints of shop drawings for each requirement requested in specification Sections and as consultant may reasonably request, in addition to a digital copy in PDF or JPG format.
- .10 Submit 3 copies of product data sheets or brochures for requirements requested in specification Sections and as requested by Consultant where shop drawings will

not be prepared due to standardized manufacture of product, in addition to a digital copy in PDF or JPG format.

- .11 Delete information not applicable to project.
- .12 Supplement standard information to provide details applicable to project.
- .13 If upon review by Consultant, no errors or omissions are discovered or if only minor corrections are made, copies will be returned and fabrication and installation of Work may proceed. If shop drawings are rejected, noted copy will be returned and resubmission of corrected shop drawings, through same procedure indicated above, must be performed before fabrication and installation of Work may proceed.

1.6 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 Consultant's business address.
- .3 Notify Consultant in writing, at time of submission of deviations in samples from requirements of Contract Documents.
- .4 Where colour, pattern or texture is criterion, submit full range of samples.
- .5 Adjustments made on samples by Consultant are not intended to change Contract Price. If adjustments affect value of Work, state such in writing to Consultant prior to proceeding with Work.
- .6 Make changes in samples which Consultant may require, consistent with Contract Documents.
- .7 Reviewed and accepted samples will become standard of workmanship and material against which installed Work will be verified.

1.7 MOCK-UPS

- .1 Erect mock-ups in accordance with 014500 - Quality Control.

Part 2 Products

2.1 NOT USED

.1 Not Used.

Part 3 Execution

3.1 NOT USED

.1 Not Used.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

- .1 Inspection and testing, administrative and enforcement requirements.
- .2 Tests and mix designs.
- .3 Mock-ups.
- .4 Mill tests.
- .5 Equipment and system adjust and balance.

1.2 RELATED SECTIONS

- .1 Section 013300 - Submittal Procedures.
- .2 Section 017700 - Closeout Procedures.

1.3 REFERENCES

- .1 Canadian Construction Documents Committee (CCDC)
 - .1 CCDC 2-20, Stipulated Price Contract.

1.4 INSPECTION

- .1 Allow Consultant 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.
- .2 Give timely notice requesting inspection if Work is designated for special tests, inspections or approvals by Consultant instructions, or law of Place of 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.
- .4 Consultant may order any part of Work to be examined if Work is suspected to be not in accordance with Contract Documents. If, upon examination such work is found not in accordance with Contract Documents, correct such Work and pay cost of examination and correction.

1.5 INDEPENDENT INSPECTION AGENCIES

- .1 Independent Inspection/Testing Agencies to be engaged by Contractor for purpose of inspecting and/or testing for concrete work, compaction testing and material testing.
- .2 Provide equipment 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, agency will request additional inspection and/or testing to ascertain full degree of defect. Correct defect and irregularities as advised by Independent Inspection/Testing Agency.

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

1.8 REJECTED WORK

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

1.9 TESTS AND MIX DESIGNS

- .1 Furnish test results and mix designs as may be requested.

1.10 MOCK-UPS

- .1 Prepare mock-ups for Work specifically requested in specifications. Include for Work of all Sections required to provide mock-ups.
- .2 Construct in all locations acceptable to Consultant as specified in specific Section.

- .3 Prepare mock-ups for Consultant's review with reasonable promptness and in an orderly sequence, so as not to cause any delay in Work.
- .4 Failure to prepare mock-ups in ample time is not considered sufficient reason for an extension of Contract Time and no claim for extension by reason of such default will be allowed.
- .5 If requested, Consultant will assist in preparing a schedule fixing dates for preparation.
- .6 Remove mock-up at conclusion of Work or when acceptable to Consultant.

1.11 MILL TESTS

- .1 Submit mill test certificates as requested.

1.12 EQUIPMENT AND SYSTEMS

- .1 Submit adjustment and balancing reports for mechanical, electrical and building equipment systems.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

- .1 Temporary utilities.

1.2 RELATED SECTIONS

- .1 Section 015200 - Construction Facilities.

1.3 INSTALLATION AND REMOVAL

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

1.4 DEWATERING

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

1.5 WATER SUPPLY

- .1 A continuous supply of potable water for construction use shall be accessible on-site from the existing and proposed well systems. Contractor shall coordinate water access schedule with owner prior to commencing with construction schedule.

1.6 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 non-flameless 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 C 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 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.
- .7 Be responsible for damage to Work due to failure in providing adequate heat and protection during construction.

1.7 TEMPORARY POWER AND LIGHT

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

1.8 TEMPORARY COMMUNICATION FACILITIES

- .1 Provide and pay for temporary telephone necessary for own use.

1.9 FIRE PROTECTION

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

Part 2 **Products – Not Used**

Part 3 **Execution – Not Used**

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

- .1 Construction aids.
- .2 Office and sheds.
- .3 Parking.
- .4 Project identification.

1.2 RELATED SECTIONS

- .1 Section 015100 - Temporary Utilities.

1.3 REFERENCES

- .1 Canadian Construction Documents Committee (CCDC)
 - .1 CCDC 2-20, Stipulated Price Contract.

1.4 INSTALLATION AND REMOVAL

- .1 Provide construction facilities in order to execute work expeditiously.
- .2 Remove from site all such work after use.

1.5 SCAFFOLDING

- .1 Provide and maintain scaffolding and ladders as required to complete the work.

1.6 HOISTING

- .1 Provide, operate and maintain hoists cranes required for moving of workers, materials and equipment. Make financial arrangements with Subcontractors for use thereof.
- .2 Cranes shall be operated by qualified operator.

1.7 SITE STORAGE/LOADING

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

1.8 CONSTRUCTION PARKING

- .1 Parking will be permitted on site provided it does not disrupt performance of work or access to the existing lab, barns and offices for normal operations.
- .2 Provide and maintain adequate access to project site.
- .3 Contractor to provide snow removal during period of Work.
- .4 Existing roads for access to project site may be used. Maintain such roads for duration of Contract and make good damage resulting from Contractors' use of roads.

1.9 SECURITY

- .1 Ensure site is secure after every working day and provide and pay for security if contractor deems necessary.

1.10 OFFICES

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

1.11 EQUIPMENT, TOOL AND MATERIALS STORAGE

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

1.12 SANITARY FACILITIES

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

Part 2 **Products – Not Used**

Part 3 **Execution – Not Used**

END OF SECTION

Part 1 General

1.1 RELATED SECTIONS

- .1 Section 024117-Structure Demolition-Short Form.

1.2 REFERENCES

- .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 Canadian Standards Association (CSA International)
 - .1 CSA-O121-M1978(R2003), Douglas Fir Plywood.
- .3 Public Works Government Services Canada (PWGSC) Standard Acquisition Clauses and Conditions (SACC)-ID: R0202D, Title: General Conditions 'C', In Effect as Of: May 14, 2004.

1.3 INSTALLATION AND REMOVAL

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

1.4 HOARDING

- .1 Erect temporary site enclosures using scaffold type shoring or an approved equal. The design of all shoring and temporary bracing shall be furnished and provided by the contractor in accordance with the Occupational Health and Safety Act 2000.
- .2 Apply planks and panels for work platforms in accordance with the Occupational Health and Safety Act 2000.
- .3 Provide one lockable truck entrance gate and at least one pedestrian door as directed and conforming to applicable traffic restrictions on site. Equip gates with locks and keys.
- .4 Erect and maintain pedestrian walkways including roof and side covers, complete with signs and electrical lighting as required by law.
- .5 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.
- .6 Erect temporary site enclosure using new 1.2 m high snow fence wired to rolled steel "T" bar fence posts spaced at 2.4 m on centre. Provide one lockable truck gate. Maintain fence in good repair.
- .7 Provide barriers around trees and plants designated to remain. Protect from damage by equipment and construction procedures.

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 scaffolding.
- .2 Provide as required by governing authorities. WEATHER ENCLOSURES
- .3 Provide weather tight closures to unfinished door and window openings, tops of shafts and other openings in floors and roofs.
- .4 Close off floor areas where walls are not finished; seal off other openings; enclose building interior work for temporary heat.
- .5 Design enclosures to withstand wind pressure as noted on drawing S0.

1.6 DUST TIGHT SCREENS

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

1.7 ACCESS TO SITE

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

1.8 FIRE ROUTES

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

1.9 PROTECTION FOR OFF-SITE AND PUBLIC PROPERTY

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

1.10 PROTECTION OF BUILDING FINISHES

- .1 Provide protection for finished and partially finished building finishes and equipment during performance of Work.
- .2 Provide necessary screens, covers, and hoardings.
- .3 Confirm with the Consultant locations and installation schedule 5 days prior to installation.
- .4 Be responsible for damage incurred due to lack of or improper protection.

1.11 WASTE MANAGEMENT AND DISPOSAL

- .1 Separate waste materials for reuse and recycling in accordance with laws and bylaws.

Part 2 Products

2.1 NOT USED

.1 Not Used.

Part 3 Execution

3.1 NOT USED

.1 Not Used.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

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

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 any product or system is in conformance with applicable standards, Consultant reserves right to have such products or systems tested to prove or disprove conformance.
- .5 Cost for such testing will be born by Owner in event of conformance with Contract Documents or by Contractor in event of non-conformance.
- .6 Conform to latest date of issue of referenced standards in effect on date of submission of Tenders, except where specific date or issue is specifically noted.

1.3 QUALITY

- .1 Products, materials, equipment and articles (referred to as products throughout specifications) incorporated in Work shall be new, not damaged or defective, and of best quality (compatible with specifications) for purpose intended. If requested, furnish evidence as to type, source and quality of products provided.
- .2 Defective products, whenever identified prior to completion of Work, will be rejected, regardless of previous inspections. Inspection does not relieve responsibility, but is precaution against oversight or error. Remove and replace defective products at own expense and be responsible for delays and expenses caused by rejection.
- .3 Should any dispute arise as to quality or fitness of products, decision rests strictly with Consultant based upon requirements of Contract Documents.

- .4 Unless otherwise indicated in specifications, maintain uniformity of manufacture for any particular or like item throughout building.
- .5 Permanent labels, trademarks and nameplates on products are not acceptable in prominent locations, except where required for operating instructions, or when located in mechanical or electrical rooms.

1.4 AVAILABILITY

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

1.5 STORAGE, HANDLING AND PROTECTION

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

- .9 Touch-up damaged factory finished surfaces to Consultant's satisfaction. Use touch-up materials to match original. Do not paint over name plates.

1.6 TRANSPORTATION

- .1 Pay costs of transportation of products required in performance of Work.

1.7 MANUFACTURER'S INSTRUCTIONS

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

1.8 QUALITY OF WORK

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

1.9 CO-ORDINATION

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

1.10 CONCEALMENT

- .1 In finished areas, conceal pipes, ducts and wiring in floors, walls and ceilings, except where indicated otherwise.

- .2 Before installation, inform Consultant if there is interference. Install as directed by Consultant.

1.11 REMEDIAL WORK

- .1 Refer to CCDC 2-2020.
- .2 Perform remedial work required to repair or replace parts or portions of Work identified as defective or unacceptable. Coordinate 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 Consultant of conflicting installation. Install as directed.

1.13 FASTENINGS

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

1.14 FASTENINGS - EQUIPMENT

- .1 Use fastenings of standard commercial sizes and patterns with material and finish suitable for service.

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

1.15 PROTECTION OF WORK IN PROGRESS

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

1.16 EXISTING UTILITIES

- .1 When breaking into or connecting to existing services or utilities, execute Work at times directed by local governing authorities, with minimum of disturbance to Work.
- .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.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

Part 1 General

1.1 RELATED SECTIONS

- .1 Section 013300 - Submittal procedures.

1.2 REFERENCES

- .1 Canada Labour Code, Part 2, Canada Occupational Safety and Health Regulations.
 - .1 Occupational Health and Safety Act, R.S.A. 2000.
- .2 Province of Ontario
 - .1 Occupational Health and Safety Act and Regulations for Construction Projects, R.S.O. 1990 as amended 213/91.

1.3 SUBMITTALS

- .1 Make submittals in accordance with Section 013300 - 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 1 copy of Contractor's authorized representative's work site health and safety inspection reports to Consultant and/or authority having jurisdiction.
- .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 Material Safety Data Sheets (MSDS) to Consultant.
- .7 Consultant will review Contractor's site-specific Health and Safety Plan and provide comments to Contractor within 10 days after receipt of plan. Revise plan as appropriate and resubmit plan to Consultant within 10 days after receipt of comments from Consultant.
- .8 Consultant's review of Contractor's final Health and Safety plan should not be construed as approval and does not reduce the Contractor's overall responsibility for construction Health and Safety.

- .9 Medical Surveillance: Where prescribed by legislation, regulation or safety program, submit certification of medical surveillance for site personnel prior to commencement of Work, and submit additional certifications for any new site personnel to Consultant.
- .10 On-site Contingency and Emergency Response Plan: Address standard operating procedures to be implemented during emergency situations.

1.4 FILING OF NOTICE

- .1 File Notice of Project with Provincial authorities prior to commencement of Work.

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 Consultant prior to commencement of Work.

1.7 REGULATORY REQUIREMENTS

- .1 Do Work in accordance with Regulatory Requirements as prescribed in the Ontario Health and Safety Act for construction projects.

1.8 GENERAL REQUIREMENTS

- .1 Develop written site-specific Health and Safety Plan based on hazard assessment prior to commencing any site Work and continue to implement, maintain, and enforce plan until final demobilization from site. Health and Safety Plan must address project specifications.
- .2 Consultant 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 UNFORSEEN HAZARDS

- .1 Should any unforeseen or peculiar safety-related factor, hazard, or condition become evident during performance of Work, and follow procedures in place for Employee's Right to Refuse Work in accordance with Acts and Regulations of Ontario having jurisdiction. Advise Consultant verbally and in writing.

1.11 HEALTH AND SAFETY CO-ORDINATOR

- .1 Employ and assign to Work, competent and authorized representative as Health and Safety Co-ordinator. Health and Safety Co-ordinator must:
 - .1 Have minimum 2 years' site-related working experience specific to activities associated with a building.
 - .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.

1.12 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 Territory having jurisdiction, and in consultation with Consultant.

1.13 CORRECTION OF NON-COMPLIANCE

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

1.14 BLASTING

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

1.15 POWDER ACTUATED DEVICES

- .1 Use powder actuated devices only after receipt of written permission from Consultant.

1.16 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.

Part 2 Products

2.1 NOT USED

- .1 Not used.

Part 3 Execution

3.1 NOT USED

- .1 Not used.

END OF SECTION

Part 1 General

1.1 RELATED SECTIONS

- .1 Section 011100-Summary of Work.

1.2 REFERENCES

- .1 Canadian Construction Documents Committee (CCDC)
 - .1 CCDC 2-2020, Stipulated Price Contract.
- .2 Owner's identification of existing survey control points and property limits.

1.3 QUALIFICATIONS OF SURVEYOR

- .1 Qualified registered land surveyor, licensed to practice in Place of Work, acceptable to the Consultant.

1.4 SURVEY REFERENCE POINTS

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

1.5 SURVEY REQUIREMENTS

- .1 Establish two permanent bench marks on site, referenced to established bench marks by survey control points. Record locations, with horizontal and vertical data in Project Record Documents.
- .2 Establish lines and levels, locate and lay out, by instrumentation.
- .3 Stake for grading, fill and topsoil placement as well as landscaping features.
- .4 Stake slopes and berms.
- .5 Establish pipe invert elevations.
- .6 Stake formwork for foundations.
- .7 Stake exterior slab locations and elevations.
- .8 Establish foundation column locations and floor elevations.

- .9 Establish lines and levels for mechanical and electrical work.

1.6 EXISTING SERVICES

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

1.7 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 the Consultant of impending installation and obtain approval for actual location.
- .4 Submit field drawings to indicate relative position of various services and equipment when required by the Consultant.

1.8 RECORDS

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

1.9 SUBMITTALS

- .1 Submit name and address of Surveyor to the Consultant. On request of the Consultant, submit documentation to verify accuracy of field engineering work.
- .2 Submit certificate signed by surveyor certifying and noting those elevations and locations of completed Work that conform or do not conform to the Contract Documents.

1.10 SUBSURFACE CONDITIONS

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

Part 2 Products

2.1 NOT USED

.1 Not Used.

Part 3 Execution

3.1 NOT USED

.1 Not Used.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

- .1 Progressive cleaning.
- .2 Final cleaning.

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 regularly scheduled times or dispose of as directed by Consultant. Do not burn waste materials on site, unless approved by Consultant.
- .3 Clear snow and ice from access to building.
- .4 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .5 Provide on-site containers for collection of waste materials and debris.
- .6 Remove waste material and debris from site and deposit in waste container at end of each working day.
- .7 Dispose of waste materials and debris.
- .8 Clean interior areas prior to start of finish 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 When Work is Substantially Performed, remove surplus products, tools, construction machinery and equipment not required for performance of remaining Work.
- .2 Remove waste products and debris other than that caused by others, and leave Work clean and suitable for occupancy.
- .3 Prior to final review, remove surplus products, tools, construction machinery and equipment.
- .4 Remove waste products and debris other than that caused by Owner or other Contractors.
- .5 Remove waste materials from site at regularly scheduled times or dispose of as directed by Consultant. Do not burn waste materials on site, unless approved by Consultant.
- .6 Make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.
- .7 Clean and polish glass, mirrors, hardware, wall tile, stainless steel, chrome, porcelain enamel, baked enamel, plastic laminate, and mechanical and electrical fixtures. Replace broken, scratched or disfigured glass.
- .8 Remove stains, spots, marks and dirt from decorative work, electrical and mechanical fixtures, furniture fitments, walls, and floors.
- .9 Clean lighting reflectors, lenses, and other lighting surfaces.
- .10 Vacuum clean and dust building interiors, behind grilles, louvres and screens.
- .11 Inspect finishes, fitments and equipment and ensure specified workmanship and operation.
- .12 Broom clean and wash exterior walks, steps and surfaces; rake clean other surfaces of grounds.
- .13 Remove dirt and other disfiguration from exterior surfaces.
- .14 Clean and sweep roofs, gutters, areaways, and sunken wells.
- .15 Sweep and wash clean paved areas.

- .16 Clean equipment and fixtures to a sanitary condition; clean or replace filters of mechanical equipment.
- .17 Clean roofs, downspouts, and drainage systems.
- .18 Remove debris and surplus materials from crawl areas and other accessible concealed spaces.
- .19 Remove snow and ice from access to building.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

- .1 Administrative procedures preceding preliminary and final inspections of Work.

1.2 RELATED SECTIONS

- .1 Section 018200 – Demonstration and Training

1.3 REFERENCES

- .1 Canadian Construction Documents Committee (CCDC)
 - .1 CCDC 2-20, Stipulated Price Contract.

1.4 INSPECTION AND DECLARATION

- .1 Contractor's Inspection: Contractor and all Subcontractors shall conduct an inspection of Work, identify deficiencies and defects, and repair as required to conform to Contract Documents.
 - .1 Notify Consultant in writing of satisfactory completion of Contractor's Inspection and that corrections have been made.
 - .2 Request Consultant's Inspection.
- .2 Consultant's Inspection: Consultant and Contractor will perform inspection of Work to identify obvious defects or deficiencies. Contractor shall correct Work accordingly.
- .3 Completion: submit written certificate that following have been performed:
 - .1 Work has been completed and inspected for compliance with Contract Documents.
 - .2 Defects have been corrected and deficiencies have been completed.
 - .3 Equipment and systems have been tested, adjusted and balanced and are fully operational.
 - .4 Certificates required by Utility companies have been submitted.
 - .5 Operation of systems have been demonstrated to Owner's personnel.
 - .6 Work is complete and ready for Final Inspection.
- .4 Final Inspection: when items noted above are completed, request final inspection of Work by Owner, Consultant, and Contractor. If Work is deemed incomplete by Owner and Consultant, complete outstanding items and request reinspection.

- .5 Declaration of Substantial Performance: when Consultant consider deficiencies and defects have been corrected and it appears requirements of Contract have been substantially performed, make application for certificate of Substantial Performance. Refer to CCDC 2, General Conditions Article for specifics to application.
- .6 Commencement of Lien and Warranty Periods: date of Owner's acceptance of submitted declaration of Substantial Performance shall 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: When Consultant consider final deficiencies and defects have been corrected and it appears requirements of Contract have been totally performed, make application for final payment. Refer to CCDC 2. If Work is deemed incomplete by Consultant, complete outstanding items and request reinspection.
- .8 Payment of Holdback: After issuance of certificate of Substantial Performance of Work, submit an application for payment of holdback amount in accordance with CCDC 2.

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

Part 1 General

1.1 SECTION INCLUDES

- .1 Procedures for demonstration and instruction of equipment and systems to Owner's personnel.

1.2 RELATED SECTIONS

- .1 Section 017700 - Closeout Procedures.

1.3 DESCRIPTION

- .1 Demonstrate operation and maintenance of equipment and systems to Owner's personnel two weeks prior to date of substantial performance.
- .2 Owner will provide list of personnel to receive instructions, and will coordinate their attendance at agreed-upon times.

1.4 QUALITY CONTROL

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

1.5 SUBMITTALS

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

1.6 CONDITIONS FOR DEMONSTRATIONS

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

1.7 PREPARATION

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

1.8 DEMONSTRATION AND INSTRUCTIONS

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

Part 2 Products

2.1 NOT USED

- .1 Not Used.

Part 3 Execution

3.1 NOT USED

- .1 Not Used.

END OF SECTION

RESTRICTIONS ON SOURCE OF CONCRETE

O.P.S.S. Form 1350 shall apply for the mixing and transporting of concrete except that all Portland cement concrete supplied by the Contractor in accordance with the requirements of this Contract shall be obtained from a Ready-Mixed Concrete Operation approved by the Engineer.

CORRECTION AFTER COMPLETION

Subject to any Special Provisions in the Contract, the Contractor shall remedy any defects due to faulty materials or workmanship appearing within one year from the date of acceptance of the work, as certified by the Engineer under Section GC 8.02.03.06 of the General Conditions of the Contract, and shall pay for any damage or other work resulting therefrom which appears within such period and neither the final certificate nor payment thereunder shall relieve the Contractor from responsibility thereunder. This Section shall not be deemed to restrict any liability of the Contractor arising out of any law in force in the Province of Ontario.

GRANULAR BACKFILL CULVERTS

This work shall be performed as a distinctly separate operation. No material shall be placed upon the completed backfill until the latter has been approved by the Engineer and the costs of any delays so arising shall be borne by the Contractor.

STORAGE AREAS

The Contractor shall obtain the approval of the Engineer prior to designating areas within the site for storage of his equipment and materials and the erection of offices and sheds.

If additional property outside the site is required for such purposes, the Contractor shall make his own arrangements at no additional cost to the Owner.

COMPACTION EQUIPMENT

Compaction equipment shall be approved by the Engineer before being used for work under this Contract.

DUST CONTROL

The Contractor shall take such steps as may be required to prevent dust nuisance resulting from his operations either within the right-of-way or elsewhere or by public traffic where it is the Contractor's responsibility to maintain a roadway through the work. Such steps may include the supply and placing of water and/or calcium chloride as deemed necessary by the Engineer.

Where the work requires the sawing of asphalt or the sawing or grinding of concrete, blades and grinders of the wet type shall be used with sufficient water to prevent the incidence of dust, wherever dust would affect traffic or wherever dust would be a nuisance to residents of the area where the work is being carried out.

The cost of all such preventative measures shall be borne by the Contractor.

DISPOSAL OF SURPLUS OR UNSUITABLE EXCAVATED MATERIAL FROM GRADING AND ALL OTHER OPERATIONS FOR WHICH EXCAVATION IS REQUIRED

All materials, including rubble and debris resulting from demolitions, excavated in carrying out the work of the various tender items included in this Contract and which is unsuitable for or which is surplus to the requirements for backfill or embankment construction, shall be disposed of at locations arranged for by and at the sole expense of the Contractor. Such sites shall be subject to the approval of the Engineer and the Ministry of the Environment. The Contractor shall provide the Engineer with written confirmation of approval by the Ministry of the Environment.

The price bid for the Contract items requiring such work shall be full compensation for loading, hauling, placing, trimming and for all other work which may be required to dispose of the unsuitable or surplus material.

ENVIRONMENTAL PROTECTION

The Contractor shall conduct his operations in an environmentally acceptable manner, which means a manner which complies with the requirements of the Environmental Protection Act, R.S.O. 1980.

RESTORATION

Restoration of areas unnecessarily damaged by the Contractor's operations shall be at the Contractor's expense.

Prior to restoration of Asphalt or Concrete entrances all loose, broken or disturbed material along the edges shall be removed and all edges of the existing entrances shall be sawed or otherwise cut in straight lines as directed by the Engineer. No additional payment shall be made for this work.

UTILITIES

The Contractor shall be required to co-operate with telephone, cable, hydro, gas or any other utility company where plant may be affected to permit these agencies to maintain services and to re-arrange plant during construction, where required.

The location, depth, type, and configuration of underground utilities and services shown on the Contract Drawings are based on the investigations made by the Engineer, but are not guaranteed. The Contractor shall contact the utility companies to confirm the exact location, type and configuration of these utilities. The Contractor shall exercise the necessary care in construction operations and take such other precautions as are necessary to safeguard the utilities from damage.

No heavy construction equipment will be allowed to operate over the existing gas mains. The Contractor will be responsible for replacing any sand padding, which is removed from around gas mains during excavation operations and no additional payment shall be made as a result of work necessary to satisfy this requirement.

The Contractor shall be responsible for any unauthorized disruptions of service and any damage to utilities arising out of his work. The cost of protective measures, together with the cost of restoring the lines to their original state and location, will be at the expense of the Contractor, and will be billed to him by the utility authority.

The Contractor shall be responsible for supporting existing watermains, gas mains and telephone ducts and concrete conduit structure where they are encountered crossing or adjacent to underground service trenches. The method of support shall be as detailed in the Contract Drawings or as stipulated by the utility companies and, payment for support measures shall be deemed to be included in the Contract prices for the underground services being installed.

No additional compensation shall be made for delay or other alterations to the Contractor's schedule caused by the utility company operations.

It is the Contractor's responsibility as "constructor" under the provisions of the Occupational Health and Safety Act to co-ordinate the activities of all employees and workers operating within the Contract limits to ensure that the requirements of the Occupational Health and Safety Act are satisfied. The Contractor shall ensure that each utility company operating within the Contract limits is included in this process.

CORRUGATED STEEL PIPE

Should the Contractor choose to supply a universal dimple coupler or any other coupler which does not follow the contour of the corrugated steel pipe sections to be joined, he shall, as part of the work at the Contract price for the appropriate tender item, supply and install polyethylene gaskets at all joints where such couplers are used.

Gaskets shall consist of a strip 2 m wide of 150 um polyethylene and shall be folded so as to produce a strip 1 m wide and of sufficient length to equal the circumference of the pipe plus a minimum of 300 mm overlap. This band shall be so placed that it is symmetrical about the pipe joint and shall be placed before installing the coupler.

NO OPEN BURNING

Open fires shall not be located within the limits of this contract.

TRAFFIC CONTROL, FLAGGING

Flagging for traffic control on this Contract shall be in conformance with the procedure outlined in the Ministry of Transportation Temporary Conditions Manual, latest edition.

EMERGENCY AND MAINTENANCE MEASURES

Whenever the construction site is unattended by the general superintendent, the name, address and telephone number of a responsible official of the contracting firm, shall be given to the Engineer. This official shall be available at all times and have the necessary authority to mobilize workmen and machinery and to take any action as directed by the Engineer in case emergency or maintenance measures are required regardless whether the emergency or requirement for maintenance was caused by the Contractor's negligence, act of God, or any cause whatsoever.

Should the Contractor be unable to carry out immediate remedial measures required, the Owner will carry out the necessary repairs, the costs for which shall be charged to the Contractor.

CONTRACTOR'S SUPPLY OF CONSTRUCTION SIGNS

The Contractor is responsible for the supply, erection, maintenance and removal of all temporary traffic controls including signs, lights, barricades, delineators, cones, etc, required on the project.

SPILLS REPORTING

Spills or discharges of pollutants or contaminants under the control of the Contractor, and spills or discharges of pollutants or contaminants that are a result of the Contractor's operations that cause or are likely to cause adverse effects shall forthwith be reported to the Engineer. Such spills or discharges and their adverse effects shall be as defined in the Environmental Protection Act R.S.O. 1980.

All spills or discharges of liquid, other than accumulated rain water, from luminaires, internally illuminated signs, lamps and liquid type transformers under the control of the Contractor, and all spills or discharges from this equipment that are a result of the Contractor's operations shall, unless otherwise indicated in the Contract, be assumed to contain PCB's and shall forthwith be reported to the Engineer.

This reporting will not relieve the Contractor of his legislated responsibilities regarding such spills or discharges.

REVIEW OF SHOP/WORKING DRAWINGS

For the portions of the work to be done under this Contract where detail drawings are to be supplied by the Contractor, six (6) copies of same, together with specifications, plus such additional copies as the Contractor and his sub-contractors may require, shall be submitted to the Engineer for review.

The Contractor or his Sub-contractor shall check and initial all shop drawings before submission to the Engineer so as to intercept and correct any major errors or omissions. Shop drawings will not be reviewed by the Engineer unless they have been previously checked by the Contractor.

The review by the Engineer is for the sole purpose of ascertaining conformance with the general design concept. This review shall not mean that the Engineer approves the detail design inherent in the shop drawings, responsibility for which shall remain with the Contractor submitting same, and such review shall not relieve the Contractor of his responsibility for errors or omissions in the shop drawings or of his responsibility for meeting all requirements of the Contract Documents.

The Contractor is responsible for dimensions to be confirmed and correlated at the job site, for information that pertains solely to fabrication processes or to techniques of construction and installation and for co-ordination of the work of all sub-trades.

Work which relates to the shop drawings shall not be carried out before the Engineer's review of the shop drawings is complete.

LAYOUT BY THE CONTRACTOR

Layout of the work shall be performed by the Contractor in accordance with the requirements of Sub-section GC 7.02 of the General Conditions of the Contract.

MANAGEMENT AND DISPOSAL OF MATERIALS

In accordance with O.P.S.S. 180, Forms O.P.S.F. 1800, 1801 and 1803 shall be completed by the Contractor and forwarded to the Owner.

This form to be used with Ontario Provincial Specification 180

SITE SELECTION NOTIFICATION FOR MANAGEMENT AS DISPOSABLE FILL

Contract Information

Contract No. _____ Owner _____

The following describes the notification process between the Owner of the Contract and the Contractor, wherein the Contractor formally notifies the Owner that agreement has been reached with a third party property Owner for the disposition of Contract generated excess material. Such excess material, managed as disposable fill shall be limited to one or a combination of: earth; aggregate; swamp material; rock; natural wood and debris from open fires, provided the conditions on management are satisfied.

Site Information

Property Owner(s) for the subject property: _____

The subject property:

Lot _____, Concession _____, Township of _____

County/Region/District of _____, Quantity and type of excess material Used as fill:

This is to notify you, as Owner, that permission has been obtained from the property Owner(s) named herein for the Management of excess materials from this Contract. The property Owner has also been provided with a copy of this form and has been advised that a Property Owner's Release Form, OPSF 1803, will be required. The use of this management site will comply with the following:

Conditions on Management

Bituminous pavement, concrete, masonry, wood which has been treated, coated or glued, and metal, plastic and polystyrene products will not be accepted for management as disposable fill. Swamp material managed as disposable fill will be top covered by a minimum of 300 mm of earth or topsoil. Swamp material managed as disposable fill may be placed:

- a) a minimum of 2m above the level of ground water.
- b) a minimum of 30m from water bodies;
- c) a minimum of 100m from any water wells; and
- d) a minimum of 100m from residences.

These condition do not supercede any constraints imposed on this property by Federal, Provincial or Municipal statute or regulations and bylaws made thereto.

Dated this _____ day of _____ 20____

Print Contractor's Name & Field Representative's Name

Contractor's Field Representative Signature

Property Owner(s) Signature(s)

This form to be used with Ontario Provincial Specification 180

SITE SELECTION NOTIFICATION FOR MATERIAL STOCKPILING

Contract Information

Contract No. _____ **Owner** _____

The following describes the notification process between the **Owner** of the Contract and the Contractor, wherein the Contractor formally notifies the **Owner** that agreement has been reached with a third party property **Owner** for the disposition of Contract generated excess material. Such excess material, managed as disposable fill shall be limited to one of or a combination of: earth; aggregate; swamp material; rock; natural wood and debris from open fires, provided the conditions on management are satisfied.

Site Information

Property **Owner** (s) for the subject property: _____

The subject property:

Lot: _____ Concession _____, Township of _____

County/Region/District of _____, Quantity and Type of Excess Material Used as Fill:

This is to notify you, as **Owner**, that permission has been obtained from the property **Owner**(s) named herein for the Management of excess materials from this Contract. The property **Owner** has also been provided with a copy of this form and has been advised that a Property **Owner**'s Release Form, OPSF 1803, will be required. The use of this management site will comply with the following:

Conditions on Management

It is understood that materials are stockpiled to be re-used or held for disposal at a certified waste disposal site. Stockpiles of natural wood, manufactured wood, debris from open fires and swamp material may only be located:

- a. a minimum of 2m above the level of ground water.
- b. a minimum of 30m from water bodies;
- c. a minimum of 100m from residences; and
- d. a minimum of 100m from any water wells.

Stockpiles of bituminous pavement, concrete and masonry may only be located:

- a. a minimum of 30m from water bodies;
- b. a minimum of 100m from residences unless
 1. on property with a boundary common to a right-of-way, within the Contract limits, for a period not exceeding 120 calendar days, or
 2. such stockpiles are located within a provincial or municipal works yard or in a commercially licensed pit or quarry.

These conditions do not supercede any constraints imposed on this property by Federal, Provincial or Municipal statute or regulations and bylaws made thereto.

Dated this _____ day of _____ 20____

Print Contractor's Name and Field Representative's Name

Contractor's Field Representative Signature

Property **Owner**(s) Signature(s)

This form to be used with Ontario Provincial Standard Specification 180

PROPERTY OWNER'S RELEASE

Contract No: _____

Work Description: _____

I/We _____ being the **Owner**(s) of Lot _____, Concession _____,

Township of _____, and County/Region/District of _____, verify that

the Contractor for the above-noted work has placed excess material from the above noted Contract on my/our property with my/our permission. I/we have been advised by the Contractor of the "Conditions on Management" described in OPS Forms 1800 or 1801, "Site Selection Notification for Management as Disposable Fill", or "Site Selection Notification for Materials Stockpiling", respectively, or both, and have been assured by the Contractor that these conditions have been met.

Where materials are managed as disposable fill, I/We agree to be responsible for any subsequent relocation and management of the material so placed.

Where materials are to be stockpiled, I/We agree that the stockpile(s) will be removed by the date(s) herein noted.

Dated this _____ day of _____ 20__

Print Contractor's Name and Field Representative's Name

Contractor's Field Representative Signature

Property **Owner**(s) Signature(s)

ITEM SPECIAL PROVISIONS FOR SITE WORK

PREPARATION OF SITE – Item No. 1

O.P.S.S. 201 and 510 shall apply to the work under this item except that the Measurement and Basis of Payment provisions thereof shall be amended in that the lump sum price shall be full compensation for the supply of all labour, equipment and material to perform the work.

The Contractor shall base his bid solely on the findings of his site investigation. Any information given hereafter is approximate only.

For the Tendered Price for the above item the Contractor shall perform the following work.

Clearing and Grubbing

Clearing and grubbing shall be done within the right-of-way limits except for those trees indicated on the Contract Drawings which are not to be disturbed or any others designated by the Engineer to be retained.

Where it is impractical to remove tree stumps, the Engineer may direct the Contractor to use a chipping machine in lieu of grubbing. The tree trunks shall be cut off a minimum of 100 mm below adjacent ground level.

All cleared and grubbed material shall be disposed of off site at locations arranged for by and at the expense of the Contractor.

Erosion and Sediment Control

This item shall include all labour, equipment and materials to construct the facilities as shown on the Contract Drawings and to remove and dispose of them upon completion of construction when re-vegetation has been achieved.

EARTH EXCAVATION (GRADING) – Item No. 2

For the tender price bid for the above item, the Contractor shall excavate and dispose of all pavement, granular, earth and concrete materials for the construction of driveways, parking lot, building, septic system and ditches to the lines and grades shown on the Drawings and as directed by the Engineer.

The cost of the removal and disposal of bituminous pavement shall be deemed to be included in the tender price for the above item.

O.P.S.S. 206 and 510 shall apply to the work under this item except that the Measurement and Basis of Payment provisions thereof shall be amended in that the lump sum price shall be full compensation for the supply of all labour, equipment and material to perform the work regardless of actual quantities of excavation.

HOT MIX H.L. 3 – Item No. 3

Recycled Hot Mix

Reclaimed asphaltic concrete may be used provided the resultant mix design conforms to the requirements of O.P.S.S. 1150.

Deletion of Slab as Aggregate

The use of slag as an aggregate in the manufacture and supply of hot mix asphalt is prohibited.

150mm DIA. WATERMAIN – Item No. 4

The tendered price shall include the cost of excavation, complete installation and backfilling of the watermain including installation of all sleeves, bends, tees, reducers, anodes, and any special fittings required to complete the installation. The installation of a fire hydrant as per drawing details to be included in item. The watermain to be installed in accordance with Water Fill Station Detail Figure 8 on Drawing C1.

GRANULAR 'B' TYPE II (MODIFIED) – Item No. 6

The gradation requirements of O.P.S.S. 1010 shall apply to this item except that the maximum size particle shall be 75 mm.

END OF SECTION