

RAMARA BUSINESS PARK ROAD

Township of Ramara

Tender Document

ID-18-2022

Tender Closing

September 16, 2022 at 2:00 PM

Township of Ramara
2297 Highway 12, P.O. Box 130
Brechin, ON L0K 1B0

LATE TENDERS WILL NOT BE ACCEPTED

File:

ID-18-2022

Date:

August
26, 2022

Prepared by:

EXP Services Inc.
1595 Clark Boulevard, Brampton,
ON L6T 4V1
T 905-793-9800
exp.com

Prepared for:

Township of Ramara
2297 Highway 12, P.O. Box 130
Brechin, ON L0K 1B0

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1 INSTRUCTIONS TO BIDDERS

INSTRUCTIONS TO BIDDERS

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1 Instructions to Bidders

To be read in conjunction with the Ontario Provincial Standard General Conditions of Contract, Metric OPSS.MUNI 100, November 2019.

1.1 DEFINITIONS

Bidder: a person or entity that is submitting a Tender in response to the Tender process.

Closing Time and Date: has the meaning ascribed thereto in Section 1.11 of these Instructions to Bidders.

Contract: an agreement to be signed between the Town and a successful Bidder pursuant to this Tender process.

Contract Administrator: EXP Services Inc. or any other person or entity as may be authorized or appointed by the Owner to act on behalf of the Owner in any particular capacity.

Contract Documents: the documents listed in Section 10 Schedule of Drawings, Specifications, Standards and Conditions of Contract.

Contractor: the successful Bidder pursuant to this Tender process that has executed a Contract.

Consulting Engineer: EXP Services Inc. or any other engineer as may be authorized or appointed by the Owner to act on behalf of the Owner in any particular capacity.

Engineer: EXP Services Inc. or any other engineer as may be authorized or appointed by the Owner to act on behalf of the Owner in any particular capacity.

Official Closing Time has the meaning ascribed thereto in Section 1.11 of these Instructions to Bidders.

OPS: the Ontario Provincial Standards published by the Ontario Provincial Standards organization.

Point of Tender Delivery: the location identified in Section 1.11 and 1.4 of these Instructions to Bidders.

Project: the Work.

Start Work Order: the document in writing, referred to in the Tender Form that is issued by the Contract Administrator or the Engineer and that authorizes the Contractor to begin the work.

Tender: the tender documents issued by the Owner in respect of a specific opportunity and also refers to the documents submitted by a Bidder in response to this Tender process.

Tender Documents: the documents listed in Section 1.9 of these Instructions to Bidders.

Work: the Work to be performed by a Contractor pursuant to a Contract issued as a result of this tender as described in the Contract Documents and includes, but is not limited to, the work generally described in Section 1.3 of these Instructions to Bidders.

1.2 LOCATION OF WORK

The location of the work is as follows:

- The location of the work is 200m from Harrigan Drive to east cul-de-sac, located in the Township of Ramara, between the Simcoe Road 47 and Concession Road 3.

1.3 SCOPE OF WORK

The general scope of work is as follows:

- Construct 274m of paved roadway with two 3.5m wide lanes, two 1.0m wide shoulders, and open ditches on both sides;
- Construct cul-de-sac at east end of new roadway;
- Install two drainage culverts (one 450mm diameter and one 600mm diameter);
- Construct 430m long drainage ditch from new roadway to existing SWM pond at Concession Road 3;
- Install new 150mm PVC watermain and 50mm PVC low pressure sanitary sewer with stubs for future connections to adjacent properties.

1.4 OFFICE OF THE CONSULTING ENGINEER

The office of the Consulting Engineers is as follows:

EXP Services Inc.	T	905-793-9800
1595 Clark Boulevard	F	905-793-0641
Brampton, ON L6T 4V1	E	Carlyle.Glean@exp.com

1.5 DRAWINGS & CONTRACT DOCUMENTS

Drawings for work and Contract Documents may be obtained from Biddingo.com.

There will be no consideration of any claim after submission of Tenders that there is a misunderstanding with respect to the conditions imposed by the Contract.

Each Bidder must satisfy themselves, by their own study of the Drawings and Contract Documents, by calculation and by personal inspection of the site respecting the conditions existing or likely to exist in connection with the execution of the Work, as to the practicability of completing the Work successfully within the stipulated time.

The Ontario Provincial Standard Specifications (OPSS), Ontario Provincial Standard Drawings (OPSD), and the standard drawings and specifications of the municipality having jurisdiction over the work shall govern the work under this Contract except as otherwise noted. All bidders on this tender shall obtain their own current copies of these Standard Specifications and Drawings.

1.6 BIDDER SITE EXAMINATION

The Bidder shall visit the site of the Work and carefully investigate all conditions potentially affecting the Work and how it is to be completed, with respect to site access, working area, storage areas, local features, including private property and utilities, as well as any other conditions that may influence the undertaking and/or pricing of the Work.

The Bidder shall examine all Contract Documents, Specifications, Drawings and Reports to ensure that the scope of Work and the conditions of the Contract are clear.

The Bidder's attention is drawn to the subsurface soil conditions at the site, as described in the Geotechnical Report prepared by EXP Services INC. The report is available for review at the offices of the Consulting Engineer. A copy of the Geotechnical Report may be requested by e-mail and a PDF copy will be made available.

Subsurface soil conditions as indicated in the borehole and/or test pit logs are not guaranteed by the Owner or their agents, nor does the Owner or their agents accept responsibility for any assumption made by the Bidder. The soils and water table elevations documented in the Geotechnical Report cannot be guaranteed to be indicative of actual conditions experienced during the Construction of the Works.

The Bidder may carry out such further investigations as are necessary to inform them of the subsurface conditions, which will be encountered during Construction of the Works with the approval of the Owner(s) of said lands. The arrangements for such investigations should be made with the Engineer, the Owner and any other appropriate authorities.

1.7 TENDER QUESTIONS

Bidders may submit questions regarding the tender up to the Time Limit for Questions, which is:

September 9, 2022 – 4:00 pm (local time)

Questions are to be submitted via mail or e-mail to the office of the Consulting Engineer to the attention of:

Carlyle Glean

carlyle.glean@exp.com

Bidders shall be responsible to ensure proper receipt of questions.

Where the Consulting Engineer deems that an explanation or interpretation is necessary or desirable, an Addendum will be issued to all Bidders. Addenda will normally be issued by email.

No oral explanation or interpretation provided by the Consulting Engineer or any other person during the tender period shall modify any of the requirements or provisions of the Tender Documents.

1.8 TENDER SUBMISSION

Bidders shall submit the following forms complete in all respects:

- | | |
|--|---------------------|
| ▪ Tender Form | Section 2 |
| ▪ Schedule of Unit Prices | Section 3 |
| ▪ List of Subcontractors & Suppliers | Section 4 |
| ▪ Bidder's Ability and Experience Form | Section 5 |
| ▪ Agreement to Bond | Section 7 |
| ▪ All Addenda issued during the Tender Process | duly signed |
| ▪ Tender Security | as specified herein |

Each Tender must be fully legible, signed, sealed and witnessed in the spaces provided, with the signature of a responsible officer of the Bidder.

All Sections of the Tender Documents must be completed in ink, with all of the blank spaces completed. All items shall be tendered according to instructions in the Tender Documents, with entries made for unit price, lump sums, extensions and totals as appropriate.

Bidders may submit the entire document if they so desire.

1.9 TENDER SECURITY

A Tender Security document is required to accompany the tender in the amount of \$10,000 in the form of a certified cheque, made payable to the Owner.

The Bidder agrees that, if they should withdraw their Tender or fail for any reason to execute the agreement or provide the required bonds or other documents required, the Owner may retain the Tender Security for the use of the Owner and may accept any other Tender, advertise for new Tenders, or not accept any Tender as the Owner deems advisable.

The Tender Security for the 3 low bidders shall be retained until the expiration of the tender period of validity or a contract is executed, whichever is shorter.

1.10 TENDER CLOSING

Tenders sealed in an envelope bearing the contract number and name of the bidder will be received at the Township office up to the Closing Time and Date of Tenders, which is:

September 16, 2022 – 2:00 pm (local time)

Township of Ramara
2297 Highway 12
Brechin, ON L0K 1B0

Attention: Josh Kavanagh, Director of Infrastructure

Each Tender shall be marked with the time and date it is received. Tenders received after the Official Closing Time shall not be considered. The manner of delivery of any Tender shall be at the risk of the Bidder.

1.11 TENDER OPENING

Tenders will be opened publicly immediately following the closing of Tenders.

1.12 ALTERATION, WITHDRAWAL OR QUALIFYING OF TENDERS

A Bidder who has already submitted a tender may submit a further tender at any time up to the official closing time. The last tender received shall supersede and invalidate all tenders previously submitted by that Bidder for this Contract.

A Bidder may withdraw or qualify their tender at any time up to the official closing time by submitting a letter bearing their signature and seal as in their tender to the address listed in Tender Closing before the Closing Time and Date of Tenders.

1.13 INFORMAL TENDERS

Tenders that are incomplete, conditional, illegible or obscure or that contained additions not called for, reservations, erasures, alteration or irregularities of any kind, may be rejected as informal. Bidders are required to fill in all the blanks. Wherever in a Tender that an item's total tendered amount does not agree with the extension of estimated quantity and the tendered unit price, the unit price shall govern and the total tender price shall be corrected accordingly. Tenders that contain prices which appear to be so unbalanced as likely to adversely affect the interests of the Owner may be rejected at the Owner's sole discretion.

1.14 DISQUALIFICATION OF TENDERS

Tenders will not be opened and are disqualified if:

- submitted by an unregistered Bidder; or
- received after the closing time and date of tenders.

Tenders may be declared invalid and disqualified if presented as follows:

- with blank spaces missing required information;
- with additions uncalled for;
- unbalanced;
- conditional;
- qualified;
- irregular;
- without the tender security in the prescribed form;
- unsigned and unsealed;
- illegible;
- obscure; or
- completed in pencil.

1.15 RIGHT TO ACCEPT OR REJECT

Contract award will be by written notification from the Owner to the successful Bidder, if any.

The Bidder acknowledges that the Owner shall have the right to reject any, or all Tenders for any reason, or to accept any Tender which the Owner in its sole discretion deems most advantageous to itself. The lowest or any Tender shall not necessarily be accepted.

1.15.1 Consideration for Award

Consideration for award shall only be undertaken in relation to Bidders who are determined by the Owner to have satisfied all requirements of the Tender.

The Owner hereby reserves the right, privilege, entitlement and absolute discretion, and for any reason whatsoever to:

1. accept a Tender which is not the lowest Tender submission, or reject a Tender that is the lowest Tender even if it is the only Tender received;
2. cancel this Call for Tenders at any time, either before or after the Closing Date and Time;

3. accept the Tender deemed most favourable to the interest of the Owner or that may provide the greatest value, advantage and benefit to the Owner based upon and not limited to:
 - i. price
 - ii. ability
 - iii. quality of Work
 - iv. service
 - v. past experience
 - vi. past performance
 - vii. qualification
4. accept or reject any and all Tenders whether in whole or in part;
5. with the exception of disqualified Tenders, waive any informalities, requirements, discrepancies, errors, omissions, or any other defect of deficiencies in any Tender Form or Tender submission;
6. award any part of any Tender;
7. accept or reject any unbalanced, irregular, or informal Tenders; or
8. reject any Bidder who is involved in litigation with the Owner.

1.15.2 Evaluation of Tenders

The owner reserves the right to consider, during the evaluation of tenders:

1. information provided in the Tender itself;
2. information provided in response to enquiries of credit, experience and industry references set out in the Tender;
3. information received in response to enquiries made by the Owner of third parties apart from those disclosed in the Tender in relation to the reputation, reliability, experience and capabilities of the Bidder;
4. the manner in which the Bidder provides services to others;
5. the experience and qualification of the Bidder's senior management, and project management; and
6. the compliance of the Bidder with the Owner's requirements and specifications.

The Bidder acknowledges that the Owner may rely upon these and any other criteria, which the Owner deems relevant; even though such criteria may not have been disclosed to the Bidder. By submitting a Tender, the Bidder acknowledges the Owner's rights under this Section and absolutely waives any right, or cause of action against the Owner and its Engineer, by reason of the Owner's failure to accept the Tender submitted by the Bidder, whether such right or cause of action arises in Contract, negligence, or otherwise.

1.16 MATERIAL INCORPORATED INTO THE WORK

All material incorporated into the work and necessary for the proper completion of the work including testing and certification shall be supplied by the Contractor unless otherwise noted.

All material supplied by the Contractor shall be new, in no case remanufactured or factory reconditioned, and in no case recycled from the site unless specifically approved and tested by the Engineer.

1.17 CONTRACT

The party to whom the Contract is awarded will be required to execute the Agreement contained herein in triplicate and to furnish a certified copy of a satisfactory insurance policy referred to herein, within 7 days not including Sunday or a legal holiday, after mailing or facsimile of written notice by the Owner to them at their business address stated in their Tender, of the award of the Contract to them. Should the said party fail to execute this Agreement within the time stipulated above, the Tender Security accompanying their Tender (if applicable) shall be forfeited to the Owner.

1.18 BONDS

The Successful Bidder shall be required to furnish Bonds for "Performance" and "Labour and Materials Payment" each equal to 100% of the Tender sum, with a Guarantee Surety Company authorized by law to carry on business in the Province of Ontario and having an office in Ontario.

The Bidder shall include with their tender an original Agreement to Bond in the form provided (Section 7) executed under seal by the surety company which he proposed to obtain the required bonds.

1.19 INSURANCE

The Successful Bidder shall be required to provide a certified copy of an insurance policy covering the types of insurance required under the OPS General Conditions of Contract November 2019. As a minimum the Contractor shall provide general liability insurance per

GC 6.03.02 and automobile liability insurance per GC 6.03.03. The minimum amount shall be \$5,000,000.00 exclusive of interest and cost.

Where aircraft are used the Contractor shall supply aircraft liability insurance per GC 6.03.04.01. Where watercraft are used the Contractor shall supply watercraft insurance per GC 6.03.04.02. Where buildings are erected the Contractor shall supply all risks property insurance per GC 6.03.05.01. Where pressure vessels are installed the Contractor shall supply boiler insurance per GC 6.03.05.02.

General liability insurance shall list as additional insured to the Contractor, the Owner, EXP Services Inc., the Owner's Geotechnical Consultant, the Owner's agents, the Contract Administrator, the Municipality and their agents in the same manner and to the same extent as if a separate policy had been issued for each.

In addition to the above requirements, if blasting operations are used in the Contract, the Contractor shall take out and keep in force an insurance policy providing coverage for blasting operations to the same limits as set out in the General Conditions of Contract including coverage, as indicated above.

1.20 WORKPLACE SAFETY & INSURANCE BOARD CLEARANCE

The Successful Bidder shall supply a Certificate from the Workplace Safety and Insurance Board indicating that they are in good standing with the Board prior to the start of construction, with each request for payment, and at any other time when requested by the Engineer.

1.21 STARTING DATE

Consideration for award by Township Council is expected on September 30th, 2022, depending on tender bids. It is expected the Township will be in a position to award the Contract to the successful contractor on October 3rd, 2022.

No work shall begin until the Engineer has issued a Start Work Order. The Start Work Order will be issued once the Contractor has provided all forms, permits, plans, schedules, insurance forms etc. to the satisfaction of the Engineer and all permits and approvals for the work are in place.

1.22 PROGRESS & COMPLETION

The Bidders attention is drawn to the Substantial Performance and Contract Completion dates stipulated in the Tender Form (Section 2), with due consideration to the Liquidated Damages Clause in the General Conditions Supplementary 3.18. The Contractor shall be

required to submit a detailed Schedule of Work as set out in the Special Provisions prior to starting work.

1.23 TESTING & CERTIFICATION

All works constructed shall be subjected to testing, inspection and recording of their location. The Contractor shall test the works and/or make the works available for testing. The Contractor shall make the works available for inspection by the Engineer.

The Engineer shall certify the work unless specified elements of the work require specific design and certification by the supplier. Where specific certification is required this shall be included in the cost of the element.

The Contractor shall perform all testing of inground works for certification and repeat until all work is successfully tested.

1.24 AS-BUILT INFORMATION

The Contractor shall reasonably assist the Engineer with gathering field information as a check for compliance with the design. The Contractor shall be responsible to gather as-built information and communicate any variances from the design immediately to the Engineer. The Engineer's check of compliance with design shall not relieve the Contractor from the responsibility to construct the works according to the "approved for construction" drawings and specifications.

1.25 PROVINCIAL & FEDERAL TAXES

The Tendered unit and lump sum prices submitted by the Bidder shall **exclude** the Federal Harmonized Sales Tax (HST). Payment of the HST shall be added to the monthly payment certificates. Payment of the HST shall be contingent upon the submission of the Contractor's HST Registration Number.

1.26 FAIR WAGES

The Bidder's attention is drawn to the Fair Wages and Labour and Conditions applicable to this Contract as outlined in the General Conditions Supplementary.

1.27 OCCUPATIONAL HEALTH & SAFETY ACT

The Contractor by executing the Contract, unequivocally acknowledges that they are the "Constructor" within the meaning of the Occupational Health and Safety Act and the Contractor undertakes to carry out the duties and responsibilities of "Constructor" with respect to the Work.

1.28 CONSTRUCTION ACT

In any instances where a part of the Contract Documents is not in agreement with the Construction Act, the Construction Act shall govern.

The Contractor shall advertise the Certificate of Substantial Performance in the Daily Commercial News (DCN), in accordance with the General Conditions Supplementary and shall pay all related costs.

1.29 ACCESSIBILITY

Contractors shall be compliant with the “Accessible Customer Service Standard”, Ontario Regulation 429/07 made under the “Accessibility for Ontarians with Disabilities Act” (AODA) 2005. Applicable policies and proof of employee training shall be provided upon request.

1.30 FREEDOM OF INFORMATION & PRIVACY

All bids submitted to the Owner become the property of the Owner and as such, are subject to the “Municipal Freedom of Information and Protection of Privacy Act”.

2 TENDER FORM

2 Tender Form

To: The Corporation of the Township of Ramara
2297 Highway 12, P.O. Box 130
Brechin, ON L0K 1B0

The undersigned has carefully examined the Instructions to Bidders, Tender Form, Schedule of Items and Prices, General Conditions, General Conditions Supplementary, Drawings, Specifications and Special Provisions for this Contract and acknowledges the same to be part of the Contract. Further, the undersigned has visited the site and studied all conditions therein which affect the Work and is fully informed as to the nature of the Work and the conditions relating to its performance.

The undersigned hereby proposes to furnish all plant, labour, and materials including in every case, freight, duty, exchange and sales tax in effect (excluding HST), except as otherwise specified and to complete the Work in strict accordance with the requirements of the Contract at the unit prices named in the Schedule of Items and Prices for the sum of: (in writing)

\$

(\$)

The undersigned agrees to the following:

1. To execute the Agreement in triplicate and to furnish in triplicate to the Owner, the required certified copy of the Insurance Policy required under the Contract, construction schedule and, if required by the Owner, the Bonds as described in the Instructions to Bidders within 7 days, not including Sunday or a legal holiday, from the date of mailing or facsimile of the notice of acceptance of this Tender by the Owner to the address stated hereunder.
2. This offer is to continue open to acceptance until the Contract is executed by the Successful Bidder or for a period of 90 days commencing from the Date of Closing of Tenders, whichever event first occurs and that the Owner may, at any time within that period, accept this Tender whether any other Tender has been previously accepted or not.
3. The Owner may reject any or all Tenders without explanation.
4. The Bidder shall have no claim against or entitlement to damages from the Owner by reason of the Owner rejecting its Tender or all tenders or by reason of any delay in acceptance of a Tender.
5. If requested in writing by the Owner, the undersigned will enter into a Contract with the Owner based upon his Tender but jointly in the names of the Bidder and the Bidder's parent company, if any. The Bidder further agrees that any request by the Owner as indicated above is not and shall not be deemed to be a counter-offer by the Owner.
6. This Tender is subject to a formal contract being prepared and executed by both parties.
7. No person, firm or corporation other than the Bidder has any interest in this Tender or in the proposed Contract for which this Tender is made.
8. This Tender is made without any connection, comparison of figures or arrangements with, or knowledge of, any other corporation, firm or person making a Tender for the same work and is in all respects fair and without collusion or fraud.
9. The Work will be commenced within 5 days of the issuance of a Start Work Order. Start Work Order is subject to receiving all approvals. It is expected that all approvals will be in place to issue the Start Work Order on:

October 17, 2022

10. The Contract shall be Substantially Performed within the number of weeks following the Start Work Order or by the date noted below:

substantial performance within 6 weeks, by November 21st, 2022

11. The Contract shall be Completed within the number of weeks following the Start Work Order or by the date noted below:

contract completion by December 5th, 2022

12. That the Tender documents submitted by the Bidder comprise the following:

		initial
▪ Tender Form	Section 2	_____
▪ Schedule of Unit Prices	Section 3	_____
▪ List of Subcontractors & Suppliers	Section 4	_____
▪ Bidder's Ability and Experience Forms	Section 5	_____
▪ Agreement to Bond	Section 7	_____
▪ Addenda ___ through ___		_____
▪ Tender Security		_____

13. That The Bidder is not entitled to payment for Contingency Items except for additional work carried out by him in accordance with the Contract and approved by the Engineer and Owner and then only to the extent of such additional work.

The Bidder solemnly declares that the several matters stated in the foregoing Tender are in all respects true.

Authorized Officer: _____ Date: _____
print name

signature

Witness _____ Date: _____
print name

signature

Company Seal:

This Tender is submitted by:

Company Name: _____

Address: _____

Telephone: _____ Fax: _____

HST Registration: _____

Name & Title: _____

Signature of Bidder: _____ Date: _____

Company Seal:

3 SCHEDULE OF UNIT PRICES

3 Schedule of Unit Prices

Item No.	SP's	Description	Unit	Quantity	Unit Price	Cost
1.0 GENERAL WORKS						
1.01	1	Mobilization & Demobilization	LS	1	\$	\$
1.02	1	Bonding & Insurance Costs	LS	1	\$	\$
1.03	1	Layout	LS	1	\$	\$
1.04	1	Traffic Control and Temporary Signs	LS	1	\$	\$
Subtotal Section 1 General Works						\$
2.0 SITE WORKS						
2.01	2	Clearing and Grubbing	LS	1	\$	\$
2.02	3	Heavy Duty Silt Fence	m	1354	\$	\$
Subtotal Section 2 Site Works						\$
3.0 ROADWORKS						
3.01	4, 5	Earthworks - Cut	m3	925	\$	\$
3.02	4, 5	Earthworks - Fill (Imported)	m3	5164	\$	\$
3.03	6	HL3 (40mm)	t	292	\$	\$
3.04	7	HL8 (50mm)	t	355	\$	\$
3.05	11	Granular 'A' (150mm)	t	1185	\$	\$
3.06	12	Granular 'B' (450mm)	t	2314	\$	\$
3.07	10	Rip Rap	m2	96	\$	\$
3.08	11	Topsoil and Sod	m2	6836	\$	\$
Subtotal Section 3 Roadworks						\$
4.0 CULVERTS						
4.01	12	Culvert Installation (450mm Dia.)	m	28	\$	\$

4.02	12	Culvert Installation (600mm Dia.)	m	22	\$	\$
Subtotal Section 4 Culverts						\$
5.0 WATERMAIN AND SANITARY SEWER						
5.01	13	Supply and Installation of 150mm PVC AWWA C900 or PVC AWWA C909 Watermain by Open-Cut Trenching Methods	m	297	\$	\$
5.02	13	Supply and Installation of Hydrants including 150mm x 150mm Anchor Tee, Hydrant, Valve and Box per OPSD 1105.010	each	3	\$	\$
5.03	14	Supply and Installation of Line Valve 150mm	each	5	\$	\$
5.04	13	Supply and Install Water Service Connections 150mm	m	145	\$	\$
5.05	13	Connection of New Watermain to Existing Watermain Including All Fittings Necessary to Complete the Connection	each	1	\$	\$
5.06	13	Watermain or Water Service Insulation (Shallow Bury)	m2	100	\$	\$
5.07	13	Watermain Commissioning and Testing	each	1	\$	\$
5.08	15	Supply and Installation of 50mm Diameter Low pressure sanitary sewer	m	309	\$	\$
5.09	15	Supply and Installation of 40mm Diameter Low pressure sanitary service c/w Valve & Box and Corporation Main Stop	m	130	\$	\$
5.10	14	Supply and Installation of 40mm sanitary low pressure valve as per Ramara STD dwg 128	each	5	\$	\$
5.11	15	Supply and Installation of sanitary clean out as per Ramara STD dwg 127	each	1	\$	\$
5.12	15	Connection of New Sanitary low pressure sewer to existing Maintenance Hole as per Ramara STD dwg 128	LS	1	\$	\$
5.13	15	Rigid Insulation Over Sewer (Shallow Bury)	m2	70	\$	\$
5.14	15	Sanitary Sewer Testing	each	1	\$	\$
Subtotal Section 5 WATERMAIN AND SANITARY SEWER						\$
6.0 PAVEMENT MARKING AND SIGNAGE						
6.01	16	Pavement Marking	m	64	\$	\$
6.02	17	Signs	each	3	\$	\$
Subtotal Section 6 Pavement marking and signage						\$
7.0 PROVISIONAL						
7.01	18	Excavate Deleterious Unsuitable Material, Dispose Off-site, supply & Place with SMM.	m3	100	\$	\$

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7.02	12	Granular 'B'	t	100	\$	\$
7.03	11	Granular 'A'	t	100	\$	\$
Subtotal Section 7 Provisional						\$
8.0 CONTINGENCY ALLOWANCE						
7.01	19	Contingency Allowance (20%)				\$
TOTAL TENDER PRICE						\$

4 LIST OF SUBCONTRACTORS & SUPPLIERS

4 List of Subcontractors & Suppliers

The Tenderer shall list hereunder the names of all Subcontractors and Suppliers (Hot Mix Asphalt, Concrete Ready Mix, Precast Concrete, Granular Material and Pipe Suppliers) as applicable whom he proposes to use.

Subcontractor or Supplier	Address	Trade	Approximate Value

It is understood by the Tenderer that the above list of Subcontractors/Suppliers is complete and that N/A or blanks are not acceptable and will make the tender non-compliant. No additions to this list will be permitted after Closing Time of Tenders, without the written approval of the Engineer.

5 BIDDER'S ABILITY & EXPERIENCE

5 Bidder's Ability & Experience

5.1 PROJECT EXPERIENCE

The Bidder shall provide below information on 4 contracts in this class of work that he has undertaken over the past 3 years.

1. Project Name _____ Year _____

Project Tender Value _____

Description of Work _____

Project Owner _____

Project Manager _____ Tel _____

Contract Completion Date
(as per contract) _____

Substantial Completion
Date _____

Additional Comments
(optional) _____

2. Project Name _____ Year _____

Project Tender Value _____

Description of Work _____

Project Owner _____

Project Manager _____ Tel _____

Contract Completion Date
(as per contract) _____

Substantial Completion
Date _____

Additional Comments
(optional) _____

3. Project Name _____ Year _____

Project Tender Value _____

Description of Work _____

Project Owner _____

Project Manager _____ Tel _____

Contract Completion Date
(as per contract) _____

Substantial Completion
Date _____

Additional Comments
(optional) _____

4. Project Name _____ Year _____

Project Tender Value _____

Description of Work _____

Project Owner _____

Project Manager _____ Tel _____

Contract Completion Date
(as per contract) _____

Substantial Completion
Date _____

Additional Comments
(optional) _____

Reference Release Form

I, _____, authorize the Consulting Engineer to contact the person or organizations listed above for the purpose of obtaining reference information relating to the Contractor and Subcontractor. These persons are authorized to disclose such information:

Signature of Bidder: _____ Date: _____

5.2 QUALIFICATIONS OF SENIOR SUPERVISORY STAFF

Senior Supervisory Staff as listed below cannot be changed without prior written approval of the Contract Administrator.

Name & Title _____
Qualifications _____
& Experience _____

Name & Title _____
Qualifications _____
& Experience _____

Name & Title _____
Qualifications _____
& Experience _____

Name & Title _____
Qualifications _____
& Experience _____

5.3 PROPOSED CONSTRUCTION EQUIPMENT FOR THIS CONTRACT

Equipment
Available

Equipment
to be
Rented

Equipment
to be
Purchased

6 AGREEMENT

6 Agreement

This Agreement made in duplicate the _____ day of _____ A.D. 2022 by and between:

Contractor: _____

and

Owner: _____

WITNESSETH

That, the Contractor for and in consideration of the payment specified in his Tender for this Work, hereby agrees to furnish all necessary plant, labour and materials, except as otherwise specified, and to complete the said Work in strict accordance with the Contract Documents, all of which are to be read herewith and form part of this present Agreement as fully and completely to all intents and purposes as though all the stipulations thereof have been embodied therein.

The Contractor further agrees that he will deliver the whole of the Work completed in accordance with the Agreement.

IN CONSIDERATION WHEREOF, the Owner agrees to pay to the Contractor for all Work done, the stipulated lump sum or sums in the Tender as enclosed herein. Holdbacks and Payment terms to be as stipulated in the Contract Documents.

THIS AGREEMENT SHALL ensure to the benefit of and be binding upon the heirs, executors, administrators, and assigns of the Contractor and on the heirs and successors of the Owner.

IN WITNESS WHEREOF, the Contractor and the Owner have hereunto signed their names and set their seals on the day first above written.

Signed & Sealed by the Contractor

_____ seal

In the presence of:

_____ By: _____ Date: _____
witness signature Name: _____
Title: _____
I have the ability to bind the corporation

Signed & Sealed by the Owner

_____ seal

In the presence of:

_____ By: _____ Date: _____
witness signature Name: _____
Title: _____
_____ By: _____ Date: _____
witness signature Name: _____
Title: _____
I / we have the ability to bind the corporation

Date of Tender Submission _____

Total Tender Price _____

Contractor's HST No. _____

7 AGREEMENT TO BOND

7 Agreement to Bond

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

Bidder: _____

in a "Performance Bond" for the amount of 100% of the total Tender, and a "Labour and Materials Contract Payment Bond" in the amount of 100% of the total Tender, conforming to the instruments of Contract attached hereto, for the full and due performance of the Works shown and as described herein if the Tender noted below is accepted by the Owner. Period of maintenance shall be 24 months from completion.

Tender: _____

It is a condition of this Agreement, that, if the above mentioned Tender is accepted by the Owner, application for both bonds must be made to the undersigned within 60 days of the execution of the Contract related thereto, otherwise this Agreement shall be null and void.

Dated: _____ day of _____ 2019

Bonding Company: _____

Signature of Authorized
Person Signing for
Bonding Company: _____

Position of Signing
Officer: _____

Company Seal:

8 PERFORMANCE BOND

8 Performance Bond

Performance Bond

CCDC Form 221 (2002)

9 LABOUR & MATERIALS BOND

9 Labour & Materials Bond

Labour & Materials Payment Bond (Trustee Form)

CCDC Form 222 (2002)

**10 SCHEDULE OF DRAWINGS,
SPECIFICATIONS, STANDARDS &
CONDITIONS OF CONTRACT**

10 Schedule of Drawings, Specifications, Standards & Conditions of Contract

The Work specified in this contract will be performed in strict accordance with the following Drawings, Specifications, Standards and Conditions of Contract.

10.1 DRAWINGS

Drawing		Rev	Prepared by
-	Title Page / Index Sheet	0	EXP Services Inc.
PP01	Plan and Profile STA. 10+000 To STA. 10+280	0	EXP Services Inc.
T01	Typical Sections STA. 10+000 To STA. 10+280	0	EXP Services Inc.
D01	Ditch Plan & Profile STA. 0+000 To 0+300	0	EXP Services Inc.
D02	Ditch Plan & Profile STA. 0+300 To 0+430	0	EXP Services Inc.
D03	Ditch Sections	0	EXP Services Inc.
U01	Plan and Profile 150mm PVC Watermain STA. 9+985 To STA. 10+289	0	EXP Services Inc.
U02	Plan & Profile 50mm PVC Low Pressure Sanitary Sewer STA. 9+985 To STA. 10+289	0	EXP Services Inc.
U03	Plan and Profile – Harrigan drive 50mm PVC Low Pressure Sanitary Sewer STA. 20+000 To STA. 20+091	0	EXP Services Inc.
CS01	Cross Sections STA. 10+000 To STA. 10+280	0	EXP Services Inc.

10.2 SPECIFICATIONS

Specifications	Pages	Prepared by
Special Provisions	12-1 to 12-30	EXP Services Inc.

10.3 STANDARDS

Refer to Contract Drawings for reference to applicable Municipal Standards, Ontario Provincial Standards and Standards of other authorities having jurisdiction

10.4 CONDITIONS OF CONTRACT

Conditions of Contract	Section	Prepared by
Instructions to Bidder	1-1 to 1-11	EXP Services Inc.
General Conditions of Contract		OPSD (Metric OPSS.MUNI 100, November 2019)
General Conditions Supplementary	11-1 to 11-10	EXP Services Inc.

It shall be the Contractor's responsibility to obtain copies of the current applicable Municipal standards, and the current Ontario Provincial Standard Specifications and Standard Drawings.

11 GENERAL CONDITIONS SUPPLEMENTARY

General Conditions Supplementary

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11.10	Siltation & Erosion Control Measures.....	11-10

11 General Conditions Supplementary

11.1 GENERAL CONDITIONS

The words General Conditions in this Contract mean the Ontario Provincial Standards General Conditions of Contract, as attached hereto.

If there is any discrepancy between the General Conditions and the General Conditions Supplementary, the General Conditions Supplementary will apply.

11.2 DESIGNATION OF PARTIES

Where the word "Owner" is used in this Contract, it shall mean: **The Corporation of the Township of Ramara.**

Where the word "Contract Administrator" or "Engineer" is used in this Contract it shall mean: **EXP Services Inc.** or any other Engineer as may be authorized or appointed by the Owner to act on behalf of the Owner in any particular capacity.

Where the word "Contractor" is used in this Contract, it shall mean in every case the General Contractor, but where referred to in the trades it shall also mean the Subcontractor.

11.3 AMENDMENTS TO THE GENERAL CONDITIONS

11.3.1 Section GC1.04 of the General Conditions Definitions

Amended by adding the following:

"Measured Quantity" means that quantity within the approved Limits of the Works, measured in the field.

11.3.2 Section GC2.02 of the General Conditions, Order of Precedence

Amended by deleting paragraph .01 and replacing it with the following:

.01 In the event of any inconsistency or conflict in the contents of the following documents, such documents shall take precedence and govern in the following descending order:

- i. Agreement
- ii. Addendum(s) (if any)
- iii. Special Provisions
- iv. Contract Drawings
- v. Instructions to Bidders

- vi. General Conditions Supplementary
- vii. Standard Specifications
- viii. Tender
- ix. General Conditions
- x. Working Drawings

Latter dates shall govern within each of the above categories of documents.

11.3.3 Section GC3.09 of the General Conditions, Subcontracting by the Contractor

Amended by the addition of the following:

- .07 The Contractor shall submit a list of proposed subcontractors, showing the value of the work to be sublet to each. The value of the work sublet shall not exceed 50% of the total work.

11.3.4 Section GC4.01 of the General Conditions, Working Area

Amended by deleting paragraph .02 and replacing it with the following:

- .02
 - a) The Geotechnical Report (s) which will be available from the Engineer only as specified in the "Instructions to Bidders" shall **not** form part of the Contract Documents.
 - b) It is to be clearly understood that the information contained in the Geotechnical Report(s) was accumulated for design purposes only and any interpretation placed on it by the Bidder or Contractor is solely the responsibility of the Bidder or Contractor.

11.3.5 Section GC7.03 of the General Conditions, Working Area

Amended by the addition of the following:

- .06 Materials and/or Equipment shall **not** be stored within 3 metres of the travelled portion of any roadway.
- .07 Notwithstanding the foregoing, the Contractor shall, at their own expenses, remove any equipment or material which in the Engineer's opinion, constitutes a traffic hazard.
- .08 The storage of materials and equipment on-site is limited and subject to the Owner's approval. The Contractor shall allow for off-site storage in their tendered price.

11.3.6 Section GC7.06 of the General Conditions, Maintaining Roadways and Detours

Amended by deleting paragraph .05 and replacing it with the following:

.05 The Contractor will bear the cost of maintaining, in a satisfactory condition for traffic in both directions, a road through the working area. Provisions shall be made at ALL times for local traffic. Clear, unobstructed entrances shall be maintained to all private dwellings and all side streets.

11.3.7 Section GC7.16 of the General Conditions, Warranty

Amended by deleting paragraph .02 and replacing it with the following:

.02 The Contractor guarantees that with ordinary wear and tear, the Work shall, for a period of twenty four (24) months from the Date of Substantial Performance of the Work or where there is no Substantial Performance Certificate, of twenty four (24) months from the date of completion of the Work as set out in the Completion Certificate, or such longer periods as may be specified for certain materials or Work, remain in such condition as will meet the approval of the Engineer, and that the Contractor will upon being required by the Engineer, make good in permanent manner, satisfactory to the Engineer, any imperfections due to materials or workmanship used in the construction of the Work. The decision of the Engineer is to be final as to the nature and cause of such imperfections and the necessity for remedying same. Should the Contractor fail to comply with the directions of the Engineer, the Engineer may, after giving the Contractor twenty-four (24) hours written notice perform the necessary work, and the cost thereof may be deducted from the Contractor or their Surety jointly or severally in any court of competent jurisdiction as a debt due to the Owner. If the Engineer notifies the Contractor in writing of imperfections prior to the termination of the Warranty Period, then the Contractor shall make good the imperfections as specified above, notwithstanding that the Work may commence after or extend beyond the end of the warranty period.

11.3.8 Section GC8.01.01 of the General Conditions, Quantities

Amended by deleting paragraph .01 and replacing it with the following:

.01 The Contractor will make an estimate once a month, in writing, of the quantity of Work performed. The first estimate will be the quantity of Work performed since the Contractor commenced the Contract, and every subsequent estimate, except the final one, will be of the quantity of Work performed since the preceding estimate was made. The Contractor will provide the copy of each estimate including any

backup information to the Contract Administrator the day after the cut off date as specified and this will form the basis of the Contractor's application for payment.

11.3.9 Section GC8.01.01 of the General Conditions, Quantities

Amended by the addition of the following:

.04 The Contract Administrator, Contractor or the Owner may dispute the quantity that is specified for payment on a plan quantity basis. Where there is a dispute, this shall be supported by calculations, drawings, and any other evidence indicating why the plan quantity is believed to be in error. If the plan quantity is found to be in error, payment will be made in accordance with the adjusted plan quantity.

11.3.10 Section GC8.01.02 of the General Conditions, Variations in Tender Quantities

Amended by the addition of the following:

.02 Tender Items noted as "provisional" can be deleted, used in part or exceed the estimated quantity with payment based on the final measurement and tendered unit prices. The owner will not accept any claim for monies lost by the contractor due to the above for any reason.

11.3.11 Section GC8.02.04.01 of the General Conditions, Progress Payment Certificate

Amended by deleting paragraph .01 and replacing it with the following:

- .01
- a) Upon written application by the Contractor, the value of the work performed and material supplied will be calculated on the first day of each month for work completed up to and including the last day of the preceding month (cut-off date) by the Contract Administrator in accordance with the Contract Documents and the quantities described in clause GC8.01.01, Quantities.
 - b) The Contractor shall submit to the Contract Administrator, together with the accepted draft, except the first one, a Statutory Declaration Re: Payment of Accounts in a form acceptable to the Owner, signed by an authorized signing officer of the Contractor stating that all workers employed by the Contractor in the performance of the Contract have been paid in full and in accordance with the requirements of the Contract not less frequently than semi-monthly and up to and including the pay-day immediately preceding the date of the declaration and that all other liabilities incurred by the Contractor arising out of work performed or materials supplied as set forth in the monthly estimate relating to the last monthly statement previously submitted have been discharged. The Owner may withhold approval of a Monthly Payment

Certificate if the Contractor fails to submit such a declaration or if the Contractor submits an improperly completed declaration.

- c) Within seven (7) days of receipt of the accepted draft and supporting documentation, the Contract Administrator shall prepare and submit a Progress Payment Certificate to the Owner. The Contractor will be provided a copy of the Payment Certificate.
- d) Authorization of any Progress Certificate by the Contract Administrator shall not bind the Contract Administrator in his evaluation of the Works and the Contract Administrator may by any Certificate make corrections or modifications to the previous Progress Certificate he has approved.
- e) Fifteen percent (15%) of the value of contract items which must be tested or for which as-built information must be gathered may be retained to guarantee the quality of the work performed and shall be termed Testing/As-Built Holdback. The Testing/As-Built Holdback shall reduce the value of the work completed to date on the progress certificate. The Testing/As-Built Holdback will be gathered if in the opinion of the Contract Administrator the testing of contract work is not being pursued in a timely manner. Work has proceeded without required testing or as-built information has not been gathered and recorded. The Testing/As-Built Holdback shall be released in the monthly Progress Payment Certificate after the work has been satisfactorily tested, inspected and approved by the Engineer. The Contractor shall present the as-built drawings with the payment claim for review by the Engineer showing the information gathered.
- f) Ten percent (10%) of all monies due to the Contractor in accordance with the Progress Certificates shall be retained by the Owner and shall be termed Statutory Holdback.
- g) Prior to Substantial Performance an additional two and one-half percent (2.5%) of all monies due to the Contractor in accordance with the Progress Certificates shall be retained by the Owner and shall be termed Warranty Holdback. Upon application by the Contractor, contract items may be removed from the aggregate value of work complete for which the warranty holdback applies.
- h) The warranty holdback shall be paid to the Contractor at the expiration of the Warranty Period and upon issuance of the Final Acceptance Certificate.

11.3.12 Section GC8.02.04.01 of the General Conditions, Progress Payment Certificate

Amended by deleting paragraph .04 and replacing it with the following:

.04 Payments will be made by the Owner within 30 days of receipt of the progress payment certificate.

11.3.13 Section GC8.02.04.04 of the General Conditions, Certificate of Substantial Performance

Amended by deleting paragraph .01 and replacing it with the following:

.01 a) Upon written application by the Contractor and as soon as, in the opinion of the Contract Administrator, the Contract has been Substantially Performed in accordance with the foregoing, and the Contractor has given a written undertaking to complete any outstanding work expeditiously during the Warranty Period, and to discharge all unfulfilled obligations under the Contract, the Contract Administrator will issue their Certificate of Substantial Performance. If through no fault of their own, the Contractor is unduly delayed in completing all the work under the Contract, the Engineer may issue the Certificate of Substantial Performance provided that the Owner may retain a sum of money sufficient in the discretion of the Contract Administrator to pay the cost of completing the work.

b) The Work will be deemed to be substantially performed when:

i) the Work to be performed under the Contract or a substantial part thereof is ready for use or is being used for the purpose intended;

ii) the Work to be performed under the Contract is capable of completion or, where there is a known defect, the cost of correction is not more than;

- 3% of the first \$1,000,000 of the Contract price,
- 2% of the next \$1,000,000 of the Contract price, and
- 1% of the balance of the Contract price.

iii) The Contract Administrator has verified the works have satisfactorily passed the required inspection and testing and has verified the Contract has been substantially performed.

c) For the purposes of this Contract, where the Work or a substantial part thereof is ready for use or is being used for the purposes intended and the remainder of the Work cannot be completed expeditiously, for reasons beyond the control of the Contractor or, where the Owner and the

Contractor agree not to complete the Work expeditiously, the price of the services or materials remaining to be supplied and required to complete the Work shall be deducted from the Contract price in determining Substantial Performance.

11.3.14 Section GC 8.02.05.05 of the General Conditions, Payment for Material

Amended by deleting paragraph .01 and replacing it with the following:

.01 The Owner will pay the Contractor for Material used on each Time and Material project at 105% of the cost of the Material.

11.3.15 Section GC 8.02.05.06.01 of the General Conditions, Payment for Equipment - Working Time

Amended by deleting paragraphs .01, .02 and .03 and replace with the following:

.01 The Owner will pay the Contractor for the Working Time of all equipment other than Rented Equipment and Operated Rented Equipment used on the Work on a Time and Material Basis at 60% of the 127 Rates.

.02 The Owner will pay the Contractor for the Working Time of Rented Equipment used on the Work on a Time and Material at 105% of the invoice price approved by the Contract Administrator up to a maximum of 60% of The 127 Rate. This constraint will be waived when the Contractor Administrator approves the invoice price prior to the use of the Rented Equipment.

.03 The Owner will pay the Contractor for the Working Time of Operated Rented Equipment used on the Work on a Time and Material at 105% of the Operated Rented Equipment invoice price approved by the Contract Administrator prior to the use of the equipment on the Work on a Time and Material Basis.

11.3.16 Section GC 8.02.05.08 of the General Conditions, Payment for Work by Subcontractors

Amended by deleting paragraph .01 and replacing it with the following:

.01 Where the Contractor arranges for Work on a Time and Material Basis, or a part of it, to be performed by Subcontractors on a Time and Material basis and has received approval prior to the commencement of such work, in accordance with the requirements of subsection GC 3.09, Subcontracting by the Contractor, the Owner will pay the cost of Work on a Time and Material Basis by the Subcontractor calculated as if the Contractor had done the Work on a Time and Material Basis, plus a 5% mark-up.

11.3.17 Section GC8.02.06 of the General Conditions, Final Acceptance Certificate,

Amended by the addition of the following:

.02 No certificate other than the Final Acceptance Certificate shall be deemed to imply approval of any part of the Work or of the Contractor's due performance of the Contract or any part thereof.

11.3.18 Section GC8.02.09 of the General Conditions, Liquidated Damages

Amended by deleting paragraph .01 and replacing it with the following:

- .01 a) It is agreed by the parties to the Contract that in case all the work called for under the Contract is not finished or completed by the completion date stipulated in the Tender Form, damage will be sustained by the Owner and that it is and will be impracticable and extremely difficult to ascertain and determine the actual damage which the Owner will sustain in the event of and by reason of such delay and the parties hereto agree that the Contractor will pay to the Owner the sum of Five Hundred Dollars (\$500.00) for liquidated damages for each and every working day's delay in finishing the work in excess of the dates of completion prescribed. It is agreed that this amount is an estimate of the actual damage to the Owner which will accrue during the period in excess of the completion dates stipulated. In addition to the above amount per day Liquidated Damages charge, the Contractor shall pay to the Owner in respect of additional site supervision, office supervision and administration caused by the delay in finishing the Work in excess of the completion dates stipulated.
- b) The Owner may deduct any amount due under this paragraph from any monies that may be due or payable to the Contractor on any account whatsoever. The liquidated damages payable under this paragraph are in addition to and without prejudice to any other remedy, action or other alternative that may be available to the Owner.

11.4 PAYMENTS

The provisions for payment are as noted in Section 11.3.11 above.

11.5 NIGHT, WEEKEND & HOLIDAY WORK

Working hours are to be in accordance with relevant Municipal By-Laws. No night work will be permitted except in the case of an emergency and then only with the written permission of the Engineer and to such extent as they deem necessary. However, the Engineer reserves the right to order any work under this Contract to be undertaken at night and the Contractor

shall comply with such an order and shall carry out all night work with adequate illumination and with due respect for the noise restrictions requested by local residents or authorities having jurisdiction consistent with the faithful performance of the work.

Night shall be defined as that time after sunset and before sunrise.

No Sunday work will be permitted except in the case of emergency and then only with written permission of the Engineer and to such extent, as they deem necessary.

Except in cases of emergency and then only with the consent in writing of the Engineer, the Contractor shall not work on any Saturday or Statutory Holiday. In the case the Contractor desires to work on a Saturday or Statutory Holiday he shall request in writing the permission of the Engineer. This request shall be at least four (4) days in advance of such holiday stating those places where such work will be conducted. In case the Contractor fails to give such notice in advance, no work within the terms of the Contract shall be done on such Saturday or Statutory Holiday. The Contractor is responsible for obtaining approval from authorities having jurisdiction over local noise bylaws for such work.

The above provisions shall not apply to any maintenance operations, which the Contractor is required to perform under this Contract or as required by the Engineer at any time including Nights, Saturdays, Sundays and Statutory Holidays.

Prior to moving off the job before each weekend, Public Holiday or any other non-working day, the Contractor shall erect all signs, barricades and lights so that they will remain in place during the period of absence. The roadway shall be graded to provide a smooth travelling surface and water and calcium chloride added where necessary or as directed by the Engineer.

The Contractor shall provide the Engineer with the name and telephone number of their project superintendent or other reliable supervisor who can be contacted during the Contractor's absence from the job. Such person shall be responsible for inspecting the job periodically during the Contractor's absence and shall check all signs, barricades and lights and repair the roadway surface as required. No additional payment will be made for this work.

11.6 DEFECTIVE WORK

The Contractor shall, at any time when so required by the Engineer, during construction or during the warranty period, make such openings, and to such extent through any part of the Work as the Engineer may direct, which he shall forthwith make good again to the satisfaction of the Engineer. Should the work so opened be found in the opinion of the Engineer, faulty in any respect, the whole of the expense, including the cost of inspection,

shall be borne by the Contractor, but if the work so opened up be found in perfect condition, the said expense shall be borne by the Owner.

All defective work or materials discovered by these or any other means must be forthwith wholly removed, and made good by the Contractor, to the satisfaction of the Engineer and the whole cost of such renewal, including the cost of materials, labour, and inspection shall be borne by the Contractor. Should the Contractor refuse to make such renewals as are ordered by the Engineer, then the Engineer will proceed with the work in any manner they may deem fit. The cost of such work shall be paid by the Contractor or deducted from any monies due, or if necessary, deducted from the Contractor or their Surety jointly or severally in any court of competent jurisdiction as a debt due to the Owner.

11.7 SITE MEETINGS

The Contractor shall attend a pre-construction meeting and bi-weekly meetings with the Contract Administrator at the contract site or as directed by the Contract Administrator to discuss the progress of the Work and co-ordinate the work of utilities. The Contractor's Superintendent shall attend this meeting. Minutes of Meetings shall be recorded and shall be binding on both parties to the Contract.

11.8 LABOUR CONDITIONS & FAIR WAGES

Labour Conditions and Fair Wages are to be in accordance with the current schedule.

11.9 WORKPLACE SAFETY & INSURANCE BOARD CLEARANCE CERTIFICATE

The Contractor shall provide the Engineer with a copy of the Workplace Safety and Insurance Board Clearance Certificate indicating the Contractor's good standing with the Board:

- Immediately prior to the Owner authorizing the Contractor to commence any Work.
- Prior to the issuance of a Payment Certificate
- Prior to the issuance of the Certificate of Substantial Performance.
- Prior to the expiration of the Warranty Period.
- At any other time when requested by the Engineer.

11.10 SILTATION & EROSION CONTROL MEASURES

The Contractor shall install siltation and erosion control measures in accordance with OPSS.MUNI 805 as required and as directed by the Engineer, prior to the start of any Work. All siltation and erosion control measures shall be inspected and maintained for the duration of the Contract.

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Special Provisions

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12 Special Provisions

These Special Provisions are based on Ontario Provincial Standard Specifications. The Standard Specifications together with the following Special Provisions shall apply to this Contract. The Special Provisions shall take precedence over the Standard Specifications.

The Work under this Contract shall include all work within the Limits shown on the drawings and in addition shall include the work on private property where required such as the grading of boulevards. The Engineer shall obtain permission to enter such properties when required.

SP1 GENERAL WORK

SP1.1 Scope

The Contractor shall perform all the general work covered by the following Specifications.

SP1.2 Schedule of Work

Upon being awarded the Contract, the Contractor shall forthwith supply to the Engineer for their approval a copy of their detailed planned Schedule of Work, showing clearly that the Work will be completed within the stipulated time. No work shall commence on the Contract until the Engineer has approved the Schedule of Work.

The Schedule of Work shall indicate proposed progress in 1-week periods for at least the following work:

- Excavation and removals;
- Strip and stockpile topsoil;
- Road crossing culverts;
- Watermain;
- Sanitary sewer.

SP1.3 Performance Bond & Labour and Materials Payment Bond

The Contractor shall provide bonds in accordance with the Instructions to Bidders.

SP1.4 General Liability & Automobile Liability Insurance

The Contractor shall provide insurance in accordance with the Instructions to Bidders. Proof of this insurance must be provided to the Engineer, prior to commencing the Work.

SP1.5 Permits & Fees

The Contractor shall obtain all necessary permits and approvals required for this Contract and pay all respective fees.

SP1.6 Layout Work

The Engineer shall provide the benchmark elevations and horizontal alignment for the Contractor.

The Contractor shall be responsible for the detailed layout of the work in accordance with the Contract Drawings.

The Engineer shall be notified 24 hours in advance of any layout work carried out and shall check same if they so desire. Checking of layout or failure to do so on the part of the Engineer in no way relieves the Contractor of full responsibility for construction to the proper location, alignment and grade.

SP1.7 Winter Work

No payment will be made for protection of the Work as required by these Specifications for Winter Conditions. The Contractor shall schedule their work to avoid placing concrete in Winter Conditions and to avoid freezing of granular material during the operations employing these materials.

SP1.8 Materials Supplied by the Contractor

The Contractor shall base their Tender on the materials specified as to quality and price. The Contractor may, however, after acceptance of their Tender, request permission to substitute alternative material where "other approved" is allowed in the specification. Should the Engineer not approve such alternative material, the Contractor shall have no claim whatsoever against the Owner.

All material supplied by the Contractor shall be new, in no case remanufactured or factory reconditioned and in no case recycled from the site unless specifically approved and tested by the Engineer.

SP1.9 Testing of Material

The Contractor shall submit samples of Granular materials and the mix designs of concrete and asphalt within two weeks after award of the Contract for approval by the Engineer.

No material shall be placed until approved.

Routine tests on materials will be carried out by the Engineer at no cost to the Contractor. When routine tests indicate materials do not meet specification the Engineer will require

documentary evidence to the effect that materials supplied by the Contractor comply with the terms of the Specifications. Such evidence must be provided by the Contractor in the form of a certified copy of a laboratory report from a recognized testing company acceptable to the Engineer. The Contractor shall pay for the entire cost of such testing including sampling and shipping of samples.

SP1.10 Temporary Water & Power

The Contractor shall make arrangements for the supply of temporary water and power.

SP1.11 Existing Utilities

The Contractor's attention is drawn to the presence of underground and overhead utilities, and private wells, in the area of the Contract.

The Contractor shall be responsible for obtaining information in regard to the exact location of buried utilities, including existing service connections. This shall include excavation of inspection holes if necessary.

The Contractor is responsible to coordinate with utilities (including Hydro One) to stabilize and protect overhead poles and all associated costs.

The Contractor must exercise necessary care in construction operations to safeguard utilities, water mains and sewers from damage. The Contractor will be liable for all damage to same occurring within or outside the Contract Limits caused by their operations.

The Contractor is hereby warned that the existing telephone and electrical cables will remain in their existing locations. Excavation in the vicinity of telephone cable may require lighter machines and in some case handwork.

If a permanent relocation or replacement of an existing utility becomes necessary, at the discretion of the Engineer, during the Work the Contractor shall co-operate with the Owner's forces or the Utility Company to allow them the opportunity to make the necessary alterations to their plant.

The Contractor shall be required to provide for maintenance of traffic around work performed by others by means of signs, lights, barricades and flagmen as required.

In the event that all necessary permanent relocations of utilities have not been completed prior to the time when the Contractor commences the Work, the Contractor will be required to co-operate with the Utility Companies and work around the utilities so that the existing services are protected until such time as such relocations are completed. No claims for extra payment or for additional Working Days will be allowed for this requirement.

It shall be the Contractor's responsibility to contact all Utility Companies regarding their scheduling of work.

The Contractor is hereby warned that the existing overhead poles are in very close proximity to the work area. It is the responsibility of the contractor to coordinate with the Utility Company to secure infrastructure while working in the vicinity of poles.

SP1.12 Dust & Silt Control

The Contractor will be responsible for dust control at all times during construction by watering and calcium application as directed by the Engineer. No separate payment will be made for calcium and water but shall be part of the General Work of the Contract.

The Contractor shall make provision for maintenance of the internal roads and municipal roadway during weekends and other non-working days, including street cleaning and placing water and calcium chloride for dust control, as instructed by the Engineer.

The Contractor will be responsible for sediment control during construction by sealing of all catch basin inlets and providing temporary drainage swales equipped with sediment control devices. This work shall be part of the General Work of the Contract.

The Contractor shall be responsible for mud tracked off the site. The mud mats used to stop mud tracking off site shall be maintained throughout the construction and any mud/soil tracked off site shall be cleaned as required to keep external road systems clean and safe for all traffic.

SP1.13 Disposal of Materials

The Contractor shall dispose of all waste surplus materials in the areas approved by the Engineer. The Contractor shall be responsible for all work and costs involved in disposing waste or excess material including trucking, access roads and levelling. All work shall be in accordance with OPSS.MUNI 180.

SP1.14 Traffic Control

The Contractor must cause as little interference as possible to traffic. The Contractor must have two lanes, a minimum width of 6 metres, open to traffic at night, weekends and statutory holidays. Excavations within 3 metres of lanes carrying traffic shall be backfilled with the specified material up to profile grade and compacted prior to closing down operations. During construction working hours, roads must be closed for the duration of the contract with the exception of emergency and local traffic. All methods of traffic control must meet with the approval of the Engineer.

Traffic control shall be as per the current Traffic Control Manual for Roadway operations by the Ministry of Transportation. Detours shall only be implemented when approved in writing by the Engineer and will require full signage as approved by the Engineer.

The Construction and warning signs shall be well lighted at night with battery operated flashing amber lights or other means approved by the Engineer.

The Contractor shall provide a watchman or other suitable employee to inspect and maintain the detour signs, barricades and pedestrian ramps on weekends and other times when the Contractor is not working.

The Contractor shall provide an adequate number of flagmen to direct traffic at all times during construction as approved by the Engineer.

Access to the site for ambulance, fire department, school board, County of Simcoe garbage collection and Canada Post must meet individual standards of access and must be maintained at all times. It is the contractor's responsibility to maintain all services, including picking up recycling boxes, garbage cans, moving to a designated and approved pickup location and returning containers appropriately.

SP1.15 Fencing

Snow fence shall be erected in areas where there exists, in the opinion of the Engineer, a danger to pedestrian or vehicular traffic. No separate payment will be made for fencing but shall be part of the General Work of the Contract.

SP1.16 Dewatering

The Contractor is responsible for all dewatering that may be required to produce a dry and stable trench. No separate payment will be made for dewatering but shall be part of the General Work of the Contract. If a Permit to Take Water is required, the cost of the Permit shall be borne by the Owner and the dewatering measures by the Contractor.

SP1.17 Road Occupancy Permits

Prior to any work being undertaken, the Contractor shall obtain and pay for road occupancy permits from the appropriate municipality of regional authority. The permits obtained shall be taken out in the name of the Contractor.

SP1.18 As-Built Drawings

The Contractor shall provide as-built drawings and information through the course of the work ready for review by the Engineer at any time. The drawings and information shall be reviewed with every progress claim.

- A clean set of “approved for construction” with red line revisions showing the as-built information.
- Storm sewer information to include: swing ties and elevation of inverts for all structure connections, services, pipe @ 50 metre intervals, structures (to centre of frame and grate, size, type and class of pipe).
- Rural road information to include: culvert inverts, ROW cross-sections at 50 metre stations.
- Urban road information to include: ROW cross-sections at 50 metre stations.
- Drawings shall be signed by the author.
- Drawings may be accompanied by digital record.
- Swing ties shall be at least two measurements from other surface elements of the work and the time being located.

SP1.19 Measurement & Payment

No measurement of quantities will be made for the General Work. No direct payment will be made for any of this General Work. The Contractor shall allow in the unit prices bid for all labour, material and equipment necessary for the general work described herein or specified elsewhere in the contract.

SP2 CLEARING AND GRUBBING

Work to be done in accordance with OPSS.MUNI 201.

SP3 HEAVY DUTY SILT FENCE

The scope of work shall include:

- Supply, installation, inspection, maintenance and removal of heavy duty silt fence as shown on the Contract Drawings and/or as directed by the Contract Administrator.
- Inspect, maintain and repair the silt fence on a bi-weekly basis and following each rain event.
- Provide a written inspection and maintenance report on a bi-weekly basis and following each rain event.

Work to be in accordance with OPSS.MUNI 805, OPSD 219.130 and OPSD 219.131.

The silt fence shall be erected prior to any other work and removed after restoration and ground cover is firmly established.

No Work shall be carried out beyond the silt fence unless approved or directed by the Contract Administrator.

Measurement for payment shall be plan quantity and the unit of measurement is metres.

Progress payments will be made as follows:

- 50% for installation;
- 30% for on-going inspection maintenance and maintenance reports; and
- 20% for removal, or reinstatement to like new condition at Substantial Performance.

Payment at the Contract unit price shall be full compensation for all labour, equipment and material to do the work.

Payment at the Contract unit price shall be full compensation for all labour, equipment and material to do the work.

SP4 STRIP TOPSOIL

The scope of work shall include:

- Strip topsoil from all work areas as indicated on the Contract Drawings and/or as directed by the Contract Administrator.
- Excavation, loading, trucking and disposal of topsoil at a suitable off-site location.
- Dispose of all topsoil waste/by product offsite.

Work to be in accordance with OPSS.MUNI 180 and OPSS.MUNI 206.

Measurement for payment shall be plan quantity and the unit for measurement is square metres.

Payment at the Contract unit price will be full compensation for all labour, equipment and material to do the work.

SP5 REMOVAL, DISPOSAL, RELOCATION, REINSTATEMENT

The scope of work shall include:

- Remove and dispose of driveway asphalt, granulars, structures, pipes, trees, etc. or remove and store safely in protected area items and materials described as necessary to suit new road alignment and construction.
- Remove, store and replace/reinstate existing mailboxes, signs, landscape elements, paving stone driveways, street furniture, fencing and gates, posts and barricades etc. as necessary to suit new construction alignment and provide photo diary of existing condition and replacement/reinstatement.
- Joints with existing asphalt or concrete which will not be removed shall be saw-cut.
- Reinstate elements disturbed by construction to existing or better conditions and provide photo diary of existing condition and reinstatement.
- Relocate garbage and recycling weekly for collection, return empty bins to correct properties.

All items to be restored must be temporarily stored and protected in a manner to prevent damage and facilitate reinstatement to pre-existing or better condition.

Work to be in accordance with OPSS.MUNI 180 and OPSS.MUNI 510.

There will be no measurement for payment and the payment shall be lump sum.

Payment at the Contract price will be full compensation for all labour, equipment and material to do the work.

SP6 SURFACE COURSE HOT MIX ASPHALT

The scope of work shall include:

- Sweeping and/or cleaning of binder course asphalt prior to placement of surface course asphalt, as required to ensure proper adhesion.
- Grind and remove temporary ramping as required.
- Adjustment of all structure frames and grates/covers to surface course asphalt grade, including reinstatement and applicable compaction of granular base and binder course asphalt.
- 300 mm wide by 40mm deep transverse lap joint where existing asphalt is thicker than 75mm. Otherwise, butt joint to match existing asphalt. All longitudinal joints shall be butt joints.
- At all joints, existing asphalt shall be saw cut to provide a straight edge. No payment will be made to re-saw cut edges that were damaged due to construction activity.
- Supply and placement of tack coat at all vertical and horizontal joints including centreline joint, structures, as required to ensure proper adhesion of surface course asphalt. Tack coat shall be placed on the entire surface of the binder course asphalt prior to placing the surface course asphalt.
- Supply and place the specified depth of surface course hot mix asphalt and compact as specified in OPSS.MUNI 310 Table 10 as shown on the Contract Drawings and/or as directed by the Contract Administrator.
- Supply and placement of Type B curb of specified depth and compacted as specified in OPSS.MUNI 310 Table 10.

Work to be in accordance with OPSS.MUNI 310, OPSS.MUNI 1103, OPSS.MUNI 1150 and OPSD 601.010.

Contractor to provide mix design 2 weeks prior to placement of surface course asphalt for review by the Contract Administrator.

All edges of pavement and lane joints shall be laid out prior to placement of asphalt and all longitudinal pavement joints shall be placed in accordance with the lane width and taper locations indicated in the Contract Documents.

Contractor to take all measures required to prevent overspray and tracking of tack coat onto curbs, sidewalks, driveways, adjacent roads etc. The Contractor is responsible for removal at no additional cost to the Contract.

The Contract unit price for surface course hot mix asphalt will remain in effect for two years,

subject to asphalt cement price index adjustments as described within OPSS.MUNI 310, Appendix 310-B.

If the asphalt surfaces settle in excess of 20 mm or differentially during the warranty period, the Contract Administrator shall order the area cut out and replaced at no extra cost.

Measurement for payment shall be plan quantity and the unit of measurement is square metres for road width, and linear metres for gutter.

Payment at the Contract unit price shall be full compensation for all labour, equipment and material to do the work.

SP7 BASE COURSE HOT MIX ASPHALT

The scope of work shall include:

- Fine grading and compaction of the granular base material to the satisfaction of the Contract Administrator immediately prior to placing binder course asphalt.
- Supply and place the specified depth of binder course hot mix asphalt and compact as specified in OPSS.MUNI 310 Table 10 as shown on the Contract Drawings and/or as directed by the Contract Administrator.
- At all joints, existing asphalt shall be saw cut to provide a straight edge. No payment will be made to re-saw cut edges that were damaged due to construction activity.
- Supply and placement of tack coat at all joints, structure frames, and on all new and existing surfaces between lifts of binder course asphalt as required to ensure proper adhesion of binder course asphalt.
- Installation of temporary ramping as required to facilitate vehicular and pedestrian traffic.

Work to be in accordance with OPSS.MUNI 310, OPSS.MUNI 1103 and OPSS 1150.

Contractor to provide mix design 2 weeks prior to placement of binder course asphalt for review by the Contract Administrator.

All edges of pavement and lane joints shall be laid out prior to placement of asphalt and all longitudinal pavement joints shall be placed in accordance with the lane width and taper locations indicated in the Contract Documents.

The Contract unit price for binder course hot mix asphalt will remain in effect for two years, subject to asphalt cement price index adjustments as described within OPSS.MUNI 310, Appendix 310-B.

Contractor to take all measures required to prevent overspray and tracking of tack coat onto curbs, sidewalks, driveways, adjacent roads etc. The Contractor is responsible for removal at no additional cost to the Contract.

If the asphalt surfaces settle in excess of 20 mm or differentially during the warranty period, the Contract Administrator shall order the area cut out and replaced at no extra cost.

Measurement for payment shall be plan quantity and the unit of measurement is square metres.

Payment at the Contract unit price shall be full compensation for all labour, equipment and

material to do the work.

SP8 GRANULAR 'A'

The scope of work shall include:

- Supply, place and fine grade the specified depth of Granular A and compact to 100% of material's Standard Proctor Maximum Dry Density (SPMDD), as shown on the Contract drawings and/or as directed by the Contract Administrator.
- Preparing and proof rolling of Granular A to the satisfaction of the Contract Administrator prior to placement of Binder Course Asphalt.

Work to be in accordance with OPSS.MUNI 314 and OPSS.MUNI 1010.

Contractor to submit grade checks in accordance with OPSS.MUNI 314, certifying the grade, cross-section and crossfall (checked a minimum of every 20 m) are within the applicable horizontal and vertical grading tolerances, prior to the placement of Binder Course Asphalt.

The Contractor shall identify source of granular material for sampling by the Owner's Geotechnical Consultant a minimum of two weeks days prior to placement. The Contractor must arrange a representative and suitable equipment (i.e. loader) to be onsite during sampling (whether samples are taken from the source, or onsite) by the Geotechnical Consultant. If material fails gradation, at the Contract Administrators discretion, the Contractor may be responsible for the cost of all further testing by the Geotechnical Consultant.

Stockpile locations, if required, shall be proposed by the Contractor for review and approval by the Contract Administrator.

Granular A that becomes contaminated due to Contractor's activity shall be removed and replaced at no extra cost to the Contract.

Granular A that is frozen (at or below 0°C) shall not be placed in any location where Granular A is specified.

Granular A material that is stockpiled on site is to be removed from the site prior to contract completion or as directed by the Contract Administrator.

No additional payment will be made for the supply of water and/or calcium chloride required for compaction and/or dust control.

Measurement for payment shall be plan quantity and the unit of measurement is square metres. Provisional measurement shall be actual approved quantity and unit of measurement is tonnes.

Payment at the Contract unit price shall be full compensation for all labour, equipment and material to do the work.

SP9 GRANULAR 'B'

The scope of work shall include:

- Supply, place and fine grade the specified depth of Granular B Type II and compact to 100% of material's Standard Proctor Maximum Dry Density (SPMDD), as shown on the Contract drawings and/or as directed by the Contract Administrator.
- Preparing and proof rolling of Granular B to the satisfaction of the Contract Administrator prior to placement of any Granular A.

Work to be in accordance with OPSS.MUNI 314 and OPSS.MUNI 1010.

Contractor to submit grade checks in accordance with OPSS.MUNI 314, certifying the grade, cross-section and crossfall (checked a minimum of every 20 m) are within the applicable horizontal and vertical grading tolerances, prior to the placement of Granular A.

The Contractor shall identify source of granular material for sampling by the Owner's Geotechnical Consultant a minimum of two weeks prior to placement. The Contractor must arrange a representative and suitable equipment (i.e. loader) to be onsite during sampling (whether samples are taken from the source, or onsite) by the Geotechnical Consultant. If material fails gradation, at the Contract Administrators discretion, the Contractor may be responsible for the cost of all further testing by the Geotechnical Consultant.

Stockpile locations, if required, shall be proposed by the Contractor for review and approval by the Contract Administrator.

Granular B that becomes contaminated due to Contractor's activity shall be removed and replaced at no extra cost to the Contract.

Granular B that is frozen (at or below 0°C) shall not be placed in any location where Granular B is specified.

Granular B material that is stockpiled on site is to be removed from the site prior to contract completion or as directed by the Contract Administrator.

No additional payment will be made for the supply of water and/or calcium chloride required for compaction and/or dust control.

Measurement for payment will be plan quantity and the unit of measurement is square metres. Provisional measurement shall be actual approved quantity and unit of measurement is tonnes.

Payment at the Contract unit price shall be full compensation for all labour, equipment and material to do the work.

SP10 RIPRAP ON FILTER CLOTH

The scope of work shall include:

- Excavation, grading and preparation of the area to be rip-rapped to the specified depth of rip-rap below proposed elevations and/or as directed by the Contract Administrator.
- Supply and install rip-rap (nominal size and depth as specified) on Terra Fix 270R filter fabric.
- Overlap of filter fabric shall be minimum 500 mm and shall be pinned together, all vertical and horizontal surfaces shall be covered prior to placing rip-rap stone.

Work in accordance with OPSS.MUNI 511.

Measurement for payment shall be plan quantity and the unit of measurement is square metres.

Payment at the unit price shall be full compensation for all labour, equipment and material to do the work.

SP11 FINE GRADE TOPSOIL & SOD

The scope of work shall include:

- Fine grade subgrade.
- Supply and place imported screened topsoil where sod or seed and mulch is required.
- The minimum depth of topsoil to be 100 mm unless otherwise noted.
- Supply and place no. 1 nursery sod where existing ground cover was disturbed.
- Maintain slopes and water ground cover during rooting stage of sod or germination and initial growth of seed areas through first two cuttings of ground cover (minimum one month).
- Cut ground cover twice following rooting or germination (minimum time between cutting: 1 week).

Work to be in accordance with OPSS 802, 803 and 804.

All topsoil placed during the Contract that becomes contaminated due to the Contractor's activities shall be removed and replaced at no extra cost to the Contract.

No additional payment will be made for watering or cutting of sodded areas.

Measurement for payment shall be plan quantity and the unit of measurement is square metres.

Payment at the Contract price shall be full compensation for all labour, equipment and material to do the work.

SP12 ROAD CROSS CULVERTS

The scope of work shall include:

- Excavate, supply, installation and backfilling of all culverts as shown on the Contract Drawings and/or as directed by the Contract Administrator.
- Supply and installation of anti-seepage collars (clay seals) in accordance with OPSD 802.095.
- Culvert installation shall include filter cloth wrap of all couplers, Granular A pipe embedment and frost tapers. All granular material shall be compacted to 100% of the material's Standard Proctor Maximum Dry Density (SPMDD).
- All culverts installed shall come with square cut-end finish.

Where culverts are placed on previously filled and/or disturbed ground the trench bedding

shall be compacted to a minimum of 98% of the material's SPMDD.

Trench backfill shall be select native material unless deemed unsuitable by the Contract Administrator, in which case imported select subgrade material shall be used. The contractor shall provide access to the trench for compaction testing by the geotechnical consultant. The contractor shall ensure compaction results meet or exceed project specifications and shall re-compact any areas which fail until such time as passing results are achieved.

Work to be in accordance with OPSS.MUNI 421, OPSD 803.031 and Municipal Standards.

Measurement for payment shall be plan quantity and the unit for measurement is metres.

Payment at the Contract unit price shall be full compensation for all labour, equipment and material to do the work.

SP13 WATERMAIN

The Ontario Provincial Standard Specification 401, 441 and 442 shall apply except as modified below:

The Contractor shall submit to the Engineer, prior to the start of construction, shop drawings for watermain pipes for review and approval. Shop drawings shall include pipe dimensions, maximum internal and external loadings, pipe class details, elevations, bends and restraining joint details. Design and drawings must be stamped by a Professional Engineer licensed to practice in the Province of Ontario.

SP13.1 Pipe and Fittings

PIPE

All watermains shall be PVC Class 235 (DR18) bell and spigot joints and rubber ring gaskets conforming to CSA B137.3, AWWA C900, NSF-61 and ASTM.

Pipe diameter can be summarized as follows:

- Ramara Business Park Road → 150mm dia. PVC Watermain

FITTINGS

Shall conform to CSA B137.2/B137.3, AWWA C900/C905, NSF-61 and ASTM.

All fittings shall be restrained to prevent horizontal and vertical movement using pipe manufacturer approved mechanical joint restraints.

Anchor Tee's shall be compatible with watermain pipe material and class and shall be ductile iron mechanical joint to AWWA C110 standard with cement mortar lining to CSA B131.4.

All ductile iron pipe and fittings to be protected with Denso Anti-Corrosion Protection in accordance with manufacturer's installation recommendations.

Couplings shall be assembled with a clear gap of 25 mm between the ends of the pipes and should allow for a joint expansion of at least 25 mm. Final bolt tightening shall be done with torque

wrenches set for torque recommended by coupling manufacturer.

Tie rods, bolts and nuts shall consist of corrosion resistant materials. Bolts and nuts shall be Cor-Blue T Bolt and nut. Each bolt shall be provided with sacrificial zinc anodes equivalent to Duratron "Sac Nut" or Type 90 P 190 "Protecto-Caps".

THRUST RESTRAINTS

All fittings (i.e., tees, plugs, caps, bends, couplings, etc.), valves and for all line and grade changes of ten degrees (10°) or over and as indicated on the contract drawings shall be restrained using mechanical restraints to prevent horizontal and vertical movement.

Concrete thrust blocks are not permitted.

Design restraining joints to withstand surge pressure including pipe movement due to thermal expansion and contraction.

Minimum restrained length for every fitting shall be 6.1m and a minimum of one pipe-to-pipe joint on either side of each fitting shall be restrained.

All buried restraints, tie rods, bolts and nuts are to be protected using Denso Protection in accordance with manufacturer's recommendations. Denso protection includes Denso Paste Primer, or Priming solution (for cold temperature application), Densyl Mastic and Densotape LT Tape.

Construction will not be permitted to proceed until the restraint submittal is received and reviewed by the Engineer. Review of the drawings by the Engineer will in no way relieve the Contractor of the responsibility for errors in the submitted drawings or deviations from the contract documents.

All watermain fittings are to be "lead free" and shall comply with NSF/ANSI 61: Drinking Water System Components – Health Effects (2007 as amended). All fittings must be certified compliant by an industry recognized and accredited third party per the requirements of NSF/ANSI 61.

TRACER WIRE

Tracer wire is to be installed on all watermain pipes for locating purposes. Tracer wire shall be solid 10-gauge TWU copper wire specifically manufactured for direct bury and shall be installed along the top of the pipe, strapped to the pipe at 6 m intervals.

All tracer wire welds shall be made to ensure zero pull-out and must be completely sealed using a mastic sealer specifically manufactured for underground use (T.C. Mastic or reviewed equal). The mastic sealer must be applied in a thick coat (min. 12 mm thick) and shall be protected from contamination by backfill material with the use of a plastic membrane.

Tracer wire shall be suitably terminated on the inside of all structures to allow for connection of toning equipment by Township Staff. Where termination on the inside of the structure is not feasible, the Contractor shall provide a PVC conduit and termination box on the outside of the structure at a location approved by the Engineer. The termination box shall be suitably protected and secured to the satisfaction of the Engineer. No additional payment will be provided for materials and labour required to modify the termination point as required by the Engineer.

The wire is to be installed between each valve and/or the end of the new PVC watermains. Splices

in the wire between valves is not permitted.

The Contractor must test the tracing wire for conductivity and must be witnessed by the Region Inspector. If the tracing wire is not continuous the contractor shall, at his own expense, replace or repair the wire, prior to placement of final asphalt.

CATHODIC PROTECTION

All metallic components in the water distribution system shall be protected from corrosion.

The use of Petrolatum Coatings AWWA C217 (tape, wrap, mastic, and paste) will be allowed in place of anodes for all fittings.

The use of polyethylene encasement per AWWA C105/A21.5-93 will not be permitted in place of anodes or protective coatings.

For new fittings and appurtenances (joints, bends, hydrants, restraints, etc.), all sacrificial anodes shall conform to ASTM B-418 Type II and be made of high-grade electrolytic zinc, 99.99% pure.

Accepted methods of installation for cathodic protection using sacrificial anodes are as follows:

a) New installations:

i) All metallic watermains, fittings and appurtenances shall be installed with a minimum of one anode per length of pipe and one anode per electrically isolated appurtenance and installed in accordance with OPSS 442 and OPSD 1109.010 & 1109.011. Anode installation is not required within valve chambers, drain chambers, air release chambers or swab ports.

ii) All weld connections shall be coated with "TC Mastic" or approved equivalent.

iii) Thermite weld all anodes to new or existing metallic watermains fittings and appurtenances with an arc stud welding gun at approved settings based on watermain type and size or a Cadwelder and CA-15 cartridge (or equivalent). Anode installation shall be performed in accordance with the manufacturer's instructions.

iv) Connecting anodes to bolts is NOT permitted as an acceptable method of installation.

v) Sacrificial anodes installed on metallic watermain pipe shall have packaged magnesium casting with a minimum weight of 14.5kg and a length of approximately 560mm.

vi) Sacrificial anodes installed on fittings and appurtenances shall be a minimum weight of 11 kg zinc.

vii) Where new pipe (metallic or other) is to be connected to existing ductile iron or cast-iron pipe, a 14.5 kg magnesium anode is to be connected to the first length of existing pipe as per OPSS 442 and OPSD 1109.010 & 1109.011.

SP13.2 Open-Cut Installations

The cost to install the watermain by the open cut method shall include, but not be limited to, the following:

- Piping shall be installed in trenches constructed by "Vertical Open Cut Method" complying with the current regulations of the Occupational Health and Safety Act. Vertical trenching using trench box, close sheeting, or other approved methods.
- Excavation of the trench in any material, including frozen earth, shale of any thickness and shale with any thickness of limestone layers.
- Offsite removal of frozen earth, cobbles, shale, limestone, and excess excavated earth.
- Dewatering, groundwater control and treatment of water by any means prior to disposal.

- Installation of the watermain pipe, crushed limestone Granular 'A' bedding and pipe cover compacted to 100% SPMDD.
- Backfilling trench with Granular B Type II or approved native earth and compaction.
- Locating all utilities and services and supporting all utilities.
- Supporting existing poles, underground utilities, infrastructure, and services.
- Temporary surface drainage.
- Mud cleaning, noise, and dust control.
- Saw-cut existing asphalt road and concrete base prior to installation of the watermain.
- Removals and restoration as specified in the Contract Documents; and
- Testing and repair of deficiencies.

BACKFILLING IN PIPE ZONE

All trenches shall be backfilled to a depth of 300 mm above the top of the pipe with materials and in a manner consistent with the type of bedding specified. Compaction of backfill material around the pipe shall be by mechanical vibratory plate tampers in 150 mm lifts from the bottom of the trench. Compaction of all bedding and cover material shall be 100% Standard Proctor Maximum Dry Density (SPMDD) (ASTM D698). The material shall be deposited in the trench for its full width on each side of the pipe and fittings simultaneously. The backfill operation shall then be completed with special care in order to avoid injury to the pipe, fittings, and joints.

Bedding for all mains shall be 19 mm crushed limestone Granular 'A' meeting the requirements of OPSS 1010 and compacted to 100% SPMDD. There will be no exception to this requirement.

TRENCHING, DEWATERING, BACKFILLING AND COMPACTING

The requirements of OPSS 441.07.08 & 441.07.13 shall apply except as modified below:

Trench backfill material shall be Granular B Type II to proposed subgrade compacted to 98% of the Standard Proctor Maximum Dry Density (SPMDD). Backfill under grass areas shall be selected native material compacted to 95% of the SPMDD.

The Contractor shall review the geotechnical and hydrogeological report to determine the requirements for dewatering. The Contractor is responsible for the supply, design, labour, materials, equipment, and services necessary for the installation of dewatering systems for the removal and control of water within the trenches and excavations during construction (well pointing, if required). The cost of the watermain/ wastewater main shall include the installation and removal of the dewatering system, and all pumping required and as part of this item. No additional payment will be made for dewatering systems for open cut installations.

GRANULAR MATERIALS

The requirements of OPSS 314 shall apply except as otherwise specified by the following:

Granular 'A' shall be drawn from an approved source which meets the gradation requirements of OPSS 1010. All Crusher Run Granular 'A' limestone material used on this project shall be drawn from an approved source and shall be processed from crushed limestone meeting the granular gradation requirements for OPSS 1010.

All Granular 'B' material used on this project shall be Granular B Type II and shall be drawn from an approved source meeting the Granular 'B' gradation requirements for OPSS 1010.

Recycled materials such as slag, concrete, glass, or asphalt will not be permitted in any granular provided for this project.

TRENCH PROTECTION

The Contractor shall provide, sheeting, shoring, bracing, draining, pumping, and dewatering equipment at all times as required to maintain a dry, stable trench condition. Should the trench undermine during the installation due to inadequate constructability of trench by the Contractor, the additional cost to repair such settlements and or asphalt shall be borne by the Contractor. Trench protection costs shall be included in the tendered unit price for the watermain item. The service trench shall be backfilled and restored as per the restoration details provided within this specification. The Contractor shall refer to the geotechnical report for shoring and dewatering requirements. No additional payments will be made for trench protection.

PIPE SUPPORTS AT STRUCTURES

Where pipe is installed into a structure across an excavated area, the pipe shall be supported by one of the following methods to the satisfaction of the Engineer:

- The excavation below the pipe shall be backfilled with fill concrete to undisturbed soil utilizing mass concrete.
- A reinforced concrete beam capable of supporting the pipe and overburden between the structure and undisturbed soil shall be installed. Before placing the beam, the backfill must be placed to the Engineer's satisfaction to the level of the underside of the beam. The beam shall be supported on a corbel or cast into the structure using a pocket. Contractor to provide engineered details of supporting beam stamped by an Engineer licensed in the Province of Ontario prior to construction.
- Pipes shall have a 100mm sand cushion between the pipe and concrete.

No additional payment will be considered for pipe supports at structures. The cost of supports is to be included in the watermain installation.

ALIGNMENT AND GRADE

The watermain depth shall be a minimum of 1.7 m cover, or as shown on the Contract Drawings.

In areas where this depth cannot be achieved due conflicts with existing utilities, pre-insulated watermain and/or water services shall be installed in accordance with the Township of Ramara's Approved Manufacturer's Products List for Water Systems.

All pipes shall be installed and maintained to the required lines and grades. Fittings and valves shall be at the required locations with joints centered, and all valve stems plumb. No deviation shall be made from the required line or grade except with the written consent of the Inspector.

Temporary support, adequate protection and maintenance of all underground and surface utility structures, drains, sewers, and other structures encountered in the progress of the work shall be furnished by the Contractor in cooperation with the Owners of such utility structures. When necessary, to determine the location of existing underground utility structures, the Contractor, after an examination of available records, shall make all explorations and excavations for such purpose as may be directed by the Site Inspector at no additional cost to the Owner.

Where changes are necessary in the grades shown on the drawings, then an adjustment shall be

made according to the price tendered. The unit price quoted shall include the supply and placement of an equivalent volume of additional Granular 'B' required to backfill the extra trench depth resulting from the grade change.

The amount of pipe deflection of joints and couplings shall not exceed 50% of that recommended by the manufacturer.

No additional payment for the watermain or excavation will be made for any changes to the grade less than 0.6 meters.

HANDLING OF PIPE

The Contractor shall use every precaution to prevent damage to the pipe and/or its exterior coating. No metal tools or heavy objects shall be unnecessarily permitted to come in contact with the pipe. Any damage to the pipe from any cause during installation and before acceptance shall be repaired as directed by the Site Inspector. Material will not be repaired shall be removed and replaced at the Contractor's expense.

All pipes shall be checked before being lowered into the trench to ensure that no foreign material, manufacturer's defects, or cracks exist that might prevent the proper jointing of the pipe or interfere with its intended operation. Pipe and fittings shall be carefully lowered into the trench by means of derricks, ropes or other tools or equipment in a manner that will prevent damage to the pipe and injury of workmen.

All pipes shall be jointed in strict accordance with the manufacturer's recommended practice. Pipe shall be pulled or pushed only by hand or power operated winch. A backhoe or excavator shall not be used for pushing pipe.

The open end of the pipe in the trench shall be suitably covered to prevent entrance of trench water and other material during periods when pipe is not being installed.

Precautions shall be taken to ensure that displacement of the pipe in the trench does not occur through soil displacement or flotation due to the presence of trench water. Pipe that has been displaced shall be removed from the trench and re-installed at the Contractor's expense.

Pipe cutting and machining shall be done in the manner recommended by the pipe manufacturer, employing only those tools designed for this purpose.

All pipe and fittings shall be stored so as to prevent damage by crushing or piercing. If pipe is to be stored outside for periods of longer than 30 days, the pipe shall be covered with an opaque material to protect it from prolonged exposure to sunlight. The Contractor must also provide for air circulation under the protective material.

TRENCH CROSSINGS

Pipe installed across previously backfilled trenches shall be supported with Granular "A" compacted in 150 mm layers from the bedding of the previously placed pipe up to the mid-diameter of the pipe for a width at least equal to the trench width at the top of the pipe. The trench crossing shall be made with maximum 1200 mm lengths of pipe with a minimum of three (3) flexible couplings in the trench crossing area.

CLEARANCES BETWEEN PIPES

The normal minimum clearance between the pipe and other pipes or structures shall be 500 mm. If the clearance must be less than 500 mm, detail of the change by the Contractor and approval for the installation from the Site Inspector is required. Other pipes exposed in the trench shall be properly supported with supplier-approved supports prior to backfilling of the trench.

INSPECTION

Work performed on the jointing of pipe and accessories shall be carefully inspected. The Site Inspector may use any method of inspection necessary to establish quality control and ensure adherence to the specifications, and he shall have the right to accept or reject any joint or weld not meeting the specified requirements.

PRESERVATION AND PROTECTION OF EXISTING FACILITIES

The provisions in OPSS 410.07.03, 441.07.04 and 491 shall apply and as amended below:

All existing underground and above ground facilities shall be protected during construction of the new watermain, and service connections. This shall include but not be limited to the existing sewers, catch basins, laterals, manholes, existing watermains and all shallow utilities,

As per the Construction Regulation (Ontario Regulation 213/91), Section 228, before the start of any excavation, all existing underground utilities in and near the area to be excavated, shall be accurately located, and marked. The Contractor is responsible for obtaining locates and must be sure to leave adequate time, so that all existing infrastructure is marked, and the excavation can proceed safely.

It is the Contractor's responsibility to protect these utilities and services during construction, and to coordinate with the local utilities to support their existing plant as required during construction. No additional payment for the supporting of existing underground plant shall be made. Any damage to existing utilities due to negligence shall be the Contractor's responsibility and shall be rectified expeditiously to minimize downtime.

It is the Contractor's responsibility to verify the completeness of the information shown on the Contract Drawings, and to determine the exact location, size, and number of such services prior to the start of construction. Hydro-vac excavation may be utilized across the site to confirm vertical and horizontal utility locations and will be paid for under the appropriate provisional item. No additional payment will be made as a result of a difference in location or depth of a utility in the field from that shown on the drawings or for a utility not shown on the drawing.

No excavation shall be performed within a 2.0m radius of a hydro pole or anchor without adequate support as determined by the appropriate Hydro utility, performed by a qualified line Contractor (such as K-Line, Black and Macdonald, etc.), and provided by the Contractor at his cost.

CONSTRUCTION IN THE VICINITY OF GAS MAINS

The Contractor shall take proper precautions to avoid damage to all existing natural gas pipelines located within the project limits. If any damage to the pipelines occurs, it must be reported immediately and all work on site suspended until Enbridge Gas determines it safe to continue and makes the necessary repairs.

All known underground structures paralleling natural gas pipelines must maintain a separation distance of at least 900mm, and all underground structures that cross natural gas pipelines must maintain a separation distance of at least 300 mm.

Before excavating with mechanical equipment or driving over the gas mains with construction equipment, the Contractor shall arrange to obtain locates and establish the location of all other underground structures in the work area by calling Ontario One Call 1-800-400-2255.

The Contractor shall arrange for Third-Party Observation by an Enbridge Gas inspector for all construction activities (excavating, backfilling, etc.) near the pipelines. At least 72 hours notice is required to arrange for Third Party Observation. Preference is to have a site meeting once locates have been obtained to discuss timelines and the Third-Party Observation requirements well in advance of the 72-hour notice.

If excavation is necessary over, under, near or parallel to the pipelines, extreme caution must be observed. The Contractor must not excavate mechanically within 1.0m laterally of a pipeline until the Contractor has exposed the pipeline by hand, and positively identified it. Mechanical excavation within 1.0 m may only be permitted, as directed by the Enbridge Gas inspector. Under no circumstances will mechanical excavation be permitted within 300 mm of the pipeline.

For excavation below a natural gas pipeline, the maximum allowable unsupported pipe span is 7.0 m. For unsupported pipe spans exceeding this length, a suitable support design (temporary) will be directed by the Enbridge Gas inspector.

The Contractor must confirm the depth of all gas pipelines by hand digging or using a locator under Third-Party Observation by an Enbridge Gas inspector. Elevations to be provided by the Contractor.

The Contractor shall notify Enbridge Gas of any contact with the pipelines or their coating (gouges, scratches, nicks, etc.) in order that damages to the pipelines, if any, may be assessed.

Before backfilling commences, Enbridge Gas' inspector will complete an inspection of the pipeline, including condition of the coating. Backfill material above below the pipeline is to be free of rocks. Sand or select material shall be used within 300 mm of the pipeline. Hand-held compaction equipment must be used within 1.0m of the pipeline.

The Contractor will be responsible for all damages to the pipelines arising in any manner from work performed during construction.

SP13.3 Watermain or Water Service Insulation (Shallow Bury)

Watermains which cannot be constructed with the specified minimum cover (1.7m) will be insulated in accordance with MOE document "Guidelines for Servicing in Areas Subject to Adverse Conditions".

For below grade insulation, rigid foam slab insulation placed above the watermain can be used. The insulation material will be polystyrene foam. In general, the thickness of the insulation should be 25mm for every 300mm reduction in the depth of cover. A maximum reduction of 0.6 meter in depth will be permitted before other alternatives must be considered.

Measurement of extruded expanded polystyrene pavement insulation shall be by area in square meters.

SP13.4 Connections to Existing Watermain

The provisions in OPSS 441.07.22 shall apply and as amended below:

The Contractor should note that Township of Ramara's System Operations staff must perform the operation of all existing valves.

The opening and closing of any valves should be co-ordinated with Township of Ramara's operator. A minimum of 48 hours notice shall be given to Township staff to arrange for personnel to be on site. All residences disrupted in their water service shall be notified a minimum 48 hours prior to shut down.

The Contractor shall dig test holes at proposed connection points to existing watermains a minimum of two (2) weeks prior to making final connections to confirm location, size, depth, and material of existing watermain. Price of test holes shall be included in cost of completing connection of new watermain to existing watermain.

The Contractor will be required to contact all property owners a minimum of 2 weeks prior to planned watermain connection to determine optimal time of service disruption. Connection work shall be completed when the impact of water service disruption is minimized.

The Contractor shall not hook up to the existing watermain until all testing has been completed and approved. A cap/plug will be installed, and a temporary connection will be made with a jumper and backflow preventer.

All costs associated with cutting, draining, removal and disposal of existing watermain in order to facilitate the connections will be considered part of the work including plugging and abandoning the existing watermains as required. Only connections to the existing watermains that have been identified in the 'Quantity and Price Schedule' will be paid for under the 'Connections to Existing Watermain' item.

All removal and restoration works shall be as per the requirements in the Contract Drawings.

SP13.5 Watermain Commissioning and Testing

Commissioning, disinfection, and testing by a third party for all new watermain installations shall follow AWWA C651-14, and Township of Ramara requirements.

COMMISSIONING AND ISOLATION PLAN

The Contractor shall submit a commissioning plan to the Contract Administrator detailing the connection locations, swabbing locations, hydrostatic testing, chlorination methods, disposal of water including erosion and sediment control, and final connection methods for each phase of commissioning including methodology for wet tapping of new water services. This plan must be agreed upon by all involved parties prior to the procedures being implemented on site.

The approved Commissioning Plan will be used as a basis for preparation of an Isolation Plan by the Township. The Commissioning Plan shall ensure the necessary detail at connecting points to enable preparation of such Isolation Plan.

The Contractor shall also submit, prior to the start of construction, their Commissioning, Testing and Disinfection Procedure for review and approval. The Contractor shall include detailed plans for hydrostatic and leakage testing, swabbing of main, and flushing and disinfecting procedure, including the method of disposal of chlorinated water.

OPERATION OF EXISTING WATER SYSTEM

The Contractor should note that Township of Ramara's System Operations staff must perform the operation of all existing valves. A minimum of 72-hours notice shall be given to Township Operations staff to arrange for personnel to be on site.

The opening and closing of any valves should be co-ordinated with Township of Ramara's Operator. All residences disrupted in their water service shall be notified minimum of 72 hours prior to shutdown.

SAMPLING POINTS

At the request of the Township Inspector, additional closure assemblies such as bulk heads with minimum 150 mm swab ports, flushing, testing, and sampling points may be required to suit the commissioning based on the Contractor's sequence of construction. All costs associated with these installations shall be borne by the Contractor and no additional compensation shall be given in the event re-testing is required.

Once sampling has been successfully completed, as observed at the sampling points, the sampling point service connections shall be removed, and the excavation fully restored by the Contractor.

SP13.6 Removals – OPSS 510

Refer to the removal requirements as specified in the Contract Documents.

SP13.7 Restoration – OPSS 441.07.24 & 492

Refer to the restoration requirements as specified in the Contract Documents.

SP13.8 Open Cut and/or No Dig Water Service Installation

Water services 100mm diameter and greater shall be treated as main line.

Water Services are to be installed at the same depth as the new watermain within the roadway and a minimum of 1.7 m below existing ground from the edge of pavement to the property line. Service connections shall cross under existing sewers, watermains and any other utility as required to provide the minimum required cover. Water supply to properties may be shut down for a maximum of 4 hours.

Tapping into mains shall be performed in accordance with SP-General, Section 10.2.5 and in the presence of a licensed operator. Tapping shall be performed only with the use of tapping saddles or sleeves designed for PVC piping in accordance with AWWA C605. NO DIRECT TAPPING OR DRY TAPPING WILL BE PERMITTED. Tapping bits shall be slotted "shell" style cutters, specifically made for PVC pipe. 'Hole saws' made for cutting wood, steel, ductile iron, or other materials are strictly prohibited.

For open cut water service installations where installations of the water service will conflict with existing trees or shrubs, the Contractor will be required to adjust the alignment of the water service around trees & shrubs to connect to existing service at property line and if necessary, to

move the curb box to a new location and connect to existing service on private property. In such cases, the Contractor shall coordinate with property owner and notify property owner in advance of any work on private property. The cost of all landscaping / restoration associated with this re-routing and relocation is deemed to be included in unit price bid for water service. Where the tree or shrub will still be adversely impacted in spite of exercising the above measures, the Contractor shall hand dig in the vicinity of the tree or shrub as required to minimize damage to the tree or shrub. The cost of hand digging as described above is deemed to be included in unit price bid for water service. No additional payment will be considered. To preserve trees, no excavation with mechanical equipment will be permitted within 4.0 metres of a tree. This may require the connection to the existing service to be done outside the right of way. The unit price bid for this item shall also include the cost to hand dig within 4.0 metres of a tree or shrub as required.

The unit price bid for this item shall include all labour, equipment and material required to install a single copper pipe and all appurtenances by either open cut or no dig method, or combination of both, dependent on how close the service is to trees and shrubs. Measurement shall be made in metres horizontally from the point of connection to the watermain to the point of connection to the existing water service regardless of open cut and/or no dig method of installation as is required by the noted restrictions above. Service connection appurtenances including mainstop, copper pipe, curb stop, curb box, couplings and cathodic protection shall be deemed to be included in the unit price.

The unit price shall also include the cost to hand dig to a depth of at least 300mm below any utilities prior to installing the water service by either method.

SP13.9 Hydrant Sets

The provisions in OPSS 441.07.19 shall apply and as amended below:

All labour, equipment and materials required to complete the installation of the hydrant set from the main, including anchor tee, secondary valve, pipe etc. shall be deemed to be included in the unit price bid. Also included in the unit price bid will be all labour, equipment and material required to install and restrain vertical bends on hydrant laterals to enable installation of a hydrant with 1.7m bury.

The Contractor's attention is directed to the Ontario Provincial Standard Drawings, specifically Revisions 3 and 4 to OPSP 1105.010 which state that ground flange to grade is to be 0mm to 50mm maximum, ground flange to boot is to be a maximum of 1.7 metres. Attention is also directed to OPSS 441.05.10 noting the requirements for the Storz Pumper Connection.

SP13.10 Measurement for Payment

W1 Watermains – OPSS 441.09.01.01:

Measurement shall be made in metres for new watermain and shall include sawcutting, removal and disposal of existing asphalt and concrete sub-base as required, excavation, disposal of excess material, tracing wire, cathodic protection, corrosion prevention, joint restraints, fittings, bedding material, backfill, temporary restoration and subsequent removal (if required), permanent restoration and all other incidental items required to complete the works, as listed in the Contract Documents, shall be included in the unit price for watermain.

W2 Hydrant Sets – OPSS 441.09.01.03:

Measurement will be made for each hydrant set installed and shall include, but not be limited to, anchor tee, valve, valve box, piping, bends, restraints, cathodic protection, tracing wire, pipe bedding and cover, backfill materials, removals and complete restoration.

W5 Connection to Existing Watermain:

Measurement shall be made for each completed connection as shown on the Contract Drawings.

Only final connections to the existing watermain as identified in the 'Quantity and Price Schedule' will be paid for under the 'Connections to Existing Watermain' item. This includes, but is not limited to, all fittings, cathodic protection, excavation and disposal, cleaning (swabbing), testing, flushing and disinfection, plugging/capping of existing watermain, coordination of all water shutdowns and all other works to complete the connection to the existing water system. No additional payment will be made for night and weekend work to complete the watermain connections.

SP13.11 Basis of Payment

Payment at the Contract price for the above items shall be full compensation for all labour, equipment, and material to do the work.

There shall be no additional compensation for weekend or night work required to complete the connections to existing watermains or services. There shall be no separate payment for rock excavation, trench dewatering or trench shoring. Restoration and removals for any of the above listed works shall be deemed to be included in the cost of completing the above works as specified.

The contractor shall note that ten (10%) percent of the total amount of watermain and service connection items, over and above the ten (10%) percent statutory holdback, will be held until and final restoration is completed and approved by the Contract Administrator.

SP14 VALVES

SP14.1 General

All valves and associated appurtenances used for potable water supply system shall be certified to meet NSF-61 and all applicable CSA and AWWA Standards.

Provide valves of the same type, size range and service from a single supplier.

Valve materials shall be free from defects or flaws, with true alignment and bores.

Valves are to open left (counter-clockwise).

Any damaged valves shall be replaced and removed from site at no additional cost to the Owner.

Where there is an applicable recommended standard for the design, construction, and testing of a valve and/or actuator, e.g., AWWA, CGA, CSA, etc., equipment to be supplied under this section will refer to this standard and the equipment supplied shall comply in all respects. Where specifically requested, provide certificates of compliance with the applicable standards.

Where it is not intended to supply equipment or valves to a specific standard, the specification will indicate a reference product.

Flange connections must be blanked with bolted blind flanges. Threaded connections shall be fitted with pipe plugs. All exterior bearing housings shall be enclosed in polyethylene wrapping to positively exclude moisture, dust, or dirt.

Install valves with attention to accessibility of valve seats for replacement in the future. Wherever possible, valves must be installed such that the valve seats can be adjusted with the valves in service. Valves must be aligned carefully to avoid excessive strain on flanges and then installed as

a section of the pipe.

Valve box locations in precast structures to be cored after installation of valve to ensure valve stem is vertical and plum. Valve boxes to be sealed and made watertight. Any visible leakage shall be repaired by the Contractor at no additional cost to the Owner.

Each valve is to be hydrostatically tested to 1.5 times the rated pressure without leakage or damage. The Contractor shall submit documentation of testing with shop drawing submittal.

All direct-bury valves where required, shall include valve box and 50mm operating nut.

Gate valves and valve boxes shall be installed as outlined in the Township of Ramara Engineering Design Criteria 2014 or latest version.

SP14.2 Valve Stem Extensions

Valves in chambers shall include extension stems in addition to the requirements of Standard Drawings RH 402.020 and 402.080.

Provide stem guides as recommended by the Manufacturer and as follows. Space stem guides such that the slenderness (l/r) ratio does not exceed 150 and at no greater distance than 3.0m. They shall be fully adjustable, split design with 304L stainless steel body and bracket with bronze bushings.

Valve box locations in precast structures to be cored after installation of valve to ensure valve stem is vertical and plum.

Valve boxes to be sealed and made watertight. Any visible leakage shall be repaired by the Contractor at no additional cost to the Owner.

SP14.3 Removals and Restoration

All removals and restoration related to the installation of valves and associated appurtenances are deemed to be included in the unit price bid.

SP14.4 Basis of Payment

SPW3 Measurement of each line valve shall be made for each complete installation of a valve as specified.

Valve boxes shall be deemed to be included in the unit price bid.

Payment at the unit price bid shall be compensation in full for all labour, equipment and materials required to install the valve as specified including but not limited to excavation, backfill, piping, couplings, fittings, pipe supports, including restoration and any other items required for completion of the works.

SP15 SANITARY SEWER

LOW PRESSURE SANITARY SEWERS AND LATERALS

The Ontario Provincial Standard Specification 410 shall apply except as modified below:

SP15.1 Open-Cut Installation

All wastewater main installed by open-cut construction shall be PVC SDR11 (CTS) with trench width and maximum depth according to OPSD 806.040.

The cost to install the wastewater main by the open cut method shall include the following:

- Piping shall be installed in trenches constructed by “Vertical Open Cut Method” complying with the current regulations of the Occupational Health and Safety Act.
- Excavation of the trench in any material, including frozen earth, shale of any thickness and shale with any thickness of limestone layers,
- Offsite removal of frozen earth, cobbles, shale, limestone, and excess excavated earth,
- Removal of existing asphalt, concrete road, concrete curb and gutter, and concrete sidewalk as required to construct the works in this Contract,
- Vertical trenching using trench box, close sheeting, or other approved methods,
- Dewatering, groundwater control and treatment of water by any means prior to disposal,
- Installation of the wastewater main pipe, crushed limestone Granular ‘A’ bedding and pipe cover compacted to 100% S.P.M.D.D.,
- Backfilling trench with Granular B Type II or approved native earth and compaction.
- Locating all utilities and services and supporting all utilities.
- Supporting existing poles, underground utilities, infrastructure, and services,
- Flushing and cleaning,
- Mud cleaning, noise, and dust control,
- Saw-cut existing asphalt road, as required, prior to installation of the wastewater main.
- Restoration in accordance with the requirements stated above in the Contract Documents.

BACKFILLING IN PIPE ZONE

Refer to the backfilling in the pipe zone requirements as specified in the Contract Documents.

TRENCHING, DEWATERING, BACKFILLING AND COMPACTING

Refer trenching, dewatering, backfilling and compacting requirements as specified in the Contract Documents.

GRANULAR MATERIALS

Refer to the Granular requirements as specified in the Contract Documents.

TRENCH PROTECTION

Refer to the trench protection requirements as specified in the Contract Documents.

ALIGNMENT AND GRADE

Refer to the alignment and grade requirements as specified in the Contract Documents.

INSPECTION

Refer to the inspection requirements as specified in the Contract Documents.

PRESERVATION AND PROTECTION OF EXISTING FACILITIES

Refer to preservation and protection of existing facilities requirements as specified in the Contract Documents.

SP15.2 Connection to Existing Maintenance Hole

Where the Contractor will be connecting new sewer pipes to an existing manhole, the contractor shall include in his unit cost for breaking into cast-in-place and/or precast manholes the following:

- a) Breaking through the existing cast-in-place or precast maintenance hole, coring.
- b) Installation of wastewater main and concrete sealing of support connection at opening around new pipe to water seal connection.
- c) Maintain sewage flow during installation, bypass pumping if required.
- d) Removal of existing benching and re-benching, where required,

SP15.3 Rigid Insulation Over Sewer (Shallow Bury)

When in areas of shallow trench, it shall be necessary to provide insulation over the top and sides of the pipe. The required insulation shall conform to CAN ULC S701-97 or CGSB-51-GP-20M type 4 rigid extruded polystyrene foam HI-40 (blue in colour) with a compression strength of 275 KPa.

Backfill shall be carefully applied by hand to a depth of 150mm over insulation. Remaining trench backfill shall be suitable excavated material.

Measurement of extruded expanded polystyrene pavement insulation shall be by area in square meters.

SP15.4 Bypass Pumping

When interruption of the existing sewer line flows is necessary to properly conduct wastewater main and lateral installations, acceptable methods of flow control shall be used.

The Contractor shall submit to the Engineer, prior to the start of bypass pumping activities, a bypass pumping plan for review and approval. The plan shall be in accordance with Special Provisions – General, Section 11 “Temporary Wastewater Bypass Pumping.”

The Contractor is to make all necessary arrangements with the property owners of each building. The Contractor shall make every effort to minimize impacts on residents.

The Contractor must maintain on site both a primary and standby bypass pump and pump power supply. Sufficient power supply and hoses must be on site to allow the pump to discharge into the next downstream sewer section. The standby bypass pump and power supply shall be of an equal or better capability than the primary standby bypass pump and power supply.

All bypass pumping shall be in place and operational prior to the final post-installation inspection. All bypass pumping capacities must be approved by the Contract Administrator prior to the wastewater main installation. No additional payment will be made for bypass pumping.

SP15.5 Restoration – OPSS 441.07.26 & 492

Refer to the restoration requirements as specified in the Contract Documents.

SP15.6 Cleaning and Flushing Pipe Sewers – OPSS 410.07.17

All post construction sewers shall be cleaned and flushed using a high pressure, low volume hydraulic sewer flusher truck just prior to being televised.

This cost shall be included in the unit price bid.

SP15.7 Sanitary Sewer Testing

Testing for all new sanitary sewer pipe installations shall follow Township of Ramara requirements. The Contractor shall have a third party conduct a pressure test to demonstrate that all pipe joints are leak-proof.

SP15.8 Measurement for Payment – OPSS 410.09

Low pressure sanitary sewers will be measured in the field based on pipe length installed to limits shown on the drawings including all fittings and connections.

SP15.9 Basis of Payment

Payment at the Contract price for the above items shall be full compensation for all labour, equipment, and material to do the work.

Excavation, removal, disposal, backfill, unshrinkable backfill at areas indicated and all other incidental items shall be included in the unit price for the low pressure sanitary sewers. There will be no additional compensation for weekend or night work. There shall be no separate payment for rock excavation, trench dewatering, or trench shoring system. There shall be no separate payment for connections to the existing wastewater system.

The Contractor shall note that ten (10%) percent of the total amount of wastewater main items, over and above the ten (10%) percent statutory holdback, will be held until final restoration is completed. Any defects found shall be corrected immediately as directed by the Contract Administrator at the Contractor's expense.

SP15.10 Service Lateral to Property Line by Open-Cut

The unit price bid for this item shall include all labour, equipment and material required to install a new wastewater lateral to property line by the open-cut method.

The unit price bid for this item shall also include the cost to hand dig within 4.0 metres of a tree or shrub as required, and to hand dig to a depth of at least 300mm below any utilities prior to installing the wastewater lateral. If tree permits are required by the Township of Ramara, they should be included in the cost to perform this work.

Wastewater lateral pipe material shall be PVC SDR11 (CTS).

SP16 PAVEMENT MARKINGS

The scope of work shall include:

- Supply and install lane dividing permanent markings.
- Permanent marking materials for dividing lane to be organic solvent based or water-borne traffic paint complete with glass beads. All paint applications to new asphalt to require 2 applications of paint. The second application shall not be applied until the first is track free.
- Pavement markings shall only be applied upon authorization of the Authority having jurisdiction over the roadway and the Engineer provided that the temperature is above 10 degrees Celsius and the pavement is perfectly dry.
- Temporary markings shall duplicate the permanent marking design with temporary pavement marking material.

Work to be in accordance with OPSS 532, 1712, 1713 and 1714 and the Ontario Traffic Manual, Ministry of Transportation of Ontario.

SP17 SIGNAGE

Work to be done in accordance with OPSS.MUNI 703.

Note:

1. Supply and install mounting posts for new traffic signs at locations as specified on the Contract Drawings.
2. This tender item shall be used only for new traffic signs as shown on the Contract Drawings. Replacement of posts for existing traffic signs shall be deemed to be paid under the "Site Preparation" tender item.
3. Wooden posts shall be according to OPSS 703 as amended under this tender item.
4. Fasteners and hardware shall be either stainless steel or protected after manufacture by hot dip galvanizing according to CAN/CSA G164.
5. Sign mounting heights shall be as specified on the Contract Drawings and in the Ontario Traffic Manual (OTM). The OTM can be accessed free of charge at www.mto.gov.on.ca/english/transrd/. Click on Library Catalogue, and search for the title "Ontario Traffic Manual".

MEASUREMENT FOR PAYMENT

For measurement purposes, a count shall be made of the number of signs installed.

BASIS OF PAYMENT

Payment at the Contract price for these tender items shall be full compensation for all labour, Equipment and Materials to do the work.

SP18 EXCAVATE DELETERIOUS UNSUITABLE MATERIAL, DISPOSE OFFSITE (PROVISIONAL)

The scope of work shall include:

- All soft, wet or otherwise deleterious material (including Corduroy logs) identified by

the Contract Administrator is to be sub-excavated under direction of the Contract Administrator.

- Excavation, loading, trucking and disposal of deleterious material at a suitable off-site location provided by the contractor at no extra cost to the Contract.
- Import select subgrade material (SSM) placed in 200 mm lifts and compact to 98% of the materials SPMDD.
- Provide pre and post surveys, calculate the volume of material removed from the site and present the survey/calculation, in a form acceptable to the Contract Administrator, for the review and approval.

Work to be in accordance with OPSS.MUNI 180 and OPSS.MUNI 206.

Measurement for payment shall be actual quantity and the unit of measurement is cubic metres.

Payment at the Contract unit price shall be full compensation for all labour, equipment and material to do the work.

SP19 CONTINGENCY ALLOWANCE

The Contingency Allowance provides for additional or extra work required during the course of the Contract and may be drawn upon only for additional or extra work described by a Change Order approved by the Owner.

Appendix A:
Ontario Provincial Standards
General Conditions of Contract
(Nov 2019)



OPSS MUNI GENERAL CONDITIONS OF CONTRACT

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SECTION GC 1.0 - INTERPRETATION

GC 1.01 Captions

.01 The captions appearing in these General Conditions have been inserted as a matter of convenience and for ease of reference only and in no way define, limit, or enlarge the scope or meaning of the General Conditions or any provision hereof.

GC 1.02 Abbreviations

.01 The abbreviations on the left below are commonly found in the Contract Documents and represent the organizations and phrases listed on the right:

"AASHTO"	-	American Association of State Highway Transportation Officials
"ACI"	-	American Concrete Institute
"ANSI"	-	American National Standards Institute
"ASTM"	-	ASTM International
"AWG"	-	American Wire Gauge
"AWWA"	-	American Water Works Association
"CCIL"	-	Canadian Council of Independent Laboratories
"CGSB"	-	Canadian General Standards Board
"CSA"	-	CSA Group - formerly Canadian Standards Association
"CWB"	-	Canadian Welding Bureau
"GC"	-	General Conditions
"ISO"	-	International Organization for Standardization
"MECP"	-	Ontario Ministry of the Environment, Conservation and Parks
"MTO"	-	Ontario Ministry of Transportation
"MUTCD"	-	Manual of Uniform Traffic Control Devices, published by MTO
"OHSA"	-	Ontario Occupational Health and Safety Act
"OLS"	-	Ontario Land Surveyor
"OPS"	-	Ontario Provincial Standard
"OPSD"	-	Ontario Provincial Standard Drawing
"OPSS"	-	Ontario Provincial Standard Specification
"OTM"	-	Ontario Traffic Manual
"PEO"	-	Professional Engineers Ontario
"SAE"	-	SAE International
"SCC"	-	Standards Council of Canada
"SSPC"	-	The Society for Protective Coatings
"UL"	-	Underwriters Laboratories
"ULC"	-	Underwriters Laboratories Canada
"WHMIS"	-	Workplace Hazardous Materials Information System
"WSIB"	-	Workplace Safety & Insurance Board

GC 1.03 Gender and Singular References

.01 References to the masculine or singular throughout the Contract Documents shall be considered to include the feminine and the plural and vice versa, as the context requires.

GC 1.04

Definitions

.01 For the purposes of the Contract Documents the following definitions shall apply:

Abnormal Weather means an extreme climatic condition characterized by wind speed, air temperature, precipitation, or snow fall depth, that is less than or greater than 1-1/2 standard deviations from the mean determined from the weather records of the 25-year period immediately preceding the tender opening date.

Actual Measurement means the field measurement of that quantity within the approved limits of the Work.

Addenda means any additions or change in the Tender documents issued by the Owner prior to Tender closing.

Additional Work means work not provided for in the Contract Documents and not considered by the Contract Administrator to be essential to the satisfactory completion of the Contract within its intended scope.

Agreement means the agreement between the Owner and the Contractor for the performance of the Work that is included in the Contract Documents.

Base means a layer of Material of specified type and thickness placed immediately below the pavement, driving surface, finished grade, curb and gutter, or sidewalk.

Business Day means any Day except Saturdays, Sundays, and statutory holidays.

Certificate of Subcontract Completion means the certificate issued by the Contract Administrator in accordance with clause GC 8.02.04.02, Certification of Subcontract Completion.

Certificate of Substantial Performance means the certificate issued by the Contract Administrator at Substantial Performance.

Change Directive means any written instruction signed by the Owner, or by the Contract Administrator where so authorized, directing that a Change in the Work or Extra Work be performed.

Change in the Work means the deletion, extension, increase, decrease, or alteration of lines; grades; dimensions; quantities; methods; drawings; substantial changes in geotechnical, subsurface, surface, or other conditions; changes in the character of the Work to be done; or Materials of the Work or part thereof, within the intended scope of the Contract.

Change Order means a written amendment to the Contract signed by the Contractor and the Owner, or the Contract Administrator where so authorized, covering contingencies, a Change in the Work, Extra Work, Additional Work; and establishing the basis for payment and the time allowed for the adjustment of the Contract Time.

Completion means contract completion as set out in the Construction Act.

Completion Certificate means the certificate issued by the Contract Administrator at Completion.

Completion Payment means the payment described more particularly in clause GC 8.02.04.07.

Construction Act means as set out in the Construction Act, R.S.O. 1990, c. C.30, as amended.

Constructor means, for the purposes of, and within the meaning of the Occupational Health and Safety Act, R.S.O. 1990, c.O.1, as amended and amendments thereto, the Contractor who executes the Contract.

Contract means the undertaking by the Owner and the Contractor to perform their respective duties, responsibilities, and obligations as prescribed in the Contract Documents.

Contract Administrator means the person, partnership, or corporation designated by the Owner to be the Owner's representative for the purposes of the Contract.

Contract Documents mean the executed Agreement between the Owner and the Contractor, Tender, General Conditions of Contract, Supplemental General Conditions of Contract, Standard Specifications, Special Provisions, Contract Drawings, Addenda incorporated in a Contract Document before the execution of the Agreement, such other documents as may be listed in the Agreement, and subsequent amendments to the Contract Documents made pursuant to the provisions of the Agreement.

Contract Drawings or Contract Plans mean drawings or plans, any Geotechnical Report, any Subsurface Report, and any other reports and information provided by the Owner for the Work, and without limiting the generality thereof, may include soil profiles, foundation investigation reports, reinforcing steel schedules, aggregate sources list, Quantity Sheets, and cross-sections.

Contract Time means the time stipulated in the Contract Documents for Substantial Performance or Completion of the Work, including any extension of time made pursuant to the Contract Documents.

Contractor means the person, partnership, or corporation undertaking the Work as identified in the Agreement.

Control Monument means any horizontal or vertical (benchmark) monument that is used to lay out the Work.

Controlling Operation means any component of the Work that, if delayed, may delay the completion of the Work.

Cut-Off Date means the date up to which payment shall be made for Work performed.

Daily Work Records mean daily Records detailing the number and categories of workers and hours worked or on standby, types and quantities of Equipment and number of hours in use or on standby, and description and quantities of Material utilized.

Day means a calendar day.

Drawings or Plans mean any Contract Drawings or Contract Plans, or any Working Drawings or Working Plans, or any reproductions of drawings or plans pertaining to the Work.

End Result Specification means specifications that require the Contractor to be responsible for supplying a product or part of the Work. The Owner accepts or rejects the final product or applies a price adjustment that is commensurate with the degree of compliance with the specification.

Engineer means a professional engineer licenced by the Professional Engineers of Ontario to practice in the Province of Ontario.

Equipment means all machinery and equipment used for preparing, fabricating, conveying or erecting the Work and normally referred to as construction machinery and equipment.

Estimate means a calculation of the quantity or cost of the Work or part of it depending on the context.

Extra Work means work not provided for in the Contract as awarded but considered by the Contract Administrator to be essential to the satisfactory completion of the Contract within its intended scope, including unanticipated Work required to comply with legislation and regulations that affect the Work.

Final Acceptance means the date on which the Contract Administrator determines that the Work has passed all inspection and testing requirements and the Contract Administrator is satisfied that the Contractor has rectified all imperfect Work and has discharged all of the Contractor's obligations under the Contract Documents.

Final Acceptance Certificate means the certificate issued by the Contract Administrator at Final Acceptance of the Work.

Final Detailed Statement means a complete evaluation prepared by the Contract Administrator showing the quantities, unit prices, and final dollar amounts of all items of Work completed under the Contract, including variations in tender items and Extra Work, all as set out in the same general form as the monthly Estimates.

Geotechnical Report means a report or other information identifying soil, rock, and ground water conditions in the area of any proposed Work.

Grade means the required elevation of that part of the Work.

Hand Tools means tools that are commonly called tools or implements of the trade and include small power tools.

Highway means a common and public highway any part of which is intended for or used by the general public for the passage of vehicles and includes the area between the lateral property lines thereof.

Inclement Weather means weather conditions or conditions resulting directly from weather conditions that prevent the Contractor from proceeding with a Controlling Operation.

Lot means a specific quantity of Material or a specific amount of construction normally from a single source and produced by the same process.

Lump Sum Item means a tender item indicating a portion of the Work for which payment will be made at a single tendered price. Payment is not based on a measured quantity, although a quantity may be given in the Contract Documents.

Major Item means any tender item that has a value, calculated based on its actual or estimated tender quantity, whichever is the larger, multiplied by its tender unit price, which is equal to or greater than the lesser of,

- a) \$100,000, or
- b) 5% of the total tender value calculated based on the total of all the estimated tender quantities and the tender unit prices.

Material means Material, machinery, equipment and fixtures forming part of the Work.

Monument means either a Property Monument or a Control Monument.

Owner means the party to the Contract for whom the Work is being performed, as identified in the Agreement, and includes, with the same meaning and import, "Authority."

Pavement means a wearing course or courses placed on the Roadway and consisting of asphaltic concrete, hydraulic cement concrete, Portland cement concrete, or plant or road mixed mulch.

Performance Bond means the type of security furnished to the Owner to guarantee completion of the Work in accordance with the Contract and to the extent provided in the bond.

Plan Quantity means that quantity as computed from within the boundary lines of the Work as shown in the Contract Documents.

Project means the construction of the Work as contemplated by this Contract.

Proper Invoice has the meaning as set out in the Construction Act.

Property Monument means any property bar, concrete pillar, rock post, cut cross or other object that marks the boundary between real property ownership.

Quality Assurance (QA) means a system or series of activities carried out by the Owner to ensure that Work meets the specified requirements.

Quality Control (QC) means a system or series of activities carried out by the Contractor, Subcontractor, supplier, and manufacturer to ensure that Work meets the specified requirements.

Quantity Sheet means a list of the quantities of Work to be done.

Quarried Rock means Material removed from an open excavation made in a solid mass of rock that, prior to removal, was integral with the parent mass.

Quarry means a place where aggregate has been or is being removed from an open excavation made in a solid mass of igneous, sedimentary, or metamorphic rock or any combination of these that, prior to removal, was integral with the parent areas.

Rate of Interest means the prejudgment interest rate determined under subsection 127(2) of the *Courts of Justice Act* or, if the contract or subcontract specifies a different interest rate for the purpose, the greater of the prejudgment interest rate and the interest rate specified in the contract or subcontract.

Records mean any books, payrolls, accounts, or other information that relate to the Work or any Change in the Work, Extra Work, Additional Work or claims arising therefrom.

Roadway means that part of the Highway designed or intended for use by vehicular traffic and includes the Shoulders.

Shoulder means that portion of the Roadway between the edge of the travelled portion of the wearing surface and the top inside edge of the ditch or fill slope.

Special Provisions mean directions containing requirements specific to the Work.

Standard Drawing or Standard Specification means a standard practice required and stipulated by the Owner for performance of the Work.

Statutory Holdback means the holdbacks required under the Construction Act.

Subbase means a layer of Material of specified type and thickness between the Subgrade and the Base.

Subcontractor means a person, partnership or corporation undertaking the execution of a part of the Work by virtue of an agreement with the Contractor.

Subgrade means the earth or rock surface, whether in cut or fill, as prepared to support the pavement structure, consisting of Base, Subbase, and Pavement.

Substantial Performance has the meaning as set out in the Construction Act, R.S.O. 1990, c. C.30, as amended.

Subsurface Report means a report or other information identifying the location of Utilities, concealed and adjacent structures, and physical obstructions that fall within the influence of the Work.

Superintendent means the Contractor's authorized representative in charge of the Work and who shall be a "competent person" within the meaning of the definition contained in the Occupational Health and Safety Act, R.S.O. 1990, c. 0.1, as amended.

Surety means the person, partnership or corporation, other than the Contractor, licensed in Ontario to transact business under the Insurance Act, R.S.O. 1990, c.I.8, as amended, executing a bond provided by the Contractor.

Tender means an offer in writing from the Contractor, submitted in the format prescribed by the Owner, to complete the Work.

Time and Material means costs calculated according to clause GC 8.02.05, Payment on a Time and Material Basis.

Utility means an aboveground or underground facility maintained by a municipality, public utility authority or regulated authority and includes services such as sanitary sewer, storm sewer, water, electric, gas, oil, steam, data transmission, telephone, and cable television.

Warranty Period means the applicable time period according to clause GC 7.16.02, Warranty.

Work means the total construction and related services required by the Contract Documents.

Working Area means all the lands and easements owned or acquired by the Owner for the construction of the Work.

Working Day means any Day,

- a) except Saturdays, Sundays and statutory holidays;
- b) except a Day as determined by the Contract Administrator, on which the Contractor is prevented by inclement weather or conditions resulting immediately therefrom, from proceeding with a Controlling Operation. For the purposes of this definition, this shall be a Day during which the Contractor cannot proceed with at least 60% of the normal labour and Equipment force effectively engaged on the Controlling Operation for at least 5 hours;
- c) except a Day on which the Contractor is prevented from proceeding with a Controlling Operation, as determined by the Contract Administrator by reason of,
 - i. any breach of the Contract by the Owner or if such prevention is due to the Owner, another contractor hired by the Owner, or an employee of any one of them, or by anyone else acting on behalf of the Owner.
 - ii. non-delivery of Owner supplied Materials.

- iii. any cause beyond the reasonable control of the Contractor that can be substantiated by the Contractor to the satisfaction of the Contract Administrator.

Working Drawings or Working Plans means any Drawings or Plans prepared by the Contractor for the execution of the Work and may, without limiting the generality thereof, include formwork, falsework, and shoring plans; Roadway protection plans; shop drawings; shop plans; or erection diagrams.

GC 1.05 Ontario Traffic Manual

.01 All references in the Contract Documents to the MUTCD, including all Parts and Divisions thereof, or MTO Traffic Control Manual for Roadway Work Operations, or Traffic Control Manual for Roadway Operations Field Edition are hereby deleted and replaced by all currently available books which make up the Ontario Traffic Manual.

GC 1.06 Final Acceptance

.01 For the purposes of determining whether Final Acceptance has occurred, the Contract Administrator shall not take into account, in determining the discharge of the Contractor's obligations, any warranty obligation of the Contractor to the extent that the warranty extends beyond 12 months after Substantial Performance.

GC 1.07 Interpretation of Certain Words

.01 The words "acceptable," "approval," "authorized," "considered necessary," "directed," "required," "satisfactory," or words of like import, shall mean approval of, directed, required, considered necessary, or authorized by and acceptable or satisfactory to the Contract Administrator, unless the context clearly indicates otherwise.

SECTION GC 2.0 - CONTRACT DOCUMENTS

GC 2.01 Reliance on Contract Documents

.01 The Owner warrants that the information furnished in the Contract Documents can be relied upon with the following limitations or exceptions:

a) Based on available information at the time of the contract, the location of all mainline underground Utilities that may affect the Work shall be shown to a tolerance of:

- i. 1 m horizontal, and
- ii. 0.3 m vertical

.02 The Owner does not warrant or make any representation with respect to:

- a) interpretations of data or opinions expressed in any Subsurface Report available for the perusal of the Contractor, that are not included as part of the Contract Documents, and
- b) other information specifically excluded from this warranty.

GC 2.02 Order of Precedence

.01 In the event of any inconsistency or conflict in the contents of the following documents, such documents shall take precedence and govern in the following descending order:

- a) Agreement
- b) Addenda
- c) Special Provisions
- d) Contract Drawings
- e) Standard Specifications
- f) Standard Drawings
- g) Tender
- h) Supplemental General Conditions
- i) OPSS.MUNI 100 General Conditions of Contract
- j) Working Drawings

Later dates shall govern within each of the above categories of documents.

.02 In the event of any conflict among or inconsistency in the information shown on Drawings, the following rules shall apply:

- a) Dimensions shown in figures on a Drawing shall govern where they differ from dimensions scaled from the same Drawing;
- b) Drawings of larger scale shall govern over those of smaller scale;

- c) Detailed Drawings shall govern over general Drawings; and
- d) Drawings of a later date shall govern over those of an earlier date in the same series.

.03 In the event of any inconsistency or conflict in the contents of Standard Specifications the following descending order of precedence shall govern:

- a) Owner's Standard Specifications
- b) Ontario Provincial Standard Specifications
- c) Other standards referenced in OPSSs and OPSDs (e.g., CSA, CGSB, ASTM, and ANSI).

.04 The Contract Documents are complementary, and what is required by any one shall be as binding as if required by all.

SECTION GC 3.0 - ADMINISTRATION OF THE CONTRACT

GC 3.01 Contract Administrator's Authority

.01 The Contract Administrator shall be the Owner's representative during construction and until the issuance of the Completion Certificate or the issuance of the Final Acceptance Certificate, whichever is later. All instructions to the Contractor, including instructions from the Owner, shall be issued by the Contract Administrator. The Contract Administrator shall have the authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

.02 All claims, disputes and other matters in question relating to the performance and the quality of the Work or the interpretation of the Contract Documents shall be referred to the Contract Administrator in writing by the Contractor.

.03 The Contract Administrator may inspect the Work for its conformity with the Contract Documents, and to record the necessary data to establish payment quantities under the schedule of tender quantities and unit prices or to assess the value of the Work completed in the case of a lump sum price Contract.

.04 The Contract Administrator shall provide an estimate of the amounts owing to the Contractor under the Contract as provided for in section GC 8.0, Measurement and Payment.

.05 The Contract Administrator, to not cause delay in the schedule, shall, with reasonable promptness, review and take appropriate action upon the Contractor's submissions such as shop drawings, product data, and samples in accordance with the Contract Documents .

.06 The Contract Administrator shall investigate all allegations of a Change in the Work made by the Contractor and issue appropriate instructions.

.07 The Contract Administrator shall prepare Change Directives and Change Orders for the Owner's approval.

.08 Upon written application by the Contractor, the Contract Administrator and the Contractor shall jointly conduct an inspection of the Work to establish the date of Substantial Performance of the Work or the date of Completion of the Work or both.

.09 The Contract Administrator shall be, in the first instance, the interpreter of the Contract Documents and the judge of the performance thereunder by both parties to the Contract. Interpretations and decisions of the Contract Administrator shall be consistent with the intent of the Contract Documents and, in making these decisions, the Contract Administrator shall not show partiality to either party.

.10 The Contract Administrator shall have the authority to reject any part of the Work or Material that does not conform to the Contract Documents.

.11 In the event that the Contract Administrator determines that any part of the Work performed by the Contractor is defective, whether the result of poor workmanship the use of defective Material or damage through carelessness or other act or omission of the Contractor and whether or not incorporated in the Work or otherwise fails to conform to the Contract Documents, then the Contractor shall if directed by the Contract Administrator promptly, as directed by the Contract Administrator, remove the Work and replace, make good, or re-execute the Work at no additional cost to the Owner.

.12 Any part of the Work destroyed or damaged by such removals, replacements, or re-executions shall be made good, promptly, at no additional cost to the Owner.

.13 If, in the opinion of the Contract Administrator it is not expedient to correct defective Work or Work not performed in accordance with the Contract Documents, the Owner may deduct from monies otherwise due

to the Contractor the difference in value between the Work as performed and that called for by the Contract Documents amount that will be determined in the first instance by the Contract Administrator.

.14 Notwithstanding any inspections made by the Contract Administrator or the issuance of any certificates or the making of any payment by the Owner, the failure of the Contract Administrator to reject any defective Work or Material shall not constitute acceptance of defective Work or Material.

.15 The Contract Administrator shall have the authority to temporarily suspend the Work for such reasonable time as may be necessary:

- a) to facilitate the checking of any portion of the Contractor's construction layout;
- b) to facilitate the inspection of any portion of the Work; or
- c) for the Contractor to remedy its non-compliance with any provisions of the Contract Documents.

The Contractor shall not be entitled to any compensation for suspension of the Work in these circumstances.

.16 The Owner has the right to terminate the Contract for wilful or persistent violation by the Contractor or its workers of any applicable laws or bylaws, including but not limited to, the Occupational Health and Safety Act legislation and regulations, Workplace Safety and Insurance Board Act, and Regulation 347 of the Environmental Protection Act.

.17 If the Contract Administrator determines that any worker employed on the Work is incompetent, as defined by the Occupational Health and Safety Act, or is disorderly, then the Contract Administrator shall provide written notice to the Contractor and the Contractor shall immediately remove the worker from the Working Area. Such worker shall not return to the Working Area without the prior written consent of the Contract Administrator.

GC 3.02 Working Drawings

.01 The Contractor shall arrange for the preparation of clearly identified and dated Working Drawings as called for by the Contract Documents.

.02 The Contractor, to not cause delay in the Work, shall submit Working Drawings to the Contract Administrator with reasonable promptness and in orderly sequence. If either the Contractor or the Contract Administrator so requests, they shall jointly prepare a schedule fixing the dates for submission and return of Working Drawings. Working Drawings shall be submitted in printed form. At the time of submission, the Contractor shall notify the Contract Administrator in writing of any deviations from the Contract Documents that exist in the Working Drawings.

.03 The Contract Administrator shall review and return Working Drawings in accordance with an agreed upon schedule, or otherwise, with reasonable promptness so as not to cause delay.

.04 The Contract Administrator's review shall be to check for conformity to the design concept and for general arrangement only and such review shall not relieve the Contractor of responsibility for errors or omissions in the Working Drawings or of responsibility for meeting all requirements of the Contract Documents, unless a deviation on the Working Drawings has been approved in writing by the Contract Administrator.

.05 The Contractor shall make any changes in Working Drawings that the Contract Administrator may require to make the Working Drawings consistent with the Contract Documents and resubmit, unless

otherwise directed by the Contract Administrator. When resubmitting, the Contractor shall notify the Contract Administrator in writing of any revisions other than those requested by the Contract Administrator.

.06 Work related to the Working Drawings shall not proceed until the Working Drawings have been signed and dated by the Contract Administrator.

.07 The Contractor shall keep one set of the reviewed Working Drawings, marked as above, at the site at all times.

GC 3.03 Right of the Contract Administrator to Modify Methods and Equipment

.01 The Contractor shall, when requested in writing, make alterations in the method, Equipment, or work force at any time the Contract Administrator considers the Contractor's actions to be unsafe, or damaging to either the Work or existing facilities or the environment.

.02 The Contractor shall, when requested in writing, alter the sequence of its operations on the Contract so as to avoid interference with work being performed by others.

.03 Notwithstanding the foregoing, the Contractor shall ensure that all necessary safety precautions and protection are maintained throughout the Work.

GC 3.04 Emergency Situations

.01 The Contract Administrator has the right to determine the existence of an emergency situation and, when such an emergency situation is deemed to exist, the Contract Administrator may instruct the Contractor to take action to remedy the situation. If the Contractor does not take timely action or, if the Contractor is not available, the Contract Administrator may direct others to remedy the situation.

.02 If the emergency situation was the fault of the Contractor, the remedial Work shall be done at the Contractor's expense. If the emergency situation was not the fault of the Contractor, the Owner shall pay for the remedial Work.

GC 3.05 Layout Information

.01 The Contract Administrator shall provide background information, including without limitation, baseline and benchmark information, to facilitate the general location, alignment, elevation and layout of the Work.

.02 The Contract Administrator shall provide pre and post construction inventories of all Monuments, etc. that are located within the Working Area.

.03 The Owner shall be responsible only for the correctness of the layout information provided by the Contract Administrator.

GC 3.06 Extension of Contract Time

.01 An application for an extension of Contract Time shall be made in writing by the Contractor to the Contract Administrator as soon as the need for such extension becomes evident and at least 15 Days prior to the expiration of the Contract Time. The application for an extension of Contract Time shall enumerate the reasons and state the length of extension required.

.02 Circumstances suitable for consideration of an extension of Contract Time include the following:

- a) Delays, subsection GC 3.07.
- b) Changes in the Work, clause GC 3.10.01.
- c) Extra Work, clause GC 3.10.02.
- d) Additional Work, clause GC 3.10.03.

.03 The Contract Administrator shall, in reviewing an application for an extension to the Contract Time, consider whether the delays, Changes in the Work, Extra Work, or Additional Work involve a Controlling Operation.

.04 The Contract Time shall be extended for such additional time as may be recommended by the Contract Administrator and deemed fair and reasonable by the Owner.

.05 The terms and conditions of the Contract shall continue for such extension of Contract Time.

GC 3.07 Delays

.01 If the Contractor is delayed in the performance of the Work by,

- a) war, blockades, and civil commotions;
- b) errors in the Contract Documents;
- c) an act or omission of the Owner or Contract Administrator, or anyone employed or engaged by them directly or indirectly, contrary to the provisions of the Contract Documents;
- d) a stop work order issued by a court or public authority, provided that such order was not issued as the result of an act or omission of the Contractor or anyone employed or engaged by the Contractor directly or indirectly;
- e) the Contract Administrator giving notice under section GC 7.0, Suspension of Work;
- f) Abnormal Weather; or
- g) archaeological finds, in accordance with subsection GC 3.15, Archaeological Finds,

then the Contractor shall be reimbursed by the Owner for reasonable costs incurred by the Contractor as the result of such delay, provided that in the case of an application for an extension of Contract Time due to Abnormal Weather, the Contractor shall, with the Contractor's application, submit evidence from Environment Canada in support of such application. Extension of Contract Time may be granted in accordance with subsection GC 3.06, Extension of Contract Time.

.02 If the Work is delayed by labour disputes, strikes or lock-outs, including lock-outs decreed or recommended to its members by a recognized contractor's association, of which the Contractor is a member or to which the Contractor is otherwise bound, which are beyond the Contractor's control, then the Contract Time shall be extended in accordance with subsection GC 3.06, Extension of Contract Time.

.03 In no case shall the extension of Contract Time be less than the time lost as the result of the event causing the delay, unless a shorter extension is agreed to by the Contractor. The Contractor shall not be entitled to payment for costs incurred as the result of such delays unless such delays are the result of actions by the Owner.

.04 The Contractor shall not be entitled to payment for the cost of delays incurred as a result of a dispute between the Contractor and Owner. The Contractor shall execute the Work and may pursue resolution of the dispute in accordance with subsection GC 3.13, Claims, Negotiations, Mediations.

GC 3.08 Assignment of Contract

.01 The Contractor shall not assign the Contract, either in whole or in part, without the prior written consent of the Owner.

GC 3.09 Subcontracting by the Contractor

.01 Subject to clause GC 3.09.03, Subcontracting by the Contractor, the Contractor may subcontract any part of the Work, in accordance with the Contract Documents and any limitations specified therein.

.02 The Contractor shall notify the Contract Administrator in writing in 10 Days prior to the start of construction of the intention to subcontract. Such notification shall identify the part of the Work, and the Subcontractor with whom it is intended.

.03 The Contract Administrator shall, within 5 Days of receipt of such notification, accept or reject the intended Subcontractor. The rejection shall be in writing and shall include the reasons for the rejection.

.04 The Contractor shall not, without the written consent of the Owner, change a Subcontractor who has been engaged in accordance with this subsection.

.05 The Contractor shall preserve and protect the rights of the Owner under the Contract Documents with respect to that part of the Work to be performed under subcontract and shall,

- a) enter into agreements with the intended Subcontractors to require them to perform their Work in accordance with the Contract Documents; and
- b) be as fully responsible to the Owner for acts and omissions of the Contractor's Subcontractors and of persons directly or indirectly employed by them as for acts and omissions of persons directly employed by the Contractor.

.06 The Owner's consent to subcontracting by the Contractor shall not be construed to relieve the Contractor from any obligation under the Contract and shall not impose any liability upon the Owner. Nothing contained in the Contract Documents shall create a contractual relationship between a Subcontractor and the Owner.

GC 3.10 Changes

GC 3.10.01 Changes in the Work

.01 The Owner, or the Contract Administrator where so authorized, may, by order in writing, make a Change in the Work without invalidating the Contract. The Contractor shall not be required to proceed with a Change in the Work until in receipt of a Change Order or Change Directive. Upon the receipt of such Change Order or Change Directive the Contractor shall proceed with the Change in the Work.

.02 The Contractor may apply for an extension of Contract Time according to the terms of clause GC 3.06, Extension of Contract Time.

.03 If the Change in the Work relates solely to quantities, payment for that part of the Work shall be made according to the conditions specified in clause GC 8.01.02, Variations in Tender Quantities. If the Change in the Work does not solely relate to quantities, then either the Owner or the Contractor may initiate negotiations upwards or downwards for the adjustment of the Contract price in respect of the Change in

the Work pursuant to subsection GC 3.13, Claims, Negotiations, Mediation or payment may be made according to the conditions contained in clause GC 8.02.05, Payment on a Time and Material Basis.

GC 3.10.02 Extra Work

.01 The Owner, or Contract Administrator where so authorized, may instruct the Contractor to perform Extra Work without invalidating the Contract. The Contractor shall not be required to proceed with the Extra Work until in receipt of a Change Order or Change Directive. Upon receipt of such Change Order or Change Directive the Contractor shall proceed with the Extra Work.

.02 The Contractor may apply for an extension of Contract Time according to the terms of clause GC 3.06, Extension of Contract Time.

.03 Either the Owner or Contractor may initiate negotiations upwards or downwards for the payment for the Extra Work pursuant to subsection GC 3.13, Claims, Negotiations, Mediation, or payment may be made according to the conditions contained in clause GC 8.02.05, Payment on a Time and Material Basis.

GC 3.10.03 Additional Work

.01 The Owner, or Contract Administrator where so authorized, may request the Contractor to perform Additional Work without invalidating the Contract. If the Contractor agrees to perform Additional Work, the Contractor shall proceed with such Additional Work upon receipt of a Change Order.

.02 The Contractor may apply for an extension of Contract Time according to the terms of subsection GC 3.06, Extension of Contract Time.

.03 Payment for the Additional Work may be negotiated pursuant to subsection GC 3.13, Claims, Negotiations, Mediation, or payment may be made according to the conditions contained in clause GC 8.02.05, Payment on a Time and Material Basis.

GC 3.11 Notices

.01 Any notice permitted or required to be given to the Contract Administrator or the Superintendent in respect of the Work shall be deemed to have been given to and received by the addressee on the date of delivery if delivered by hand, email, or by facsimile transmission and on the fifth Day after the date of mailing, if sent by mail.

.02 The Contractor and the Owner shall provide each other with the mail and email addresses; cell phone, and telephone numbers for the Contract Administrator and the Superintendent at the commencement of the Work, and update as necessary.

.03 In the event of an emergency situation or other urgent matter the Contract Administrator or the Superintendent may give a verbal notice, provided that such notice is confirmed in writing within 2 Days.

.04 Any notice permitted or required to be given to the Owner or the Contractor shall be given in accordance with the notice provision of the Contract.

GC 3.12 Use and Occupancy of the Work Prior to Substantial Performance

.01 Where it is not contemplated elsewhere in the Contract Documents, the Owner may use or occupy the Work or any part thereof prior to Substantial Performance, provided that at least 30 Days written notice has been given to the Contractor.

.02 The use or occupancy of the Work or any part thereof by the Owner prior to Substantial Performance shall not constitute an acceptance of the Work or parts so occupied. In addition, the use or occupancy of the Work shall not relieve the Contractor or the Contractor's Surety from any liability that has arisen, or may arise, from the performance of the Work in accordance with the Contract Documents. The Owner shall be responsible for any damage that occurs because of the Owner's use or occupancy. Such use or occupancy of any part of the Work by the Owner does not waive the Owner's right to charge the Contractor liquidated damages in accordance with the terms of the Contract.

GC 3.13 Claims, Negotiations, Mediation

GC 3.13.01 Continuance of the Work

.01 Unless the Contract has been terminated or completed, the Contractor shall in every case, after serving or receiving any notification of a claim or dispute, verbal or written, continue to proceed with the Work with due diligence and expedition. It is understood by the parties that such action shall not jeopardize any claim it may have.

GC 3.13.02 Record Keeping

.01 Immediately upon commencing Work that may result in a claim, the Contractor shall keep Daily Work Records during the course of the Work, sufficient to substantiate the Contractor's claim, and the Contract Administrator shall keep Daily Work Records to be used in assessing the Contractor's claim, all in accordance with clause GC 8.02.07, Records.

.02 The Contractor and the Contract Administrator shall attempt to reconcile their respective Daily Work Records on a daily basis, to simplify review of the claim, when submitted. If the Contractor and the Contract Administrator fail to reconcile their respective Daily Work Records, then the Contractor shall submit its Daily Work Records as part of its claim, whereby the resolution of the dispute about the Daily Work Records shall not be resolved until there is a resolution of the claim.

.03 The keeping of Daily Work Records by the Contract Administrator or the reconciling of such Daily Work Records with those of the Contractor shall not be construed to be acceptance of the claim.

GC 3.13.03 Claims Procedure

.01 The Contractor shall give verbal notice of any situation that may lead to a claim for additional payment immediately upon becoming aware of the situation.

.02 The Contractor shall provide written notice within 7 Days of the commencement of any part of the Work that may be affected by the situation.

.03 The Contractor shall submit detailed claims as soon as reasonably possible and in any event no later than 30 Days or such time as mutually agreed after completion of the Work affected by the situation. The detailed claim shall:

- a) identify the item or items in respect of which the claim arises;
- b) state the grounds, contractual or otherwise, upon which the claim is made; and
- c) include the Records maintained by the Contractor supporting such claim.

.04 Within 30 Days of the receipt of the Contractor's detailed claim, the Contract Administrator may request the Contractor to submit any further and other particulars as the Contract Administrator considers necessary

to assess the claim. The Contractor shall submit the requested information within 30 Days of receipt of such request.

.05 Within 90 Days of receipt of the detailed claim, the Contract Administrator shall advise the Contractor, in writing, of the Contract Administrator's opinion regarding the validity of the claim.

GC 3.13.04 Negotiations

.01 The parties shall make all reasonable efforts to resolve their dispute by amicable negotiations and agree to provide, without prejudice, open and timely disclosure of relevant facts, information, and documents to facilitate these negotiations.

.02 Should the Contractor disagree with the opinion given in clause GC 3.13.03.05, with respect to any part of the claim, the Contract Administrator shall enter into negotiations with the Contractor to resolve the matters in dispute. Where a negotiated settlement cannot be reached and it is agreed that payment cannot be made on a Time and Material basis in accordance with clause GC 8.02.05, Payment on a Time and Material Basis, the parties shall proceed in accordance with clause GC 3.13.05, Mediation, or subsection GC 3.14, Arbitration.

.03 Prior to the expiry of 30 Business Days from the date of receipt of the Contractor's claim, the Contract Administrator shall provide a written response to the Contractor stating the Contract Administrator's final price for the Change Order and an explanation of the rationale and basis of the Contract Administrator's position which shall be deemed to be the initial site response.

GC 3.13.05 Mediation

.01 If a claim is not resolved satisfactorily through the negotiation stage noted in clause GC 3.13.04, Negotiations, within a period of 30 Days following the opinion given in clause GC 3.13.03.05, and the Contractor wishes to pursue the issue further, the parties may, upon mutual agreement, utilize the services of an independent third-party mediator.

.02 The mediator shall be mutually agreed upon by the Owner and Contractor.

.03 The mediator shall be knowledgeable regarding the area of the disputed issue. The mediator shall meet with the parties together or separately, as necessary, to review all aspects of the issue. In a final attempt to assist the parties in resolving the issue themselves prior to proceeding to arbitration the mediator shall provide, without prejudice, a non-binding recommendation for settlement.

.04 The review by the mediator shall be completed within 90 Days following the opinion given in clause GC 3.13.03.05.

.05 Each party is responsible for its own costs related to the use of the mediation process. The cost of the third-party mediator shall be equally shared by the Owner and Contractor.

GC 3.13.06 Payment

.01 Payment of the claim shall be made no later than 28 Days after the date of resolution of the claim or dispute. Such payment shall be made according to the terms of section GC 8.0, Measurement and Payment.

GC 3.13.07 Rights of Both Parties

.01 It is agreed that no action taken under subsection GC 3.13, Claims, Negotiations, Mediation, by either party shall be construed as a renunciation or waiver of any of the rights or recourse available to the parties, provided that the requirements set out in this subsection are fulfilled.

.02 It is further agreed that the parties may at any time resort to the adjudication procedure contained in the Construction Act.

GC 3.14 Arbitration

GC 3.14.01 Conditions of Arbitration

.01 If a claim is not resolved satisfactorily through the negotiation stage noted in clause GC 3.13.04, Negotiations, or the mediation stage noted in clause GC 3.13.05, Mediation, either party may invoke the provisions of subsection GC 3.14, Arbitration, by giving written notice to the other party.

.02 Notification that arbitration shall be implemented to resolve the issue shall be communicated in writing as soon as possible and no later than 60 Days following the opinion given in clause GC 3.13.03.05. Where the use of a third-party mediator was implemented, notification shall be within 120 Days of the opinion given in clause GC 3.13.03.05.

.03 The parties shall be bound by the decision of the arbitrator.

.04 The rules and procedures of the Arbitration Act, 1991, S.O. 1991, c.17, as amended, shall apply to any arbitration conducted hereunder except to the extent that they are modified by the express provisions of subsection GC 3.14, Arbitration.

GC 3.14.02 Arbitration Procedure

.01 The following provisions are to be included in the agreement to arbitrate and are subject only to such right of appeal as exist where the arbitrator has exceeded his or her jurisdiction or have otherwise disqualified him or herself:

- a) All existing actions in respect of the matters under arbitration shall be stayed pending arbitration;
- b) All outstanding claims and matters to be settled are to be set out in a schedule to the agreement. Only such claims and matters as are in the schedule shall be arbitrated; and
- c) Before proceeding with the arbitration, the Contractor shall confirm that all matters in dispute are set out in the schedule.

GC 3.14.03 Appointment of Arbitrator

.01 The arbitrator shall be mutually agreed upon by the Owner and Contractor to adjudicate the dispute.

.02 Where the Owner and Contractor cannot agree on a sole arbitrator within 30 Days of the notification of arbitration noted in clause GC 3.14.01.02, the Owner and the Contractor shall each choose an appointee within 37 Days of the notice of arbitration.

.03 The appointees shall mutually agree upon an arbitrator to adjudicate the dispute within 15 Days after the last appointee was chosen or they shall refer the matter to the ADR Institute of Ontario (ADRIO), which may select an arbitrator to adjudicate the dispute within 7 Days of being requested to do so.

.04 The arbitrator shall not be interested financially in the Contract nor in either party's business and shall not be employed by either party.

.05 The arbitrator may appoint independent experts and any other persons to assist him or her.

.06 The arbitrator is not bound by the rules of evidence that govern the trial of cases in court but may hear and consider any evidence that the arbitrator considers relevant.

.07 The hearing shall commence within 90 Days of the appointment of the arbitrator.

GC 3.14.04 Costs

.01 The arbitrator's fee shall be equally shared by the Owner and the Contractor.

.02 The fees of any independent experts and any other persons appointed to assist the arbitrator shall be shared equally by the Owner and the Contractor.

.03 The arbitration hearing shall be held in a place mutually agreed upon by both parties or in the event the parties do not agree, a site shall be chosen by the arbitrator. The cost of obtaining appropriate facilities shall be shared equally by the Owner and the Contractor.

.04 The arbitrator may, in his or her discretion, award reasonable costs, related to the arbitration.

GC 3.14.05 The Decision

.01 The reasoned decision shall be made in writing within 90 Days of the conclusion of the hearing. An extension of time to make a decision may be granted with consent of both parties. Payment shall be made in accordance with clause GC 3.13.06, Payment.

GC 3.15 Archaeological Finds

.01 If the Contractor's operations expose any items that may indicate an archaeological find, such as but not limited to building remains, hardware, accumulations of bones, pottery, or arrowheads, the Contractor shall immediately notify the Contract Administrator and suspend operations within the area identified by the Contract Administrator. Notification may be verbal provided that such notice is confirmed in writing within 2 Days. Work shall remain suspended within that area until otherwise directed by the Contract Administrator in writing, in accordance with subsection GC 7.09, Suspension of Work.

.02 Any delay in the completion of the Contract that is caused by such a suspension of Work shall be considered to be beyond the Contractor's control in accordance with clause GC 3.07.01.

.03 Any Work directed or authorized in connection with an archaeological find shall be considered as Extra Work in accordance with clause GC 3.10.02, Extra Work.

.04 The Contractor shall take all reasonable action to minimize additional costs that may accrue as a result of any work stoppage.

SECTION GC 4.0 - OWNER'S RESPONSIBILITIES AND RIGHTS

GC 4.01 Working Area

.01 The Owner shall acquire all property rights that are deemed necessary by the Owner for the construction of the Work, including temporary working easements, and shall indicate the full extent of the Working Area on the Contract Drawings.

GC 4.02 Approvals and Permits

.01 The Owner shall pay for all plumbing and building permits.

.02 The Owner shall obtain and pay for all permits, licences, and certificates solely required for the design of the Work.

GC 4.03 Management and Disposition of Materials

.01 The Owner shall identify in the Contract Documents the Materials to be moved within or removed from the Working Area and any characteristics of those Materials that necessitates special Materials management and disposition.

.02 In accordance with regulations under the Occupational Health and Safety Act, R.S.O. 1990, c.O.1, as amended, the Owner advises that,

- a) the designated substances silica, lead, and arsenic are generally present throughout the Working Area occurring naturally or as a result of vehicle emissions;
- b) the designated substance asbestos may be present in cement products, asphalt, and conduits
for Utilities;
- c) the following hazardous materials are ordinarily present in construction activities: limestone, gypsum, marble, mica, and Portland cement; and
- d) exposure to these substances may occur as a result of activities by the Contractor such as sweeping, grinding, crushing, drilling, blasting, cutting, and abrasive blasting.

.03 The Owner shall identify in the Contract Documents any designated substances or hazardous materials other than those identified above and their location in the Working Area.

.04 If the Owner or Contractor discovers or is advised of the presence of designated substances or hazardous Materials that are in addition to those listed in clause GC 4.03.02, or not clearly identified in the Contract Documents according to clause GC 4.03.03, then verbal notice shall be provided to the other party immediately with written confirmation within 2 Days. The Contractor shall stop Work in the area immediately and shall determine the necessary steps required to complete the Work in accordance with applicable legislation and regulations.

.05 The Owner shall be responsible for any reasonable additional costs of removing, managing and disposing of any Material not identified in the Contract Documents, or where conditions exist that could not have been reasonably foreseen at the time of tendering. All work under this paragraph shall be deemed to be Extra Work.

.06 Prior to commencement of the Work, the Owner shall provide to the Contractor a list of those products controlled under the Workplace Hazardous Materials Information System (WHMIS), that the Owner may supply or use on the Contract, together with copies of the Safety Data Sheets for these products. All containers used in the application of products controlled under WHMIS shall be labelled. The Owner shall notify the Contractor in writing of changes to the list and provide relevant Safety Data Sheets.

.07 Unless expressly permitted in the Contract Documents, the Contractor shall not bring onto the Work Area any designated substance or hazardous Material per OHSA without the prior written authorization of the Contract Administrator.

.08 The Contractor shall use all reasonable care to avoid spilling or disturbing any designated substances or hazardous Material per OHSA.

GC 4.04 Construction Affecting Railway Property

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

.02 Every precaution shall be taken by the Contractor to protect all railway property at track crossings; or otherwise, on which construction operations are to take place in accordance with the terms of this Contract.

.03 The Contractor shall be required to conduct the construction operations in such a manner as to avoid a possibility of damaging any railway property in the vicinity of the Works. Every reasonable precaution shall be taken by the Contractor to ensure the safety of the workers, Subcontractors, and Equipment, as well as railway property throughout the duration of the Contract.

GC 4.05 Default by the Contractor

.01 If the Contractor fails to commence the Work within 14 Days of a formal order to commence Work signed by the Contract Administrator or, upon commencement of the Work, should neglect to prosecute the Work properly or otherwise fails to comply with the requirements of the Contract and, if the Contract Administrator has given a written statement to the Owner and Contractor that sufficient cause exists to justify such action, the Owner may, without prejudice to any other right or remedy the Owner may have, notify the Contractor in writing that the Contractor is in default of the Contractor's contractual obligations and instruct the Contractor to correct the default in the 5 Working Days immediately following the receipt of such notice.

.02 If the Contractor is adjudged bankrupt, or makes a general assignment for the benefit of creditors because of the Contractor's insolvency or if a receiver is appointed because of the Contractor's insolvency, the Owner may, without prejudice to any other right or remedy the Owner may have, by giving the Contractor or receiver or trustee in bankruptcy notice in writing, terminate the Contract.

GC 4.06 Contractor's Right to Correct a Default

.01 The Contractor shall have the right within the 5 Working Days following the receipt of a notice of default to correct the default and provide the Owner with satisfactory proof that appropriate corrective measures have been taken.

.02 If the Owner determines that the correction of the default cannot be completed within the 5 Working Days following receipt of the notice, the Contractor shall not be in default if the Contractor,

- a) commences the correction of the default within the 5 Working Days following receipt of the notice;
- b) provides the Owner with a schedule acceptable to the Owner for the progress of such correction; and
- c) completes the correction in accordance with such schedule.

GC 4.07 Owner's Right to Correct Default

.01 If the Contractor fails to correct the default within the time specified in subsection GC 4.06, Contractor's Right to Correct a Default, or subsequently agreed upon, the Owner, without prejudice to any other right or

remedy the Owner may have, may correct such default and deduct the cost thereof, as certified by the Contract Administrator, from any payment then or thereafter due to the Contractor.

GC 4.08 Termination of Contractor's Right to Continue the Work

.01 Where the Contractor fails to correct a default within the time specified in subsection GC 4.06, Contractor's Right to Correct a Default, or subsequently agreed upon, the Owner, without prejudice to any other right or remedy the Owner may have, may terminate the Contractor's right to continue the Work in whole or in part by giving written notice to the Contractor.

.02 If the Owner terminates the Contractor's right to continue with the Work in whole or in part, the Owner shall be entitled to,

- a) take possession of the Working Area or that portion of the Working Area devoted to that part of the Work terminated;
- b) utilize any Material within the Working Area;
- d) withhold further payments to the Contractor with respect to the Work or the portion of the Work withdrawn from the Contractor until the Work or portion thereof withdrawn is completed;
- d) charge the Contractor the additional cost over the Contract price of completing the Work or portion thereof withdrawn from the Contractor, as certified by the Contract Administrator and any additional compensation paid to the Contract Administrator for such additional service arising from the correction of the default;
- e) charge the Contractor a reasonable allowance, as determined by the Contract Administrator, to cover correction to the Work performed by the Contractor that may be required under subsection GC 7.16, Warranty;
- f) charge the Contractor for any damages the Owner sustained as a result of the default; and
- g) charge the Contractor the amount by which the cost of corrections to the Work under subsection GC 7.16, Warranty, exceeds the allowance provided for such corrections.

GC 4.09 Final Payment to Contractor

.01 If the Owner's cost to correct and complete the Work in whole or in part is less than the amount withheld from the Contractor under subsection GC 4.08, Termination of Contractor's Right to Continue the Work, the Owner shall pay the balance to the Contractor as soon as the final accounting for the Contract is complete.

GC 4.10 Termination of the Contract

.01 Where the Contractor is in default of the Contract the Owner shall, without prejudice to any other right or remedy the Owner may have, terminate the Contract by giving written notice of termination to the Contractor, the Surety, and any trustee or receiver acting on behalf of the Contractor's estate or creditors.

.02 If the Owner elects to terminate the Contract, the Owner shall provide the Contractor and the trustee or receiver with a complete accounting to the date of termination.

GC 4.11**Continuation of Contractor's Obligations**

.01 The Contractor's obligation under the Contract as to quality, correction, and warranty of the Work performed prior to the time of termination of the Contract or termination of the Contractor's right to continue with the Work in whole or in part shall continue to be in force after such termination.

GC 4.12**Use of Performance Bond**

.01 If the Contractor is in default of the Contract and the Contractor has provided a Performance Bond, the provisions of section GC 4.0, Owner's Responsibilities and Rights, shall be exercised in accordance with the conditions of the Performance Bond.

GC 4.13**Payment Adjustment**

.01 If any situation should occur in the performance of the Work that would result in a Change in the Work, the Owner shall be entitled to an adjustment and those adjustments shall be managed in accordance with clause GC 3.10.01, Changes in the Work.

SECTION GC 5.0 - MATERIAL

GC 5.01 Supply of Material

.01 All Material necessary for the proper completion of the Work, except that listed as being supplied by the Owner, shall be supplied by the Contractor. The Contract price for the appropriate tender items shall be deemed to include full compensation for the supply and delivery of such Material.

GC 5.02 Quality of Material

.01 All Material supplied by the Contractor shall be new, unless otherwise specified in the Contract Documents.

.02 Material supplied by the Contractor shall conform to the requirements of the Contract.

.03 As specified in the Contract Documents or as requested by the Contract Administrator, the Contractor shall make available, for inspection or testing, a sample of any Material to be supplied by the Contractor.

.04 The Contractor shall obtain for the Contract Administrator the right to enter onto the premises of the Material manufacturer or supplier to carry out such inspection, sampling, and testing as specified in the Contract Documents or as requested by the Contract Administrator.

.05 The Contractor shall notify the Contract Administrator of the sources of supply sufficiently in advance of the Material shipping dates to enable the Contract Administrator to perform the required inspection, sampling, and testing.

.06 The Owner shall not be responsible for any delays to the Contractor's operations where the Contractor fails to give sufficient advance notice to the Contract Administrator to enable the Contract Administrator to carry out the required inspection, sampling, and testing before the scheduled shipping date.

.07 The Contractor shall not change the source of supply of any Material without the written authorization of the Contract Administrator.

.08 Material that is not specified shall be of a quality best suited to the purpose required, and the use of such Material shall be subject to the approval of the Contract Administrator.

.09 All Material inspection, sampling, and testing shall be carried out on random basis in accordance with the standard inspection or testing methods required for the Material. Any approval given by the Contract Administrator for the Materials to be used in the Work based upon the random method shall not relieve the Contractor from the responsibility of incorporating Material that conforms to the Contract Documents into the Work or properly performing the Contract and of any liability arising from the failure to properly perform as specified in the Contract Documents.

GC 5.03 Rejected Material

.01 Rejected Material shall be removed from the Working Area expeditiously after the notification to that effect from the Contract Administrator. Where the Contractor fails to comply with such notice, the Contract Administrator may cause the rejected Material to be removed from the Working Area and disposed of, in what the Contract Administrator considers to be the most appropriate manner, and the Contractor shall pay the costs of disposal and the appropriate overhead charges.

GC 5.04 Substitutions

.01 Where the Contract Documents require the Contractor to supply a Material designated by a trade or other name, the Tender shall be based only upon supply of the Material so designated, that shall be

regarded as the standard of quality required by the Contract Documents. After the acceptance of the Tender, the Contractor may apply to the Contract Administrator to substitute another Material identified by a different trade or other name for the Material designated as aforesaid. The application shall be in writing and shall state the price for the proposed substitute Material designated as aforesaid, and such other information as the Contract Administrator may require.

.02 Rulings on a proposed substitution shall not be made prior to the acceptance of the Tender. Substitutions shall not be made without the prior approval of the Contract Administrator. The approval or rejection of a proposed substitution shall be at the discretion of the Contract Administrator.

.03 If the proposed substitution is approved by the Contract Administrator, the Contractor shall be entitled to the first \$1,000 of the aggregate saving in cost by reason of such substitution and to 50% of any additional saving in cost in excess of such \$1,000. Each such approval shall be conveyed to the Contractor in writing or by issuance of a Certificate of Equality on the Owner's standard form of "Certification of Equality" and, if any adjustment to the Contract price is made by reason of such substitution, a Change Order shall be issued as well.

GC 5.05 Owner Supplied Material

GC 5.05.01 Ordering of Excess Material

.01 Where Material is supplied by the Owner and where this Material is ordered by the Contractor in excess of the amount specified to complete the Work, such excess Material shall become the property of the Contractor on completion of the Work and shall be charged to the Contractor at cost plus applicable overheads.

GC 5.05.02 Care of Material

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

.02 The Contractor shall be responsible for acceptance of Material supplied by the Owner, at the specified delivery point and for its safe handling and storage. If such Material is damaged while under the control of the Contractor, it shall be replaced or repaired by the Contractor at no expense to the Owner, and to the satisfaction of the Contract Administrator. If such Material is rejected by the Contract Administrator for reasons that are not the fault of the Contractor, it shall remain in the care and at the risk of the Contractor until its disposition has been determined by the Contract Administrator.

.03 Where Material supplied by the Owner arrives at the delivery point in a damaged condition or where there are discrepancies between the quantities received and the quantities shown on the bills of lading, the Contractor shall immediately report such damage or discrepancies to the Contract Administrator who shall arrange for an immediate inspection of the shipment and provide the Contractor with a written release from responsibility for such damage or deficiencies. Where damage or deficiencies are not so reported, it shall be assumed that the shipment arrived in good condition and order, and any damage or deficiencies reported thereafter shall be made good by the Contractor at no extra cost to the Owner.

.04 The full amount of Material supplied by the Owner in each shipment shall be accounted for by the Contractor and such Material shall be at the risk of the Contractor after taking delivery. Such Material shall not, except with the written permission of the Contract Administrator, be used by the Contractor for purposes other than the performance of the Work under the Contract.

.05 Empty reels, crates, containers, and other type of packaging from Material supplied by the Owner shall become the property of the Contractor when they are no longer required for their original purpose and shall

be disposed of by the Contractor at the Contractor's expense unless otherwise specified in the Contract Documents.

.06 Immediately upon receipt of each shipment, the Contractor shall provide the Contract Administrator copies of bills of lading, or such other documentation the Contract Administrator may require to substantiate and reconcile the quantities of Material received.

.07 Where Material supplied by the Owner is ordered and stockpiled prior to the award of the Contract, the Contractor shall, at no extra cost to the Owner, immediately upon commencement of operations, check the Material, report any damage or deficiencies to the Contract Administrator and take charge of the Material at the stockpile site. Where damage or deficiencies are not so recorded by the Contractor, it shall be assumed that the stockpile was in good condition and order when the Contractor took charge of it, and any damage or deficiencies reported thereafter shall be made good by the Contractor at no extra cost to the Owner.

SECTION GC 6.0 - INSURANCE, PROTECTION AND DAMAGE

GC 6.01 Protection of Work, Persons and Property

.01 The Contractor, the Contractor's agents, and all workers employed by or under the control of the Contractor, including Subcontractors, shall protect the Work, persons, and property from damage or injury. The Contractor shall be responsible for all losses and damage that may arise as the result of the Contractor's operations under the Contract, unless indicated to the contrary below.

.02 The Contractor is responsible for the full cost of any necessary temporary protective Work and the restoration of all damage where the Contractor damages the Work or property in the performance of the Contract. If the Contractor is not responsible for the damage that occurs to the Work or property, the Contractor shall restore such damage, and such Work and payment shall be administered according to these General Conditions.

.03 The Contractor shall immediately inform the Contract Administrator of all damage and injuries that occur during the term of the Contract. The Contractor shall then investigate and report back to the Contract Administrator within 15 Days of occurrence of incident, or as soon as possible. The Contract Administrator may conduct its own investigation and the Contractor shall provide all assistance to the Contract Administrator as may be necessary for that purpose.

.04 The Contractor shall not be responsible for loss and damage that occurs as a result of,

- a) war;
- b) blockades and civil commotions;
- c) errors in the Contract Documents; or
- d) acts or omissions of the Owner, the Contract Administrator, their agents and employees, or others not under the control of the Contractor, but within the Working Area with the Owner's permission.

.05 The Contractor and the Contractor's Surety shall not be released from any term or provision of any responsibility, obligation, or liability under the Contract or waive or impair any of the rights of the Owner, except by a release duly executed by the Owner.

GC 6.02 Indemnification

.01 The Contractor shall indemnify and hold harmless the Owner and the Contract Administrator, their elected officials, agents, officers, and employees from and against all claims, demands, losses, expenses, costs, damages, actions, suits, or proceedings by third parties, hereinafter called "claims", directly or indirectly arising or alleged to arise out of the performance of or the failure to perform the Work, provided such claims are,

- a) attributable to bodily injury, sickness, disease, or death or to damage to or destruction of tangible property;
- b) caused by negligent acts or omissions of the Contractor or anyone for whose acts the Contractor may be liable; and
- c) made in writing within a period of 6 years from the date of Substantial Performance of the Work as set out in the Certificate of Substantial Performance of the Work or, where so specified in the Contract Documents, from the date of certification of Final Acceptance.

.02 The Contractor shall indemnify and hold harmless the Owner from all and every claim for damages, royalties or fees for the infringement of any patented invention or copyright occasioned by the Contractor in connection with the Work performed or Material furnished by the Contractor under the Contract.

.03 The Owner expressly waives the right to indemnity for claims other than those stated in clauses GC 6.02.01 and GC 6.02.02.

.04 The Owner shall indemnify and hold harmless the Contractor, their elected officials, agents, officers, and employees from and against all claims, demands, losses, expenses, costs, damages, actions, suits, or proceedings arising out of the Contractor's performance of the Contract that are attributable to a lack of or defect in title or an alleged lack of or defect in title to the Working Area.

.05 The Contractor expressly waives the right to indemnity for claims other than those stated in clause GC 6.02.04.

GC 6.03 Contractor's Insurance

GC 6.03.01 General

.01 Without restricting the generality of subsection GC 6.02, Indemnification, the Contractor shall provide, maintain, and pay for the insurance coverages listed under clauses GC 6.03.02 and GC 6.03.03. Insurance coverage in clauses GC 6.03.04, GC 6.03.05, and GC 6.03.06 shall only apply when so specified in the Contract Documents.

.02 The Contractor shall provide the Contract Administrator with an original Certificate of Insurance for each type of insurance coverage that is required by the Contract Documents. The Contractor shall ensure that the Contract Administrator is, at all times in receipt of a valid Certificate of Insurance for each type of insurance coverage, in such amounts as specified in the Contract Documents. The Contractor will not be permitted to commence Work until the Contract Administrator is in receipt of such proof of insurance. The Contract Administrator may withhold payments of monies due to the Contractor until the Contractor has provided the Contract Administrator with original valid Certificates of Insurance as required by the provisions of the Contract Documents.

GC 6.03.02 Commercial General Liability Insurance

.01 Commercial General Liability Insurance shall be in the name of the Contractor, with the Owner and the Contract Administrator named as additional insureds, with limits of not less than five million dollars inclusive per occurrence for bodily injury, death, and damage to property including loss of use thereof. The insurance shall be provided in a form acceptable to the Owner.

.02 Approval of this insurance shall be conditional upon the Contractor obtaining the services of an insurer licensed to underwrite insurance in the Province of Ontario and obtaining the insurer's certificate of equivalency to the required insurance.

.03 The Contractor shall submit annually to the Owner, proof of continuation of the completed operations coverage and, if the Contractor fails to do so, the limitation period for claiming indemnity described in clause GC 6.02.01 c), shall not be binding on the Owner.

.04 Should the Contractor decide not to employ Subcontractors for operations requiring the use of explosives for blasting, pile driving or caisson work, removal or weakening of support of property building or land, the Commercial General Liability Insurance shall include the appropriate endorsements.

.05 The policies shall be endorsed to provide the Owner with not less than 30 Days written notice in advance of cancellation, termination, or material change.

.06 "Claims Made" insurance policies shall not be permitted.

GC 6.03.03 Automobile Liability Insurance

.01 Automobile liability insurance in respect of licensed vehicles shall have limits of not less than five million dollars inclusive per occurrence for bodily injury, death and damage to property, in the following forms endorsed to provide the Owner with not less than 30 Days written notice in advance of any cancellation, termination, or material change.

- a) standard non-owned automobile policy including standard contractual liability endorsement, and
- b) standard owner's form automobile policy providing third party liability and accident benefits insurance and covering licensed vehicles owned or operated by the Contractor.

GC 6.03.04 Aircraft and Watercraft Liability Insurance

GC 6.03.04.01 Aircraft Liability Insurance

.01 Aircraft liability insurance with respect to owned or non-owned aircraft used directly or indirectly in the performance of the Work, including use of additional premises, shall be subject to limits of not less than five million dollars inclusive per occurrence for bodily injury, death, and damage to property including loss of use thereof, and limits of not less than five million dollars for aircraft passenger hazard. Such insurance shall be in a form acceptable to the Owner. The policies shall be endorsed to provide the Owner with not less than 30 Days written notice in advance of cancellation, change, or amendment restricting coverage.

GC 6.03.04.02 Watercraft Liability Insurance

.01 Watercraft liability insurance with respect to owned or non-owned watercraft used directly or indirectly in the performance of the Work, including use of additional premises, shall be subject to limits of not less than five million dollars inclusive per occurrence for bodily injury, death, and damage to property including loss of use thereof. Such insurance shall be in a form acceptable to the Owner. The policies shall be endorsed to provide the Owner with not less than 30 Days written notice in advance of cancellation, change, or amendment restricting coverage.

GC 6.03.05 Property and Boiler Insurance

GC 6.03.05.01 Property Insurance

.01 All risks property insurance shall be in the name of the Contractor, with the Owner and the Contract Administrator named as additional insureds, insuring not less than the sum of the amount of the Contract price and the full value, as may be stated in the Contract Documents, of Material that is specified to be provided by the Owner for incorporation into the Work.

GC 6.03.05.02 Boiler Insurance

.01 Boiler insurance insuring the interests of the Contractor, the Owner and the Contract Administrator for not less than the replacement value of boilers and pressure vessels forming part of the Work, shall be in a form acceptable to the Owner.

GC 6.03.05.03 Use and Occupancy of the Work Prior to Completion

.01 Should the Owner wish to use or occupy part or all of the Work prior to Substantial Performance, the Owner shall give 30 Days written notice to the Contractor of the intended purpose and extent of such use or occupancy. Prior to such use or occupancy, the Contractor shall notify the Owner in writing of the additional premium cost, if any, to maintain property and boiler insurance, which shall be at the Owner's expense. If because of such use or occupancy the Contractor is unable to provide coverage, the Owner upon written notice from the Contractor and prior to such use or occupancy shall provide, maintain, and pay for property and boiler insurance insuring the full value of the Work, including coverage for such use or occupancy, and shall provide the Contractor with proof of such insurance. The Contractor shall refund to the Owner the unearned premiums applicable to the Contractor's policies upon termination of coverage.

.02 The policies shall provide that in the event of a loss or damage, payment shall be made to the Owner and the Contractor as their respective interests may appear. The Contractor shall act on behalf of both the Owner and the Contractor for the purpose of adjusting the amount of such loss or damage payment with the insurers. When the extent of the loss or damage is determined, the Contractor shall proceed to restore the Work. Loss or damage shall not affect the rights and obligations of either party under the Contract, except that the Contractor shall be entitled to such reasonable extension of Contract Time relative to the extent of the loss or damage as the Contract Administrator may decide in consultation with the Contractor.

GC 6.03.05.04 Payment for Loss or Damage

.01 The Contractor shall be entitled to receive from the Owner, in addition to the amount due under the Contract, the amount at which the Owner's interest in restoration of the Work has been appraised, such amount to be paid as the restoration of the Work proceeds, and in accordance with the requirements of section GC 8.0, Measurement and Payment. In addition, the Contractor shall be entitled to receive from the payments made by the insurers the amount of the Contractor's interest in the restoration of the Work.

.02 The Contractor shall be responsible for deductible amounts under the policies, except where such amounts may be excluded from the Contractor's responsibility by the terms of this Contract.

.03 In the event of a loss or damage to the Work arising from the action or omission of the Owner or others, the Owner shall pay the Contractor the cost of restoring the Work as the restoration of the Work proceeds and in accordance with the requirements of section GC 8.0, Measurement and Payment.

GC 6.03.06 Contractor's Equipment Insurance

.01 All risks Contractor's Equipment insurance covering construction equipment used by the Contractor for the performance of the Work, including boiler insurance on temporary boilers and pressure vessels, shall be in a form acceptable to the Owner and shall not allow subrogation claims by the insurer against the Owner. The policies shall be endorsed to provide the Owner with not less than 30 Days written notice in advance of cancellation, change, or amendment restricting coverage. Subject to satisfactory proof of financial capability by the Contractor for self-insurance of the Contractor's Equipment, the Owner agrees to waive the equipment insurance requirement, and for the purpose of this Contract, the Contractor shall be deemed to be insured. This policy shall be amended to provide permission for the Contractor to grant prior releases with respect to damage to the Contractor's Equipment.

GC 6.03.07 Insurance Requirements and Duration

.01 Each insurance policy as noted in the Contract Documents shall be in effect from the date of commencement of the Work until 10 Days after the date of Final Acceptance of the Work, as set out in the Final Acceptance Certificate.

.02 The Contractor shall provide the Owner, on a form acceptable to the Owner, proof of insurance prior to commencement of the Work and signed by the underwriter or the broker.

.03 The Contractor shall, on request, promptly provide the Owner with a certified true copy of each insurance policy exclusive of information pertaining to premium or premium bases used by the insurer to determine the cost of the insurance. The certified true copy shall include the signature of an officer of the insurer.

.04 Where a policy is renewed, the Contractor shall provide the Owner, on a form acceptable to the Owner, renewed proof of insurance immediately following completion of renewal.

.05 Unless specified otherwise, the Contractor shall be responsible for the payment of deductible amounts under the policies.

.06 If the Contractor fails to provide or maintain insurance as required in subsection GC 6.03, Contractor's Insurance, or elsewhere in the Contract Documents, then the Owner shall have the right to provide and maintain such insurance and give evidence thereof to the Contractor. The Owner's cost thereof shall be payable by the Contractor to the Owner on demand.

.07 If the Contractor fails to pay the cost of the insurance placed by the Owner within 28 Days of the date on which the Owner made a formal demand for reimbursement of such costs, the Owner may deduct the costs thereof from monies which are due or may become due to the Contractor.

GC 6.04 Bonding

.01 The Contractor shall provide the Owner with the surety bonds in the amount required by the Contract Documents.

.02 Such bonds shall be issued by a duly licensed surety company authorized to transact a business of suretyship in the Province of Ontario and shall be to the satisfaction of the Owner. The bonds shall be maintained in good standing until the Final Acceptance.

GC 6.05 Workplace Safety and Insurance Board

.01 The Contractor shall provide the Contract Administrator with a copy of a Certificate of Clearance indicating the Contractor's good standing with the Workplace Safety and Insurance Board, as follows:

- a) Immediately prior to the Contract Administrator authorizing the Contractor to commence Work.
- b) Prior to issue of the Certificate of Substantial Performance.
- c) Prior to expiration of the Warranty Period.
- d) At any other time when requested by the Contract Administrator.

SECTION GC 7.0 - CONTRACTOR'S RESPONSIBILITIES AND CONTROL OF THE WORK

GC 7.01 General

GC 7.01.01 Site Visit

.01 The Contractor warrants that the site of the Work has been visited during the preparation of the Tender and the character of the Work and all local conditions that may affect the performance of the Work are known.

GC 7.01.02 Commencement of Work

.01 The Contractor shall not commence the Work nor deliver anything to the Working Area until the Contractor has received a written order to commence the work from the Contract Administrator.

GC 7.01.03 Control and Responsibility

.01 The Contractor shall have complete control of the Work and shall effectively direct and supervise the Work so as to ensure conformity with the Contract Documents. The Contractor shall be responsible for construction means, methods, techniques, sequences, and procedures and for coordinating the various parts of the Work.

.02 The Contractor shall provide adequate labour, Equipment, and Material to ensure the completion of the Contract in accordance with the Contract Documents. The Work shall be performed as vigorously and as continuously as weather conditions or other interferences may permit.

.03 The Contractor shall have the sole responsibility for the design, erection, operation, maintenance, and removal of temporary structures and other temporary facilities and the design and execution of construction methods required in their use.

.04 Notwithstanding clause GC 7.01.03, where the Contract Documents include designs for temporary structures and other temporary facilities or specify a method of construction in whole or part, such facilities and methods shall be considered to be part of the design of the Work, and the Contractor shall not be held responsible for that part of the design or the specified method of construction. The Contractor shall, however, be responsible for the execution of such design or specified method of construction in the same manner that the Contractor is responsible for the execution of the Work.

.05 The Contractor shall comply with and conform to all statutes, laws, by-laws, regulations, requirements, ordinances, notices, rulings, orders, directives and policies of the municipal, provincial and federal governments and any other lawful authority and all court orders, judgments and declarations of a court of competent jurisdiction (collectively referred to as the "Laws"), applicable to the Work to be provided by, and the undertakings and obligations of, the Contractor under this Contract.

GC 7.01.04 Compliance with the Occupational Health and Safety Act

.01 The Contractor shall execute the terms of the Contract in strict compliance with the requirements of the Occupational Health and Safety Act, R.S.O. 1990, c.O.1, as amended, (the "Act") and Ontario Regulation 213/91, as amended, (that regulates Construction Projects) and any other regulations as amended under the Act (the "Regulations") that may affect the performance of the Work, as the "Constructor" or "employer," as defined by the Act, as the case may be. The Contractor shall ensure that:

- a) worker safety is given priority in planning, pricing, and performing the Work;
- b) its officers and supervisory employees have a working knowledge of the duties of a "Constructor" and "employer" as defined by the Act and the provisions of the Regulations applicable to the Work, and a personal commitment to comply with them;
- c) a copy of the most current version of the Act and the Regulations are available at the Contractor's office within the Working Area, or, in the absence of an office, in the possession of the supervisor responsible for the performance of the Work;
- d) workers employed to carry out the Work possess the knowledge, skills, and protective devices required by law or recommended for use by a recognized industry association to allow them to work in safety;

- e) its supervisory employees are “Competent Persons” as defined in the OHSA, and carry out their duties in a diligent and responsible manner with due consideration for the health and safety of the workers;
- f) all Subcontractors and their workers are properly protected from injury while they are at the Working Area; and
- g) following execution of the Contract and prior to the issuance of the order to commence by the Owner, upon request the Contractor submits to the Contract Administrator a copy of the Notice of Project issued to the Ministry of Labour.

.02 The Contractor, when requested, shall provide the Owner with a copy of its health and safety policy and program at the pre-start meeting and shall respond promptly to requests from the Owner for confirmation that its methods and procedures for carrying out the Work comply with the Act and Regulations. The Contractor shall cooperate with representatives of the Owner and the inspectors appointed to enforce the Act and the Regulations in any investigations of worker health and safety in the performance of the Work. The Contractor shall indemnify and save the Owner harmless from any additional expense that the Owner may incur to have the Work performed as a result of the Contractor's failure to comply with the requirements of the Act and the Regulations.

.03 Prior to commencement of the Work, the Contractor shall provide to the Contract Administrator a list of those products controlled under the Workplace Hazardous Materials Information System or “WHMIS”, which the Contractor expects to use on the Contract. Related Safety Data Sheets shall accompany the submission. All containers used in the application of products controlled under “WHMIS” shall be labelled. The Contractor shall notify the Contract Administrator in writing of changes in the products to be used and provide relevant Safety Data Sheets.

.04 During the course of the Work, the Contractor shall furnish forthwith to the Contract Administrator a copy of all correspondence, reports, orders or charges respecting occupational health and safety, including under the Act, Technical Standards and Safety Act, 2000, S.O. 2000, c.16 as amended, and the Criminal Code, R.S.C., 1985, c. C-46 as amended, which are received by, or which come to the notice of, the Contractor that apply or are relevant to any of the Work or activities conducted under the terms of the Contract.

.05 Nothing in this Contract shall be construed as requiring the Owner to monitor or approve the workplace health and safety practices of the Contractor.

GC 7.01.05 Contractor's Representatives

.01 The Contractor shall have an authorized representative on the site while any Work is being performed, to supervise the Work and act for or on the Contractor's behalf. Prior to commencement of construction, the Contractor shall notify the Contract Administrator of the names, addresses, positions, and cell phone, and telephone numbers of the Contractor's representatives who can be contacted at any time to deal with matters relating to the Contract, and update as necessary.

.02 The Contractor shall designate a person to be responsible for traffic control and work zone safety. The designated person shall be a competent worker who is qualified because of knowledge, training, and experience to perform the duties; is familiar with Book 7 of the Ontario Traffic Manual; and has knowledge of all potential or actual danger to workers and motorists. Prior to the commencement of construction, the Contractor shall notify the Contract Administrator of the name; address; position; cell phone, and telephone numbers of the designated person, and update as necessary. The designated person may have other responsibilities, including other construction sites, and need not be present in the Working Area at all times.

GC 7.01.06 Assistance to the Contract Administrator

.01 The Contractor shall, at no additional cost to the Owner, furnish all reasonable aid, facilities, and assistance required by the Contract Administrator for the proper inspection and examination of the Work or the taking of measurements for the purpose of payment.

GC 7.01.07 Schedule

.01 The Contractor shall prepare and update, as required, a construction schedule of operations, indicating the proposed methods of construction and sequence of Work and the time the Contractor proposes to complete the various items of Work within the time specified in the Contract Documents. The schedule shall be submitted to the Contract Administrator within 14 Days from the Contract award. If the Contractor's schedule is materially affected by changes in the work, the Contractor shall submit an updated construction schedule, if requested by the Contract Administrator, within 7 Days of the request. This updated schedule shall show how the Contractor proposes to perform the balance of the Work, to complete the Work within the time specified in the Contract Documents.

.02 For Contracts with a specified number of Working Days, the construction time shown on the initial schedule shall not exceed the specified number of Working Days. The activities on the critical path shall assist the Contract Administrator in determining the Controlling Operation for the purpose of the charging of Working Days. The construction schedule shall include all non-working periods and appropriate allowances for Inclement Weather.

.03 For Contracts which specify a Contract Time, the construction time shown on the initial construction schedule shall not extend beyond the specified Contract Time. The construction schedule shall include all non-working periods and appropriate allowances for Inclement Weather.

GC 7.01.08 Errors and Inconsistencies Relating to the Contract

.01 Where the Contractor finds any error, inconsistency, or omission relating to the Contract, the Contractor shall promptly report it to the Contract Administrator and shall not proceed with the activity affected until receiving direction from the Contract Administrator.

.02 The Contractor shall promptly notify the Contract Administrator in writing if the subsurface conditions observed in the Working Area differ materially from those indicated in the Contract Documents.

GC 7.01.09 Utilities

.01 The Contractor shall arrange with the appropriate Utility authorities for the stake out of all underground Utilities and service connections that may be affected by the Work. The Contractor shall observe the location of the stake outs prior to commencing the Work and if there is a discrepancy between the location of the stake outs and the locations shown on the Contract Documents, that may affect the Work, the Contractor shall immediately notify the Contract Administrator and the affected Utility companies, in order to resolve the discrepancy. The Contractor shall be responsible for any damage done to the underground Utilities and service connections by the Contractor's forces during construction if the stake out locations are within the tolerances given in clause GC 2.01.01 a).

.02 In the case of damage to or interference with any Utilities, pole lines, pipe lines, conduits, farm tiles, or other public or privately-owned works or property, the Contractor shall immediately notify the Owner, Contract Administrator, and the owner of the works of the location and details of such damage or interference.

GC 7.02

Monuments and Layout

.01 Prior to commencement of construction, the Contract Administrator and the Contractor shall locate on site those Monuments that delineate the Working Area and may be used to lay out the Work, all as shown on the Contract Drawings. Property Monuments shall be inventoried in the report format required by the Owner.

.02 These Monuments shall be protected by highly visible T-bars or 1.0 metre tall stakes with survey ribbon set within 0.3 metres of the Monument.

.03 The Contractor shall be responsible for the preservation of all Property Monuments while the Work is in progress, except those Property Monuments that must be removed to facilitate the Work as identified and agreed by the Contractor and Contract Administrator. Monuments removed to facilitate the Work shall be replaced at the Owner's expense, and all others shall be replaced at the Contractor's expense.

.04 All Monuments disturbed, damaged, or removed by the Contractor's operations shall be documented in the inventory report and replaced under the supervision of an Ontario Land Surveyor.

.05 The Monument inventory report referred to in clauses GC 7.02.01 and GC 7.02.04 shall include as a minimum:

- a) Contract number, Contract name, Contract Administrator's name;
- b) Project/site construction limits;
- c) Rough location, type, identification number, and condition of each Monument before and after construction;
- d) The solutions for protection of the Monuments that may be impacted by construction; e) Reference ties;
- f) A summary of those Monuments affected by the Work and how they were reset or replaced, and by what type of Monument.

.06 At no extra cost to the Owner, the Contractor shall provide the Contract Administrator with such materials and devices as may be necessary to lay out the baseline and benchmarks, and as may be necessary for the inspection of the Work.

.07 The Contractor shall provide qualified personnel to lay out and establish all lines and grades necessary for construction. The Contractor shall notify the Contract Administrator of any layout work carried out, so that the same may be checked by the Contract Administrator.

.08 The Contractor shall install and maintain substantial alignment markers and secondary benchmarks as may be required for the proper execution of the Work. The Contractor shall supply one copy of all alignment and grade sheets to the Contract Administrator.

.09 The Contractor shall assume full responsibility for alignment, elevations, and dimensions of each and all parts of the Work, regardless of whether the Contractor's layout work has been checked by the Contract Administrator.

.10 All stakes, marks, and reference points shall be carefully preserved by the Contractor. In the case of their destruction or removal, for any reason, before the end of the Contract Time such stakes, marks, and reference points shall be replaced, unless otherwise mutually agreed between the Contractor and the Contract Administrator, at the Contractor's expense.

.11 Benchmarks and survey monuments identified in the Contract Documents shall be protected by the Contractor. In the case of their destruction or removal, such benchmarks and survey monuments shall be replaced by the Owner at the Contractor's expense.

GC 7.03 Working Area

.01 The Contractor shall maintain the Working Area in a tidy condition and free from the accumulation of debris and prevent dust nuisance, mud, and ponding water, other than that caused by the Owner or others.

.02 The Contractor's sheds, site offices, toilets, other temporary structures, and storage areas for Material and Equipment shall be grouped in a compact manner, maintained in a neat and orderly condition at all times and removed upon completion of the Work.

.03 The Contractor shall confine the construction operations to the Working Area. Should the Contractor require additional space, the Contractor shall obtain such space at no additional cost to the Owner.

.04 The Contractor shall not enter upon or occupy any private property for any purpose, unless the Contractor has received prior written permission from the property owner.

.05 Upon completion of the Contract, the Working Area used by the Contractor shall be restored to its original condition or better unless otherwise specified in the Contract Documents including the removal of all excavated and stockpiled materials at the Contractor's expense.

GC 7.04 Damage by Vehicles or Other Equipment

.01 If at any time, in the opinion of the Contract Administrator, damage is being done or is likely to be done to any Roadway or any improvement thereon, outside the Working Area, by the Contractor's vehicles or other Equipment, whether licensed or unlicensed Equipment, the Contractor shall, on the direction of the Contract Administrator, and at no extra cost to the Owner, make changes or substitutions for such vehicles or Equipment, and shall alter loadings, or in some other manner, remove the cause of such damage to the satisfaction of the Contract Administrator.

GC 7.05 Excess Loading of Motor Vehicles

.01 Where a vehicle is hauling Material for use on the Work, in whole or in part; upon a Highway; and where motor vehicle registration is required for such vehicle, the Contractor shall not cause or permit such vehicle to be loaded beyond the legal limit specified in the Highway Traffic Act, R.S.O. 1990, c.H.8, as amended, whether such vehicle is registered in the name of the Contractor or otherwise, except where there are designated areas within the Working Area where overloading is permitted. The Contractor shall bear the onus of weighing disputed loads.

GC 7.06 Maintaining Roads and Detours

.01 Unless otherwise specified in the Contract Documents, if an existing Roadway is affected by construction, it shall be kept open to both vehicular and pedestrian traffic.

.02 Subject to the approval of the Contract Administrator, the Contractor shall, at no additional cost to the Owner, be responsible for providing and maintaining for the duration of the Work an alternative route for both pedestrian and vehicular traffic through the Working Area in accordance with the OTM, whether along the existing Highway under construction or on a detour road beside or adjacent to the Highway under construction.

.03 Subject to the approval of the Contract Administrator, the Contractor may block traffic for short periods of time to facilitate construction of the Work in accordance with the OTM. Any temporary lane closures shall be kept to a minimum.

.04 The Contractor shall not be required to maintain a road through the Working Area until such time as the Contractor has commenced operations or during seasonal shut down or on any part of the Contract that has been accepted in accordance with these General Conditions. The Contractor shall not be required to apply de-icing chemicals or abrasives or carry out snowplowing.

.05 Where only localized and separated sections of the Highway are affected by the Contractor's operations, the Contractor shall not be required to maintain intervening sections of the Highway until such times as these sections are located within the limits of the Highway affected by the Contractor's general operations under the Contract.

.06 Where the Contract Documents provide for or the Contract Administrator requires detours at specific locations, payment for the construction of the detours and, if required, for the subsequent removal of the detours, shall be made at the Contract prices appropriate to such Work.

.07 Compensation for all labour, Equipment, and Materials to do this Work shall be at the Contract prices appropriate to the Work and, where there are no such prices, at negotiated prices. Notwithstanding the foregoing, the cost of blading required to maintain the surface of such roads and detours shall be deemed to be included in the prices bid for the various tender items and no additional payment shall be made.

.08 Where Work under the Contract is discontinued for any extended period, including seasonal shutdown, the Contractor shall, when directed by the Contract Administrator, open and place the Roadway and detours in a passable, safe, and satisfactory condition for public travel.

.09 Where the Contractor constructs a detour that is not specifically provided for in the Contract Documents or required by the Contract Administrator, the construction of the detour and, if required, the subsequent removal shall be performed at the Contractor's expense. The detour shall be constructed and maintained to structural and geometric standards approved by the Contract Administrator. Removal and site restoration shall be performed as directed by the Contract Administrator.

.10 Where, with the prior written approval of the Contract Administrator, the Highway is closed and the traffic diverted entirely off the Highway to any other Highway, the Contractor shall, at no extra cost to the Owner, supply, erect, and maintain traffic control devices in accordance with the OTM.

.11 Compliance with the foregoing provisions shall in no way relieve the Contractor of its obligations under subsection GC 6.01, Protection of Work, Persons, and Property, dealing with the Contractor's responsibility for damage claims, except for claims arising on sections of Highway within the Working Area that are being maintained by others.

GC 7.07 Access to Properties Adjoining the Work and Interruption of Utility Services

.01 The Contractor shall provide at all times and at no extra cost to the Owner,

- a) safe and adequate pedestrian and vehicular access;
- b) continuity of Utility services; and
- c) access for emergency response services;

to properties adjoining the Working Area.

.02 The Contractor shall provide at all times and at no extra cost to the Owner access to fire hydrants, water and gas valves, and all other Utilities located in the Working Area.

.03 Where any interruptions in the supply of Utility services are required and are authorized by the Contract Administrator, the Contractor shall give the affected property owners notice in accordance with subsection GC 7.11, Notices by the Contractor, and shall arrange such interruptions so as to create a minimum of interference to those affected.

GC 7.08 Approvals and Permits

.01 Except as specified in subsection GC 4.02, Approval and Permits, the Contractor shall obtain and pay for any permits, licences, and certificates, which at the date of tender closing, are required for the performance of the Work.

.02 The Contractor shall arrange for all necessary inspections required by the approvals and permits specified in clause GC 7.08.01, Approvals and Permit.

GC 7.09 Suspension of Work

.01 The Contractor shall, upon written notice from the Contract Administrator, discontinue or delay any or all of the Work and Work shall not be resumed until the Contract Administrator so directs in writing. Delays, in these circumstances, shall be administered according to subsection GC 3.07, Delays.

GC 7.10 Contractor's Right to Stop the Work or Terminate the Contract

.01 If the Owner is adjudged bankrupt or makes a general assignment for the benefit of creditors because of insolvency or if a receiver is appointed because of insolvency, the Contractor may, without prejudice to any other right or remedy the Contractor may have, by giving the Owner or receiver or trustee in bankruptcy written notice, terminate the Contract.

.02 If the Work is stopped or otherwise delayed for a period of 30 Days or more under an order of a court or other public authority and provided that such order was not issued as the result of an act or fault of the Contractor or of anyone directly employed or engaged by the Contractor, the Contractor may, without prejudice to any other right or remedy the Contractor may have, by giving the Owner written notice, terminate the Contract.

.03 The Contractor may notify the Owner in writing, with a copy to the Contract Administrator, that the Owner is in default of contractual obligations if,

- a) the Contract Administrator fails to issue certificates in accordance with the provisions of section GC 8.0, Measurement and Payment;
- b) the Owner fails to pay the Contractor, within 28 Days of the due dates identified in clause GC 8.02.04, Certification and Payment, the amounts certified by the Contract Administrator or within 28 Days of an award by an arbitrator or court; or
- c) the Owner fails to comply with the requirements of the Contract.

.04 The Contractor's written notice to the Owner shall advise that if the default is not corrected in the 7 Days immediately following receipt of the written notice, the Contractor may, without prejudice to any other right or remedy the Contractor may have, stop the Work or terminate the Contract.

.05 If the Contractor terminates the Contract under the conditions set out in subsection GC 7.10, Contractor's Right to Stop the Work or Terminate the Contract, the Contractor shall be entitled to be paid for all Work performed according to the Contract Documents and for any losses or damage as the Contractor may sustain as a result of the termination of the Contract.

GC 7.11**Notices by the Contractor**

.01 Before any Work is carried out that may affect the property or operations of any Ministry or agency of government or any person; company; partnership; or corporation, including a municipal corporation or any board or commission thereof, and in addition to such notices of the commencement of specified operations as are prescribed elsewhere in the Contract Documents, the Contractor shall give at least 48 hours advance written notice of the date of commencement of such Work to the person, company, partnership, corporation, board, or commission so affected.

GC 7.12**Environmental Incident Management under Legislation Protecting the Environment and Natural Resources**

.01 The Contractor shall be in strict compliance with the requirements of the following legislation, as amended, regarding environmental incidents under the control of the Contractor or that are a result of the Contractor's operations:

- a) Environmental Protection Act, R.S.O. 1990, c. E.19
- b) Fisheries Act, R.S.C. 1985, c. F-14
- c) Technical Standards and Safety Act, 2000, S.O. 2000, c. 16
- d) Pesticides Act, R.S.O. 1990, c. P.11
- e) Ontario Water Resources Act, R.S.O. 1990, c. O.40
- f) Transportation of Dangerous Goods Act, 1992, S.C.1992, c. 34

.02 The requirements of the legislation listed in clause GC 7.12.01 include but are not restricted to:

- a) Immediate containment of the material, pollutant, contaminant, deleterious substance, or dangerous good;
- b) Immediate notification of the environmental incident to the proper authority; and
- c) Clean up and restoration of the environment to preconditions.

.03 The Contractor shall possess a plan demonstrating that environmental incidents shall be managed to satisfy the requirements of clauses GC 7.12.01 and GC 7.12.02.

.04 The Contractor shall provide a copy of the environmental incident plan to the Contract Administrator when required and shall inform the Contract Administrator immediately of:

- a) An environmental incident when it occurs; and
- b) Any actions taken or intended to be taken by the Contractor regarding the environmental incident.

.05 The Contractor shall indemnify and save the Owner harmless from any additional expense that the Owner may incur to have the Work performed as a result of the Contractor's failure to comply with the requirements of the legislation listed in clause GC 7.12.01.

GC 7.13 Obstructions

.01 Except as otherwise noted in these General Conditions, the Contractor assumes all the risks and responsibilities arising out of any obstruction encountered in the performance of the Work and any traffic conditions, including traffic conditions on any Highway or road giving access to the Working Area caused by such obstructions, and the Contractor shall not make any claim against the Owner for any loss, damage, or expense occasioned thereby.

.02 Where the obstruction is an underground Utility or other man-made object, the Contractor shall not be required to assume the risks and responsibilities arising out of such obstruction, unless the location of the obstruction is shown on the Plans or described in the Contract Documents and the location so shown is within the tolerance specified in clause GC 2.01.01 a), or unless the presence and location of the obstruction has otherwise been made known to the Contractor or could have been determined by the visual site investigation made by the Contractor in accordance with these General Conditions.

.03 During the course of the Contract, it is the Contractor's responsibility to consult with Utility companies or other appropriate authorities for further information in regard to the exact location of these Utilities, to exercise the necessary care in construction operations, and to take such other precautions as are necessary to safeguard the Utilities from damage.

GC 7.14 Limitations of Operations

.01 Except for such Work as may be required by the Contract Administrator to maintain the Work in a safe and satisfactory condition, the Contractor shall not carry out operations under the Contract on Saturdays, Sundays, and any holidays recognized by the Owner without permission in writing from the Contract Administrator.

.02 The Contractor shall cooperate and coordinate the Work with other Contractors, Utility companies, and the Owner and they shall be allowed access to their Work or plant at all reasonable times.

GC 7.15 Cleaning Up Before Acceptance

.01 Upon attaining Substantial Performance of the Work, the Contractor shall remove surplus materials, tools, and Equipment not required for the performance of the remaining Work. The Contractor shall also remove all temporary works and debris other than that caused by the Owner or others and leave the Work and Working Area clean and suitable for occupancy by the Owner, unless otherwise specified.

.02 The Work shall not be deemed to have reached Completion until the Contractor has removed surplus materials, tools, and Equipment. The Contractor shall also have removed debris, other than that caused by the Owner, or others.

GC 7.16 Warranty

.01 Unless otherwise specified in the Contract Documents for certain Materials or components of the Work, the Contractor shall be responsible for the proper performance of the Work only to the extent that the design and standards permit such performance.

.02 Subject to the previous paragraph the Contractor shall correct promptly, at no additional cost to the Owner, defects or deficiencies in the Work that appear,

- a) prior to and during the period of 12 months from the date of Substantial Performance of the Work, as set out in the Certificate of Substantial Performance of the Work,
- b) where there is no Certificate of Substantial Performance, 12 months from the date of Completion of the Work as set out in the Completion Certificate, or
- c) such longer periods as may be specified in the Contract Documents for certain Materials or some of the Work.

The Contract Administrator shall promptly give the Contractor written notice of observed defects or deficiencies.

.03 The Contractor shall correct or pay for damage resulting from corrections made under the requirements of clause GC 7.16.02.

GC 7.17 Contractor's Workers

.01 The Contractor shall only employ orderly, competent, and skillful workers to do the Work and whenever the Contract Administrator shall inform the Contractor in writing that any worker or workers involved in the Work are, in the opinion of the Contract Administrator, incompetent, or disorderly such worker or workers shall be removed from the Work and shall not be employed on the Work again without the consent in writing of the Contract Administrator.

GC 7.18 Drainage

.01 During construction and until the Work is completed, the Contractor shall make all reasonable efforts to keep all portions of the Work properly and efficiently drained, to at least the same degree as that of the existing drainage conditions.

SECTION GC 8.0 - MEASUREMENT AND PAYMENT

GC 8.01 Measurement

GC 8.01.01 Quantities

.01 The Contract Administrator shall make an Estimate in writing once a month, unless otherwise specified in the Contract Documents, of the quantity of Work performed and provide such Estimate to the Contractor within 10 Days of the Cut-Off Date.

.02 Quantities for progress payments shall be construed and held to approximate. The final quantities for the issuance of the Completion Payment shall be based on the measurement of Work completed.

.03 Measurement of the quantities of the Work performed may be either by Actual Measurement or by Plan Quantity principles as indicated in the Contract. Adjustments to Plan Quantity measurements shall normally be made using Plan Quantity principles but may, where appropriate, be made using Actual Measurements. Those items identified on the Tender by the notation (P) in the unit column shall be paid according to the Plan Quantity. Items where the notation (P) does not occur shall be paid according to Actual Measurement or lump sum.

GC 8.01.02 Variations in Tender Quantities

.01 Where it appears that the quantity of Work to be done or Material to be supplied or both by the Contractor under a unit price tender item may exceed or be less than the tender quantity, the Contractor shall proceed to do the Work or supply the Material or both required to complete the tender item and payment shall be made for the actual amount of Work done or Material supplied or both at the unit prices stated in the Tender except as provided below:

a) In the case of a Major Item where the quantity of Work performed or Material supplied or both by the Contractor exceeds the tender quantity by more than 15%, either party to the Contract may make a written request to the other party to negotiate a revised unit price for that portion of the Work performed or Material supplied or both which exceeds 115% of the tender quantity. The negotiation shall be carried out as soon as reasonably possible. Any revision of the unit price shall be based on the actual cost of doing the Work or supplying the Material or both under the tender item plus a reasonable allowance for profit and applicable overhead. Alternatively, where both parties agree, an allowance equal to 10% of the unit price on the amount of the underrun in excess of 15% of the tender quantity shall be paid.

b) In the case of a Major Item where the quantity of Work performed or Material supplied or both by the Contractor is less than 85% of the tender quantity, the Contractor may make a written request to negotiate for the portion of the actual overheads and fixed costs applicable to the amount of the underrun in excess of 15% of the tender quantity. For purposes of the negotiation, the overheads and fixed costs applicable to the item are deemed to have been prorated uniformly over 100% of the tender quantity for the item. Overhead costs shall be confirmed by a statement certified by the Contractor's senior financial officer or auditor and may be audited by the Owner. Alternatively, where both parties agree, an allowance equal to 10% of the unit price on the amount of the underrun in excess of 15% of the tender quantity shall be paid.

Written requests for compensation must be received no later than 60 Days after the issuance of the Completion Payment.

GC 8.02 Payment

GC 8.02.01 Non-Resident Contractor

.01 If the Contractor is not a registered entity in Ontario, the Contractor shall obtain all necessary approvals, consents, permits, licences, certificates, registrations, and other authorizations prior to execution of the Contract.

.02 The Contractor shall ensure that all Subcontractors the Contractor proposes to use for carrying out any of the Work required by the Contract and who are not a registered entity in Ontario have obtained all necessary approvals, consents, permits, certificates, registrations, and other authorizations prior to execution of the subcontract.

GC 8.02.02 Price for Work

.01 Prices for the Work shall be full compensation for all labour, Equipment and Material required in its performance. The term "all labour, Equipment, and Material" shall include Hand Tools, supplies, and other incidentals.

.02 Payment, for Work which is identified in the Contract Documents but not specifically detailed as part of any one item shall be deemed to be included in the items with which it is associated.

GC 8.02.03 Advance Payments for Material

.01 The Owner shall make advance payments for Material intended for incorporation in the Work upon the written request of the Contractor and according to the following terms and conditions:

a) The Contractor shall deliver the Material to a site approved by the Contract Administrator and the Contractor shall, in advance of receipt of the shipment of the Material, arrange for adequate and proper storage facilities.

b) The value of aggregates, processed and stockpiled, shall be assessed by the following procedure:

i. Sources Other Than Commercial

(A) Granular A, B, BI, BII, BIII, M, and O shall be assessed at the rate of 60% of the Contract price.

(B) Coarse and fine aggregates for hot mix asphaltic concrete, surface treatment and Portland cement concrete shall be assessed at the rate of 25% of the Contract price for each aggregate stockpiled.

ii. Commercial Sources

Payment for separated coarse and fine aggregates shall be considered at the above rate when such Materials are stockpiled at a commercial source where further processing is to be carried out before incorporating such Materials into a final product. Advance payments for other Materials located at a commercial source shall not be made.

c) Payment for all other Materials, unless otherwise specified elsewhere in the Contract Documents, shall be based on the invoice price, and the Contractor shall submit proof of cost to the Contract Administrator before payment can be made by the Owner.

d) The payment for all Materials shall be prorated against the appropriate tender item by paying for sufficient units of the item to cover the value of the Material. Such payment shall not exceed 80% of the Contract price for the item.

e) All Materials for which the Contractor wishes to receive advance payment shall be placed in the designated storage location immediately upon receipt of the Material and shall thenceforth be held by the Contractor in trust for the Owner as collateral security for any monies advanced by the Owner and for the due completion of the Work. The Contractor shall not exercise any act of ownership inconsistent with such security, or remove any Material from the storage locations, except for inclusion in the Work, without the consent, in writing, of the Contract Administrator.

f) Such materials shall remain at the risk of the Contractor who shall be responsible for any loss, damage, theft, improper use, or destruction of the Material however caused.

.02 Where the Owner makes advance payments subject to the conditions listed in clause GC 8.02.03.01, such payment shall not constitute acceptance of the Material by the Owner. Acceptance shall only be determined when the Material meets the requirements of the appropriate specification.

GC 8.02.04 Certification and Payment

GC 8.02.04.01 Progress Payment

.01 The Contractor shall submit a Proper Invoice for progress payments monthly or at intervals specified in the Contract Documents after starting the Work on this Contract. The Contractor shall submit the Proper Invoice to the Contract Administrator and to the Owner. This Proper Invoice shall be for work completed at the agreed to Cut-Off Date.

.02 A Proper Invoice shall include;

- a) the requirements as set out in section 6.1 of the Construction Act;
- b) the quantities of Work performed;
- c) the value of Work performed;
- d) any advanced payment for Material;
- e) the amount of Statutory Holdback, liens, Owner's set-off;
- f) the amount of any applicable taxes;
- g) the amount due to the Contractor; and
- h) any other information that may be prescribed in the Contract Documents.

.03 Payment shall be made within 28 Days of the submission of the Proper Invoice unless a notice of non-payment has been issued in accordance with the Construction Act.

.04 The Owner shall retain the Statutory Holdback in the form and amount as required under the Construction Act.

GC 8.02.04.02 Certification of Subcontract Completion

.01 Before the Work has reached the stage of Substantial Performance, the Contractor may notify the Contract Administrator, in writing that a subcontract is completed satisfactorily and ask that the Contract Administrator certify the completion of such subcontract.

.02 The Contract Administrator shall issue a Certificate of Subcontract Completion, if the subcontract has been completed in a form satisfactory to the Contract Administrator, and all required inspection and testing of the works covered by the subcontract have been carried out and the results are satisfactory to the Contract Administrator.

.03 The Contract Administrator shall set out in the Certificate of Subcontract Completion the date on which the subcontract was completed and, within 7 Days of the date the subcontract is certified complete, the Contract Administrator shall give a copy of the certificate to the Contractor and to the Subcontractor concerned.

GC 8.02.04.03 Subcontract Statutory Holdback Release Certificate and Payment

.01 Following receipt of the Certificate of Subcontract Completion, the Owner shall release and pay the Contractor the Statutory Holdback retained in respect of the subcontract. Such release shall be made 61 Days after the date the subcontract was certified complete and providing the Contractor submits the following to the Contract Administrator:

- a) a document satisfactory to the Contract Administrator that shall release the Owner from all further claims relating to the subcontract, qualified by stated exceptions such as holdback monies;
- b) evidence satisfactory to the Contract Administrator that the Subcontractor has discharged all liabilities incurred in carrying out the subcontract;
- c) a satisfactory clearance certificate or letter from the Workplace Safety and Insurance Board relating to the subcontract; and
- d) a copy of the contract between the Contractor and the Subcontractor and a satisfactory statement showing the total amount due the Subcontractor from the Contractor.

.02 Clause GC 8.02.04.03.01 d), shall only apply to Lump Sum Items and then only when the Contract Administrator specifically requests it.

.03 Upon receipt of the Statutory Holdback, the Contractor shall forthwith give the Subcontractor the payment due under the subcontract.

.04 Release of Statutory Holdback by the Owner in respect of a subcontract shall not relieve the Contractor, or the Contractor's Surety, of any of their responsibilities.

GC 8.02.04.04 Substantial Performance of Work

.01 The Contractor, as part of the application for Substantial Performance, shall submit an itemized list of the outstanding work.

.02 Upon application by the Contractor and when the Contract Administrator has verified that the Contract has been substantially performed, the Contract Administrator shall issue a Certificate of Substantial Performance.

.03 The Contract Administrator shall set out in the Certificate of Substantial Performance the date on which the Contract was substantially performed and, within 7 Days after signing the said certificate, and shall provide a copy to the Contractor.

.04 Upon receipt of a copy of the Certificate of Substantial Performance, the Contractor shall forthwith, as required by Section 32(1) Paragraph 5 of the Construction Act, as amended, publish a copy of the certificate in the manner set out in the regulations.

.05 Where the Contractor fails to publish a copy of the Certificate of Substantial Performance as required above within 7 Days after receiving a copy of the certificate signed by the Contract Administrator, the Owner may publish a copy of the certificate at the Contractor's expense.

.06 Except as otherwise provided for in Section 31 of the Construction Act, the 60 Day lien period prior to the release of holdback as referred to in clause GC 8.02.04.05, Substantial Performance Payment and Statutory Holdback Release Payment Certificates, shall commence from the date of publication of the Certificate of Substantial Performance as provided for above.

GC 8.02.04.05 Substantial Performance Payment and Substantial Performance Statutory Holdback Release Payment Certificates

.01 Prior to the Contract Administrator issuing the Certificate of Substantial Performance, the Contractor shall submit a Proper Invoice for the Work completed. In addition to the requirements specified under section 8.02.04.01.02, the Proper Invoice shall include:

- a) the value of Work performed to the date of Substantial Performance;
- b) the value of outstanding or incomplete Work;
- c) the amount of the Statutory Holdback, allowing for any previous releases of Statutory Holdback to the Contractor in respect of completed subcontracts and deliveries of pre-selected Equipment; and
- d) the amount due the Contractor.

.02 Payment shall be made within 28 Days of the date of submission of the Proper Invoice.

.03 The Substantial Performance Statutory Holdback Release Payment Certificate shall be a payment certificate releasing to the Contractor the Statutory Holdback due in respect of Work performed up to the date of Substantial Performance. Payment of such Statutory Holdback shall be due 61 Days after the date of publication of the Certificate of Substantial Performance but subject to the provisions of the Construction Act and the submission by the Contractor of the following documents:

- a) a satisfactory Certificate of Clearance from the Workplace Safety and Insurance Board;
and
- b) proof of publication of the Certificate of Substantial Performance.

.04 Any amount of security retained shall be identified on the Substantial Performance Payment Certificate.

GC 8.02.04.06 Certification of Completion

.01 Upon application by the Contractor and when the Contract Administrator has verified that the Contract has reached Completion, the Contract Administrator shall issue a Completion Certificate.

.02 The Contract Administrator shall set out in the Completion Certificate the date on which the Work was completed and, within 7 Days of signing the said certificate, the Contract Administrator shall provide a copy to the Contractor.

GC 8.02.04.07 Completion Payment and Completion Statutory Holdback Release Payment Certificates

.01 Prior to the Contract Administrator issuing the Completion Certificate, the Contractor shall submit a Proper Invoice for the Work completed. In addition to the requirements noted under section 8.02.04.01.02, the Proper Invoice shall include:

- a) measurement and value of Work at Completion;
- b) the amount of the further Statutory Holdback based on the value of further Work completed over and above the value of Work completed shown in the Substantial Performance Payment Certificate referred to above; and
- c) the amount due the Contractor.

.02 The Completion Statutory Holdback Release Payment Certificate shall be a payment certificate releasing to the Contractor the further Statutory Holdback. Subject to any outstanding liens and permissible set-offs and upon submission of a satisfactory Certificate of Clearance from the Workplace Safety and Insurance Board, the Owner shall pay the remaining holdback on the Work done, within 28 Days after the expiration of the 60-Day lien period.

.03 Any amount of security retained shall be identified on the Completion Payment Certificate.

GC 8.02.04.08 Interest

.01 Interest due to the Contractor shall be based on simple interest and calculated using the applicable Rate of Interest. Interest shall begin to accrue on an amount that is not paid when it is due to be paid under Part-I of the Construction Act, at the prejudgment interest rate determined under subsection 127 (2) of the *Courts of Justice Act* or, if the Contract specifies a different interest rate for this purpose, the greater of the prejudgment interest rate and the interest rate specified in the Contract.

GC 8.02.04.09 Interest for Late Payment

.01 Provided the Contractor has complied with the requirements of the Contract, including all documentation requirements, when payment by the Owner to the Contractor for Work performed, or for release of Statutory Holdback, is delayed by the Owner, then the Contractor shall be entitled to receive interest on the outstanding payment at the Rate of Interest, if payment is not received on the dates set out below:

- a) Progress Payment: 28 Days after submission of Proper Invoice;
- b) Subcontract Statutory Holdback Release Payment: 89 Days after the date on which the subcontract was completed;
- c) Substantial Performance Payment: 28 Days after the date of issuance of the certificate;
- d) Substantial Performance Statutory Holdback Release Payment: 89 Days after publication of the Payment Certificate of Substantial Performance;
- e) Completion Payment: 28 Days after the date certified as the date on which the Contract reached Completion; and

f) Completion Statutory Holdback Release Payment: 89 Days after the date certified as the date that the Work was completed.

.02 If the Contractor has not complied with the requirements of the Contract, including all documentation requirements, prior to expiration of the time periods described in clause GC 8.02.04.09.01, interest shall only begin to accrue when the Contractor has completed those requirements.

GC 8.02.04.10 Interest for Negotiations and Claims

.01 Except as hereinafter provided, where a notice of negotiation, notice of intent to claim and the subsequent claims are submitted in accordance with the time limits or procedure or both described by subsection GC 3.13, Claims, Negotiations, Mediation, the Owner shall pay the Contractor the Rate of Interest on the amount of the negotiated price for that part of the Work or on the amount of the settled claim. Such interest shall not commence until 30 Days after the satisfactory completion of that part of the Work.

.02 Where the Contractor fails to give notice of a claim within the time limit prescribed by subsection GC 3.13, Claims, Negotiations, Mediation, interest shall not be paid.

.03 Where a Contractor fails to comply with the 30 Day time limit and the procedures prescribed in clause GC 3.13.03.03 for submission of claims, interest shall not be paid for the delay period.

GC 8.02.04.11 Owner's Set-Off

.01 Pursuant to the Construction Act, the Owner may retain from monies owing to the Contractor under this Contract an amount sufficient to cover any outstanding or disputed liabilities, including the cost to remedy deficiencies, the reduction in value of substandard portions of the Work, claims for damages by third parties that have not been determined in writing by the Contractor's insurer, undetermined claims by the Owner, and any assessment due the Workplace Safety and Insurance Board.

.02 Under these circumstances the Owner will give the Contractor appropriate notice of such action.

GC 8.02.04.12 Delay in Payment

.01 The Owner shall not be deemed to be in default of the Contract provided any delay in payment does not exceed the due dates as defined in clause GC 8.02.04.09.01.

GC 8.02.05 Payment on a Time and Material Basis

GC 8.02.05.01 Definitions

.01 For the purpose of clause GC 8.02.05 the following definitions apply:

Cost of Labour means the amount of wages, salary, travel, travel time, food, lodging, or similar items and Payroll Burden paid or incurred directly by the Contractor to or in respect of labour and supervision actively and necessarily engaged on the Work based on the recorded time and hourly rates of pay for such labour and supervision but shall not include any payment or costs incurred for general supervision, administration, and management time spent on the entire Work or any wages, salary, or Payroll Burden for which the Contractor is compensated by any payment made by the Owner for Equipment.

Cost of Material means the cost of Material purchased or supplied from stock and valued at current market prices for the purpose of carrying out Extra Work by the Contractor or by others, when such arrangements have been made by the Contractor for completing the Work, as shown by itemized invoices.

Operated Rented Equipment means Rented Equipment for which an operator is provided by the supplier of the Equipment and for which the rent or lease includes the cost of the operator.

Payroll Burden means the payments in respect of workplace insurance, vacation pay, employment insurance, public liability and property damage insurance, sickness and accident insurance, pension fund, and such other welfare and benefit payments forming part of the Contractor's normal labour costs.

Rented Equipment means Equipment that is rented or leased for the special purpose of Work on a Time and Material Basis from a person, firm, or corporation that is not an associate of the lessee as the word "associate" is defined by the Securities Act, R.S.O. 1990, c.S.5, as amended, and is approved by the Contract Administrator.

Road Work means the preparation, construction, finishing, and construction maintenance of roads, streets, Highways, and parking lots and includes all work incidentals thereto other than Work on structures.

Sewer and Watermain Work means the preparation, construction, finishing, and construction maintenance of sewer systems and watermain systems, and includes all work incidental thereto other than Work on structures.

Standby Time means any period of time that is not considered Working Time and which together with the Working Time does not exceed 10 hours in any one Working Day and during which time a unit of Equipment cannot practically be used on other Work but must remain on the site in order to continue with its assigned task and during which time the unit is in fully operable condition.

Structure Work means the construction, reconstruction, repair, alteration, remodelling, renovation, or demolition of any bridge, building, tunnel, or retaining wall and includes the preparation for and the laying of the foundation of any bridge, building, tunnel, or retaining wall and the installation of Equipment and appurtenances incidental thereto.

The 127 Rate means the rate for a unit of Equipment as listed in OPSS.PROV 127, Schedule of Rental Rates for Construction Equipment, Including Model and Specification Reference, that is current at the time the work is carried out or for Equipment that is not so listed, the rate that has been calculated by the Owner, using the same principles as used in determining The 127 Rates.

Work on a Time and Material Basis means Changes in the Work, Extra Work, and Additional Work approved by the Contract Administrator for payment on a Time and Material basis. The Work on a Time and Material Basis shall be subject to all the terms, conditions, Standard Specifications and provisions of the Contract.

Working Time means each period of time during which a unit of Equipment is actively and of necessity engaged on a specific operation and the first 2 hours of each immediately following period during which the unit is not so engaged but during which the operation is otherwise proceeding and during which time the unit cannot practically be transferred to other Work but must remain on the site in order to continue with its assigned tasks and during which time the unit is in a fully operable condition.

GC 8.02.05.02 Daily Work Records

.01 Daily Work Records, prepared as the case may be by either the Contractor's representative or the Contract Administrator reporting the labour and Equipment employed and the Material used on each Time and Material project, should be reconciled and signed each Day by both the Contractor's representative and the Contract Administrator. If it is not possible to reconcile the Daily Work Records, then the Contractor shall submit the un-reconciled Daily Work Records with its claim, whereby the resolution of the dispute about the Daily Work Records shall not be resolved until there is a resolution of the claim.

GC 8.02.05.03 Payment for Work

.01 Payment as herein provided shall be full compensation for all labour, Equipment, and Material to do the Work on a Time and Material Basis except where there is agreement to the contrary prior to the commencement of the Work on a Time and Material Basis. The payment adjustments on a Time and Material basis shall apply to each individual Change Order authorized by the Contract Administrator.

GC 8.02.05.04 Payment for Labour

.01 The Owner shall pay the Contractor for labour employed on each Time and Material project at 135% of the Cost of Labour up to \$3,500, then at 120% of any portion of the Cost of Labour in excess of \$3,500.

.02 The Owner shall make payment in respect of Payroll Burden for Work on a Time and Material Basis at the Contractor's actual cost of Payroll Burden.

.03 At the Owner's discretion, an audit may be conducted in which case the actual Payroll Burden so determined shall be applied to all Time and Material work on the Contract.

GC 8.02.05.05 Payment for Material

.01 The Owner shall pay the Contractor for Material used on each Time and Material project at 120% of the Cost of the Material up to \$3,500, then at 115% of any portion of the Cost of Material in excess of \$3,500.

GC 8.02.05.06 Payment for Equipment

GC 8.02.05.06.01 Working Time

.01 The Owner shall pay the Contractor for the Working Time of all Equipment, other than Rented Equipment and Operated Rented Equipment, used on the Work on a Time and Material basis at The 127 Rates with a cost adjustment as follows:

- a) Cost \$12,000 or less - no adjustment;
- b) Cost greater than \$12,000 but not exceeding \$24,000 - payment \$12,000 plus 90% of the portion in excess of \$12,000; and
- c) Cost greater than \$24,000 - \$22,800 plus 80% of the portion in excess of \$24,000.

.02 The Owner shall pay the Contractor for the Working Time of Rented Equipment used on the Work on a Time and Material Basis at 110% of the invoice price approved by the Contract Administrator up to a maximum of 110% of the 127 Rate. This constraint shall be waived when the Contract Administrator approves the invoice price prior to the use of the Rented Equipment.

.03 The Owner shall pay the Contractor for the Working Time of Operated Rented Equipment used on the Work on a Time and Material Basis at 110% of the Operated Rented Equipment invoice price approved by the Contract Administrator prior to the use of the Equipment on the Work on a Time and Material Basis.

GC 8.02.05.06.02 Standby Time

.01 The Owner shall pay the Contractor for Standby Time of Equipment at 35% of The 127 Rate or 35% of the invoice price whichever is appropriate. The Owner shall pay reasonable costs for Rented Equipment where this is necessarily retained in the Working Area for extended periods agreed to by the Contract Administrator. This shall include Rented Equipment intended for use on other work, but has been idled due to the circumstances giving rise to the Work on a Time and Material Basis.

.02 In addition, the Owner shall include the Cost of Labour of operators or associated labourers who cannot be otherwise employed during the Standby Time or during the period of idleness caused by the circumstances giving rise to the Work on a Time and Material Basis.

.03 The Contract Administrator may require Rented Equipment idled by the circumstances giving rise to the Work on Time and Material Basis to be returned to the lessor until the Work requiring the Equipment can be resumed. The Owner shall pay such costs as a result from such return.

.04 When Equipment is transported, solely for the purpose of the Work on a Time and Material Basis, to or from the Working Area on a Time and Material basis, payment shall be made by the Owner only in respect of the transporting units. When Equipment is moved under its own power it shall be deemed to be working. The method of moving Equipment and the rates shall be subject to the approval of the Contract Administrator.

GC 8.02.05.07 Payment for Hand Tools

.01 Notwithstanding any other provision of this Section, no payment shall be made to the Contractor for or in respect of Hand Tools or Equipment that are tools of the trade.

GC 8.02.05.08 Payment for Work by Subcontractors

.01 Where the Contractor arranges for Work on a Time and Material Basis, or a part of it, to be performed by Subcontractors on a Time and Material basis and has received approval prior to the commencement of such Work, in accordance with the requirements of subsection GC 3.09, Subcontracting by the Contractor, the Owner shall pay the cost of Work on a Time and Material Basis by the Subcontractor calculated as if the Contractor had done the Work on a Time and Material Basis, plus a markup calculated on the following basis:

- a) 20% of the first \$3,500; plus
- b) 15% of the amount from \$3,500 to \$12,000; plus
- c) 5% of the amount in excess of \$12,000.

.02 No further markup shall be applied regardless of the extent to which the work is assigned or sublet to others. If Work is assigned or sublet to an associate, as defined by the Securities Act, no markup whatsoever shall be applied.

GC 8.02.05.09 Submission of Invoices

.01 At the start of the Work on a Time and Material Basis, the Contractor shall provide the applicable labour and Equipment rates not already submitted to the Contract Administrator during the course of such Work.

.02 Separate summaries shall be completed by the Contractor. Each summary shall include the Change Directive or Change Order number and covering dates of the Work and shall itemize separately the labour, Materials, and Equipment. Invoices for Materials, Rented Equipment, and other charges incurred by the Contractor on the Work on a Time and Material Basis shall be included with each summary.

.03 Each month the Contract Administrator shall include with the monthly progress payment, the costs of the Work on a Time and Material Basis incurred during the preceding month all in

accordance with the contract administrative procedures and the Contractor's invoice of the Work on a Time and Material Basis.

.04 The final summary as per clause 8.02.05.09.02 shall be submitted by the Contractor within 60 Days after the completion of the Work on a Time and Material Basis.

GC 8.02.05.10 Payment Other Than on a Time and Material Basis

.01 Clause GC 8.02.05 does not preclude the option of the Contract Administrator and the Contractor negotiating a Lump Sum Item or unit price payment for Change in the Work, Extra Work, and Additional Work.

GC 8.02.05.11 Payment Inclusions

.01 Except where there is agreement in writing to the contrary, the compensation, as herein provided, shall be accepted by the Contractor as compensation in full for profit and all costs and expenses arising out of the Work, including all cost of general supervision, administration, and management time spent on the Work, and no other payment or allowance shall be made in respect of such Work.

GC 8.02.06 Final Acceptance Certificate

.01 After the acceptance of the Work or, where applicable, after the Warranty Period has expired, the Contract Administrator shall issue the Final Acceptance Certificate. The Final Acceptance Certificate shall not be issued until all known deficiencies have been adjusted or corrected, as the case may be, and the Contractor has discharged all obligations under the Contract.

.02 Any remaining amount of security shall be released upon Final Acceptance of the Contract.

GC 8.02.07 Records

.01 The Contractor shall maintain and keep accurate Records relating to the Work, Changes in the Work, Extra Work, Additional Work and claims arising therefrom. Such Records shall be of sufficient detail to support the total cost of the Work, Changes in the Work, Extra Work, Additional Work and claims arising therefrom. The Contractor shall preserve all such original Records until 12 months after the Final Acceptance Certificate is issued or until all claims have been settled, whichever is longer. The Contractor shall require that Subcontractors employed by the Contractor preserve all original Records pertaining to the Work, Changes in the Work, Extra Work, Additional Work and claims arising therefrom for a similar period of time.

.02 The Owner may inspect and audit the Contractor's Records relating to the Work, Changes in the Work, Extra Work, and Additional Work at any time during the period of the Contract. The Contractor shall supply certified copies of any part of its Records required, whenever requested by the Owner.

GC 8.02.08 Taxes

.01 Where a change in Canadian Federal or Provincial taxes occurs after the date of tender closing for this Contract, and this change could not have been anticipated at the time of Tender, the Owner shall increase or decrease Contract payments to account for the exact amount of tax change involved.

.02 Claims for compensation for additional tax cost shall be submitted by the Contractor to the Contract Administrator on forms provided by the Contract Administrator to the Contractor. Such claims for additional tax costs shall be submitted not less than 30 Days after the date of Final Acceptance.

.03 Where the Contractor benefits from a change in Canadian Federal or Provincial taxes, the Contractor shall submit to the Contract Administrator on forms provided by the Contract Administrator, a statement of such benefits. This statement shall be submitted not later than 30 Days after Final Acceptance.

.04 Changes in Canadian Federal or Provincial taxes that impact upon commodities, which when left in place form part of the finished Work, or the provision of services, where such services form part of the Work and where the manufacture or supply of such commodities or the provision of such services is carried out by the Contractor or a Subcontractor, are subject to a claim or benefit as detailed above. Services in the latter context means the supply and operation of Equipment, the provision of labour, and the supply of commodities that do not form part of the Work.

.05 The Contractor shall add the Harmonized Sales Tax (HST) to all invoices.

GC 8.02.09 Liquidated Damages

.01 When liquidated damages are specified in the Contract and the Contractor fails to complete the Work in accordance with the Contract, the Contractor shall pay such amounts as are specified in the Contract Documents.