Renfrew	**TOWN OF RENFREW** **127 Raglan Street South** **Renfrew, Ontario** **K7V 1P8**

Renfrew

Request for Tender

Seventh Street Rehabilitation

Tender 2025-11-IPWE

Alex Siciliano, P. Eng.
Project Manager
Egis Corporation
750 Palladium Drive, Suite 310
Kanata, ON K2V 1C7
Telephone: 613-836-2184

Ashley Robertson
Purchasing Assistant
Town of Renfrew
127 Raglan Street South
Renfrew, Ontario K7V 1P8
Telephone: (613) 432-4848

Renfrew	TOWN OF RENFREW 127 Raglan Street South Renfrew, Ontario K7V 1P8

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

TENDERER'S CHECK LIST

- Tenderer's name and address (Tender Form on Page 10)
- Addenda numbers inserted on Tender Form page 12 (as applicable)
- All tender items bid
- Unit price(s) inserted
- Mathematical extension(s) complete with total(s)
- Mathematical summation complete with TOTAL TENDER AMOUNT
- TOTAL TENDER AMOUNT BID indicated on Tender Form Page 14
- List of Sub-contractors provided
- Erasures, over-writing or strike-outs initialed by person signing on behalf of the Tenderer
- Tender Form dated, signed and witnessed on last page
- Tender Deposit included in the form of a certified cheque or Bid Bond
- Agreements to Bond included
- Submit all required hard copy documentation at Renfrew Town Hall, 127 Raglan Street South, Renfrew Ontario K7V 1P8, by time and date specified in Section A: Instructions to Bidders.

TOWN OF RENFREW
127 Raglan Street South
Renfrew, Ontario
K7V 1P8

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SECTION A: INSTRUCTIONS TO BIDDERS

TENDER INFORMATION

A.01 Definitions

Bidder: means a person, sole proprietorship, firm, partnership, corporation, or any other business venture that submits a bid to the Town.

Itemized Bid Form: means the Owner approved form that the bidder is to use to price the items specified in the tender documents to perform the Work.

Late Bid: means a bid received after Tender Closing.

Late Bid Notification: is a statement sent by the Owner to a Bidder notifying the Bidder that their bid is late, will not be considered and is rejected.

Non-Resident Contractor: means any Contractor residing outside of the Province of Ontario and with respect to a corporate Contractor, not being incorporated pursuant to the laws of Ontario and who has not maintained a permanent place of business in Ontario continuously for twelve months prior to tender closing.

Tender or Bid: can be used interchangeably and mean the offer submitted by a Bidder to perform the Work required of the Tender Documents at the prices set out in the offer, and in accordance with the procedures more particularly described in these Instructions to Bidders. More particularly, the forms shall include, among other things, the Summary Bid Submission Form, and the Itemized Bid Form.

Tender Closing or **Tender Opening:** can be used interchangeably and mean the last date and time that the Owner will receive Bids.

Tender Documents: means the Tender, MTO General Conditions of Contract, Standard Specifications and Drawings, Special Provisions, Contract Drawings, Addenda incorporated into any aforementioned document, and documents referenced in the aforementioned documents.

Unbalanced Bid: means a Bid containing a lump sum or unit price amount, which does not reflect reasonable actual costs to do the Work as described in the Tender Documents, plus a reasonable proportionate share of the Bidder's anticipated profit, overhead costs, and other indirect costs.

A.02 Project Description

Rehabilitation of Seventh Street, including the improvement of the road base and surface, the adjustment of surface structures, and improvements to the Towns water systems.

A.03 Compliance with Instructions

Bidders must comply with these Instructions to Bidders and those failing to do so may have the bid rejected.

A.04 Registration as a Bidder

It is mandatory that you register as a bidder with the Corporation of the Town of Renfrew, hereinafter referred to as the Town or Owner. **Failure to register will result in non-acceptance of your submission.**

Please remit Name of Company, Name of Contact Person, and Contact Information to:

Ashley Robertson, Purchasing Assistant, Town of Renfrew
Email: arobertson@renfrew.ca

All communications must reference 2025-11-IPWE in the subject line.

A.05 Questions During Tendering Period

All enquiries shall be in writing only.

Questions will be received until **2:00 PM local time, August 22nd, 2025**. All responses to enquiries will be made by the Contract Administrator by **4:00 PM local time August 26th, 2025**.

Questions during the Tendering Period shall be submitted to the Town of Renfrew via email to Ashley Robertson, Purchasing Assistant, arobertson@renfrew.ca, and Andrea Bishop, Director of Infrastructure, Public Works & Engineering, abishop@renfrew.ca. In the subject line state: "Tender 2025-11-IPWE for Seventh Street Rehabilitation".

Unless addressed through an addendum to the Tender Documents issued by the Contract Administrator, all responses to bid enquiries shall not be incorporated as part of the Contract or in any way change the Contract.

Questions that are addressed within the tender documents will not be answered or receive a response.

A.06 Tender Closing Date

Tenders for Seventh Street Rehabilitation will be received until:

2:00 PM, Local Time, August 28th, 2025

A.07 Tender Closing Location

Tenders shall be enclosed in a sealed envelope **marked "2025-11-IPWE Tender for Seventh Street Rehabilitation"** and will be addressed to Ashley Robertson, Purchasing Assistant, Town of Renfrew. Tenders shall be delivered by hand to 127 Raglan Street South, Renfrew, Ontario K7V 1P8, before: **2:00PM Local Time, Thursday August 28th, 2025**. No bid submitted by facsimile or electronic means will be accepted. Bids received after closing time will not be considered. The Town of Renfrew is not responsible for submissions which arrive late or are not properly marked.

Bidders will be informed of the results via email once the Tender closes. Please note that these results will not be an official award. The contract will be awarded once the bids have been reviewed by the Town of Renfrew.

Respondents to this Tender are responsible for ensuring they have access to all documents pertaining to this Tender. Hard copies of this Tender will not be available or supplied by the Town. Respondents are

responsible for all costs associated with, but not limited to, printing and compiling the Tender documents with associated attachments or appendices, drawings, and addenda.

The Tender and Addendum will be advertised on the Town of Renfrew website www.Renfrew.ca and www.Biddingo.com. Respondents to this Tender are responsible for ensuring they have received and reviewed all Addendum and noted this in Section B: Tender Form.

A.08 Tender Opening

A public tender opening will take place at **2:05 PM, local time, August 28th, 2025,** at the Town of Renfrew Town Hall.

A.09 Approvals

Award of this Contract is subject to the Town of Renfrew approval.

A.10 Tender Acceptance

The Owner reserves the right to return any or all "unopened" tenders. The lowest or any tender will not necessarily be accepted by the Owner. The Owner shall not be liable for any costs, expenses, loss or damage incurred, sustained or suffered by any bidder prior, or subsequent to, or by reason of the acceptance or the non-acceptance by the Owner of any tender, or by reason of any delay in the acceptance of a tender.

A.11 Contract Adjustment

The Owner reserves the right to extend, reduce or alter the extent of the Contract should they determine it is necessary at their sole discretion and to suit budget constraints. Variations in tender quantities shall be dealt with in accordance with GC 8.01.02 of the OPS General Conditions of Contract.

A.12 Document Discrepancies

Should a bidder find discrepancies in, or omissions from the Drawings or Contract Documents, they should immediately notify the Contract Administrator who may send a written instruction to all bidders.

A.13 Oral Interpretation

No oral interpretation shall be effective to modify any of the provisions of the Contract Documents. All requests for interpretations shall be made in writing to the Contract Administrator.

A.14 Addenda

All clarifications or other instructions issued by the Consultant during the time of tendering will be in writing by form of an Addendum and will be issued to all who have been issued with tender documents.

Tenderers may, during the tendering period, be advised by Addenda of required additions to, deletions from, or alterations to the requirements of the Tender Documents. All such changes shall become an integral part of the Tender Documents and shall be allowed for in arriving at the Tender Price.

Tenderers shall insert, in the space provided in the Tender Form, the Addenda numbers of all Addenda received by them during the tendering period including any bound into the specifications. If no Addenda have been received, the word "None" shall be inserted in the space provided.

Copies of addenda shall be signed and enclosed with the tender documents for the tender opening.

A.15 Subsurface Information

The Pavement Design Report, prepared by Egis, dated May 29, 2024, is included in SECTION G: PAVEMENT DESIGN REPORT.

TENDER REQUIREMENTS

A.16 Schedule Submission

The bidder will submit at the time of tender submission a Schedule of work. The Schedule will include a time scale by the week, execution of task, duration, start and finish date of each task, and milestones. The schedule will show project completion as per the Contract documents and will be completed within the time frame set out in the Contract.

A.17 Tender Deposit

Each tender must be accompanied by a **certified cheque, money order, bank draft, or bid bond,** made payable to the "Corporation of the Town of Renfrew" in the amount of **$60,000.00** and must be enclosed in the same envelope as the tender.

The Tender Deposits of the two (2) lowest acceptable bidders shall be retained until the successful bidder has executed the Contract documents. All remaining Tender Deposits shall be returned to the respective bidders on the next business day following the acceptance of Tender. The Tender Deposit of the successful bidder will be returned when he has fully complied with the conditions outlined in the Contract documents.

A.18 Agreement to Bond

Each tender must be accompanied by the attached Agreement to Bond Form or acceptable equivalent completed by the Bonding Company.

A.19 Performance & Maintenance and Labour & Material Payment Bonds

When the Contract Agreement is signed, the successful bidder must furnish a Performance and Maintenance Bond for 100% of the tender amount and a Labour and Material Payment Bond for 50% of the Tender amount. Both bonds to be issued by a bonding company.

A Contract Performance Bond for 100% of the Total Tender Amount, including all applicable taxes, issued by an approved surety company, or cash or acceptable collateral in the amount of 100% of the Total Tender Amount, must be furnished by the Contractor within 10 days of acceptance of the Contract by the Town.

A Labour and Materials bond for 50% of the Total Tender Amount, including all applicable taxes, issued by an approved surety company, or cash or acceptable collateral in the amount of 50% of the Total Tender Amount, must be furnished by the Contractor within 10 days of acceptance of the Contract by the Town.

Where the Bonds are furnished, it shall cover the faithful performance of the Contract and the payment of all obligations, including all materials and supplies for all sub-contractors and equipment, arising under the Contract.

Where cash or other collateral is furnished in lieu of a Bond, other arrangements for the one-year maintenance period, acceptable to the Town, shall be made.

A.20 Tender Form and Signing Authority

Tenders shall be submitted on the Tender Form supplied herein and must be properly signed and witnessed or signed and sealed if the bidder is a Corporation.

The entire work is to be awarded to (1) one Contractor and therefore ALL ITEMS on the Tender Form must be bid.

All unit prices must be clearly indicated. Erasures, over-writing, or strikeouts must be initialed by the person signing on behalf of the Contractor.

In the event of a discrepancy between the unit price submitted and the extension utilized in the calculation of the total for any item, then the unit price shall govern. Any errors will be corrected in red by the Town to recalculate a revised tender bid amount. The tenderer will be made aware of any errors prior to award of the contract.

The total bid must not be restricted by a statement added to the Tender Form, or a covering letter, or alterations to the Tender Form provided by the Town. Adjustments to a Tender already submitted will not be considered. A bidder desiring to make adjustments to a Tender must withdraw the Tender and/or supersede it with a later submission, on or before the closing date and time of this tender.

For an interpretation of the tendering requirements, the Municipal Tendering Procedures as published by the Ministry of Transportation, Ontario, shall govern.

A.21 Tender Alteration

The Tender Form must be legible, and all items must be bid. Each amount in the Tender shall be a reasonable price for each item. Tenders which are incomplete, unbalanced, conditional, or obscure, or contain erasures or alterations not properly initialed, or irregularities of any kind, may be rejected as informal or void. Tenders submitted by facsimile will not be accepted.

Bidders that submit tenders that contain unit prices that appear to be an Unbalanced Bid may be referred to the Owner and any Tenders that are so unbalanced that it may adversely affect the interests of the Owner, may be rejected.

The Owner will not allow any Bidder to adjust the total tender amount after Tender Closing. In the event of a mathematical error or discrepancy in the Itemized Bid Form, the Owner may request the Bidder to resubmit the itemized bid form without changing the total tender amount.

A.22 Tender Deposit Forfeiture

The tender deposit of the bidder whose tender is accepted shall be forfeited by the Bidder should they fail to execute the agreement and provide the required bonds and insurance certificate within ten (10) days after receiving written notice from the Owner of the award of the Contract.

A.23 Tender Deposit Returns

When copies of the executed Contract are returned and found acceptable, the tender deposits of the successful bidder and the second low bidder shall be returned. The tender deposits of the remaining unsuccessful bidders will be returned within ten (10) days of the opening of tenders.

A.24 Health and Safety Submission

The successful bidder will submit, with the Contract Award, a copy of the company's formal documented Occupational Health and Safety Program Manual. Along with the OHSP Manual, the successful bidder will submit at time of Contract Award a current Company organization chart indicating the reporting structure of safety personnel. Be advised that, before the award of the Contract, the bidder will be required to provide the name(s) of Safety Designate(s) assigned to the specific project, complete with proof of current training.

The Contract documents will be sent to the successful bidder after acceptance of Tender. The bidder shall fully execute and return the documents together with the applicable bonds, if such are required, to the Contract Administrator within seven working days of the date the documents are received.

Following receipt of the properly executed documents, certificate of liability insurance and, where applicable, the contract bonds, the Bidder will receive written authority to proceed with the work by the Contract Administrator.

If the successful Bidder fails to return the applicable documents to the Contract Administrator, within seven working days of receipt, the matter may be referred to the Owner without prejudice to any right or remedy the Owner may have in law.

Non-resident Contractors must provide a retail sales tax "Letter of Compliance" from the Ministry of Finance, failing which the non-resident Contractor shall satisfy the Retail Sales Tax Act and its regulations (as amended from time to time) in lieu, therefore.

Renfrew	**TOWN OF RENFREW** **127 Raglan Street South** **Renfrew, Ontario** **K7V 1P8**

SECTION B: TENDER FORM

Tender for the: **Seventh Street Rehabilitation**

Tender 2025-11-IPWE

_____

NAME OF TENDERER (Company or Individual)

_____

ADDRESS OF TENDERER (Telephone Number)

_____

NAME OF PERSON SIGNING FOR TENDERER

_____

OFFICE/TITLE OF PERSON SIGNING FOR TENDERER

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

Renfrew	**TOWN OF RENFREW** **127 Raglan Street South** **Renfrew, Ontario** **K7V 1P8**

Tender for the: **Seventh Street Rehabilitation**

Tender 2025-11-IPWE

TENDERS TO BE RECEIVED BY: Hard copy at the

Town of Renfrew, 127 Raglan Street South, Renfrew Ontario K7V 1P8

BEFORE: **2:00 pm Local Time, Thursday August 28th, 2025**

Deposit Required with Tender: **As specified in General Special Provisions**

Bond Required for Contract: **100% Performance Bond, 50% Labour and Materials Bond**

Completion of Work and Delivery of Materials under this Contract: **Friday October 31st, 2025 (Substantial Performance Date)**

The Corporation of the Town of Renfrew reserves the right to, increase, decrease, or delete an item in its entirety, or reject any or all Tenders if it is deemed advisable to do so. The lowest or any tender will not necessarily be accepted.

Addenda Confirmation

The Mayor and Council

Corporation of the Town of Renfrew

Sir / Ma'am:

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

Notification of acceptance and delivery of the Form of Agreement shall be made by the Town by courier, addressed to the Tenderer at the address contained in the Tender and, upon such notification of acceptance, the Tenderer shall complete the Form of Agreement between the parties and execute the Contract and furnish the Performance Bond, duly completed, and necessary proof of insurance, within 14 days of mailing of said notification to the Tenderer.

Attached to this Tender is a certified cheque or bid bond in the amount required by the General Special Provisions and made payable to: The Corporation of the Town of Renfrew. The proceeds of this cheque or bid bond shall, upon acceptance of the Tender, constitute a deposit which shall be forfeited to the Town if the Tenderer fails to file with the Town, the Form of Agreement duly executed, together with the Performance Bond and Labour and Materials Bond, proof of insurance and proof of Workplace Safety and Insurance Board, all as specified.

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

Addendum #	Date Received
# _____	_____
# _____	_____
# _____	_____

□ Check here if No Addenda considered.

TOWN OF RENFREW
127 Raglan Street South
Renfrew, Ontario
K7V 1P8

AGREEMENT TO BOND AND FORM OF BOND

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

_____

(Name of Tenderer)

an amount equal to One Hundred Per Cent (100%) of the Total Tender Amount including all applicable taxes, and conforming to the Instruments of the Contract attached hereto, for the full and due performance of the works shown as described herein, Tender 2025-11-IPWE, Corporation of the Town of Renfrew, such Performance Bond to provide a period of maintenance of One (1) years after the date of Substantial Performance of the work, and a 50% Labour and Materials Bond.

It is a condition of this Agreement that, if the above-mentioned Tender is accepted, application for a Performance Bond and Labour and Materials Bond must be made to the undersigned within ten (10) days of notice of Contract Acceptance. Otherwise, this Agreement shall be null and void.

Dated this _____ day of _____, 2025.

_____

Name of Bonding Company

By: _____

Attorney-in-Fact

Note: In lieu of the above "Agreement to Bond and Form of Bond" form, the Town will accept a similar type of form issued by the Bonding Company provided all the conditions as outlined above are stipulated on the Bonding Company's form.

Renfrew	**TOWN OF RENFREW** **127 Raglan Street South** **Renfrew, Ontario** **K7V 1P8**

TENDER SUMMARY

Seventh Street Rehabilitation

Tender 2025-11-IPWE

TENDER AMOUNT BID FOR Tender 2025-11-IPWE **$**_____

*(Amount transferred from Page 18, **excluding** HST)

SCHEDULE OF UNIT PRICES

In accordance with the first paragraph of the Tender, the Tenderer hereby offers to complete the work specified in the Contract for the following unit prices.

ITEM NO.	DESCRIPTION	SPEC. NO	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
Section 1.0 – General						
1.01	Soil Management Plan	180.MUNI	LS	1		
1.02	Traffic Control Plan	706.MUNI SPI-TCP	LS	1		
1.03	Erosion and Sediment Control	805.MUNI SPI-805-1	LS	1		
					SECTION 1.0 SUBTOTAL	

Section 2.0 – Removals						
2.01	Earth Excavation – Grading	206.MUNI SPI-206-1	LS	1		
2.02	Removal of Concrete Curb and Gutter	510.MUNI	m	12		
2.03	Removal of Pipes and Culverts	510.MUNI	m	2		
2.04	Cutting of Existing Pavement	510.MUNI	m	150		
2.05	Removal of Concrete Pavement	510.MUNI	m^2	13		
2.06	Removal of Asphalt Pavement (Full Depth)	510.MUNI SPI-510-1	m^2	2650		
2.07	Removal of Asphalt Pavement (Partial Depth)	510.MUNI SPI-510-1	m^2	55		
2.08	Removal of Concrete Sidewalk	510.MUNI SPI-510-2	m^2	5		
2.09	Haulage and Deposition of Excess Soils to a Receiver Site Identified by the Contractor		t	2100		
2.10	Remove, Salvage, and Reinstate Interlocking Pavers	510.MUNI SPI-355-1	m^2	10		
2.11	Remove, Salvage, and Reinstate of Signs with New Breakaway Post	510.MUNI	ea	2		
					SECTION 2.0 SUBTOTAL	

ITEM NO.	DESCRIPTION	SPEC. NO	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
Section 3.0 – Road						
3.01	Tack Coat	310.MUNI	m^2	2531		
3.02	Superpave 12.5 Level D – 50 mm Lift – PG 58-34, including entrance tie ins	310.MUNI SPI-310-1	t	430		
3.03	Superpave 19 Level D – 50 mm Lift – PG 58-34	310.MUNI SPI-310-1	t	410		
3.04	Granular A	314.MUNI	t	1225		
3.05	Granular B Type II	314.MUNI	t	40		
3.06	Concrete Driveways	350.MUNI	m^3	2		
3.07	Concrete Sidewalk	351.MUNI SPI-351-1	m^2	5		
3.08	Concrete Curb and Gutter	353.MUNI SPI-353-1	m	12		
3.09	Adjust Catch Basin	408.MUNI SPI-408-1	ea	1		
3.10	Adjust Maintenance Hole	408.MUNI SPI-408-1	ea	7		
3.11	Pavement Markings	710.MUNI SPI-710-1	LS	1		
					SECTION 3.0 SUBTOTAL	

Section 4.0 – Watermain						
4.01	150mm Watermain, PVC, DR-18 including all Appurtenances	441.MUNI SPI-441-1	m	14		
4.02	150mm Gate Valve with Valve Box	441.MUNI SPI-441-1	ea	1		
4.03	Supply and Install Valve Box (Top and Lid), including Adjustment	441.MUNI SPI-441-1	ea	1		
4.04	Connect to Existing Watermain	441.MUNI SPI-441-1	ea	2		
					SECTION 4.0 SUBTOTAL	

ITEM NO.	DESCRIPTION	SPEC. NO	UNIT	QUANTITY	UNIT PRICE	TOTAL PRICE
Section 5.0 – Landscaping						
5.01	Topsoil from stockpile	802.MUNI SPI-802-1	m^3	54		
5.02	Sod	803.MUNI	m^2	540		
					SECTION 5.0 SUBTOTAL	

Section 6.0 – Labour & Equipment (Provisional)						
6.01	Unskilled labour (including supervision where not otherwise provided)	127.PROV SPI-RATE	hr	40		
6.02	Skilled labour (including supervision where not otherwise provided)	127.PROV SPI-RATE	hr	40		
6.03	Dump Truck – Tri Axle 32,000kg GVW Minimum (Operated))	127.PROV SPI-RATE	hr	8		
6.04	Crawler Mounted Hydraulic Backhoe, 24,500 kg min. Operating Weight	127.PROV SPI-RATE	hr	8		
6.05	Sweeper (Operated)	127.PROV SPI-RATE	hr	8		
6.06	Hydro Excavating/Vacuum Truck (Operated)	127.PROV SPI-RATE	hr	16		
6.07	Excavator (30,000kg minimum) equipped with a Hydraulic Impact Hammer (Hoe Ram) (5,200 J minimum)	127.PROV. SPI-RATE	hr	16		
					SECTION 6.0 SUBTOTAL	

TOWN OF RENFREW
127 Raglan Street South
Renfrew, Ontario
K7V 1P8

FORM OF TENDER

Seventh Street Rehabilitation

Tender No. 2025-11-IPWE

SUMMARY

SECTION	DESCRIPTION	TOTAL AMOUNT
1.0	General	
2.0	Removals	
3.0	Road	
4.0	Watermain	
5.0	Landscaping	
6.0	Labour and Equipment (Provisional)	
	SUBTOTAL*	
	H.S.T. (13.0%)	
	TOTAL TENDERED AMOUNT	

***Enter this amount on page 14.**

The following list of Subcontractors will be carrying out part of this Contract.

Name of Subcontractor	Address	List of Work to be Completed by Subcontractor

SECTION C: AGREEMENT BETWEEN OWNER AND CONTRACTOR

AGREEMENT BETWEEN OWNER AND CONTRACTOR

This Agreement made on the_____day of_____, 2025,

BETWEEN:

The Corporation of the Town of Renfrew

(hereinafter called the "Owner")

AND:

_____

(hereinafter called the "Contractor")

ARTICLE A-1 THE WORK

The Contractor shall:

1.1 Perform the work contained in the Contract Documents which are:
Tender No. 2025-11-IPWE – Seventh Street Rehabilitation

Located on: Seventh Street, Renfrew, Ontario.

1.2 Do and fulfill everything indicated by the Agreement.

1.3 The Contractor shall **Substantially Perform** the Work as defined in GC8.02.04.04 by **October 31st, 2025** and this shall be the first date used for the calculation of Liquidated Damages as per A-1.5.

1.4 The Contractor shall **Complete** the Work as defined in GC8.02.04.06 by **October 31th, 2025** and this shall be the second date used for the calculation of Liquidated Damages as per A-1.5.

1.5 Pursuant to Section GC8.02.09 of the General Conditions of Contract, the Liquidated Damages shall be in the amount of:

One thousand five hundred DOLLARS ($1,500.00) per calendar day beyond the dates specified for Substantial Performance and Completion.

ARTICLE A-2 AGREEMENTS AND AMENDMENTS

2.1 The Contract supersedes all prior negotiations, representations, or agreements, either written or oral, relating to the work, including the bidding documents that are not expressly listed in Article A-3 of the Agreement — CONTRACT DOCUMENTS.

ARTICLE A-3 CONTRACT DOCUMENTS

3.1 The following are the Contract Documents referred to in Article A-1 of the Agreement — THE WORK:

- Agreement Between Owner and Contractor
- General Conditions of Contract
- Information for Tenderers
- Form of Tender
- Special Provisions for Items
- Ontario Provincial Standard Specifications
- Addenda
- Contract drawings

ARTICLE A-4 CONTRACT PRICE

4.1 The quantities shown in the Schedule of Contract Unit Prices are estimated. The Contract Price shall be the final sum of the products of the actual quantities that are incorporated in, OR made necessary by the Work, as confirmed by count and measurement, AND the appropriate Contract Unit Prices, together with any adjustments that are made in accordance with the provisions of the Contract Documents.

4.2 The Estimated Contract Price shall be the sum of the products of actual measured quantities and corresponding unit prices, as stated in the Form of Tender, including any adjustments per the Contract Documents.

4.3 Estimated Contract Price, excluding Harmonized Sales Tax is:

$_____dollars and _____cents. ($_____).

4.4 Contingency including such additional amounts or sums for such extra or additional Work at the unit rates or the amounts, as the case may be stipulated in written orders of the Contract Administrator/Town Representative or Owner, authorizing the extra or additional Work.

4.5 Harmonized Sales Tax (13%) payable by the Owner to the Contractor is:

$ _____dollars and _____cents. ($_____).

4.6 Total amount payable by the Owner to the Contractor for the construction of the Work is:

$ _____dollars and _____cents. ($_____).

4.7 All amounts are in Canadian Funds and subject to adjustments under the Contract.

ARTICLE A-5 PAYMENT

5.1 The Owner shall pay the Contractor in Canadian funds for the performance of the Contract, the amount being determined by actual measured quantities of the individual Work items contained in the Schedule of Contract Unit Prices, in the Form of Tender of this Agreement, and measured in accordance with the methods of measurement given in the Specifications.

5.2 Subject to the provisions of the Contract Documents, and in accordance with legislation and

statutory regulations respecting holdback of Ten percent (10%), the Owner shall, in Canadian funds:

1. Make progress payments to the Contractor on account of the Work performed when due in the amount certified by the Owner including Harmonized Sales Tax, and
2. Upon Substantial Performance of the Work, pay to the Contractor the unpaid balance of the holdback amount when due, including Harmonized Sales Tax, and
3. Upon the issuance of the final certificate for payment, pay to the Contractor the unpaid balance when due, including Harmonized Sales Tax.

5.3 In the event of loss or damage occurring where payment becomes due under the property and boiler insurance policies, payments shall be made to the Contractor in accordance with the provisions of GC 6.03.

5.4 Interest

1. Should either party fail to make payments as they become due under the terms of the Contract or in an award by arbitration or court, interest at one percent (1%) per annum above the bank rate on such unpaid amounts shall also become due and payable until payment. Such interest shall be compounded on a monthly basis. The bank rate shall be the rate established by the Bank of Canada as the minimum rate at which the Bank of Canada makes short term advances to the chartered banks.
2. Interest shall apply at the rate and in the manner prescribed by GC 8.02.03.09 for late payments or GC 8.02.03.10 on the amount of any claim settled pursuant to GC 3.14.

ARTICLE A-6 RIGHTS AND REMEDIES

6.1 The duties and obligations imposed by the Contract Documents and the rights and remedies available thereunder shall be in addition to and not a limitation of any duties, obligations, rights, and remedies otherwise imposed or available by law.

6.2 No action or failure to act by the Owner or Contractor shall constitute a waiver of any right or duty afforded any of them under the Contract, nor shall any such actions or failure to act constitute an approval of or acquiescence in any breach there under, except as may be specifically agreed in writing.

ARTICLE A-7 LAW OF THE CONTRACT

7.1 The law of the place of Work shall govern the interpretation of the Contract.

ARTICLE A-8 RECEIPT OF AND ADDRESSES FOR NOTICES

8.1 Notices in writing between the parties or between them and the Town Representative shall be considered to have been received by the addressee on the date of delivery if delivered to the individual, or to a member of the firm, or to an officer of the corporation for whom they

are intended by hand or by registered post; or if sent by regular post, to have been delivered within five (5) Working Days of the date of mailing when addressed as follows:

The Owner at: ____**127 Raglan Street South**_____

Name of Owner, Street, Postal Box Number (if applicable)

_____**Renfrew, ON K7V 1P8**_____

City, Province, Postal Code

The Contractor at:

_____

Name of Contractor, Street, Postal Box Number (if applicable)

_____

City, Province, Postal Code

ARTICLE A-10 SUCCESSION

The Contract Documents are to be read into and form part of this Agreement and the whole shall constitute the Contract between the parties, and subject to the law and the provisions of the Contract Documents shall inure to the benefit of and be binding upon the parties hereto, their respective heirs, legal representative, successors, and assigns.

In witness whereof, the parties hereto have executed this Agreement and by the hands of their duly authorized representatives.

SIGNED AND DELIVERED

In the presence of:

OWNER

Town of Renfrew

Name of Owner

Mayor Signature

Clerk Signature

CONTRACTOR

Name of Contractor

Name and Title of person signing Signature

Name and Title of person signing Signature

N.B.

i. If the Contractor is a corporation, an authorized officer of the corporation shall sign the Agreement and shall affix the corporate seal.

ii. If the Contractor is a partnership, a minimum of two partners shall sign the Agreement and the signatures shall be witnessed.

iii. If the Contractor is a sole proprietorship; the sole proprietorship shall sign the Agreement and the signature shall be witnessed.

SECTION D: SPECIAL PROVISIONS – GENERAL

TABLE OF CONTENTS – SPECIAL PROVISIONS – GENERAL

D.01 SCOPE OF WORK

The work described within these documents includes the construction of the following:

Rehabilitation of Seventh Street, including the removal and replacement of the road base and surface, the adjustment of surface structures, and improvements to the Towns water systems via the installation of watermain and appurtenances.

D.02 DEFINITION OF OWNER AND ENGINEER

Wherever the words “Town” or “Corporation” or “Owner” appear in this contract, it may be interpreted as meaning the “Corporation of the Town of Renfrew”.

D.03 GENERAL CONDITIONS OF THE CONTRACT

The requirements of Ontario Provincial Standards for Roads and Public Works – General Conditions of Contract (OPSS.MUNI 100 – November 2024) shall apply to this contract.

D.04 BONDING AND INSURANCE

Subsection GC 6.03 (Contractor’s Insurance) of the OPSS.MUNI 100 is amended with the addition of the following:

When the Contract Agreement is signed, the successful Bidder must furnish the Insurance Policies in accordance with GC 6.03.02 and GC 6.03.03.

The Commercial General Liability Insurance shall be in the name of the Contractor. The Owner/Municipality, the Contract Administrator: Egis, and Ontario Clean Water Agency (OWCA) shall be named as additional insureds.

The policy must name the Owner as an insured and must contain a cross-liability clause insuring each person, firm or corporation in the same manner and to the same extent as if a separate Policy has been issued to each, but not so as to increase the limits of the Insurance Company’s Liability.

Subsection GC 6.04 (Bonding) of OPSS.MUNI 100 will be amended with the addition of the following:

When the Contract Agreement is signed, the successful Bidder must furnish a Performance Bond for 100% of the tender amount and a Labour and Material Payment Bond for 50% of the Tender amount. Both bonds to be issued by a bonding company. The Labour and Material Bond must be as per Form 31, Labour and Material Payment Bond under Section 85.1 of the Construction Act. The Performance Bond must be as per Form 32, Performance Bond under Section 85.1 of the Construction Act.

D.05 CONTRACT LIMITS

The Owner reserves the right to reduce or extend the limits of this contract, should the Owner determine it is necessary at their sole discretion and to coincide with the funds available.

Any change in the contract limits or extent of the work shall be considered as relating solely to quantities and payment for the work shall be made at the appropriate contract unit price. In the case of an extension of the contract limits, the Contractor will be eligible for a pro rata extension of time based on the value of the additional work when the contract unit prices are applied to the additional quantities.

The application of Subsection GC8.01.02 of the OPS General Conditions of Contract, shall be based on the adjusted tender quantities subsequent to the change in the contract limits.

D.06 PROJECT SCHEDULE AND LIQUIDATED DAMAGES

Fixed Completion Date and Charges

1. Time

Time will be the essence of this Contract.

2. Progress of the Work and Time for Substantial Performance

The Contractor shall achieve Substantial Performance of the Work by October 31, 2025. There will be no adjustment for Inclement Weather.

The Contractor shall achieve Completion of the Contract by the date of Substantial Performance of the Work, unless agreed otherwise with the Contract Administrator. If the Contractor has not achieved Completion within this period, they are deemed to be in default of the Contract. The Owner reserves the right to correct the Default in accordance with Subsection GC 4.07 (Owner's Right to Correct Default) of OPSS.MUNI 100.

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

3. Liquidated Damages

It is agreed by the parties to the Contract that in case the Work called for under the Contract is not finished or completed within the dates or number of working days or as extended in accordance with Subsection GC 3.06 (Extension of Contract Time) of OPSS.MUNI 100, a loss or damage will be sustained by the Owner. Since it is and will be impracticable and extremely difficult to ascertain and determine the actual loss or damage which the Owner will suffer in the event of and by reason of such delay, the parties hereto agree that the Contractor will pay to the Owner the sum of $1,500.00 as liquidated damages for each and every calendar days delay in finishing the Work beyond the Contract Completion date or number of working days. It is agreed that this amount is an estimate of the actual loss or damage to the Owner which will accrue during the period in excess of the prescribed date of completion.

D.07 CONTRACTOR'S SCHEDULE OF WORK

The Contractor will submit, at the time of Tendering, the Contractor's Preliminary Schedule of Work. The Contractor's Preliminary Schedule of Work will provide for, at a minimum, a simple bar chart of activities of major headings of working items derived from the Form of Tender.

Within 14 days of Contract Award, the Contractor must prepare and update, as required, a Detailed Schedule of Work of the operations, indicating the critical path and controlling operations, 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. If, during the implementation of the Works, 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 must show how the Contractor proposes to perform the balance of the Work, so as to complete the Work within the time specified in the Contract Documents.

D.08 SHOP DRAWINGS AND PRODUCT DATA SHEET SUBMISSIONS

The Contractor must supply shop drawings and/or product data sheets to the Contract Administrator for all materials supplied for permanent installation for the project. These must be provided in accordance with the Contract documents a minimum of 10 business days prior to the installation of the product. Separate shop drawing/product data sheets are to be submitted for each individual component (i.e. not bundled together). The submitted documents will contain a signed General Contractor's stamp certifying it has been reviewed and is in compliance with the Contract Documents. The documents must be reviewed by the Contract Administrator and returned to the Contractor within the 10 business day submission period prior to installation on the project. The submission will be stamped as "Reviewed", "Reviewed as Modified", "Revise and Resubmit", or "Not Reviewed". Documents that are noted as "Revise and Resubmit" will be resubmitted in accordance with the Contract requirement and will require an additional 10 business day review period prior to installation on the project. Any costs associated for the submission of these documents will be deemed to be included in the associated unit costs.

The Contract Administrator will provide a list of required shop drawings and product data sheets to be submitted at the preconstruction meeting.

D.09 PROJECT NOTIFICATION

Prior to commencement of construction, the Contractor shall, in writing, notify the following authorities of the pending construction, duration, and expected traffic disruptions:

- Bus Companies
- Police Department
- Fire Department
- Ambulance Service
- Waste Management Company
- Residents and Businesses on all impacted roads within the project limits

A draft of the letter shall be sent to the Owner and Contract Administrator for review and approval prior to it being distributed.

The Contractor shall provide a written notice, approved by the Owner, to all affected resident and businesses a minimum of 48 hours in advance of any water shutdowns, sewer disruptions, road closures, vehicular and pedestrian access impacts.

The Contractor will provide access for municipal garbage and recycling pickup or will designate a pickup point for the collection of municipal household garbage and recycling. It is the Contractor's responsibility to provide access at the normal pickup times or pick up the garbage and recycling from the households and businesses and ferry to a central location for pick-up. The Contractor will then be required to return the emptied containers to their respective household or business. There will be no separate payment for the management of the recycling and garbage along the construction zone.

A record of all notifications, including distribution list, must be provided to the Owner and the Contract Administrator within 24 hours of distribution.

There will be no separate payment for the project notifications regardless of the number or frequency.

D.10 HEALTH AND SAFETY REQUIREMENTS

Prior to commencing the Work, the successful Bidder shall provide the Owner and Contract Administrator with a copy of its health and safety policy and program.

D.11 WORKING HOURS

The Contractor shall comply with the Municipal by-laws regulating hours of work in the Municipality. The Municipality reserves the right to charge the Contractor any and all costs associated with work outside of the Municipality's standard working hours for those staff affected, which may differ from Municipal by-law regulated hours of work.

The Contractor shall not work on statutory holidays recognized by the Municipality (i.e. holidays that the Municipal employees do not work) unless special permission is granted by the Contract Administrator, which shall not be unreasonably withheld.

No Saturday or Sunday work will be permitted except with written permission of the Contract Administrator. The Municipality reserves the right to charge the Contractor any premium costs associated with the Contract Administrator's fees for field review during these days.

If the Contractor intends to undertake work on a Saturday or Sunday, the Contractor is required to inform the Contract Administrator in writing at least five (5) working days prior to the planned weekend. The Contract Administrator will make every effort to approve, or deny, this request in writing within 48 hours of receiving this request. If the Contractor does not receive an approval by this time, then the Contractor is to assume that the request has been denied. The Contractor is also reminded that construction activities must conform to the Municipal Noise By-Law current at the time of the work.

D.12 LAYOUT

The Contractor is to complete layout for the project as per Subsection G.C. 7.0.2 (Monuments and Layout) of OPSS.MUNI 100. All horizontal layout will be accompanied by vertical control published and provided to the Contract Administrator.

D.13 CONTRACTOR PROGRESS PAYMENTS

Subsection GC 8.02.04.01 (Progress Payment) of OPSS.MUNI 100 is amended by the addition of the following:

A Proper Invoice shall include:
a) the quantity of work performed this period, and the quantity of work performed to date;
b) the value of work performed this period, and the value of the work performed to date.

The Contractor shall provide a duly filled STAT DEC "Statutory Declaration of Progress Payment Distribution by Contractor" (form CCDC 9A – 2018) for second and subsequent progress payments as requested by the Contract Administrator.

D.14 RESTORATION

Restoration beyond the Contract limits and not covered by the Topsoil, Sodding and Seeding items will be completed in accordance with OPSS.MUNI 492 Construction Specification for Site Restoration following Installation of Pipelines, Utilities and Associated Structures in Open Cut.

The following amendments apply to OPSS.MUNI 492:

Section 492.07.03 Roadway Restoration is amended with the addition of the following after the third paragraph "All asphalt roadway restoration beyond the contract limits must match the existing material depths but will not be less than the following minimum compacted depths:

Surface Course (Road) -	50 mm Surface Hot Mix Asphalt
	50 mm Base Hot Mix Asphalt
Base Course (Road and Shoulder) -	150 mm Granular 'A'
Sub-base Course (Road and Shoulder) -	450 mm Granular 'B' Type II, over Class 2 Non-Woven Geotextile

Dimensions as per the typical cross section.

Section 492.07.07 Sodding and Seeding is amended by replacing the first paragraph with the following: Landscaped and maintained lawns will be restored with nursery sod and other landscape areas will be restored with seeding and mulching.

A new **Section 492.07.10 Driveway Restoration** will be added as follows:
The restoration of driveways must be scheduled to follow closely behind trench backfilling. The driveway must be made and maintained safe for the passage of traffic after completion of backfilling and until

permanent restoration takes place. Driveway restoration must be completed to match the existing alignment and elevation.
Gravel driveway restoration will consist of a minimum compacted depth of 150 mm of Granular 'A' in accordance with the requirements of OPSS.MUNI 314 Construction Specifications for Untreated Granular, Subbase, Base, Surface, Shoulder and Stockpiling.

Residential Asphalt driveway restoration will consist of a minimum compacted depth of 150 mm of Granular 'A' base course in accordance with the requirements of OPSS.MUNI 314 and 50 mm compacted depth of surface course asphalt surface in accordance with the requirements of OPSS.MUNI 310.

Commercial Asphalt driveway restoration will consist of a minimum compacted depth of 150 mm of Granular 'A' base course in accordance with the requirements of OPSS.MUNI 314, and 50mm compacted depth of binder course asphalt and 50 mm compacted depth of surface course asphalt surface in accordance with the requirements of OPSS.MUNI 310.

D.15 AS-BUILT DRAWINGS

Upon Completion of the Works, the Contractor shall provide the Contract Administrator with a copy of As-Built Drawings. The Contract Administrator may ask for partial submissions of the As- Built Drawings on a monthly basis to verify that the content is adequate. As-Built drawings will consist of a paper set (to scale) and digital set (pdf) of all drawings with red-line markups of all changes and a text file with all surveyed GPS points collected throughout the duration of the project that note the as-built location of the installed works, including, but not limited to:

- GPS coordinates of all new structures at ground level, and invert elevations for all connected pipes (top of pipes not acceptable).
- GPS coordinates of all existing structures at ground level, and invert elevations for all new connected pipes (top of pipes not acceptable).
- GPS coordinates of all new watermain appurtenances at top of watermain elevation, including tees, crosses, bends, service connections, and tie-ins to existing watermains.
- GPS coordinates of top of new watermain at 25m intervals.
- GPS coordinates, at ground level, of all new and existing: water service stand posts, valve boxes, fire hydrants, and water chambers.
- GPS coordinates of all new sanitary and storm services at property lines.
- GPS coordinates for any existing underground utilities that were exposed during the execution of the Work.
- GPS coordinates at top of newly installed duct banks at 25m intervals.

All surveyed points (GPS coordinates) must be in the format of NORTHING, EASTING, ELEVATION, DESCRIPTION. The GPS coordinates must be in the same coordinate system as the project control provided on the drawing set. The descriptions must clearly describe the nature of the point.

D.16 WARRANTY

The Contractor shall be responsible for the warranty of the Work for a 12-month period in accordance with G.C. 7.16 (Warranty) of OPSS.MUNI 100.

In order to ensure that any defects or deficiencies in the Work are repaired in a timely manner a Maintenance Guarantee will be held by the Owner for the duration of the warranty period. Any observed major defects or deficiencies, as determined by the Contract Administrator, must be rectified within 30 calendar days of the Contractor receiving such notification. If the Contractor fails to meet this timeline, the Owner has the right to repair the defects and deficiencies with all costs associated with undertaking the repair deducted from the amount of Maintenance Guarantee being held.

Maintenance Guarantee

The following maintenance guarantee will apply to this Contract:

> Two and one half (2.5) percent of the Final Contract Value (Including H.S.T) for the Warranty Period will be held by the Owner as security for any defects or deficiencies that arise.

The applicable amount of Maintenance Guarantee will be deducted from each invoice based on the amount of work completed within the invoice period.

The Maintenance Guarantee will be released at the end of the Warranty Period subject to no outstanding defects or deficiencies.

D.17 MATERIALS – SUPPLY OF MATERIALS

Pursuant to Section GC 5.0 (Material) of the OPSS.MUNI 100, all materials required for this Contract are to be supplied by the Contractor. The source of supply and quality of all materials supplied by the Contractor must be approved by the Municipality prior to their use in the contract.

D.18 ADMINISTRATION OF PITS AND QUARRIES

The Contractor shall ensure that all pits and quarries operated for extraction of aggregate, earth or rock borrow are operated in accordance with current legislation. On request the Contractor shall provide the Contract Administrator with a copy of all permits, approvals and agreements. The cost of complying with legislative requirements shall be deemed to be included in the prices bid for the various items and no additional payment will be made.

D.19 DUST CONTROL AND NOISE SUPPRESSION

The Contractor shall take such steps as may be required to prevent dust nuisance resulting from the Contractor's operations either within the right-of-way or elsewhere or by public traffic where it is the

Contractor's responsibility to maintain a roadway or access to properties within or through the work site.

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

To control construction noise, the Contractor shall ensure that construction equipment is maintained in good operating condition so as to prevent unnecessary noise. This shall include, but not be restricted to, effective muffler systems, properly secured components, and lubrication of moving parts.

Idling of equipment shall be restricted to the minimum necessary to perform the specified work.

The cost of all such preventative measures shall be borne by the Contractor including reshaping the roadway and water for dust suppression.

The cost of such quantities of calcium chloride as authorized by the Contract Administrator to restrict dust to acceptable levels within the Contract limits, shall be paid for by the Owner at the contract price for the appropriate tender item for Calcium Chloride Solid, conforming to OPSS 506 Construction Specifications for Dust Suppressants.

If there is no item for calcium chloride in the Tender Form, calcium chloride shall be applied as directed by the Contract Administrator with the cost also borne by the Contractor.

D.20 CONTRACTOR'S REPRESENTATIVE

The Contractor’s site representative shall be a competent, English-speaking Supervisor, fully authorized to act for the Contractor and capable of coordinating the operation in an orderly and progressive manner. The Contractor’s representative’s primary role/responsibility will be coordinating and supervising the work. At no time shall the Contractor’s representative operate equipment or perform labour work to install the works. The Supervisor or Supervisor Designate will be in attendance at all times at the core work activity site during core work activities. Failure to comply WILL result in a “Stop Work” order.

The Contractor’s site representative shall maintain on the construction site at all times at least one complete set of Contract Drawings and Contract Documents including copies of all referenced OPSS and OPSD documents.

The site representative shall be capable of reading and interpreting the documentation and shall ensure that all work is in conformance with the Contract Documents and the Contract Drawings.

D.21 FIRE DEPARTMENT LIAISON

The Fire Department must be informed 48 hours prior to any impacts on existing fire hydrants and watermains as the project progresses. Fire hydrants taken out of service are to be covered with a plastic garbage bag or similar symbol that the Fire Department will recognize.

The Fire Department must be immediately notified of any gas leak and is available to assist with other emergencies on the work site.

D.22 UTILITIES

Underground Utilities

The location of underground utilities shown on the Contract Drawings, are based on the information provided to the Contract Administrator. It is, however, the Contractor's responsibility to contact the Municipal Authorities or Utility Companies 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. The Contractor is responsible to obtain ALL infrastructure locates for their intended project.

Prior to construction, the Contractor shall excavate such test pits as may be required to accurately locate all existing sewers, watermains and other underground utilities which may cross or be in conflict with the proposed underground works within this Contract to permit the Contract Administrator to determine and implement any required adjustments due to grade conflicts. The Contractor shall have no claim against the Owner for any delays or costs to replace underground works already installed which may result from failure to accurately locate any underground facility as requested in advance.

No responsibilities will be assumed by the Owner for the correctness or completeness of the plans with respect to the existing utilities, pipes, catch basins, chambers, or other objects, either underground or on the surface, and should the plots of such be found incorrect or incomplete, the Contractor shall have no claim on this account. The Owner does not ensure the accuracy of such information, and the Contractor shall not make any claim against the Owner for damages or extra work caused or occasioned by his relying upon such records, reports or information either as a whole or in part.

Overhead Utilities

The Contractor shall protect all utility poles and lines in accordance with the Utility company requirements. Payment for protection, temporary bracing, standby and associated work shall be deemed to be included in the contract price for the item associated with the protection requirement.

Utility Access

In accordance with GC7.08 “Access to Properties Adjoining the Work & Interruption of Utility Services” and any other contract requirement, during the course of the work, the Contractor will ensure access to all in-service utility structures and plants (sewer maintenance holes, water valves, etc.) within the limit of contract to the satisfaction of the local authority by the end of each construction day. Failure to comply with this requirement will result in Contract Administrator taking whatever action is necessary to expose and grade ironworks immediately and deduct incurred expenses from monies owing to the Contractor.

D.23 ROAD AUTHORITY/MUNICIPAL SIGNS/BUSINESS SIGNS

The Contractor must carefully remove and satisfactorily replace all route marker, business advertising, pedestrian and other identification and traffic signs which must be removed in order to carry out the work. The Contractor is to co-ordinate with the Contract Administrator to verify relocation points.

All legal traffic signs must be maintained. If they are to be moved, the local road authority must be consulted and approved.

All costs associated with the removal, protection and relocation of signs will be deemed to be included in the Contract price for the items associated with this requirement.

D.24 CONTROL OF VEHICULAR AND PEDESTRIAN TRAFFIC

The Contractor shall provide the appropriate traffic control signage and/or appropriately attired flag persons, as required during the course of construction to comply with the safety requirements of latest edition of the M.T.O. publication "Book 7 – Ontario Traffic Manual Temporary Conditions".

When in accordance with Section G.C.7.0.6 of the OPSS General Conditions, it is the Contractor's responsibility to maintain a road throughout the work, the Contractor shall supply at his expense, all labour, equipment, and material to maintain the road in a satisfactory condition.

The Contractor shall be fully and solely responsible to ensure the development and implementation of a submitted/reviewed Traffic Control Plan (TCP) and Construction Site Pedestrian Control Plan (CSPCP) as required in SPI-TCP.

Vehicle Access to Entrances and Side Roads

The Contractor shall maintain through, or around, the working area a satisfactory condition for traffic, shall provide vehicle access for all existing entrances, private approaches, and side roads, and ensure that all driving surfaces are maintained and are operational, all to the satisfaction of the Contract Administrator. All vehicle access to existing entrances, private approaches, and side roads must be fully operational once the construction for the day is completed, unless the owner of the property has provided consent to allow the access to remain closed. All the costs associated with this work shall be borne by the Contractor.

Any temporary loss of access/egress necessary to complete the works must be identified in the Contractor's TCP and requires a minimum 48-hour prior notification to the business or resident(s). Such notification regarding the loss of access/egress is the sole responsibility of the Contractor.

D.25 CONTRACTOR'S WORK AND STORAGE AREAS

The Contractor shall make all necessary arrangements for his own work and storage areas at or near the site. Materials and/or equipment shall not be stored within 1m of the travelled portion of any roadway.

D.26 MATERIAL DESIGN AND TEST DOCUMENTATION

The Contractor is responsible for all sampling, testing, reporting and costing of quality control (QC) work. The Contractor must supply the Contract Administrator with a report copy of all results within 24 hours of receipt by the Contractor.

All quality control testing must be completed in a CCIL certified laboratory for Marshall and Superpave Mix Compliance (Type B), Aggregate Quality Control (Type C), Aggregate Physical Property (Type D), Concrete (Category I), or AMRL certified or equivalent. Sampling or testing must be conducted by a technician certified to perform sampling or testing.

All testing requirements for the Quality Control testing must be deemed to be included in the associated unit price. No separate payment will be made for Quality Control Testing.

Hot Mix Asphalt Design Mixes
For all Marshall mixes, the proposed mix design and Job-Mix Formula (JMF) shall be submitted to the Contract Administrator a minimum of 10 Business days prior to the start of paving operation. The proposed mix design and JMF shall be according to OPSS.MUNI 1150.

For all Superpave mixes, the proposed mix design and Job-Mix Formula (JMF) shall be submitted to the Contract Administrator a minimum of 10 Business days prior to the start of paving operation. The proposed mix design and JMF shall be according to OPSS.MUNI 1151.

For all hot mix asphalt mixes, the proposed mix designs are only valid for the calendar year in which they were prepared.

Concrete Design Mixes
For all concrete mixes, the proposed mix design shall be submitted to the Contract Administrator a minimum of 14 Business days prior to placing any concrete. The proposed mix design shall be according to OPSS.MUNI 1350, and shall include form OPSF 1350-1, and physical properties analysis of each aggregate material incorporated to the concrete.

For all concrete mixes, the proposed mix designs are only valid for the calendar year in which they were prepared.

The following lists the minimum required tests and frequencies for this Contract:

Concrete Testing
For all concrete, quality control testing consisting of slump, air content, and temperature determinations must be carried out on each load or batch of concrete until satisfactory control is established. Satisfactory control must be established each day, when concrete from 3 consecutive loads or batches is within the specified requirements. After satisfactory control has been established, testing must be carried out on every subsequent third load.

One set of 4 cylinders must be cast for every $20m^3$ of concrete placed, with a minimum of one set cast per day. One test cylinder must be tested for 7-day compressive strength, two test cylinders must be tested

for 28-day compressive strength. The final cylinder will be tested at 56 days if required by the Contract Administrator.

Physical Property Testing

- One test for each aggregate material incorporated into the work, including those used for: Granular A, B or M; hot, cold, or warm mix paving; surface treatments, chip seals or concrete.
- If aggregates are from multiple sources, a test is required from each source.

Gradation Testing

- Granular A, B and M; and Select Subgrade Material (SSM) shall have a minimum of one test for each 1000 tonnes of placement.
- If aggregates are from multiple sources, a test is required from each source.

Standard Moisture Density Relationship Testing

- Granular A, B and M; and Select Subgrade Material (SSM) shall have a minimum of one test for each 5000 tonnes of placement.
- If aggregates are from multiple sources, a test is required from each source.

Asphalt Cement Content and Grading Testing

- Asphalt mixes shall have one test for each 500 tonnes of placement with a minimum of 1 per day per asphalt mix.

Asphalt Full Compliance Testing

- Asphalt mixes shall have a minimum of one test for each 1,000 tonnes of placement per asphalt mix (Marshall properties or Superpave properties).

Compaction Testing

- Asphalt mixes shall be tested for each 200m^2 of placement. Asphalt mixes may be tested with a nuclear density test gauge.

- Native backfill must be compacted to 95% MDD and Granular Materials must be compacted to 100% MDD in accordance with OPSS.MUNI 501 method A, and with the frequencies established in OPSS.MUNI 501 Table 1.

Topsoil Testing

If requested by the Contract Administrator, the topsoil must be tested for the physical quality requirements listed in OPSS.MUNI 802, and with the frequencies established in OPSS.MUNI 802 Table 1.

Referee Testing

All costs associated with referee testing will be the responsibility of the Contractor.

Asphalt referee testing will be conducted and will include asphalt full compliance testing. Where the Contract Administrator and the Contractor agree that specific mix attributes do not require referee testing, those attributes will be considered acceptable. The Contractor will be reimbursed for the cost of the testing provided the mix is acceptable as per the requirements of OPSS.MUNI 310. Where referee testing indicates rejectable asphalt, the Contractor must remove and replace the asphalt.

D.27 QUALITY ASSURANCE (QA)

At the discretion of the Contract Administrator, a geotechnical consultant may perform Quality Assurance (QA) including sampling, testing and reporting with the costs being borne by the Owner.

All quality assurance testing must be completed in a CCIL certified laboratory for Marshall and Superpave Mix Compliance (Type B), Aggregate Quality Control (Type C), Aggregate Physical Property (Type D), Concrete (Category I), or AMRL certified or equivalent. Sampling or testing must be conducted by a technician certified to perform sampling or testing.

D.28 MANAGEMENT AND DISPOSAL OF EXCESS SOIL

Section 180.01 (Scope) of OPSS.MUNI 180 General Specification for the Management of Excess Materials is amended by the addition of the following:
This project meets an exemption listed in Schedule 2 of the Ontario Regulation 406/19 On-Site and Excess Soil Management, made under the Environmental Protection Act based on the fact that this project is related to maintaining infrastructure in a fit state of repair. Furthermore, due to the project meeting this exemption, the sampling, reports, and planning requirements listed in O.Reg. 406/19 are not applicable.
Subsection 180.04.01 (Submission Requirements) of OPSS.MUNI 180 is amended by the addition of the following:

The following forms are to be completed and filed with the Contract Administrator as applicable:

OPSF 180-4 – Subject Waste Classification
OPSF 180-5 – Waste Quantity Report
OPSF 180-6 – Excess Soil Quantity Report

The Contractor shall prepare and submit to the Contract Administrator all hauling records in accordance with Ontario Regulation 406/19 On-Site and Excess Soil Management, made under the Environmental Protection Act.

Subsection 180.04.01.08 (Excess Soil Reuse Plan) of OPSS.MUNI 180 is amended by the deleted in its entirety and replaced by the following:

The preparation and submission of an Excess Soil Reuse Plan by the Contractor is not required for this project.

Section 180.07.03 (Conditions on Management of Disposable Fill) of OPSS.MUNI 180 is amended by the addition of the following:

All excess soil generated by the Contractor's operation shall be hauled, placed, and leveled as disposable fill at the Town of Renfrew's gravel pit located at 480 Bruce Street, Renfrew, Ontario or at a Town owned site within Town of Renfrew limits.

Material other than clean fill will be accepted at the Renfrew Landfill Site located at 376 Bruce Street, stockpiled at a position determined by the Town of Renfrew Landfill Operating Authority. Asphalt materials will be accepted at the site provided that 100% of the asphalt material passes a 26.5 mm sieve and that the maximum particle size is 26.5 mm. Concrete materials will be accepted at the site provided that 100% of the concrete material passes a 50 mm sieve and that the maximum particle size is 50 mm. Otherwise all asphalt and concrete materials shall be disposed of off-site by the Contractor in accordance with OPSS 180.

Section 180.07.10 (Conditions on Management of Rock) of OPSS.MUNI 180 is added as follows:

All naturally occurring rock that is greater than 2 millimeters in size is not managed through O.Reg. 406/19. All fractured rock shall become the sole responsibility of the Contractor to dispose of. Section 180.07.10 (Conditions on Management of Topsoil) of OPSS.MUNI 180 is added as follows:
Excess topsoil that will be used as topsoil at a reuse site is not managed through O.Reg. 406/19.

All excavated materials will become the sole ownership and responsibility of the General Contractor. The Town of Renfrew currently does not have designated facilities or locations for the disposal of clean fill materials.

D.29 GEOTECHNICAL INVESTIGATION

The geotechnical information shown on the drawings was obtained for the purposes of preparing the design of the project only and is provided for general information purposes only. The information indicates the subsurface conditions at the specific test locations only. The Contractor should examine the factual results of the investigation to satisfy themselves as to the adequacy of the information for construction purposes and make their own interpretation of the factual data as it affects their construction techniques, schedule, safety, and equipment capabilities.

The Contractor declares that in tendering for the work and entering into the contract, they did not and does not rely upon the accuracy of any geotechnical information provided by the Owner. The tenderer acknowledges that all geotechnical information provided by the Owner is for information only and the Owner makes no representation or warranty as to the accuracy of the information.

The Geotechnical Investigation Report is specifically excluded from the warranty stated in Subsection GC2.01 of the OPS General Conditions.

D.30 COMPLIANCE WITH REGULATIONS/BYLAW FOR EROSION AND SEDIMENT CONTROL

The Contractor acknowledges that surface erosion and sediment runoff resulting from his construction operations may have a detrimental impact on any downstream watercourse or sewer, and that all construction operations that may impact upon water quality shall be carried out in a manner that strictly

meets the requirements of all applicable legislation and regulations on Application of Erosion and Sediment Control on Construction Projects.

The Contractor shall consider control measures such as limiting the amount of exposed soils, using filter cloths in catch basins or other open structures, sedimentation traps or other such methods they deem appropriate in order to minimize the negative impacts their construction activities will have on the area drainage systems and ultimately the receiving water course.

Whatever system of controls the Contractor utilizes on the project, it is necessary for them to monitor the effectiveness of the measures regularly and maintain, clean, repair, replace or undertake any additional measures in order to achieve the desired results.

The contractors acknowledges that failure to implement appropriate erosion and sediment control measures may be subject to penalties imposed by any applicable Regulatory Agency.

The cost of fulfilling this work shall be paid for under the appropriate tender item.

SECTION E: STANDARD SPECIFICATIONS AND STANDARD DRAWINGS

Standard Detail Drawings

The Contractor acknowledges that certain standard detail drawings, which are provisions of this Contract, have not been reproduced for inclusion in the Contract Documents. These standard drawings are listed in subsection E.1 and/or referenced by the Contract Documents. Some of the standard detail drawings may be shown on the Contract Drawings.

The Contractor acknowledges that the standard drawings referred to in subsections M are the Ontario Provincial Standard Drawings (OPSD).

Only the municipal and provincial common standards on OPS Volumes 1 to 4 and the municipal-oriented specifications in OPS Volumes 7 and 8 apply to this Contract, unless specified otherwise in the Contract Documents.

The Contractor shall obtain its own copy of the standard detail drawings from the Standard Tender Documents Vol. #2: Material Specifications and Standard Detail Drawings. Drawing revision date shall be the most recent up to and including April 2023.

E.01 Ontario Provincial Standard Drawings (OPSD)

The Ontario Provincial Standard Drawings (OPSD) which are provisions of this Contract include, but are not limited to:

DRAWING No.	DESCRIPTION	DRAWING No.	DESCRIPTION
OPSD 310.020 Nov. 19	Concrete Sidewalk Adjacent to Curb and Gutter	OPSD 1103.010 Nov. 2018	Concrete Thrust Blocks for Tees, Plugs, and Horizontal Bends
OPSD 600.110 Nov. 12	Barrier Curb	OPSD 1109.030 Nov. 20	Insulation for Sewers and Watermains in Shallow Trenches
OPSD 802.031 Nov. 15	Rigid Pipe Bedding, Cover, and Backfill, Type 3 Soil, Earth Excavation		

Standard Specifications

The Contractor acknowledges that certain standard specifications, which are provisions of this Contract, have not been reproduced for inclusion in the Contract Documents. These standard specifications are listed in subsection E.02 and SECTION F: SPECIAL PROVISIONS – ITEM SPECIFIC and in the Schedule of Prices.

The Contractor acknowledges that the standard specifications referred to in subsection E.02.1 and in the Schedule of Prices are the Ontario Provincial Standard Specifications (OPSS) as produced and amended by the government of the Province of Ontario. Only the municipal and provincial common standards on OPS Volumes 1 to 4 and the municipal-oriented specifications in OPS volumes 7 and 8 apply to this Contract, unless specified otherwise in the Contract Documents.

E.02 Ontario Provincial Standard Specifications (OPSS)

The Ontario Provincial Standard Specifications (OPSS) which are provisions of this Contract include, but not limited to:

OPSS	Rev. Date	Description
127.PROV	Apr. 24	Schedule of Rental Rates for Construction Equipment, Including Model and Specification Reference
180.MUNI	Apr. 25	Management of Excess Material
206.MUNI	Apr. 19	Grading
310.MUNI	Nov. 17	Hot Mix Asphalt
314.MUNI	Nov. 23	Untreated Granular Subbase, Base, Surface, Shoulder, and Stockpiling
350.MUNI	Nov. 21	Concrete Pavement and Concrete Base
351.MUNI	Nov. 21	Concrete Sidewalk
353.MUNI	Nov. 21	Concrete Curb and Gutter System
408.MUNI	Nov. 21	Adjusting or Rebuilding Maintenance Holes, Catch Basins, Ditch Inlets and Valve Chambers
441.MUNI	Nov. 21	Watermain Installation in Open Cut
501.MUNI	Nov. 17	Compacting
510.MUNI	Nov. 18	Removal
706.MUNI	Apr. 18	Temporary Traffic Control Devices
710.MUNI	Nov. 21	Pavement Marking
802.MUNI	Nov. 19	Topsoil
803.MUNI	Apr. 18	Sodding
805.MUNI	Nov. 21	Temporary Erosion and Sediment Control Measures

SECTION F: SPECIAL PROVISIONS – ITEM SPECIFIC

TABLE OF CONTENTS – SPECIAL PROVISIONS – ITEM SPECIFIC

EARTH EXCAVATION – SPI-206-1
OPSS 206 Construction Specification for Grading is amended as follows:

206.07 CONSTRUCTION

206.07.01.04.01 Tolerances for Earth
Subsection 206.07.01.04.01 of OPSS 206 is amended with the removal of the first sentence and replacing it with the following:

"All earth grade surfaces shall, on completion, be shaped and compacted to the grades and cross sections specified in the Contract Documents within the following tolerances:"

206.07.03.05 Management of Excavated Material
Subsection 206.07.03.05 of OPSS 206 is amended with the addition of the following:

All excavated materials surplus to fill requirements of the contract shall be disposed of off-site by the Contractor in accordance with OPSS 180. Refer to the Special Provisions General - Management and Disposal of Excess Soil.

206.09 MEASUREMENT FOR PAYMENT
Section 206.09 of OPSS 206 is deleted in its entirety.

206.10 BASIS OF PAYMENT

210.10.01 Earth Excavation, Grading – Item
Subsection 210.10.01 of OPSS 206 is amended by deleting it in its entirety and replacing it with the following:

Payment at the lump sum Contract price for the above tender items will be full compensation for all labour, equipment and materials to do the work.

HOT MIX ASPHALT – SPI-310-1
OPSS.MUNI 310 Construction Specification for Hot Mix Asphalt is amended as follows:

310.04 DESIGN AND SUBMISSION REQUIREMENTS
Section 310.04 (Design and Submission Requirements) is added as follows:
The Contractor must submit the name of asphalt supplier and job mix formula to the Contract Administrator for review and response, a minimum of two weeks prior to paving, according to Special Provisions – General. If requested by the Contract Administrator, the Contractor must also submit a complete list of the equipment proposed, certifying its good operating order and full compliance with OPSS Specification.

The Contractor must provide the Contract Administrator a minimum of 24 hours written notice prior to placing any asphalt on this project. The Contractor will be responsible for any expenses incurred as a result of their failure to provide the minimum 24-hour notice to the Contract Administrator.

310.05 MATERIALS
Subsection 310.05.01 (Hot Mix Asphalt) is amended by the addition of the following:
Steel slag, nickel slag and blast furnace slag course and fine aggregates will not be used in hot mix.

The performance grade of the asphalt cement must be 58-34.

Acceptable Surface Course Asphalt shall be HL3 or SP12.5 Traffic Category C. Acceptable Binder Course Asphalt shall be HL8 or SP19.0 Traffic Category C.

310.06 EQUIPMENT
Subsection 310.06.02 (Paving Equipment) is amended by the addition of the following:
Automatic screed controls are not required.

Subsection 310.06.04 (Material Transfer Vehicle) is added as follows:
The Contractor must perform placement of asphalt with the use of a material transfer vehicle (MTV). A self-propelled material transfer vehicle is to be used to transfer hot mix asphalt from trucks to the asphalt spreader.

310.07 CONSTRUCTION
Subsection 310.07.06.02 (Operational Constraints) is amended by the addition of the following:
In the event that reasons beyond the Contractor's reasonable control causes the placement of hot mix asphalt to occur late in the year and the weather forecast does not provide an opportunity to place the asphalt in accordance with the acceptable temperature range, the Contract Administrator may allow the placement of the hot mix asphalt to take place subject to the Contractor implementing the following mitigation measures:

- Using sufficient and/or larger compaction equipment to ensure that compaction can be achieved prior to the asphalt mat cooling as well as ensuring that the compaction equipment is operating in tight proximity to the paving equipment.
- Avoid paving in windy condition.
- Salt can be placed to remove any accumulation of snow or ice. It will not have any impact on the finish product.
- Ensure that the granular base material was properly compacted prior to it freezing.
- Minimize hand work on the asphalt as the extra movement of the asphalt material reduces its temperature.
- Optimize the site delivery time so that trucks are not waiting or being queued.
- The application of tack coating may be omitted in consultation with the Contract Administrator.

310.10 BASIS OF PAYMENT
Subsection 310.10.01 is amended by the addition of the following:
Milling of asphalt and cutting of asphalt for all longitudinal and transverse joints shall be included in the unit price to complete the work.

If the HMA is deemed borderline or rejectable by test submitted test results, the Owner reserves the right to invoke the payment adjustments listed in OPSS.PROV 313 in lieu or removal and replacement.

Subsection 310.10.04 (Payment Adjustment for Changes in the MTO Performance Graded Asphalt Cement Price Index) is added as follows:

Payment to the Contractor will be adjusted based on changes to the MTO PGAC price index. The MTO PGAC price index will be published monthly in the Contract Bulletin. The MTO PGAC price index will be used to calculate the amount of the payment adjustment per tonne of new asphalt cement accepted into the Work.

Appendix 310-B Nov. 2017 is invoked. Refer to the Appendix for the calculation associated with this payment adjustment.

Appendix 310-B is amended by deleting the third and fourth paragraphs and replacing with the following:

For mixes that contain RAP, the percentage of new asphalt cement shall be determined from the difference between the asphalt cement content required by the job mix formula and the asphalt cement content of the RAP incorporated into the hot mix, as calculated by the Owner.

For mixes containing a liquid anti-stripping additive, the percentage of anti-stripping additive shall be deducted from the percentage of new asphalt cement. No other deductions shall be made for any other additives.

Total AC content = $AC_{\text{JMF Content}}$ – (% RAP x % AC RAP) – % of AC_{ADDITIVE}

Subsection 310.10.05 (Hot Mix Asphalt Quantity Calculation) is added as follows:

When the unit of measurement is “Square Metres”, the theoretical tonnage of Hot Mix asphalt used in the project shall be calculated by the Contract Administrator by multiplying the volume of hot mix asphalt used in the project by the bulk density of the asphalt (G_{mb} from the asphalt mix design) and rounded to one decimal as follows:

Quantity of HMA in tonnes = (Volume of HMA in m_3) x (Bulk Density G_{mb} in tonnes/m_3)

CONCRETE SIDEWALK - SPI-351-1

OPSS.MUNI 351 Construction Specification for Concrete Sidewalk is amended as follows:

351.04 DESIGN AND SUBMISSION REQUIREMENTS

351.04.02 Submission Requirements

Subsection 351.04.02 of OPSS 351 is amended with the addition of the following:

Certification such as Municipal Exterior Flatwork Certification, or ACI Flatwork Certification, or approved equivalent. Where ACI Flatwork Certification means the certification issued by the American Concrete Institute, after demonstrating knowledge and the ability to place, consolidate, finish, edge, joint, cure and protect concrete flatwork. And where Municipal Exterior Flatwork Certification means the certification issued by Ready Mixed Concrete Association of Ontario (RMCAO), after demonstrating knowledge to place, consolidate, finish, edge, joint, cure and protect concrete flatwork.

351.07 CONSTRUCTION
351.07.05 Form Setting
Subsection 351.07.05 of OPSS 351 is amended with the addition of the following:

Sidewalk thickness to be 150 mm thick but increased to 200 mm thick (c/w reinforcing mesh 150x150mm MW9.1xMW9.1) at commercial and trail entrances. The reinforcing mesh must be installed at mid depth of the concrete and must extend beyond the width of the entrance by 1.0m.

351.07.11 Joints
Subsection 351.07.11 of OPSS 351 is amended by the addition of the following:

In accordance with CSA A23.1, all joints that are to be sawn shall be sawed using a wet diamond blade 8 to 24 hours after concrete placement, as soon as the concrete surface has hardened sufficiently to resist travelling while cutting. All joints that are to be sawn shall be cut to a depth that is at least ¼ of the thickness of the sidewalk.

351.07.11.02 Dummy Joints
Subsection 351.07.11.02 of OPSS 351 is amended by the addition of the following:

Dummy joints are to be utilized and shall be hand formed using a 5 mm radius dummy joint tool.

351.07.20 Management of Excess Material
Subsection 351.07.20 of OPSS 351 is amended by the addition of the following:

Backfilling of both sides of the sidewalk flush with the finished surface with a minimum of 300 mm width of granular “A” must take place once the formwork is completed. Should the Contract document require the placement of topsoil and sod or seeding on the boulevards, then the requirements for the granular “A” backfill will be omitted.

351.09 MEASUREMENT FOR PAYMENT
351.09.01.01 Concrete Sidewalk
Subsection 351.09.01.01 of OPSS 351 is deleted in its entirety and replaced with the following:

Measurement of concrete sidewalk/walkways and/or concrete steps shall be by area in square metres. For steps, the area will be computed using the sum of the area of the risers and the area of the steps.

351.10 BASIS OF PAYMENT
351.10.01 Concrete Sidewalk – Item
Subsection 351.10.01 of OPSS 351 is amended with the addition of the following:

Payment for the supply, placing and compaction of the Granular ‘A’ base and backfill is deemed to be included with the payment for the sidewalk item.

CONCRETE CURB - SPI-353-1
OPSS.MUNI 353 Construction Specification for Concrete Curb and Gutter Systems is amended as follows:

353.04 DESIGN AND SUBMISSION REQUIREMENTS
353.04.01 Submission Requirements
Subsection 353.04.01 of OPSS 353 is amended with the addition of the following:

Certification such as Municipal Exterior Flatwork Certification, or ACI Flatwork Certification, or approved equivalent. Where ACI Flatwork Certification means the certification issued by the American Concrete Institute, after demonstrating knowledge and the ability to place, consolidate, finish, edge, joint, cure and protect concrete flatwork. And where Municipal Exterior Flatwork Certification means the certification issued by Ready Mixed Concrete Association of Ontario (RMCAO), after demonstrating knowledge to place, consolidate, finish, edge, joint, cure and protect concrete flatwork.

353.05 MATERIALS
353.05.01 Concrete
Subsection 353.05.01 of OPSS 353 is amended with the addition of the following:

The air content of concrete placed by slipform methods must not be less than 4.5% when tested in place in a plastic state.

353.07 CONSTRUCTION
353.07.07 Joints
Subsection 353.07.07 of OPSS 353 is amended with the addition of the following:

In accordance with CSA A23.1, all joints that are to be sawn shall be sawed using a wet diamond blade 8 to 24 hours after concrete placement, as soon as the concrete surface has hardened sufficiently to resist ravelling while cutting.

353.07.08 Concrete
353.07.08.02 Concrete Finishing
Subsection 353.07.08.02 of OPSS 353 is amended with the addition of the following: The dropped curb flare length on either side of entrances is to be 1 metre long.

REMOVE & REINSTATE INTERLOCKING/PATIO STONE DRIVEWAYS & WALKWAYS– SPI-355-1
OPSS.MUNI 355 Construction Specification for the Installation of Interlocking Concrete Pavers is amended as follows:

Section 355.01 Scope is amended with the by replacing the first line with the following:
This specification covers the requirements for the removal and reinstatement of interlocking paving stone entrances and walkways.

Section 355.10 Basis of Payment is amended with the addition of the following:
The unit price tendered for this item will include but is not limited to the following:

i) The removal of the existing unit pavers and storage during construction period.
ii) All excavation (OPSS 206) to allow for replacement of the paver, 150 mm Granular 'A' and 40 mm of bedding sand.

iii) Reinstallation of the existing unit pavers and/or replacement with new equivalent pavers to match existing.
iv) 150 mm depth of Granular 'A' and 40 mm depth of bedding sand.
v) Polymeric sand will be used to chink the paving stone joints.
vi) An edge restraint system as approved by the Contract Administrator. The Contractor must provide shop drawings to the Contract Administrator two weeks prior to the paving stone work.

ADJUSTING VALVE CHAMBERS, MAINTENANCE HOLES, CB'S AND DITCH INLETS – SPI-408-1
OPSS.MUNI 408 Construction Specification for Adjusting, or Rebuilding Maintenance Holes, Catch Basins, Ditch Inlets and Valve Chambers is amended as follows:

408.07 CONSTRUCTION
Subsection 408.07.01 (General) is amended by the deleting the first paragraph and addition of the following:

This specification covers the requirements for adjusting any **new** or **existing** structures, including maintenance holes, catch basins, ditch inlets and valve chambers. All existing maintenance hole and catchbasin frames and covers are to be replaced with **new** units unless noted otherwise within the Contract Documents. The existing units that are in good condition, as deemed by the Contract Administrator, shall be salvaged and delivered to the Owner's designated storage yard, at a mutually beneficial time.

When additional steps and ladder extensions are required, the costs associated the supply and installation of the additional steps and ladder extensions will be borne by the Contractor and included in the various related tendered unit prices.

Subsection 408.07.08 (Adjusting) is amended by the deleting the first paragraph and the addition of the following:
All existing brickwork, existing mortar, and existing adjustment units shall be removed from the top of the existing structure and replaced with new adjustment units. Stones, steel, wood or bricks shall not be accepted materials adjustment.

For valve chambers, sanitary maintenance holes, storm maintenance holes, catch basins, and ditch inlets, the outside face of the adjustment units shall be wrapped in a Petrolatum Wrap Tape or a waterproofing membrane, from the structure to the from, to ensure a watertight seal.

For all adjustment units on new structures, the units shall be fully and uniformly supported on top of the walls of the structure. This will result in the inside faces of all adjustment units to be plumb with no overhang. The maximum allowable total lateral deviation of structures cover/grates from the centreline of the opening in the adjustment units shall be 75mm in one direction. To achieve this tolerance, the contractor shall be responsible to layout the proposed gutter line, and establish a stringline to verify that when the cover/grate is installed on the opening of the new structure, the 75mm tolerance referred to above will be met. If this tolerance is not met, the structure will need to be relocated at no additional cost to the owner.

Subsection 408.07.08.01 (Precast Concrete Adjustment Unit) is amended by the addition of the following:
Only Precast concrete adjustment units will be permitted. Precast concrete adjustment units must be used for adjustments greater than 25 mm. LePage PL Premium adhesive shall be applied as per manufacturer recommendations to fuse all concrete adjustment units to the final precast maintenance hole section. Two continuous Parallel beads minimum 9mm (3/8") in diameter shall be applied between all parts.

Subsection 408.07.13 (Installation of Frames with Grates or Covers) is added as follows:
If required, shims of HDPE plastic, approximately 47mmx47mm, colour coded for varying thickness of 1.5mm to 25.2mm and set in a full bed of mortar shall be used to adjust the final 25mm to the required finished grade.

Subsection 408.07.14 (Tolerances) is added as follows:
Valve chambers, maintenance holes and catchbasin frames shall be adjusted to 5mm below finished grade. If the top of structure has settled by more than 10mm of finish grade as measured in any direction with a 3.0 m straight edge, at no cost to the Owner, the Contractor shall re-adjust and restore the structure and surrounding area to meet this tolerance.

WATERMAIN AND APPURTENANCES – SPI-441-1
OPSS.MUNI 441 Construction Specification for Watermain Installation in Open Cut is amended as follows:

441.03 DEFINITIONS
Section 441.03 (Definitions) is amended by the addition of the following:

Appurtenances: means devices and appliances other than the watermain pipe, which are used in conjunction with the watermain. This will include fittings such as tees, crosses, bends, reducers, caps, bedding, cathodic protection, tracer wire, thrust blocks and/or retaining/restraining glands, etc.

AWWA C651: refers to the latest revision from American Water Works Association.

Drawings: means the approved plans and profiles issued for construction.

Hydrants or Hydrant Sets: means all materials and fittings including hydrant, barrel extensions, valve, valve box, pipe from watermain to hydrant, thrust blocks, restrainers, tracer wire, fittings, corrosion protection, bedding and cover material.

In Service: references any water plant that has passed approved bacteriological testing and/or connected to the existing water distribution system. A new water plant must be commissioned per the procedures specified herein before being connected to the existing system. For the purposes of this specification the terms "existing", "live", "in-service", or "commissioned" watermain are interchangeable.

Municipal Forces: means employees of the Owner that are certified to perform "operator" functions with the Municipality's water distribution system as defined by the Ontario Regulations 128/04 "Certification of Drinking Water System Operators and Water Quality Analysts.

Ontario Watermain Disinfection Procedure: refers to the latest revision from the Ministry of the Environment, Conservation and Parks Environmental Assessment and Permissions Division. This is a supporting document for Ontario Legislation and regulations related to Drinking Water.

Theoretical Trench Width: means the allowance width of excavated trench required for the installation of the watermain pipe.
Water Plant: means watermain pipes, valves, valve boxes, valve chambers, hydrants, services, curb stops and associated appurtenances.

Watermain: means a water pipe of 100mm or larger located in a public right-of-way or easement to the benefit of the Municipality.

441.04 DESIGN AND SUBMISSION REQUIREMENTS
Subsection 441.04.01 (Shop Drawings, Product Data Sheets, and Installation Instructions) is added as follows:

A complete listing of the materials to be used, including manufacturer, supplier's names, description and/or model type shall be submitted for approval prior to commencement of project.
The Contractor shall provide a copy of the manufacturer's installation instructions for the water service piping supplied, prior to use.

The contractor shall provide a copy of the manufacturer's Installation instructions for each type of restraint device supplied, prior to use.
Subsection 441.04.02 (Watermain Commissioning Procedure) is added as follows:
The Contractor shall provide written commissioning procedures for flushing, swabbing, disinfection, hydrostatic testing, and bacteriological testing that clearly describe the labour, materials and equipment necessary to implement and complete the commissioning described herein. These procedures must be submitted for review at least two (2) weeks prior to the swabbing operation. Commissioning shall not proceed without the submission and approval by the Contract Administrator.

The swabbing procedure shall clearly stipulate the swabbing materials and equipment for launching, propelling, and retrieving the swabs, labour, water supply requirements, location of launch and exit points, overall swabbing sequence, water discharge treatment methods and any other pertinent information. The swabbing procedure shall include a sketch, including the individual swabbing operation phases, and the launch and retrieval locations. The hydrostatic and leakage test procedure shall include the project phasing and a sketch, which includes the size, type and length of water pipe to be tested, location of valves and hydrants, and location of all connections.

Subsection 441.04.03 (Tracer Wire Continuity Test Report) is added as follows:
The Contractor shall provide the Contract Administrator with documentation describing the procedure for testing including the name of the agency, person who will conduct the test, date, time, clear identification of the sections to be tested, and any pertinent comments, prior to commencement of testing continuity.

The tracer wire continuity test report shall be submitted for review and approval by the Contract Administrator.

441.05 MATERIALS
Subsection 441.05.01 (General) is amended by addition of the following:

All materials used shall be consistent throughout the limits of the project.

Acceptable circular diameter watermain pipe shall be:

PVC pipe in sizes 100, 150, 200, 250 and 300mm shall be Pressure Class 235, DR-18 Gasketed Bell and Spigot pipe manufactured to AWWA C-900 and CSA B137.3 or PVCO pipe in sizes 100, 150, 200, 250 and 300mm shall be Pressure Class 235, DR-18 Gasketed Bell and Spigot pipe manufactured to AWWA C-909 and CSA B137.3.1. Pipe shall have cast iron outside diameter dimensions, be blue in color and supplied complete with standard gaskets.

Acceptable service connection piping (50mm diameter or less) shall be:

a) Type K soft copper certified to ASTM B 88.
b) Crosslink polyethylene (PEX) certified to CSA 137.5. Municipex, Blue904 or approved equal. Stainless teel inserts shall be used at all compression joint connections.

Unless otherwise specified in the Contract Documents, the service connection piping shall be a minimum 19mm diameter.

Subsection 441.05.04.01 (General) is deleted in its entirety and replaced with the following:
Flexible elastomeric seals for bell and spigot joints shall be according to ASTM D3139.

Fittings for polyvinyl chloride (PVC) and molecularly orientated polyvinyl chloride (PVCO) pipe shall be ductile iron according to AWWA C110/A21.10 or AWWA C153/A21.53 and shall be cement lined according to AWWA C104/A21.4.

Subsection 441.05.09.01 (General) is amended by deleting items a to d, and the addition of the following:
Valves shall be ductile iron gate valves. Cast iron valves will not be accepted.

Subsection 441.05.09.03 (Gate Valves) is amended with the addition of the following:
Gate valves shall be by Mueller meeting AWWA C509 or AWWA C515. Valves shall be epoxy coated meeting AWWA C550, with Resilient Seat and include a standard 50 mm operating nut and opening counterclockwise. Valve boxes must be 130 mm dia. cast iron slide type by Bibby-Ste- Croix or Sigma. Valve box covers must be marked ‘Water’.

Subsection 441.05.10 (Hydrants) is amended by the addition of the following:
Hydrants must be Darling B-50-B24, 4.5” valve seat and boot meeting AWWA C502 with the following features:
a) Red colour
b) Two (2) hose nozzles (12B CSA)
c) One (1) 112mm mechanical pumper nozzle (33B)
d) Complete with caps

e) 150 mm mechanical joint base
f) “opening” counterclockwise
g) Self-draining
h) Bury depth as required and conforming to OPSD 1105.010. Bury depth is the nominal distance from the groundline to the bottom of the connecting pipe. The flange shall be between 100 to 150mm above the groundline.
i) For PVC watermain one packaged zinc anode type Z-24-48 shall be installed on each hydrant.

Subsection 441.05.12 (Service Connection Fittings and Appurtenances) is amended by the addition of the following:

Main Stops, Curb Stops, and Couplings shall be compression style fittings. Approved service connection fittings and appurtenances are:

a) Main Stops
    a. Mueller B-2500810N
    b. Ford B-1000-#-TW-Q-NL
    c. Cambridge Brass 301NL-A#HE#
b) Curb Stops
    a. Mueller B-25155N
    b. Ford B44-###-TW-Q-NL
    c. Cambridge Brass 202NL-H#HE#
c) Couplings
    a. Mueller H15403
    b. Ford C-44-##-Q
    c. Cambridge Brass 118-H#H#
d) Service Boxes for water services 25mm and smaller (Sliding Type complete with stainless steel rods)
    a. Mueller A-726
    b. Concord-Daigle D-1
    c. Trojan VSB1
e) Service Boxes for water services greater than 25mm (Sliding Type complete with stainless steel rods)
    a. Mueller A-728
    b. Concord-Daigle D-2
    c. Trojan VSB2
f) Service Saddles (150mm to 300mm diameter)
    a. Concord-Daigle - all stainless steel D-71 and D-72
    b. Robar 2606
    c. Smith Blair 372
    d. Ford FS303
    e. Cambridge Brass Tech Saddle #304

Subsection 441.05.13 (Concrete) is deleted in its entirety and replaced with the following:
Concrete for thrust blocks and fittings and appurtenance supports shall be according to OPSS.MUNI 1350 with a nominal minimum 28-Day compressive strength of 20 MPa. The maximum slump to be not greater than 75 mm.

Except for the addition of water, concrete for thrust blocks must come premixed from a concrete supplier or as 'ready mix' from a concrete truck. On-site mixing of cement, sand and aggregate etc., by the Contractor, for the purpose of making concrete thrust blocks/anchors will not be accepted.

Subsection 441.05.16 (Corrosion Protection) is deleted in its entirety and replaced with the following:
Petrolatum Tape Coating Systems are not required for corrosion protection. Anodes shall be according to OPSS.MUNI 442.

Subsection 441.05.17 (Tracer Wire) is added as follows:
Tracer Wire shall be TWU or RWU, 10 Gauge, 7 strands or more, copper, 60C or higher, 600V or approved equal. Splice connections shall be made using DryConn Direct Bury Lug Plus (Aqua) or approved equal. Design of the splice connector shall permit the installation without cutting the main line.

Subsection 441.05.18 (Thermite Welds) is added as follows:
Thermite Welds shall be according to OPSS.MUNI 442. Thermite weld protective barrier covers shall be moulded plastic domes filled with corrosion resistant compound on a base of thick elastomeric tape, Royston Handy Cap IP or approved equal.

Subsection 441.05.19 (Pipe and Fitting Restraints) is added as follows:
Mechanical joint restraints for 100mm to 400mm DI pipe shall be as follows:
a) Ford Uni Flange – 1400
b) EBBA Iron – MEGALUG 1100
c) Star Pipe Products Inc. – ALLGRIP 3600 or STARGRIP 3000
d) Romac Industries Inc. – Grip Ring (with Black ring)

Mechanical joint restraints for 100mm to 400mm PVC and PVCO pipe shall be as follows:
a) Ford Uni Flange – UFR1500-x-1 (C900, C909)
b) EBBA Iron – 200PV (C900)
c) Star Pipe Products Inc. – 3500, 3600, 4000 (C900), or 4300
d) Romac Industries Inc. – Grip Ring (with Black ring)
e) Sigma – One-Lok SLC or SLCE (C900, C909)
f) Clow Canada/McWane – MJ Field Lok (C900, C905)

441.07 CONSTRUCTION
Subsection 441.07.01 (General) is deleted in its entirety and replaced with the following:
The work for the installation of watermains shall include all watermain pipe, bends, tees, fittings, thrust restraints, corrosion protection, and tracer wire installation. The testing of watermains, including swabbing, flushing, disinfection, hydrostatic testing, continuity testing shall be paid by a separate item.

The interior of all pipe, fittings, and other accessories shall be kept clean and free from undesirable materials at all times.

Subsection 441.07.01.01 (After Hours Response) is added as follows:
Should the Contractor’s operation mandate the Operating Authority to respond outside of regular hours of operation, due to regulatory requirements, the Contractor shall be invoiced for all associated costs (i.e. labour, material and equipment).

Subsection 441.07.01.02 (Allowable Leakage of Existing Valves During Watermain Shutdowns) is added as follows:

The Contractor shall make no claim due to leakage or by-pass water of municipal water valves up to 1200 litres per minute (typically, what a 3-inch pump can handle).

Subsection 441.07.07 (Transporting, Unloading, Storing and Handling Pipe) is amended by the addition of the following:

The Contract Administrator reserves the right to reject any pipe. The rejected pipe will be clearly identified by the Contract Administrator immediately removed from within the contract limits.

PVC and PVCO is particularly vulnerable to damage from rough handling. PVC and PVCO pipe are notch sensitive and therefore susceptible to impact damage and is more easily damaged in cold weather. Pipe with significant scratches or gouges will either not be used or have the damaged sections removed from the length. Scratches that extend 10% or more into the pipe wall will be considered significant.

The Contractor will take the following minimum precautions when handling pipe:
a) pipe must be handled in such a way that it does not touch sharp objects;
b) pipe must be handled in such a way to avoid impact while lifting;
c) pipe storage areas should be flat and clean;
d) pipe should not be dropped or allowed to strike other pipe.
e) pipe must not to be used as a beam to support other pipes or ducts in the trench.
f) pipe must be covered with canvas or other opaque materials if it is to be stored outside for periods longer than one year with proper air circulation provided under the cover.
g) pipe must not come in contact with paint, grease, or oil, nor be stored close to heat sources.
h) gaskets should be protected from excessive exposure to heat, direct sunlight, ozone, oil and grease.

Subsection 441.07.08 (Excavation) is amended by the addition of the following:
The Contractor shall excavate a trench in existing roadways in a manner to prevent over break and saw cut pavement in clean straight lines prior to the start of excavation.
Subsection 441.07.13 (Backfilling and Compacting) is amended by the addition of the following:
For watermains and hydrants, the pipe bedding and cover material shall be Granular ‘A’, compacted to 100% of the MDD and conforming to dimensions of OPSD 802.010 to 802.014 (for flexible pipe) as pplicable. The backfill must be acceptable native material compacted to 95% of the MDD unless otherwise directed by the Contract Administrator.

For water services, the pipe bedding shall be a minimum of 150mm depth of granular ‘A’, and the pipe cover material shall be a minimum depth of 300mm granular ‘A’ compacted to 100% of the MDD. The pipe bedding and cover shall be a minimum 0.5m width. The backfill must be acceptable native material compacted to 95% of the MDD unless otherwise directed by the Contract Administrator.

Subsection 441.07.18.01 (General) is amended by the addition of the following:
All isolation valves located at the end of a dead end watermain will require at least one full pipe length to be installed and capped beyond the downstream side of the valve. The valve must remain in the closed

position and the operating nut removed to prevent opening of the valve. Bedding for valves will be in accordance with the standard pipe bedding specifications unless otherwise noted.

All mechanical joint valves must be coupled to the main using a pipe restraint device.

Damage such as small nicks or chips to the factory applied protective epoxy coatings caused by field handling must be repaired immediately using a liquid epoxy coating material. Oils or other contaminants must be removed from the damaged area using suitable solvents. All visible rust must be removed by wire brush, grinding, filing or sanding methods. Roughen the surface of the existing epoxy coating surrounding the damaged area. Apply two layers of the liquid epoxy coating overlapping the existing coating and allow the coating to dry as per manufacturer's recommendations.

Main stops do not require a valve box/service box.

Valve Boxes shall be installed on all valves 100mm and larger in accordance with standard drawing details. Bedding and backfilling around the valve boxes will be in accordance with the standard pipe bedding specifications unless otherwise noted. Valve boxes shall be centred and plumb over the valve nut with the valve box adjusted to 5mm below finished grade. The maximum vertical tolerance of 10mm below finished grade shall be acceptable for final adjustment, as measured in any direction with a 2.4m straight edge. The Contract shall re-adjust all valve boxes that do not meet this tolerance at no cost to the owner.

Subsection 441.07.19 (Installation of Hydrant Sets) is amended by the addition as following:
The Hydrant must be installed as per OPSD 1105.010. A non-woven geotextile shall be used on top of the 19mm clear stone used along the base on the hydrant. The distance between the hydrant and valve must be 1.0 to 1.2m unless otherwise directed by the Contract Administrator.

Subsection 441.07.20 (Installation of Service Connections) is amended by deleting the 2nd paragraph and the addition of the following:

Water services shall be installed as per Manufacturer’s recommendations.

Existing water services will be replaced, relocated or reconnected based on the field assessment of each service by the Contract Administrator at the time of construction. The following criteria will be used:

a) If the existing services are found to have insufficient cover material, they must be replaced to the property line unless otherwise directed by the Contract Administrator.
b) If the existing services are lead, they must be replaced to the property line.
c) If the existing services are copper, 19 mm diameter and greater, they may be reconnected if directed by the Contract Administrator.
d) If unable to replace the services to the property line due to existing features, then the service must be relocated as directed by the Contract Administrator.
e) Services that conflict with sanitary or storm sewers at crossings must be installed over the sewers unless otherwise directed by the Contract Administrator.

The depth of cover for services shall be a minimum of 2.4 m cover material. Under no circumstances will rock removal be considered an exception to the minimum depth of cover requirement. Where the minimum cover depth is not possible, water services shall be protected with thermal insulation as directed by the Contract Administrator.

Services must be perpendicular to the watermain and be straight to the service post. Location to be in accordance with the Contract drawings and be co-ordinated with all utilities and landscape features to avoid conflicts and maintain minimum clearances.

The location of existing service laterals must be adjusted/relocated to achieve proper utility clearance as directed by the Contract Administrator. As a general rule, a minimum 2.5 m horizontal separation is required between the new water plant and catchbasins or open structures. Where a minimum of 2.5m separation is not possible, water services must be protected with thermal insulation as directed by the Contract Administrator.

The service pipe material must be laid in one continuous pipe length (i.e. splicing and jointing of short pipe material will not be permitted) from the main stop to the curb stop.

Service connections on watermains shall be installed using service saddles.

All service connections 50mm in diameter or less, shall be tapped using shell type cutter tools, which will retain the coupon and is designed to accommodate the pipe wall thickness involved and must be approved by the Municipality. Solid core drill bits are not permitted. The size of the hole to be drilled in the main shall be the same size as the water service (ie: 19mm water service requires a 19mm hole).
Multiple taps on watermains must be staggered, must be a minimum of 600 mm apart, must be a minimum of 600 mm from the end of the pipe.

Goosenecks on service connections shall be formed in the horizontal position before connection to the main stop. Every service connection requires a service saddle; "Wye" connections are not allowed.

The new curb stop must be located 0.3m within the ROW from property line as directed by the Contract Administrator. Curb stops must be installed plumb with the operating "tee-head" in the vertical position. Proper support must be installed in accordance with OPSD 1104.010 and OPSD 1104.020.

All new curb stops, 50mm diameter or less, shall require a service box complete with stainless steel operating rod. The service box must be clearly marked with a stake, flexible flag or other acceptable means until final reinstatement is completed. The Contractor must backfill and compact the service post. The ribbed covers of the service box are to be set flush with all surfaces by the Contractor.

The Contractor is responsible for the final setting of the service box in all surfaces such as dirt, grass, asphalt, concrete, concrete pavers or interlocking brick.

In the case of hard surfaces such as asphalt, concrete and interlocking brick etc., the tops are to be adjusted to 5mm below finished grade, unless otherwise directed by the Contract Administrator. Set screw type couplers will not be accepted as a means of adjustment or repair of the service box. The

Contract Administrator may accept threaded pipe of same material for adjustment. Damaged service box must be complete rod and box replacement only, repairs will not be accepted. The maximum vertical tolerance of 10mm below finished grade shall be acceptable for final adjustment, as measured in any direction with a 2.4m straight edge. The Contractor shall readjust all valve boxes that do not meet this tolerance at no cost to the Owner.

In the case of installation in grassed areas, the tops of the service posts are to be exposed and set by the Contractor to ground level during final reinstatement.

Subsection 441.07.21 (Shutting Down or Charging Mains) is amended by the addition of the following:
The existing watermain may not have been installed with adequate thrust restraints (mechanical restraining device or thrust blocking. The contractor shall be cautious when excavating near “in service” watermains.

All existing “in-service” watermains shall be isolated from the proposed new watermain construction by means of a physical separation, which will consist of a valve and a capped watermain stub with restraints and thrust block according to the contract documents.

If an existing valve is to be replaced as part of the contract, the valve replacement shall be completed at the commencement of contract, as part of the system isolation.

The contractor shall install a flushing service line off the end cap or off a saddle tapped onto the stub at every dead-end point, this is to ensure flushing can be conducted for the duration of the project. This is required to both maintain and monitor water quality within the distribution system. The sample port must be left at a suitable length above grade, routed to a storm CB or ditch if possible, and always be accessible (24-hour continuous flushing may be required). A minimum of 50mm service piping must be used and equipped with a shutoff valve above grade. Refer to Figure 2 of AWWA C651.

The Contractor must contact the Contract Administrator a minimum of 48 hours prior to requiring a valve or hydrant operated. The Contractor must not operate any portion of the “inservice” Drinking Water System which includes the temporary water system. Municipal forces shall inform the Contractor when a section of the water system has been isolated through valve operation and is considered Out-Of-Service. The Contractor may only operate valves that are not part of the "in-service" water system and in these instances only under the direction of Municipal forces.

The Owner reserves the right to fine/charge the Contractor for operating the drinking water system without authorization.

Subsection 441.07.22 (Connections to Existing Watermains) is amended by the addition of the following:
All connections shall be according to the MECP Watermain Disinfection Procedure.

Prior to ordering materials to connect to the existing watermains, the Contractor shall complete test pits to verify the outer diameter and elevation of the existing watermain at tie-in locations.

All blankings and connections to existing mains are to be coordinated with the Contract Administrator a minimum 48 hours in advance to arrange for a mutually acceptable date and time. All blankings and connections are to be performed by the Contractor in the presence of the Contract Administrator and Municipal forces. The connections must be scheduled to reduce inconvenience and disruptions to property owners and traffic. This may result in work being performed during off peak hours at no additional cost to the Owner.

All Swabbing, Disinfection, Pressure Testing and Bacteriological testing must be completed prior to connection to the existing Drinking Water System.

No section or portion of the installed water plant will be reconnected to the existing water system until the installed watermains, and water services have been successfully disinfected and passed the bacteriological testing requirements of the Municipality/Owner.

Subsection 441.07.23 (Thrust Restraints) is amended by the addition of the following:
Thrust restraints shall be installed on all PVC, PVCO, CI, DI watermains and water services (100 mm to 400mm in diameter) at each bend, tee, plug, dead end cap, valve, reducer, hydrant, coupler or other fittings where changes occur in pipe diameter or direction. Thrust restraints for watermains greater than 400mm shall be specially designed in accordance with the methods outlined in the AWWA manuals.

The following fittings shall be restrained by both an approved mechanical restraining/retaining device and a concrete thrust block:
a. Plugs/caps,
b. Tees,
c. Horizontal bends,
d. Vertical bends,
e. Hydrants.

An approved mechanical restraining/retaining device shall be installed at the following locations:
a. All bell & spigot pipe joints within 14m of a mechanical joint,
b. Valves (including live tapping valves and direct bury),
c. Crosses,
d. Reducers,
e. Sleeves and Couplings.

Thrust restraint for temporary plugs and caps shall be mechanical or comprised of a timber brace positioned against a concrete thrust block poured to undisturbed soil, such that the plug or cap will be securely held in place. The contractor shall ensure sufficient restraint for temporary plugs and caps to provide for “System Isolation”.

When both systems (mechanical thrust restraint and concrete thrust block) are required, each system must be designed independently of the other. To reduce the number of restrainers required, the use of full pipe lengths is recommended.

Subsection 441.07.23.01 (Concrete Thrust Blocks) is added as follows:
A concrete thrust block must also be placed at the back of the hydrant base as per OPSD 1105.010.

Thrust blocks must be constructed as per OPSD 1103.010 and OPSD 1103.020 unless otherwise directed by the Contract Administrator. The block must be centred on the thrust force and must also partially cradle the fitting to distribute the force. The sides of the block must be 80mm from the joint on either side of the bend or tee.

The concrete, where possible, must be placed against undisturbed soil at the bottom and side of the trench. Where it is not possible, the fill between the bearing surface and the undisturbed soil must be compacted to 100% of Maximum Dry Density. The sides are to be formed in disturbed ground using plywood or similar material to be left in place.

Precast concrete thrust blocks are acceptable provided that they meet the size requirements of OPSD 1103.010 and OPSD 1103.020. The precast block shall have a minimum depth (in the direction of the thrust) of half the required width of the thrust block. Concrete shall be placed between the precast thrust block and the fitting to ensure that the thrust force will be transferred from the fittings body area to the precast thrust block (not from fittings flange area to the precast thrust block). Any voids between the back of the trust block and the existing undisturbed soil shall be filled with non shrink fill or granular 'A' compacted to 100%.

In-lieu of using thrust blocks on vertical bends, the contractor has the option to use tie-lugs and 19mm stainless steel threaded rod. Two threaded rods must be placed on each side of the pipe, and must extend across all joints within the 3.0m from the bend.

All PVC, PVCO and DI watermains or water services 100 mm to 400 mm in soil with bearing capacity less than 100 kPa must be specially designed in accordance with the methods outlined in the AWWA Manuals.

Subsection 441.07.24 (Hydrostatic Testing) is amended by the addition of the following:
Hydrostatic pressure and leakage tests must be performed after the trench has been properly backfilled but before placement of any permanent reinstatement. Where concrete thrust blocks have been cast in place, seven (7) days should have passed to allow an initial setting time for the concrete, before commencement of any tests.

Where a Contractor may want to perform testing of a watermain prior to waiting the 7 days to get 75% strength, the Contractor must provide the Contract Administrator with a high early strength mix design which will achieve the 75% strength in a time prior to the Contractor starting the testing. This mix design will require the Contract Administrator's review.

All watermains one pipe length and longer (generally >6.0m) shall be tested for hydrostatic pressure and leakage in the presence of the Contract Administrator. The measured length shall include any portion of installed watermain beyond an isolation valve or any stub watermain installed for future connections.

Testing against a closed valve that is used to isolate the "in-service" water plant from the new watermain shall not be permitted.

The length of the new watermain being tested at one time shall not exceed 600 m unless otherwise approved by the Contract Administrator.

Valves 400 mm or larger in size that equal or exceed 600 m in spacing must be tested in both the open and closed position and must be included in the hydrostatic test.
All hydrants must be tested with the valve located at the hydrant base in both the open and closed position and must be included in the hydrostatic test. With the valve in the open position, the hydrant must first be filled and inspected for leakage under the test pressure. The hydrant valve must then be closed and inspected to verify that there is no leak through, and that the hydrant barrel is properly draining.

Water used for the hydrostatic testing shall be Drinking Water. Highly chlorinated water (water with a chlorine residual greater than what is permitted as Drinking Water under the Procedure for Disinfection of Drinking Water in Ontario) shall not be used during the hydrostatic test pressure and leakage test.

Both the hydrostatic test and leakage test shall be conducted at the same time. The test section shall be subject to a continuous test pressure of 1035 kPa (150psi) for a minimum duration of 2 hours. The Contract Administrator reserves the right the extend the duration of the tests, at no extra cost to the contract. The test pressure shall be applied at the lowest point in the test section by means of a pump connected to the pipe in a satisfactory manner.

For satisfactory results to the test, the test pressure shall not drop by more than 34.5 kPa (5psi), and the measured leakage shall not exceed the allowable leakage. If the test does not meet both of these requirements, the test has failed, all leaks shall be located and repaired, and the test section shall be retested until a satisfactory result is obtained. The allowable leakage is 0.082 litres per millimetre of pipe diameter per kilometre of pipe for the 2-hour test period.

Subsection 441.07.25 (Flushing and Disinfecting Watermains) is deleted in its entirety and replaced with the following:

Flushing and disinfection operations shall be according to the MECP Watermain Disinfection Procedure and the latest ANSI/AWWA C651. Flushing, swabbing, disinfection, hydrostatic testing, and bacteriological testing shall be conducted in the presence of the Contract Administrator and the Municipal forces

Any water used for the purposes of, but not limited to, flushing, swabbing, disinfection, hydrostatic testing, and displacing water to obtain samples for testing, shall be Drinking Water.

Water required to fill the new main for flushing, swabbing, disinfection, hydrostatic testing, and displacing water to obtain samples for testing shall be supplied through a temporary water connection between the existing water distribution system and the new watermain. The temporary connection shall include an appropriate cross-connection control device, reduced pressure zone assembly and shall be disconnected (physically separated) from the new main during the hydrostatic pressure test. If the backflow preventor is removed from the “in-service” watermain and if it is necessary to re-establish the temporary connection after completion of the hydrostatic pressure test prior to the final connection of the new main to the distribution system, the backflow prevention devices shall be re-certified in place by a licensed tester.

The contractor may choose to use a “Water Truck” that shall be bacteriologically tested prior to use. Typically, two samples must be taken. It is at the Operating Authorities discretion to request the truck be bacteriologically tested at anytime throughout the procedure.

It is suggested the contractor use only Drinking Water available from the same municipal water source that the new watermain will be connected to and the contractor must ensure the truck is not used for other purposes or leaves the work site.

The commissioning operations shall consist of the following sequence:
1. Swabbing and initial flushing,
2. Hydrostatic and leak testing,
3. Disinfection of watermain,
4. Final flushing and bacteriological testing,
5. Connection to existing water system.

Subsection 441.07.25.01 (Swabbing and Initial Flushing) is added as follows:
The main shall be slowly filled at a flow velocity of 0.3 m/s to 0.6 m/s to prevent air entrapment. Any remaining air should be expelled through air valves, hydrants, dead end nozzles, and corporation stops located at high points.

Unless otherwise approved by the Contract Administrator, all new watermains, 100mm in diameter or greater, one pipe length and longer (generally >6.0m), shall be swabbed with a minimum of two swabs. Watermain sections less than 6m may be manually swabbed or sprayed to the satisfaction of the Contract Administrator.

Only new swabs manufactured of flexible open cell polyurethane foam made for soft wiping applications sha l l be used. The swab must be of one- pi e c e construction with a cone shaped leading edge and a density ranging from 32 kg/m3 to 128 kg/m3, sized a minimum of 51 mm larger than the nominal pipe diameter and with a minimum length of one and one half (1.5) times its diameter. Swab may have a rotating patterned surface.

Swabs must be launched into the new watermain at hydrants, or at special entry sections installed by the Contractor utilizing an appropriate swab launcher facility. Where possible, the swab shall travel from a low elevation launch location to a high elevation discharge location to provide better control over the swab speed.

The Contractor shall provide all piping complete with a valve at the discharge point to provide controlled discharge of the water used in the swabbing operation. Additional outlet connections will be at the Contractors expense. Swabs shall be retrieved from the watermain utilizing swab catcher outlet connections in a manner that prevents contact with the ground or contamination of the swab to allow for an accurate inspection by City forces.

All new watermains sections shall be cleaned by swabbing, using a minimum of two (2) new swabs per section and two (2) for each hydrant lead. The swabs should be marked to clearly identify each swab and must be inspected by the Contract Administrator after the swabbing operation is complete.

The Contractor shall first launch and retrieve a single swab to prove the direction of flow and pipeline integrity. The remaining swabs can then be launched independently until the discharge water runs clear within one (1) minute of the last swab exiting the discharge point.

The Contractor shall repeat the swabbing procedure as often as required to achieve the required result, at no additional cost to the Municipality or Owner. The watermain shall be flushed until the water is clear of swab material and all pieces of the swab are to be accounted for. Valves shall then be closed very slowly to prevent surges.

All temporary pipe and fittings installed for the purpose of swab entry, exit and launching shall be removed and end caps shall be installed and properly restrained before the hydrostatic test can be undertaken.

Upon completion of the swabbing operation, the Contractor shall thoroughly flush all new watermain sections, hydrant leads and service laterals for sufficient duration at an adequate velocity to remove any foreign debris and for the discharge water to run clear.

The Contractor shall not rely on the Municipality's water supply to achieve the required flow rate. The Contractor must consider additional storage or shorter swabbing lengths instead.

The Contractor shall not install temporary services or fittings onto the new water main for the purpose of testing, swabbing or flushing.

Subsection 441.07.25.02 (Disinfection and Flushing) is added as follows:
Flushing and disinfection operations shall be in accordance with MECP Watermain Disinfection Procedure and the latest ANSI/AWWA C651. The final flush is performed to reduce the chlorine concentration to acceptance levels prior to completing the bacteriological sampling and testing of the water supply.

All new service connection 50mm diameter or less, irrespective of length must be flushed and may be placed into service with Municipalities/Owners approval.

Subsection 441.07.25.03 (Bacteriological Sampling and Testing) is added as follows:
Bacteriological sampling shall be in accordance with MECP Watermain Disinfection Procedure and shall be tested for the presence of E-Coli and total coliforms.

Municipal force shall collect the bacteriological sampling from various points throughout the newly installed watermain and the affected “in-service” water system as required.

At no additional cost to the Owner, the contractor shall install sample points at swab chutes or at all ends of the new main being commissioned. The sample point shall be 25mm service line complete with control valve to control flow. Sample locations shall be kept clean and shall be located high enough to minimize any ground splashing back onto the sample port and include physical separation with other objects including the banks of the trench.

The contractor shall ensure sufficient water is supplied to the new water main to allow samples to be collected from all end points. The Contractor will assist Municipal forces during the sampling process with a minimum of two competent employees.

The Contractor will be responsible to deliver all samples taken to a preapproved laboratory.

If E-Coli or total coliforms are detected, the disinfection procedure and testing will be repeated.
Subsection 441.07.27 (Management of Excess Material) is amended by deleting the 2nd and 3rd paragraph and replacing it with the following:

The Contractor is responsible for control and disposal off-site of all chlorinated water used for swabbing, disinfection, testing and flushing meeting requirements of all applicable acts, legislation and regulations. The method of disposal of chlorinated water is subject to the approval of the Contract Administrator and MECP Watermain Disinfection Procedure.

Subsection 441.07.28 (Tracer Wire) is added as follows:
The Contractor must supply and install the required tracing wire in accordance with these Standards. The Contractor must furnish all the necessary tracing wire installation and testing
equipment. Proper installation and continuity testing of tracing wire on all watermains, hydrant laterals and services will be the sole responsibility of the Contractor.

Tracer wire must be installed on all PVC, PVCO, HDPE and concrete watermains. Tracing wire must also be installed on all hydrant laterals and services connected to PVC, HDPE and concrete watermains as shown on the Contract Drawings. Tracer wire must be continuous, and only unavoidable splicing must be completed using approved splice connectors. The tracer wire is not to be installed or pinched between the main and saddles, restrainers, Denso or thrust blocks. Prior to cutting the tracing wire for splice connections, the tracing wire must be loose and not taut to avoid stretching.

Subsection 441.07.28.01 (Tracer Wire Connections and Terminations) is added as follows:
The tracer wire shall be connected and/or terminated by one of the following methods:

1. Approved Splice Connectors shall be used to connect to the existing watermain tracer wire, connect to a water service tracer wire or to complete a tracer wire splice.
2. Terminate the tracer wire at a “Test Station”, if applicable, Fire Hydrant or Water Service Box at property line.
3. Terminate the tracer wire by means of thermite welding to the existing cast iron or ductile water main in accordance with the manufacturer's recommendations and specifications. All thermite welds must be protected with a thermite weld protective barrier cover.

Subsection 441.07.28.02 (Tracer Wire Termination at Hydrants) is added as follows:
The hydrant lateral tracing wire shall be neatly secured along the hydrant lead, up the hydrant barrel, extending a minimum of 300mm above the finished grade and neatly wrap around hydrant flange to terminate. The tracer wire at the main shall be carefully exposed and the hydrant lateral tracer wire shall be connected to the main tracer wire using approved splice connectors. Care should be exercised as to not pull and damage the watermain wire when making the connection.

The tracer wire is not required up the hydrant service valve box.

Subsection 441.07.28.03 (Tracer Wire Termination on Watermain) is added as follows:

The tracing wire shall be laid flat and secured every 3m at the top center of the watermain, At watermain end caps, approximately 3.0 m of tracing wire must be extended, coiled and properly secured for future connections.

Subsection 441.07.28.04 (Tracer Wire Termination at Valve Boxes) is added as follows:
For all valve boxes (other than hydrant valve boxes), the tracer wire shall extend from the main, installed securely outside of every water main valve box, entering the valve box top section through the pre-cut hole and extending a minimum of 300 mm above finished grade at each main valve box. The tracer wire shall then be neatly coiled and inserted into the valve box not to interfere with the placement of the lid. The wire can be continuous or connected to the main tracer wire using approved splice connectors.

Subsection 441.07.28.05 (Tracer Wire Termination at Water Services) is added as follows:
The tracer wire at the main shall be carefully exposed and the service tracer wire shall be connected to the main tracer wire using approved splice connectors. The tracer wire shall be neatly secured to the service piping at intervals of 3m and along the service box at 500mm intervals, terminating 150mm above the top of the service box, at final grade and neatly wrapped around the service box, at the top.

The tracer wire shall not be grounded to the service pipe or connected to the anodes.

Subsection 441.07.28.06 (Tracer Wire Continuity Test) is added as follows:
Tracer wire continuity testing shall be performed by the contractor in the presence and to the satisfaction of the Contract Administrator with at least 48 hours' notice and to the satisfaction of the Owner. The continuity tests must be conducted after all services have been installed and before the base course of asphalt is applied. For satisfactory results to the test, the entire tracer wire system must be functioning properly. Tracer wire installations that fail the testing must be corrected and retested to the satisfaction of the Contract Administrator, prior to the placement of any roadway asphalt. No additional payments or claims will be made for such corrections and retesting.

A minimum of 48 hours prior to placement of asphalt or topsoil, the contractor shall inform the Owner that a satisfactory result to the tracer wire continuity test has been achieved to allow the Owner time to perform a functionality test.
Subsection 441.07.29 (Corrosion protection) is added as follows:
Anodes shall be installed in accordance with OPSS.MUNI 442 as per OPSD 1109.010 and OPSD 1109.011.

Subsection 441.07.30 (Live Tap Connections to Watermains) is added as follows:
All requests for service connections to an "in-service" water main including a temporary water system, are to be coordinated with the Contract Administrator and the Owner at least 48 hours in advance to arrange for a mutually acceptable date and time.

The "Live Tap" and connection shall be scheduled so as to reduce inconvenience and disruptions to property owners and traffic. This may result in work being performed during off peak hours at additional cost to the Contractor.

All "live taps" are to be performed by the Contractor under the supervision of the Contract Administrator and Municipal forces.

441.09 MEASUREMENT FOR PAYMENT
Subsection 441.09.01.02 (Valves) is deleted in its entirety and replaced with following:
Valves and boxes will be measured by the number of each size of unit installed. The unit price will be full payment for the installation of the valve including the earth excavation, thrust restraints, concrete block, corrosion protection, valve box, temporary supports, backfill, clear stone and final adjustments.

Subsection 441.09.01.04 (Service Connection Pipe)is deleted in its entirety and replaced with following:
Payment for service connection pipe is included with the service connection/water service.

Subsection 441.09.01.05 (Service Connection Appurtenance Sets) is deleted in its entirety and replaced with following:

Payment for service connection sets is included with the service connection/water service.

Subsection 441.09.01.07 (Service Connection/Water Service) is added as follows:
For measurement purposes, a count shall be made of the number of service connections/water services installed. The work for the service connection/water services shall include the removal of the existing service connection/water service.

Subsection 441.09.01.08 (Watermain Loop) is added as follows:
For measurement purposes, a count shall be made of the number of Watermain loops installed.

441.10 BASIS OF PAYMENT
Subsection 441.10.01 is amended by the addition of the following:
Water Service – Item
Testing of Watermains – Item
Watermain loop – Item

REMOVAL OF ASPHALT PAVEMENT - SPI-510-1
OPSS.MUNI 510 Construction Specification for Removal is amended as follows:

510.07 CONSTRUCTION
Subsection 510.07.06.04 (Removal of Asphalt Pavement, Partial Depth) of OPSS.MUNI 510 is amended with the addition of the following:

The intent is to mill the surface to accept a 50mm lift of top asphalt. The depth of removal may vary across the road surface. Generally, the finished cross slope shall be 2%, however for localized areas, a cross slope between 1.5% to 3.5% will be accepted. The portion depth asphalt removal will only be permitted to occur once the entirety of the underground works have been completed to ensure that the milled surface will not be damaged by construction hauling activities.

Subsection 510.07.10 (Management of Excess Material) of OPSS.MUNI 510 is amended with the addition of the following:

All removed asphalt shall become the sole responsibility of the Contractor to dispose of.

510.09 MEASUREMENT FOR PAYMENT
Subsection 510.09.01.16 (Cutting Existing Pavement) of OPSS.MUNI 510 is deleted and replaced with the following:

Cutting asphalt is deemed to be included with the removal of asphalt.

510.10 BASIS OF PAYMENT
Subsection 510.10.01 of OPSS.MUNI 510 is amended to delete the reference to the "Cutting Existing Pavement – Item".

REMOVAL OF CONCRETE SIDEWALK – SPI-510-2
OPSS.MUNI 510 Construction Specification for Removal is amended as follows:

510.07 CONSTRUCTION
Subsection 510.07.08.03 (removal of Concrete Sidewalk) is amended with the addition of the following:

If tactile walking surface indicator (TWSI) plates are located within the removal of sidewalk limits, they shall be included in the unit price to complete the work.

Subsection 510.07.10 (Management of Excess Material) of OPSS.MUNI 510 is amended with the addition of the following:

All removed concrete sidewalks shall become the sole responsibility of the Contractor to dispose of.

PAVEMENT MARKINGS - SPI-710-1
OPSS.MUNI 710 Construction Specification for Pavement Marking is amended as follows:

710.01 SCOPE
Section 710.01 (Scope) is deleted in its entirety and replaced by the following:
The work under this tender item will include supply and application of temporary pavement markings and permanent pavement markings within the Contract limits as per the Contract drawings.

710.04 DESIGN AND SUBMISSION REQUIREMENTS
Subsection (710.04.01 General) is deleted in its entirety.

710.07 CONSTRUCTION
Subsection 710.07.01 (General) is amended by the deletion of the second paragraph and replacing it with the following:

The Contractor must apply the pavement marking and symbols conforming to the Contract Drawings, when provided and the Ontario Traffic Manual.

Subsection 710.07.04 (Premarking) is amended by the addition of the following:
The premarking of all pavement markings must be approved by the Contract Administrator prior to any permanent pavement markings being applied.

Subsection 710.07.03 (Pavement Marking Obliterating) is deleted in its entirety and replaced by the following:
Durable markings and traffic paint shall be obliterated or removed by soda blasting. Black obliterating traffic paint will not be accepted.

Subsection 710.07.08 (Selection of Materials) is deleted in its entirety and replaced by the following:
All line painting is to be completed with traffic paint complete with glass beads, with the exception of the following that are to be completed with either durable preformed plastic tape, field reacted polymetric pavement marking material or thermoplastic pavement marking material:
a) Symbols at all intersections
b) All crosswalks and crossovers
c) Stop bars at all intersections
d) Yield to pedestrians line (Shark Teeth) at pedestrian crossovers

All line painting associated with parking lots and multi-use paths is to be completed using traffic paint with no requirement for glass beads.

Subsection 710.07.09.01 (General) is amended by the addition of the following after the first paragraph:
Lane lines, continuity lines and edge lines on tangent sections of constant width must be placed parallel to one another, maintaining their correct offset from the edge of pavement and from one another and must be straight and true.

Markings placed to delineate changes in the number of lanes, variations in roadway width or adjustments in lane width must be straight and true.

Markings placed on curves must accurately follow the change in direction prescribed by the roadway. Transition from adjacent tangent sections must occur smoothly and at a constant rate over the specified distance.

Markings must always maintain the specified lane width.

Where longitudinal pavement joints and markings coincide, the markings must be uniformly offset a minimum of 50 mm to a maximum of 150 mm.

710.10 BASIS OF PAYMENT
Section 710.10.01 is deleted in its entirety and replaced with the following:

710.10.01 Pavement Markings – Item
Pavement Markings, Durable – Item
Pavement Marking Obliterating - Item

Payment at the lump sum Contract price will be full compensation for all equipment, labour and materials for the supply and placement of permanent pavement markings, short term pavement markings, OTM warning signs and temporary pavement markings and reflectorizing glass beads as documented elsewhere.

All new pavement markings that are deemed unacceptable shall be obliterated in accordance with subsection 710.07.03 and re-applied at no additional cost to the Owner.

TOPSOIL IMPORTED – SPI-802-1

OPSS.MUNI 802 Construction Specification for Topsoil is amended as follows:

802.07 CONSTRUCTION

Subsection 802.07.07 (Tolerances) is added as follows:

After compaction of topsoil to finish grade, for seeding areas, the topsoil shall be flush to the top of the back edge of curb, or sidewalk (as applicable). For sodded areas, the topsoil shall be compacted such, once the sodding has been placed, the bottom of the grass is flush with the top of the back edge of curb, or sidewalk (as applicable) If during the maintenance period, the topsoil settles to greater than 25mm from the top of the back edge of curb or back edge of sidewalk (as applicable), at no additional cost to the Owner, the Contractor shall supply, place, and compact additional topsoil, and apply additional seeding and mulching, or nursery sodding to the affected areas as specified in the Contract Drawings.

802.09 MEASUREMENT FOR PAYMENT

Subsection 802.09.01.02 (Topsoil, Imported) is deleted in its entirety and replaced by the following:

Where topsoil is to be imported and placed, measurement will be made in square metres placed.

ENVIRONMENTAL PROTECTION – SPI-805-1

OPSS 805 Construction Specification for Temporary Erosion and Sediment Control Measures is amended as follows:

805.04 DESIGN AND SUBMISSION REQUIREMENTS

Section 805.04 of OPSS 805 is added as follows:

The Contractor must submit the erosion and sediment control plan to the Contract Administrator a minimum of ten (10) calendar days prior to proceeding with the work. The submission must be comprehensive and must provide descriptions, drawings and schedules that detail the sequence of this work and the temporary protection systems.

The plan shall include procedures for preventing and responding to spills, and equipment and resources that will be available to prevent and/or respond to all potential discharges resulting from the Contractor's operations in this contract. Part of the requirement of this Contract is that emergency spill kits shall be stored on site and be available at all times.

Permission to proceed with the work will be provided if the Contract Administrator determines that all the details of the Contractor's operations meet the requirements specified in the Contract Documents and by the Authority and applicable Further Permits obtained by Contractor are filed with the Contract Administrator.

Section 805.07 Construction is amended by the addition of the following:

The Contractor must provide the necessary protection measures to ensure that all waterways, swamps and private property are protected from contamination during construction. The Contractor will design,

erect, maintain and remove any protection schemes necessary to prevent all debris and construction materials from entering the waterway during the execution of this Contract to the approval and satisfaction of regulatory authorities and the Contract Administrator. The Contractor must also design, implement, maintain and remove all erosion and sediment control measures and carry out the removal of sediment accumulated by control measure to the approval and satisfaction of the Contract Administrator. These measures are intended as prevention and shall be installed prior to construction in anticipated sensitive areas, not after the damage is done.

TRAFFIC CONTROL PLAN – SPI-TCP

1.0 SCOPE

This special provision specifies the requirement for the protection of public traffic and the preparation, monitoring and repair of the Traffic Control Plan.

4.0 DESIGN AND SUBMISSION REQUIREMENTS

4.1 Traffic Control Plan

The Contractor must provide a Traffic Control Plan to the Contract Administrator ten (10) days prior to the start of construction showing proposed traffic controls at various stages of their operations. The Contractor acknowledges that revisions to the Traffic Control Plan may be necessary, in consultation with the Owner, where it concerns public safety and mobility. For signalized intersections the Plan must be submitted on a 1:250 scale.

The Contractor must prepare and submit a Traffic Control Plan that details the specific traffic control layout(s), necessary for the completion of the works. The Traffic Control Plan must be in the form of drawing(s) and written description(s) of how the Contractor intends to control traffic through and around the work zone. The TCP must include, and not necessarily be limited to:

- Monitoring and Repair (24 hour contact number if not acquired)
- Reference to Applicable OTM Book 7 Typical Layouts
- Traffic control signs (regulatory, warning and temporary);
- Traffic control delineation;
- Traffic Control vehicles and devices (TC-12, Crash Trucks, Temporary Lighting etc.)
- Contract-specific operational requirements;
- Night time requirements
- Traffic staging and scheduling;
- Construction vehicle access/egress;
- Public access/egress for all existing entrances and side roads
- Pedestrian safety; barriers and barricades;
- Emergency Vehicle access
- Locations for removal of existing line painting and required temporary pavement markings;
- Parking for Contract Administrator.
- Any other traffic control measures.

The Owner through the Contract Administrator will accept the submission of the TCP, and review it to identify any errors, omissions, or improvements that the Owner’s staff is aware of, as it relates to maintaining public safety and mobility.

The acceptance and review of the TCP by the Owner will make no representation and/or warranty that the document is accurate, complete, or compliant with all applicable legislation. Any errors, omissions or deficiencies within the TCP will remain the sole responsibility of the Contractor. The Contract must not commence, until the Owner has reviewed the TCP to the satisfaction of the Owner's Contract Administrator, and the Contractor has addressed all comments.

The Contract Administrator reserves the right to ask for revisions to the Traffic Control Plan at submission time, or reject it if the Plan does not meet the Contract language. In addition, the Contract Administrator reserves the right to instruct the Contractor to revise it at any time during the Contractor's execution of the plan, when the Contract Administrator finds that the Contractor is not providing the commitments shown in the original Traffic Control Plan submission, or the Contractor's Traffic Control Plan proves to be insufficient to address the field conditions.

4.2 Traffic Control Diary

The Contractor shall maintain a Traffic Control Diary in accordance with OTM Book 7 Temporary Condition 2014 Section 4.3 Inspection and Documentation. The Contract Administrator reserves the right to review the Diary at any time. At the end of the project, the Contractor shall submit the final copy of the Traffic Control Diary.

7.0 CONSTRUCTION

7.1 General

Where construction pursuant to this Contract is being carried out on or adjacent to a municipal street, the supply, placement, monitoring, and disassembly of all traffic control devices must be performed under the direction of the Contractor in accordance with the Ontario Traffic Manual latest edition.

The Contractor will be responsible for construction means, methods, techniques, sequences, and procedures and for coordinating the various parts of the traffic control. The Contractor is to schedule their operation in such a manner as to cause the least interference to vehicular and pedestrian traffic. Pedestrian and vehicular traffic must be maintained for the duration of construction unless otherwise approved by the Contract Administrator.

The Contractor must ensure that all workers, including sub-contractors, in the Working Area are aware of the importance of the Traffic Control Plan measures. It is the responsibility of the Contractor to ensure that all necessary training has been provided prior to commencement of the work.

The Contractor will be required to review and modify the TCP for errors, omissions, deficiencies, or because of any new hazards are identified and not previously addressed within the document. The Contractor must immediately repair, replace or otherwise make good the practice deemed unsafe or non-compliant when the owner (or their delegated authority) makes the Contractor aware of any violation of the TCP (or applicable regulations). Should the Contractor disagree, the Ministry of Labour will be consulted to provide clarification of the observed deficiency.

7.2 Project Specific Requirements

Unless otherwise noted below, all roads shall remain open for this Contract. A minimum of one lane of through traffic must be maintained during constructions hours, while both lanes must be open during non-construction hours. During non-construction hours, only maintaining one lane of through traffic may

be permitted provided that a traffic control plan with appropriate signage, or Portable Temporary Traffic Signals (PTTS) has been approved by the Road Authority.
Should the Contractor feel that a total road closure is required to complete a specific task, then they need to provide justification of such to the Contract Administrator along the supporting traffic control plan at least 72 hours (excluding weekends) prior to the required closure. Any road closures must identify any businesses that will be impacted by such closure, and the associated means by which their access will be maintained.

7.3 Restriction on the Use of Construction Equipment and Unlicensed Vehicles
Unlicensed vehicles and construction equipment must not travel, work or stop within 4 m of a lane carrying traffic except where construction operations necessitate the working area be less than 4 m from traffic in which case the Contractor must erect delineators along the edge of the travelled lane, in accordance with Subsection GC 7.06 (Maintaining Roadways and Detours) of OPSS.MUNI 100. In no case will the distance between traffic and working area be less than 1.5 m.

Unlicensed construction vehicles will not be permitted outside of the project reconstruction limits unless approved by the Contract Administrator.

7.4 Open Excavations
The Contractor must schedule their work so that there will be no open excavation adjacent to or crossing a lane carrying traffic overnight and on non-working days. Excavations within 4 m of lanes carrying traffic must be backfilled with the specified material up to profile grade and compacted prior to closing down operations for the day or protected with concrete barriers and delineations to the satisfaction of the Contract Administrator.
7.5 Traffic Signage
The Contractor will supply and maintain signs, delineators, barricades, flashing lights, etc. to mark approaches to the work site to the satisfaction of the Contract Administrator. All traffic control signs and associated operations must conform to the requirements set out in the Ontario Traffic Manual Book 7 Temporary Conditions April 2022. The condition of all traffic control devices must be maintained for the duration of the Contract, in accordance with the OTM.

7.6 Site Maintenance
The construction site must be maintained in a satisfactory condition. The Contract Administrator may direct that the construction site be graded a minimum of once daily including weekends. Additional grading may be required during inclement weather or heavy traffic conditions.

7.7 Location and Storage of Material and Equipment
Materials must not be stored within 4 m of the travelled portion of any roadway. Equipment must not be stored within 4 m of the travelled portion of any roadway. Notwithstanding the foregoing, the Contractor shall, at the Contractor's expense, remove any equipment or material which, in the opinion of the Contract Administrator, constitutes a traffic hazard.

10.0 BASIS OF PAYMENT
Payment at the Contract Lump Sum Price for the item “Traffic Control Plan” will be full compensation for the research, preparation and implementation of the TCP, and will include all labour, equipment and

material to supply, and maintain all traffic control measures detailed therein. This payment includes supply, installation, monitoring, operation, maintenance and removal of all required traffic control devices including any temporary traffic signal supply and installation. Traffic Control Persons (TCP's) will also be included for payment under this item.

This item will also include the cost for removing existing pavement marking and temporary line painting.

Payment will be based upon the following schedule:

- 25% upon satisfactory submission of the TCP and installation of the control measures; and,
- 75% pro-rated into equal payments over the term of the Contract.

This payment schedule may only be modified as agreed upon in writing between the Contractor and the Contract Administrator.

HOURLY RATES FOR ADDITIONAL LABOUR – SPI-RATE

1.0 SCOPE

This Special Provision specifies the requirement for hourly rates for additional labour. The hourly rates shall be inclusive of all payroll burden and mark up, including overhead and profit.

SECTION G: PAVEMENT DESIGN REPORT

(UNDER SEPARATE COVER)

SECTION H: CONTRACT DRAWINGS

(UNDER SEPARATE COVER)