

**WOL001-2022**

**Water Transmission Main -**

**University Ave., Park St. to Skyway Dr.**

April 2023






A cultivated experience for the mind, body, and soil

Closing: **Thursday April 27th, 2023 at 14:00**



# Water Transmission Main - University Ave., Park St. to Skyway Dr.

Issued for Tender	-	Apr 12/23	
Issued for Review	-	Mar 2/22	RG
Issued for Review	-	Feb 4/22	RG
<i>Issue or Revision</i>	<i>Reviewed By:</i>	<i>Date</i>	<i>Issued By:</i>
			

THESE PROJECT DOCUMENTS HAVE BEEN PREPARED FOR USE WITH AND REQUIRE BEING READ IN CONJUNCTION WITH **THE STANDARD SPECIFICATION FOR MUNICIPAL SERVICES** AS PUBLISHED BY THE NOVA SCOTIA ROAD BUILDERS ASSOCIATION - CONSULTING ENGINEERS OF NOVA SCOTIA AND THE **JOINT COMMITTEE ON CONTRACT DOCUMENTS**. COPIES OF THESE DOCUMENTS ARE AVAILABLE FROM THE JOINT COMMITTEE ON CONTRACT DOCUMENTS, 455 COLBY DRIVE, DARTMOUTH, NS, B2V 2K4; PHONE: (902)233-9362 OR BY EMAIL AT: [NSMUNICIPALSERVICES@GMAIL.COM](mailto:NSMUNICIPALSERVICES@GMAIL.COM). Visit [www.standardspec.ca](http://www.standardspec.ca) for more information and to place an order for these specifications.

The Table of Contents includes sections applicable to this project and also indicates those sections in the Standard Specification for Municipal Services that have revisions and new sections added.

<u>SUBJECT</u>	<u>SECTION</u>
<u>BIDDING AND CONTRACT REQUIREMENTS</u>	
Information to Tenderers	00 21 00
Tender Form	00 41 43
Form of Agreement	00 53 43
Supplementary General Conditions	00 73 10
<u>SUPPLEMENTARY SPECIFICATIONS</u>	
General Requirements (Revised)	01 10 00
Measurement and Payment (New)	01 22 00
Environmental Protection (Revised)	01 57 00
Removals and Reinstatement (New)	02 41 00
Erosion and Sediment Control (Revised)	31 15 53
Earthwork (Revised)	31 20 00
Reinstatement (revised)	32 98 00
Watermain (Revised)	33 11 00
Standard Details (Revised)	39 00 00

PROJECT: TOWN OF WOLFVILLE  
WATER TRANSMISSION MAIN  
UNIVERSITY AVENUE, PARK STREET to SKYWAY DRIVE  
CONTRACT NO. WOL001-2022

OWNER: TOWN OF WOLFVILLE  
359 MAIN STREET  
WOLFVILLE, NS, B4P 1A1

ENGINEER: CBCL LIMITED  
1505 BARRINGTON STREET, SUITE 901,  
HALIFAX, NS, B3J 3Y6

1. TENDER SUBMISSION .1 Submit completed Tender Form for above project  
in sealed envelope marked as follows:

TENDER

Town of Wolfville  
Water Transmission Main  
University Ave., Park St. to Skyway Dr.  
Contract No. WOL001-2022

**Closing up to 2:00:00 p.m., local time on  
Thursday April 27th, 2023 and delivered to:**

Town of Wolfville  
359 Main Street  
Wolfville, NS, B4P 1A1

Attention: Mr. Alexander deSousa, P.Eng.  
Manager of Engineering

2. TENDER OPENING .1 Tender opening will be public.

3. ACCURACY OF REFERENCING .1 Indexing and cross-referencing are for  
convenience only.

4. CONDITIONS OF TENDERING .1 Take full cognizance of content of all  
Contract Documents in preparation of Tender.  
Refer to Section 00 41 43 - Tender Form,  
Subsection 3.9 for a complete list of Contract  
Documents.

5. TENDERERS TO INVESTIGATE .1 Tenderers will be deemed to have  
familiarized themselves with existing site and  
working conditions and all other conditions,  
which may affect performance of the Contract. No

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plea of ignorance of such conditions as a result of failure to make all necessary examinations will be accepted as a basis for any claims for extra compensation or an extension of time.

- |                                      |    |   |
|--------------------------------------|----|---|
| <u>6. CLARIFICATION AND ADDENDA</u>  | .1 | Notify the Engineer not less than two (2) working days before Tender Closing of omissions, errors or ambiguities found in Contract Documents. If Engineer considers that correction, explanation or interpretation is necessary, a written addendum will be issued. All addenda will form part of Contract Documents. |
|                                      | .2 | Confirm in the Tender Form that all addenda have been received.   |
| <u>7. PREPARATION OF TENDER</u>      | .1 | Complete Tender Form provided with Project Documents in ink. Tender all items and fill in all blanks. Have corrections initialed by person signing Tender.  |
| <u>8. TAXES</u>                      | .1 | Include all taxes except Harmonized Sales Tax in tender unit prices.  |
| <u>9. TENDER SECURITY</u>            | .1 | Provide Tender Security in amount of ten percent (10%) of the Total Amount Payable with Tender in the form of a Certified Cheque payable to the Owner, or a Bid Bond on CCDC Form 220.  |
| <u>10. CONTRACT SECURITY</u>         | .1 | Refer to Section 00 72 45 and Section 00 73 00 for form and amount of Contract Security.  |
| <u>11. INSURANCE</u>                 | .1 | Refer to Section 00 72 45, GENERAL CONDITIONS, subsection GC11.1 - INSURANCE, for insurance required.   |
| <u>12. AGREEMENT</u>                 | .1 | Form of Agreement is attached for information purposes only.  |
| <u>13. RETURN OF TENDER SECURITY</u> | .1 | Tender Security will be returned to:<br>.1 All except the three (3) lowest acceptable Tenderers within seven (7) days of Tender Opening.<br>.2 Two (2) remaining unsuccessful Tenderers   |
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within twenty-one (21) days of date of Award.  
.3 Successful Tenderer following receipt by Owner of executed Agreement, specified Contract Security, and Insurance documents.

- |   |    |   |
|---|----|---|
| <u>14. AMENDMENT OR WITHDRAWAL OF TENDER</u>                | .1 | Tenders may be amended or withdrawn by post or facsimile prior to date and time of closing.   |
|   | .2 | Amendment of individual unit prices is the only acceptable price amendment. Amendments shall not disclose either original or revised total price.   |
|   | .3 | Head amendment or withdrawal as follows:<br>"[Amendment]/[Withdrawal] of Tender for Town of Wolfville - Water Transmission Main University Ave., Park St. to Skyway Dr., Contract No. WOL001-2022". Sign and seal as required for Tender, and submit at address given for receipt of Tenders prior to time of Tender Closing. |
| <u>15. INFORMAL OR UN-BALANCED TENDERS</u>                  | .1 | Tenders which in the opinion of the Owner are considered to be informal or unbalanced may be rejected.  |
| <u>16. RIGHT TO ACCEPT OR REJECT ANY TENDER</u>             | .1 | Owner reserves right to accept or reject any Tender.  |
| <u>17. SAFETY CERTIFICATION</u>                             | .1 | Submit with Tender a copy of Tenderer's current and valid Letter of Good Standing issued by an organization approved by Workers' Compensation Board of Nova Scotia.   |
| <u>18. CLEARANCE LETTER FROM WORKERS COMPENSATION BOARD</u> | .1 | Submit with Tender, a copy of Tenderer's current valid clearance letter, issued by Workers' Compensation Board of Nova Scotia.  |
| <u>19. COORDINATION WITH NOVA SCOTIA POWER</u>              | .1 | Coordinate with Nova Scotia Power when relocating and supporting power lines/poles. Contractor is to provide at least 48 hours' notice to Nova Scotia Power ahead of any power pole relocation.   |

20. CONTRACTOR SAFETY SUBMISSION .1 Submit with bid a fully executed Contractor Health and Safety Checklist provided in Appendix A as well as the supporting documentation it requires for submission. Failure to fill out the form in full may result in the rejection of Tender.



**1. SALUTATION:**

- .1 To: Town of Wolfville  
359 Main Street  
Wolfville, NS  
B4P 1A1
- .2 For: Town of Wolfville  
Water Transmission Main  
University Ave., Park St. to Skyway Dr.  
Contract No. WOL001-2022
- .3 From: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**2. TENDERER DECLARES:**

- .1 That this tender was made without collusion or fraud.
- .2 That the proposed work was carefully examined.
- .3 That the Tenderer was familiar with local conditions.
- .4 That Contract Documents and Addenda No. \_\_\_ to \_\_\_ inclusive were carefully examined.
- .5 That all the above were taken into consideration in preparation of this Tender.

**3. TENDERER AGREES:**

- .1 To enter into a contract to supply all labour, material and equipment and to do all work necessary to construct the Work as described and specified herein for the unit prices stated in Subsection 4 hereunder, Schedule of Quantities and Unit Prices.
- .2 That the estimated Contract Price shall be the sum of the products of the tendered unit prices times the estimated quantities in Subsection 4 hereunder.
- .3 That this Tender is valid for acceptance for sixty (60) days from the time of Tender Closing.
- .4 That measurement and payment for items listed in Subsection 4 hereunder shall be in accordance with corresponding items in Section 01 22 00 Measurement and Payment.
- .5 To provide evidence of ability and experience within 7 days of request, including experience in similar work, work currently under contract, senior supervisory staff available for the project, equipment available for use on the Work, and financial resources. This information will be taken in consideration at the time of Contract Award.
- .6 To execute in triplicate the Agreement and forward same together with the specified contract security and insurance documents to the Owner within fourteen (14) days of written notice of award.

- .7 That failure to enter into a formal contract and give specified insurance documents and contract security within time required will constitute grounds for forfeiture of certified cheque or enforcement of bid bond.
- .8 That if certified cheque is forfeited, Owner will retain difference in money between amount of Tender and amount for which Owner legally contracts with another party to perform the Work and will refund balance, if any, to Tenderer.
- .9 That the Contract Documents include:
- .1 Standard Specifications for Municipal Services listed in Table of Contents Page Dated 2022.
  - .2 Project Documents:
    - .1 Tender Form
    - .2 Form of Agreement
    - .3 General Conditions of the Civil Work Contract
    - .4 Supplementary Specifications
    - .5 Drawings
- | <u>Dwg. No.</u> | <u>Title</u>  |
|-----------------|---|
| -               | Cover Sheet   |
| C100            | Overall Site Plan   |
| C200            | University Avenue Plan and Profile Sta.<br>0+000 to 0+330 |
| C201            | University Avenue Plan and Profile Sta.<br>0+330 to 0+453 |
| C300            | Details Sheet 1   |
| C301            | Details Sheet 2   |
- .6 Addenda as issued and as confirmed in subsection 2.4 of this section.

**4. SCHEDULE OF QUANTITIES AND UNIT PRICES**

Item No.	Description	Unit of Measurement	Estimated Quantity	Unit Price	Total Price
1.	Earthwork				
.1	Excavation of Unsuitable Material and Replacement (Provisional)	m <sup>3</sup>	60		
2.	Remove and Reinstate				
.1	Asphalt Driveway	m <sup>2</sup>	58		
.2	Gravel Driveway	m <sup>2</sup>	290		
.3	Asphalt Sidewalk	m <sup>2</sup>	120		
.4	Signs	Ea	3		
.5	Storm Pipe	m	13		
3.	200mm Dia. PVC DR18 Transmission WM c/w Fittings	m	440		
4.	Chambers				
.1	Air Release Valve Chamber (Provisional)	Ea	1		
5.	Direct Buried Valves				
.1	200mm Gate Valve	Ea	1		
6.	Connection to Existing Main				
.1	Westwood Avenue	Ea	1		
7.	Watermain Crossings	Ea	5		
8.	Sewer Crossings	Ea	1		
9.	Erosion and Sediment Control	L.S.	1		
10.	Pipe Trench Insulation	m	129		
11.	Trench Excavation - Rock (Provisional)	m <sup>3</sup>	160		
12.	Portable Variable Message Signs (Provisional)	Ea	2		

**TENDER SUMMARY**

<b>Subtotal A (Excluding HST)</b>	\$	
Contingency (B)	\$	35,000.00
<b>Estimated Contract Price (A + B)</b>	\$	<b>(C)</b>
Add HST (15% of C)	\$	<b>(D)</b>
<b>TOTAL AMOUNT PAYABLE (C + D)</b>	\$	

TENDERER'S HST REGISTRATION NO. \_\_\_\_\_

**5. COMPLETION TIME**

- .1 Tenderer agrees to complete the Work within \_\_\_\_\_ **weeks** from date of award of Contract.

6. SIGNATURE \*

DATED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_, 202\_\_.

[Seal]

\_\_\_\_\_  
Name of Firm Tendering

\_\_\_\_\_  
Signature of Signing Officer

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Name and Title (Printed)

\_\_\_\_\_  
Witness

\_\_\_\_\_  
Signature of Signing Officer

\_\_\_\_\_  
Name and Title (Printed)

\_\_\_\_\_  
Company Address

\_\_\_\_\_  
Telephone No.

\_\_\_\_\_  
Fax No.

\*NOTE: Tenders submitted by or on behalf of any Corporation must be signed and sealed in the name of such Corporation by a duly authorized officer or agent.

\_\_\_\_\_  
END  
\_\_\_\_\_

This Agreement made on the \_\_\_\_\_ day of \_\_\_\_\_ in the year\_\_\_\_\_.

**BY AND BETWEEN**

Town of Wolfville

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hereinafter called the "Owner"

and

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hereinafter called the "Contractor"

The Owner and the Contractor agree as follows:

**ARTICLE A1 - THE WORK**

The Contractor shall:

- .1 Perform the Work required by the Contract Documents for

Town of Wolfville

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Water Transmission Main University Ave., Park St. to Skyway Dr.

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Contract No. WOL001-2022

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located at Town of Wolfville, N.S. for which the Agreement has been signed by the parties, and for which

CBCL Limited is acting as and is hereinafter called the "Engineer",

and

- .2 do and fulfill everything indicated by this Agreement, and

- .3 commence the Work by the \_\_\_\_\_ day of \_\_\_\_\_ in the year 202\_\_ and attain Substantial Performance of the work as certified by the Engineer by the \_\_\_\_\_ day of \_\_\_\_\_ in the year 202\_\_, but in no case later than\_\_\_\_\_.

**ARTICLE A2 - AGREEMENTS AND AMENDMENTS**

The Contract supersedes all prior negotiations, representations or agreements, either written or oral, relating in any manner to the work, including the bidding documents that are not expressly listed in Article 3 of the Agreement.

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**ARTICLE A3 - CONTRACT DOCUMENTS**

The following are the Contract Documents referred to in Article A1 of the Agreement - THE WORK:

- .1 STANDARD SPECIFICATIONS FOR MUNICIPAL SERVICES.  
Table of Contents Dated 2022.
- .2 Project Documents:
  - .1 Tender Form
  - .2 Form of Agreement
  - .3 General Conditions of the Civil Work Contract
  - .4 Supplementary Specifications
  - .5 Drawings

<u>Dwg. No.</u>	<u>Title</u>
-	Cover Sheet
C100	Overall Site Plan
C200	University Avenue Plan and Profile Sta. 0+000 to 0+330
C201	University Avenue Plan and Profile Sta. 0+330 to 0+453
C300	Details Sheet 1
C301	Details Sheet 2
- .6 Addenda \_\_\_\_\_ through \_\_\_\_\_.

**ARTICLE A4 - CONTRACT PRICE**

- .1 The estimated Contract Price is the sum of the products of the estimated quantities multiplied by the appropriate Unit Price in the Tender Form excluding the amount of HST. The estimated Contract Price is:

\_\_\_\_\_/100 dollars \$ \_\_\_\_\_

- .2 All amounts are in Canadian funds. Unit Prices exclude HST and Total Amount Payable includes HST.
- .3 These amounts shall be subject to adjustments as provided in the Contract Documents.
- .4 The final Contract Price will be the sum of the products of the actual final quantities that are incorporated in, or made necessary by the Work, as confirmed by count and measurement, multiplied by the appropriate Unit Prices from the Tender Form together with any adjustments that are made in accordance with the provisions of the Contract Documents plus the amount of HST.

**ARTICLE A5 - PAYMENT**

- .1 The Owner shall pay the Contractor in Canadian funds for the performance of the Contract.

- .2 The Owner shall make monthly payments on account to the Contractor for the Work performed, as certified by the Engineer, subject to a 10% holdback.
- .3 The amount of the monthly payments shall be calculated as follows:
  - .1 The quantity for each pay item on which actual work has been performed shall be measured.
  - .2 For each Unit Price item this quantity shall be multiplied by the applicable Unit Price as provided in the Tender Form.
  - .3 For each lump sum item, multiply the percent complete by the value of the lump sum item.
  - .4 The total value of work completed for the payment period shall be calculated by adding the total of the products for all pay items from subsection 5.3.2 and 5.3.3 of this section.
  - .5 The amount of the monthly payment shall be determined by deducting the 10% holdback and the total of all previous payments from the total value of such completed work as determined under subsection 5.3.4 of this section.
  - .6 To the amount calculated above, the Harmonized Tax will be added.
- .4 The last day of the payment period shall be the last day of the month.
- .5 Upon Substantial Performance of the Work as certified by the Engineer the Owner shall pay to the Contractor the holdback monies then due in accordance with the provisions of Section 00 72 45 - General Conditions, subsection GC5.8 - PAYMENT OF HOLDBACK UPON SUBSTANTIAL PERFORMANCE OF THE WORK.
- .6 Upon the issuance of the final certificate for payment, Work as certified by the Engineer the Owner shall pay to the Contractor the balance of monies then due in accordance with the provision of Section 00 72 45 - General Conditions, subsection GC5.10 - FINAL PAYMENT.
- .7 In the event of loss or damage occurring where payment becomes due under the property and boiler insurance policies, payment shall be made to the Contractor in accordance with the provisions of Section 00 72 45 - General Conditions, subsection GC11.1 - INSURANCE.
- .8 If the Owner fails to make payments to the Contractor as they become due under the terms of the Contract, interest shall be payable as follows:
  - .1 The annual interest rate applicable to the contract is 2% compounded semi-annually.
  - .2 Interest shall be calculated on the overdue balance from the due date.

**ARTICLE A6 - RECEIPT OF AND ADDRESSES FOR NOTICES**

- .1 Communications in writing between the parties or between them and the Engineer shall be considered to have been received by the addressee on the date of delivery if delivered by hand to the individual, or to a member of the firm, or to an officer of the corporation for whom they are intended, or if sent by post or by facsimile, to have been delivered



within five (5) working days of the date of the mailing, dispatch or of delivery to the company when addressed as follows:

.1 The Owner at 359 Main Street

Wolfville, NS, B4P 1A1

.2 The Contractor at \_\_\_\_\_

.3 The Engineer at Suite 901, 1505 Barrington Street, Halifax, NS,

B3J 3Y6

**ARTICLE A7 - QUANTITIES AND MEASUREMENT**

.1 The quantities shown in Section 00 41 43 Tender Form - Schedule of Quantities and Unit Prices are estimated.

.2 Measurement for the actual quantities used to determine payments and Contract Price shall be in accordance with Section 01 22 00 - Measurement and Payment.

**ARTICLE A8 - SUCCESSION**

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

**ARTICLE A9 - RIGHTS AND REMEDIES**

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

**ARTICLE A10 - TIME**

Time shall be construed as being of the essence of the Contract.

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 Wolfville

Name of Owner

WITNESS

Signature

Name and Title of Person Signing

Signature

Signature

Name and Title of Person Signing

Name and Title of Person Signing

CONTRACTOR

Name of Contractor

WITNESS

Signature

Name and Title of Person Signing

Signature

Signature

Name and Title of Person Signing

Name and Title of Person Signing

N.B. Where legal jurisdiction, local practice or Owner or Contractor requirements calls for (a) proof of authority to execute this document, attach such proof of authority in the form of a certified copy of a resolution naming the representative(s) authorized to sign the Agreement for and on behalf of the corporation or partnership; or (b) the affixing of a corporate seal, this Agreement should be properly sealed.

END

**THESE SUPPLEMENTARY GENERAL CONDITIONS AMEND THE DEFINITIONS AND GENERAL CONDITIONS OF THE CIVIL WORKS CONTRACT (CCDC 18 - 2001).**

**AGREEMENT BETWEEN OWNER AND CONTRACTOR**

Page 4, after Article A-8 insert the following new articles:

**"ARTICLE A-9 SEVERABILITY**

9.1 Each and every paragraph, section, clause, sub-clause or other component of the Contract is severable one from the other. Should it be found by a court of competent jurisdiction that any one or more paragraphs or parts thereof are null and void, the validity of the remaining paragraphs or parts thereof shall not be affected.

**ARTICLE A-10 TIME OF THE ESSENCE**

10.1 Time shall be deemed to be of the essence."

**DEFINITIONS**

**Page 6, delete Definition 7 and replace with the following new definition:**

"7. The Contract Price shall be the sum of the products of the actual final quantities that are incorporated in, or made necessary by the Work, as confirmed by count and measurement, multiplied by the appropriate Unit Prices from the Tender Form together with any adjustments that are made in accordance with the provisions of the Contract Documents plus the amount of Harmonized Sales Tax."

Page 7, after definitions for Project, add new definitions as follows:

**27. Approved or Approval**

"Approved" or "Approval" means acceptance by the Consultant in accordance with the Consultant's responsibilities described in Clause GC 2.2 ROLE OF THE CONSULTANT.

**28. Contract Administrator**

An individual or corporate entity, when duly appointed as set forth in the *Contract Documents*, will act in the capacity of *Contract Administrator*, having some or all authority given to, and fulfilling some or all obligations of the *Engineer* under 00 72 45 - GENERAL CONDITIONS.

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**29. Total Amount Payable**

Total Amount Payable means the sum of the Contract Price in the Tender Form, subject to adjustments made in accordance with the provisions of the Contract Documents plus the amount of Value Added Taxes.

**30. Period of Delay**

The period of time from the date stated in the Agreement and the actual date of Substantial Performance; if any.

**31. Delay Charges**

*Delay Charges* is defined as the sum of all charges incurred by the *Owner*, and payable by the *Contractor* in connection with the *Period of Delay*, as described in GC 6.5 - DELAYS

**32. Engineer**

An individual or corporate entity, when duly appointed as set forth in the *Contract Documents*, will act in the capacity of engineer for the *Project*. This individual or entity shall be licenced to practice and carry out business in the province or territory of the *Place of the Work*. The term *Engineer* means the *Engineer* or the *Engineer's* delegate or authorized representative. Where the term "Consultant" is used throughout the General Conditions, revise to read "Engineer".

**33. Project Documents**

Project Documents are those documents prepared to supplement the Standard Specifications for the Work on a specific Project. Where applicable, they consist of the Information for Tenderers, Tender Form, Form of Agreement, Technical Specifications, drawings and addenda.

**34. Site**

The *Site* means the geographical location of the *Work* identified in the *Contract Documents*.

**35. Standard Specification**

The *Standard Specification* consists of Definitions, General Conditions, Supplementary General Conditions, Measurement and Payment, General Requirements, other technical specifications and standard details developed by the Nova Scotia Road Builders Association and the Consulting Engineers of Nova Scotia Joint Committee on Contract Documents and published with the title of Standard Specification for Municipal Services

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**SECTION 00 72 45 - GENERAL CONDITIONS OF CONTRACT**

**GC 2.4 - DEFECTIVE WORK**

**Within clause 2.4.3, delete the following words in the last sentence at the end of the clause:**

"they shall refer the matter to the *Engineer* for a determination."

**... and replace with the following:**

"then the matter shall be resolved in accordance with the requirements of Part 8 of the General Conditions - DISPUTE RESOLUTION."

**GC 3.4 DOCUMENT REVIEW**

**Page 12, add clause 3.4.2 as follows:**

"3.4.2 Each party has had an opportunity to evaluate this *Agreement* with counsel of its choosing and, in the event an ambiguity or question of intent or interpretation arises, this *Agreement* will be enforced and construed as if drafted jointly by the parties and no presumption or burden of proof will arise favouring or disfavouring either party or its construction or interpretation of this *Agreement* by virtue of the authorship of any of the terms of provisions of this *Agreement*.

**GC 3.5 CONSTRUCTION SCHEDULE**

**Page 13, add new clause 3.5.2 as follows:**

"3.5.2 If, at any time, it should appear to the *Owner* or the *Engineer* that the actual progress of the *Work* is behind the accepted schedule or is likely to become behind schedule, or if the *Contractor* has given notice of such to the *Owner* or the *Engineer* pursuant to clause 3.5.1.3, the *Contractor* shall take reasonable steps to cause the actual progress of the *Work* to conform to the accepted schedule, or minimize the resulting *Period of Delay*, and shall produce and submit to the *Engineer* a recovery plan based on a good knowledge of the project progress that provides a reasonable and attainable approach for the *Contractor* to regain lost time. If the *Contractor* intends to apply for a change in the *Contract Price* in relation to a schedule recovery plan, then the *Contractor* shall proceed in accordance with General Condition 6.6 - CLAIMS."

**GC 3.6 SUPERVISION**

**Page 13, delete clause 3.6.1, and replace with the following:**

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"3.6.1 The Contractor shall provide all necessary supervision to effectively direct and supervise the *Work* being performed by the Contractor's own forces, any *Subcontractors* engaged in the *Work*, and during any other activities required by the *Contract Documents*. The appointed representative shall be in attendance at the *Place of the Work* while any *Work* is being performed, and shall not be changed without the written consent of the *Engineer*."

**Page 13, add new clause 3.6.3 as follows:**

"3.6.3 The Owner may, at any time during the course of the *Work*, request immediate replacement of the appointed representative(s), where grounds for the request involve conduct which jeopardizes the safety or security of the *Site* or the Owner's operations. Immediately, upon receipt of the request, the Contractor shall make arrangements to appoint a competent replacement representative acceptable to the Owner and the *Engineer*."

#### **GC 3.7 - LAYOUT OF THE WORK**

**Page 13, delete clause 3.7.1 in its entirety and replace with the following:**

"3.7.1 The Contractor shall have reference points established at the *Site* by a Professional Engineer or land surveyor licenced to practice in the province of Nova Scotia, at no additional cost to the *Owner*."

#### **GC 3.11 - SHOP DRAWINGS**

**Page 14, add the following to the end of clause 3.11.1:**

"or as requested by the *Owner*."

**Page 14, clause 3.11.4, delete second sentence and replace to read:**

"Prepare and submit to the *Consultant* for review, a schedule of the dates for provision, review and return of Shop Drawings. Provide this submission a minimum of two (2) working days prior to the project start-up meeting."

**Page 15, add new GC 3.15 as follows:**

#### **GC 3.15 CLOSEOUT DOCUMENTS**

"3.15.1 Fifteen working days before the application for Substantial Performance is made, submit the following closeout documents to the *Consultant* for review if required by the *Contract Documents*:

- .1 Record Drawing/As-Built Drawings.
- .2 Any other documentation identified as a Closeout document in Section 01 10 00.

3.15.2 Should the *Contractor* fail to submit any of the required

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closeout documents, this will be considered a contractual deficiency in an amount determined by the *Engineer* and will be subject to finishing holdback procedures granted by the Builders' Lien Act of Nova Scotia.

#### **GC 5.4 - BASIS OF PAYMENT FOR COST PLUS WORK**

**Page 17, after clause 5.4.2, add the following clause and renumber subsequent subclauses:**

"5.4.3 Payment for cost plus work shall be based on the cost of such work, as provided in paragraph 5.4.2, plus a fee calculated as a single percentage of the cost of such work, for the *Contractor's* combined overhead and profit. The percentage amount shall be ten percent (10%) of the cost plus work, but shall not be applied to the cost of *Construction Equipment* or *Products* when such cost is based on rates which already include overhead and profit. The percentage fee shall be five percent (5%) for total *Contractor* markup on work or *Products* provided by *Supplier* and/or *Subcontractor* forces."

**Page 17, add new clause 5.4.7 as follows:**

"5.4.7 Any discounts, refunds, or rebates not reflected in the invoice costs, and any salvage value of reusable materials shall be deducted for determining costs."

#### **GC 5.5 - APPLICATIONS FOR PROGRESS PAYMENT**

**Page 17, delete Clause 5.5.2 and 5.5.3, and replace with the following:**

"5.5.2 Applications for payment shall be dated the last day of the agreed monthly payment period and the amount claimed shall be for the value, proportionate to the amount of the *Contract*, of *Work* performed at that date. Applications for payment shall be accompanied by updated construction schedule per the requirements of the *Project Documents*."

"5.5.3 Where the basis of payment of the *Contract Price* is *Unit Prices*, the *Contractor* shall propose interim quantity measurements in preparation of applications for payment, which shall include any other data requested by the *Engineer* to assist the *Engineer* in evaluating the application and verifying quantity measurements. Prior to submission of progress payment application, all parties must agree to proposed quantities."

#### **GC 5.6 - PROGRESS PAYMENT**

**Page 18, In the first line of clause 5.6.1, revise "5 working days" to read**

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**"15 working days", and in the second line revise "GC 5.2" to read "GC 5.5".**

**Page 18, delete clause 5.6.2 in its entirety and replace with the following:**

"5.6.2 The Owner shall make payment to the *Contractor* on account as provided in Article A-5 of the Agreement - PAYMENT no later than thirty (30) calendar days after the date of a certificate for payment issued by the *Engineer*."

**Page 18, after clause 5.6.3, add the following new clause:**

"5.6.4 The Contractor shall agree interim quantities with the Engineer for the purposes of progress payment claims, prior to submission of progress payment application.

"5.6.5 The Contractor shall pay promptly any and all accounts for labour, services and materials used for the purpose of the fulfillment of this Contract as and when such accounts become due and payable and shall furnish the Engineer with proof of payment of such accounts in such form and as often as the Engineer may request."

#### **GC 5.8 PAYMENT OF HOLDBACK UPON SUBSTANTIAL PERFORMANCE OF THE WORK**

**Page 18, clause 5.8.1.2, first line change "sworn or affirmed statement" to read "Statutory Declaration on CCDC Form 9A, latest edition"**

**Page 18, after clause 5.8.1.2, add the following:**

"5.8.1.3 Submit a certificate by deed search to the *Owner* by a solicitor licensed to practice law in the Province of Nova Scotia, certifying that no lien associated with the *Work* exists against the *Owner's* property or *Work*;

5.8.1.4 Submit a certificate of clearance from the Nova Scotia Worker's Compensation Board, certifying the *Contractor's* compliance with the requirements of the applicable act and legislation.

5.8.1.5 Submit a valid letter of Good Standing issued by the Nova Scotia Construction Safety Association and the Nova Scotia Department of Labour.

5.8.1.6 Submit a statement of all outstanding claims against the *Contract* which precede the date of application for payment of the holdback amount. Any outstanding claims not disclosed shall later be rejected.

5.8.1.7 Submit any outstanding closeout submittals per the requirements of GC 3.15 - CLOSEOUT DOCUMENTS, and Section 01 10 00.

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5.8.1.8 Date all such documents not earlier than the expiry of the lien period as stipulated by the Builders' Lien Act of Nova Scotia.

**Page 18, clause 5.8.2, first line, change "sworn or affirmed statement" to read "Statutory Declaration on CCDC Form 9A, latest edition"**

**Page 19, add new clause 5.8.4.1 as follows:**

"5.8.4.1 If, within sixty (60) days after the issue of the *Certificate of Substantial Performance*, the *Contractor* has not corrected all the documented deficiencies, the *Owner* shall retain sufficient monies, as determined by the *Engineer*, to cover the cost of completing said deficiencies. These monies shall be held in addition to holdback monies retained in accordance with the provisions of the *Contract* and subject to the terms of the Builders' Lien Act of Nova Scotia."

#### **GC 5.10 - FINAL PAYMENT**

**Page 19, delete clause 5.10.1 in its entirety and replace with the following:**

"5.10.1 When the Contractor considers that the Work is completed, the Contractor shall make such an attestation in an application for final payment submitted to the Engineer. The Contractor's application for final payment will only be accepted by the Engineer when the following has occurred:

- .1 Work has been completed and inspected for compliance with the Contract Documents, and the Engineer has agreed that all the requirements of the Contract have been fulfilled by the Contractor.
- .2 Where the basis of payment of the Contract Price is Unit Prices, all parties must agree to proposed final quantities.
- .3 Defects have been corrected and deficiencies have been completed.
- .4 Equipment and systems have been tested, adjusted, and balanced and are fully operational, and written reports and manuals as outlined in the *Contract Documents* have been provided to the *Owner*, and are to the *Owner's* satisfaction.
- .5 Certificates required by utilities, authorities having jurisdiction, manufacturers, and inspectors have been submitted and accepted.
- .6 Spare parts, maintenance materials, record drawings, warranties and applicable bonds have been provided.

5.10.2 If, in the opinion of the *Consultant*, the above requirements are not complete, then the *Consultant* will not accept the application, and request resubmission.

5.10.3 If, in the opinion of the Engineer, it is not expedient to correct defective work or work is not performed in accordance

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with the requirements of the Contract, the Owner may deduct from the Contract Price the difference in value between work performed and that called for by the Contract Documents, the amount of which shall be determined by the Engineer."

**Page 19, add the following new Clauses after 5.10.1:**

"5.10.2 If, in the opinion of the *Engineer*, the above requirements are not complete, then the *Engineer* will not accept the application, and request resubmission.

5.10.3 If, in the opinion of the *Engineer*, it is not expedient to correct defective work or *the Work* has not been performed in accordance with the requirements of the *Contract*, the *Owner* may deduct from the *Contract Price* the difference in value between work performed and that called for by the *Contract Documents*, the amount of which shall be determined by the *Engineer*."

**Renumber existing clauses 5.10.2, 5.10.3, and 5.10.4 to 5.10.4, 5.10.5, and 5.10.6 respectively.**

**In renumbered clause 5.10.6, revise "5 working days" to read "15 working days".**

#### **GC 6.2 - CHANGE ORDER**

**Page 20, within clause 6.2.2.1 after "the Work" add "to the limits set forth in GC 6.7 - Quantity Variations".**

**Page 20, add new clauses 6.2.4 through 6.2.7 as follows:**

"6.2.4 If the method of adjustment of the *Contract Price* presented by the *Contractor* is a lump sum or a unit price quotation as described in 6.2.2.2, the following shall apply:

.1 Maximum *Contractor* markup for overhead and profit shall be:

.1 Ten percent (10%) for *Work* performed by the *Contractor's* own forces, unless rates already include overhead and profit, in which case rates will not be marked up further;

.2 Five percent (5%) for *Work* performed by the *Subcontractor*;

.3 Five percent (5%) for *Products* provided by the *Supplier*.

.2 Upon request by the *Engineer*, the *Contractor* shall prepare a detailed cost summary for proposed lump sum or unit price costs associated with the change which will include at minimum the following breakdown:

.1 Labour rates;

.2 Equipment rates, including operators;

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- .3 Supervisory staff rates;
  - .4 *Subcontractor* and *Supplier* invoices (where applicable);
  - .5 Price will be assessed by the *Engineer* based on the prevailing rates in the locality of the *Place of the Work*.
- .3 All *Subcontractors* and *Suppliers* performing a part or parts of the *Work*, or supplying Labour and/or *Products* (described in GC 3.9) required by the change, shall have a direct contract with the *Contractor*, and upon request, produce a detailed cost summary and/or written quotations as described in 6.2.4.2.
- 6.2.5 No compensation for extra *Work*, *Product*, *Construction Equipment*, or delays shall be allowed unless such *Work*, *Product*, and/or *Construction Equipment* is ordered in writing by the *Engineer*, and any associated delays are evaluated and approved by the same.
- 6.2.6 While executing an approved *Change Order*, the *Contractor* shall, each *Working Day*, report to the *Engineer* in writing and in full detail as described in 6.2.4.2, the amount and costs associated with carrying out such work on the preceding working day. No claim for compensation shall be considered or allowed unless such reports have been made. The *Engineer* shall not allow any compensation for the cost of repairs to *Construction Equipment* or in respect of *Construction Equipment* of any kind idle on the *Site* except as directed and approved by the *Engineer* in writing.
- 6.2.7 The price applicable to any *Work* omitted from the *Contract*, which shall be deducted from the *Contract Price*, will be mutually agreed upon by the *Contractor* and the *Engineer*. The price will be assessed by the *Engineer* based on the prevailing rates in the locality of the *Place of the Work*."

### **GC 6.3 - CHANGE DIRECTIVE**

**Page 21, in clause 6.3.8, add the following sentence at the end of the paragraph:**

"If such determination by the *Engineer* is not accepted by either party, then the decision shall be made in accordance with Part 8 of the General Conditions - DISPUTE RESOLUTION."

### **GC 6.4 - CONCEALED OR UNKNOWN CONDITIONS**

**Page 21, add a new clause 6.4.5 as follows:**

"6.4.5 If the *Contractor* was given access to the *Place of Work* and/or professional reports relating thereto (including, without limitation, environmental, geotechnical, and structural reports) prior to the submission of the bid on which the *Contract* was

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awarded, then the *Contractor* confirms that it carefully investigated the *Place of Work* and, in doing so, applied to that investigation the degree of care and skill required by clause 3.4 herein. In those circumstances, notwithstanding the provisions of clause 6.4.1, the *Contractor* is not entitled to an adjustment to the *Contract Price* or to an extension of the *Contract Time* for conditions which could reasonably have been ascertained by the *Contractor* by such careful investigation, or which could have been reasonably inferred from the material provided with the *Contract Documents*. In those circumstances, should a claim arise, the *Contractor* will have the burden of establishing that it could not have discovered the materially different conditions from a careful investigation because of restrictions placed on its access or inferred the existence of the conditions from the material provided with the *Contract Documents*."

#### **GC 6.5 - DELAYS**

**Page 21, clause 6.5.2, delete last sentence of paragraph and replace with the following sentence:**

"The *Contractor* will not be reimbursed by the *Owner* for costs incurred by the *Contractor* as a result of such delay."

**Page 22, after Clause 6.5.5, add the following new Clauses:**

"6.5.6 Should the *Contractor* fail to obtain *Substantial Performance* of the *Work* by the date indicated in Article A-1, Clause 1.3 in the AGREEMENT BETWEEN OWNER AND CONTRACTOR, the period of time from this agreed date to the actual Date on the certificate of *Substantial Performance* of the *Work* as determined by the *Consultant*, shall be termed the *Period of Delay*.

6.5.7 In the event there is a *Period of Delay*, the *Contractor* shall be liable for and shall pay to the *Owner* the cost of continuance of supervision during the *Period of Delay*, and all additional fees, disbursements and costs incurred by the *Owner* as a result of the *Period of Delay*, such charges hereby termed as *Delay Charges*. The *Owner* may deduct the amount of such *Delay Charges* from further progress payments."

#### **GC 6.6 CLAIMS**

**Page 22, add the following new clause:**

"6.6.6 The *Owner* may make claims arising out of the costs incurred for additional services provided by the *Engineer* resulting from the *Contractor's* failure to reasonably perform the *Work* in accordance with the *Contract*, including the *Contractor's* issuance of unnecessary Contemplated/Requested Change Orders (CCOs or RCOs) and Requests for Information (RFIs). The

*Engineer* will notify the *Contractor* where it has been determined that additional services will be required or have been provided in order not to cause delay. The *Owner* shall make claims based on the *Engineer's* invoices."

#### **GC 9.5 - CONSTRUCTION SAFETY**

**Page 27, after GC 9.5.1, add the following:**

"9.5.2 W.H.M.I.S. - Workplace Hazardous Materials Information Systems & Hazardous Products Act - Government of Canada Regulations under the Hazardous Products Act and the regulation regarding the handling and storage of hazardous materials must be complied with (reference: Regulation 88-221). These regulations stipulate that employees must be trained in the proper handling of workplace hazardous material."

#### **GC 10.1 TAXES AND DUTIES**

**Page 25, after Clause 10.1.2, add new Clause 10.1.3 as follows:**

"10.1.3 Indicate on each application for payment as a separate amount, the appropriate value added tax the *Owner* is legally obliged to pay. This amount will be paid to the *Contractor* in addition to the amount certified for payment under the *Contract*."

#### **GC 10.2 - LAWS, NOTICES, PERMITS AND FEES**

**Page 28, delete clause 10.2.2 and replace with the following:**

"10.2.2 Except for the permits and fees which the *Contract Documents* specify as the responsibility of the *Owner*, the *Contractor* shall obtain all permits, such as those from the Department of Transportation; licenses; letters of approval, and certificates, and pay the fees required for the performance of the *Work* which are in force at the date of tender closing. This shall not include obtaining of permanent easements or rights-of-way."

**Page 28, within clause 10.2.3, add new sentences to end of clause as follows:**

"Various jurisdictions have requirements for posting non-refundable fees before excavations are carried out within public rights-of-way. The *Contractor* is responsible for the determination of the requirement for each specific project and for any required deposits."

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**GC 11.1 - INSURANCE**

**Page 29, change \$2,000,000 policy limits to \$5,000,000 policy limits in clauses 11.1.1.1, 11.1.1.2 and 11.1.1.3.**

**Page 29, change \$2,500 deductible to \$5,000 deductible in clauses 11.1.1.1 and 11.1.1.4(1).**

**GC 11.2 - CONTRACT SECURITY**

**Page 31, delete GC 11.2.1 in its entirety and replace with the following:**

"11.2.1 Prior to commencement of the *Work*, and on the earlier of either fifteen *Working Days* following notice of award, or at the construction kick-off meeting, provide to the *Owner* original certificates of contract security. The required contract security is a Performance Bond and a Labour & Materials Bond, each in the amount of 50% of the *Total Amount Payable*. Include the cost of providing this surety in the *Contract Price*."

**Page 31, add new clause GC 11.2.3 and 11.2.4 as follows:**

"11.2.3 The Contract Security will be retained until the expiration of the Warranty Period."

"11.2.4 Should it become apparent that the final cost of the *Work* will exceed the *Total Amount Payable* by more than 10%, or if the *Approved Period of Delay* causes the contract surety to expire prior to fulfillment of the *Contract*, the *Contractor* shall arrange to have the required surety extended and reissued based on the projected final *Total Amount Payable* and *Contract* fulfillment date."

**GC 12.1 - INDEMNIFICATION**

**Within clause 12.1.2, change all occurrences of \$2,000,000 indemnification limits to \$5,000,000**

**GC 12.3 - WARRANTY**

**Page 32, add new clause GC 12.3.7 as follows:**

"12.3.7 All work of repair or replacement carried out during the Warranty Period shall be maintained for a period of one (1) year from the date of the Engineer's acceptance of the work of repair or replacement notwithstanding that the Warranty Period expires before the expiration of the said year. This clause shall not apply to normal operation maintenance, which shall be carried out by the Owner."

**INTENT OF THE SUPPLEMENTARY SPECIFICATIONS**

- .1 The Work of this Contract is to be constructed in accordance with the Standard Specifications for Municipal Services (2022 Revision) as developed and published by the Nova Scotia Road Builders Association - Consulting Engineers of Nova Scotia and the Joint Committee on Contract Documents, except as modified herein.
- .2 These Supplementary Specifications modify the specification sections to which they refer.
- .3 The Supplementary Specifications take precedence over the Specification to which they refer.

**SECTION 00 21 00 - INFORMATION TO TENDERERS**

Delete Section 00 21 00 in its entirety and replace with new section attached.

**SECTION 00 41 43 - TENDER FORM - STIPULATED PRICE**

Delete Section 00 41 43 in its entirety and replace with new section attached.

**SECTION 00 53 43 - FORM OF AGREEMENT**

Delete Section 00 53 43 in its entirety and replace with new section attached.

**SECTION 00 73 10 - SUPPLEMENTARY GENERAL CONDITIONS**

Delete Section 00 73 10 in its entirety and replace with new section attached.

**SECTION 01 10 00 - GENERAL REQUIREMENTS**

Page 1, delete subsection 1.2 and replace with the following:

- 1.2 SUMMARY OF WORK
- .1 The project is located along University Avenue in the Town of Wolfville. The Work involves but is not necessarily limited to the supply and installation of a new water transmission main complete with valves, reinstatements, sewer and water main crossings, topsoil and sod, exploratory hydro excavation as well as the supply, installation, maintenance and subsequent removal of environmental protection measures.
  - .2 The work may also include installation of an air release valve chamber if the intended vertical alignment of the pipe is found to not be possible once exploratory surveys are completed at water and sewer crossing points.
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**Page 1, delete subsection 1.3.1, and replace with the following:**

1.3 SCHEDULING AND COORDINATION .1 Submit at the earlier of either within fifteen (15) Working Days of date of award, or at the construction kick-off meeting, a detailed draft schedule for planned operations and performance requirements of the *Work* by completion date. Revise, update, and submit schedule for initial approval by *Engineer*, and maintain schedule by furnishing monthly updates to *Engineer* as the *Work* progresses."

**Page 1, after 1.3.4 add the following new clauses:**

- .5 Backfill, grade, and clean up the *Work* as the installation proceeds, to limit disruption to affected landowners and users.
  - .6 Temporarily install factory-made caps to the ends of all pipes included in the *Work* at the end of each *Working Day* to prevent infiltration of water and debris.
  - .7 Strive to minimize effects of the *Work* on the *Owners*, tenants, or users of *Project* lands and adjacent properties, and shall repair any damage promptly as directed by the *Engineer*.
  - .8 Maintain safe access through the *Site* at all times for emergency vehicles, local residents, and Acadia University staff (when applicable). Any temporary access limitations to private property resulting from the requirements of the *Work* must be disclosed by the *Contractor* to owners of private property (and/or tenants) a minimum of 24 hours prior to the access limitation, and acknowledged by the same. Coordinate communications with *Owner* and utilize Portable Variable Message Signs (PVMS) when the requirements of the *Work* require complete access restrictions, such as during concrete placement.
  - .9 Notify *Owner*, appropriate agencies, and inspectors prior to commencing, and during the *Work*.
  - .10 Unless agreed to by the residents and the *Owner*, equipment shall not be operated before 7:00 am and after 7:00 pm. The *Owner* shall be notified if the *Contractor* intends to *Work* on holidays. No *Work* shall take place before 12:00 noon on
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November 11.

- .11 Use of private property for *Site* access, staging, laydown areas, disposal of excess materials, etc. shall be negotiated solely by the *Contractor* and confirmed in writing, signed by the affected property owner, and submitted to the *Engineer* for their records. The *Owner* assumes no liability for any claims or costs resulting from the use of private property by the *Contractor*.
- .12 Notwithstanding the provisions of Section 00 72 45, GC 5.7, *Substantial Performance of the Work* will not be certified until all reinstatement is complete.

**Page 1, delete subsection 1.4 and replace with the following:**

1.4 SETTING OUT  
THE WORK

- .1 Establish, maintain, and protect reference control points and be responsible for layout of the *Work*, as per 00 72 45 - GC 3.7 - LAYOUT OF THE WORK.
- .2 Assist the *Engineer* to check the line and grade of the *Work* to perform measurements for payment by providing casual labour and convenient means of access to all parts of the *Work*.
- .3 Take measurements and cross-sections and record all information before and after changes in construction for determination of quantities for measurement. All such information shall be provided to the *Engineer* for his review and acceptance before proceeding to the next stage. The costs of all materials, labour and equipment required for all surveying on the *Contract* shall be included in the amount of the tender. No additional or direct payment will be made for any part of these services.

**Page 1, add new subsections 1.5.3 through 1.5.7 as follows:**

- .3 Relocate any survey markers, monuments, and survey pins disturbed during construction activities under the direction of a qualified provincial land surveyor. Include costs for these services in *Contract Price*.
  - .4 The existence and location of signs is not guaranteed. Document the location and condition of all signs and reinstall them as near as possible to their original location.
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- .5 Maintain the integrity of all ditches, culverts, and flow paths encountered during the execution of the *Work*. Existing ditches, culverts, or flow paths shall not be blocked, filled, or prevented from providing proper discharge, unless indicated otherwise in *Project Documents* and/or *Drawings*.
- .6 Utilities, Existing Structures, and Underground Services:
- .1 The existence, location, and elevation of underground utilities, utility poles, and guy wires, are not guaranteed, and notwithstanding any provision in the *Contract Documents*, the *Contractor* shall be responsible for confirming the location and elevations of all sewers, water or other mains, services or lines, steam, electrical power or telephone conduits, or other such structures or utilities.
- .2 Whenever it is necessary to explore and excavate to determine the location of existing underground utilities, services, or structures, make such examination and excavation at no additional cost to the *Contract*.
- .3 The *Contractor* shall be responsible for notifying the appropriate company, department, person or persons, of his intention to carry out his operations. The *Contractor* shall deposit with the *Engineer* a letter or letters from the appropriate authority of the utility or utilities involved stating that the *Contractor* has made satisfactory arrangements with the utility for the location, protection, and inspection of the utility involved.
- .4 Excavation in the vicinity of existing structures and utilities shall be carefully performed. Furnish temporary support and provide adequate protection and maintenance of any underground utilities which cross an excavation, underground and surface structures, drains, sewers, power lines and other existing *Site* items affected by the *Work*. Where trenching is to be done under existing utilities, before excavation commences, such utilities shall be properly shored to prevent settlement. Shoring to be left in place until backfilled. Notify *Engineer* before altering or supporting an existing underground utility or structure.
- .5 Do not operate valves, electrical, or telephone controls on any existing utility systems.
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.6 Apply to the utility having jurisdiction for permission to operate such systems if it becomes necessary, and only operate such system in accordance with and in the presence of a representative of the utility affected.

.7 The cost of having a utility company representative present when the *Work* passes under or in close proximity to underground cables, structures or utility poles shall be included in the *Contract* price.

.8 Organize the moving or supporting of any utility poles, or the installation of any spreader bars for guy wires, with the utility having authority. Coordinate with utility for pole replacement, new guy wire installation, or the moving of any wires or services, if required.

.9 If any services are damaged or disrupted during the *Work*, submit to the *Engineer* a letter from the utility affected stating that services damaged during construction have been repaired to the satisfaction of the utility.

.10 Restore, upon completion of the *Work*, any utilities or structures that have been disturbed.

.7 Documentation of Existing Conditions:

.1 Prior to the commencement of *Work*, take photographs of the place of *Work* and those properties adjacent to the place of *Work*, and take written notes to document any existing conditions that may affect execution of the *Work* or cause disputes throughout.

.2 Prior to commencement of the *Work*, the *Engineer* may take or arrange for photographs and/or scans to be taken of the *Site* and those properties adjacent to the *Site*. The *Contractor* may request to accompany the *Engineer* or *Engineer's* delegate during the taking of photographs and/or scans to make any comments on the conditions of the *Site* or adjacent properties based on his own notes.

.3 The *Owner*, or an authorized representative of the *Owner*, may be present during the taking of the photographs/scans and documentation of initial conditions to make comments on the conditions of the *Site*.

.4 These photographs and scans, together with any collected by parties retained by the *Owner*, will serve as a record of *Site* conditions prior to the commencement of *Work*. The *Engineer* will retain photographs, together with a written

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report, on the condition of existing roads, sidewalks, trees, lawns, and adjacent properties as a record of existing conditions prior to the start of the *Work*.

**Page 1, delete subsection 1.7 and replace with the following:**

- 1.7 SHOP DRAWINGS .1 Electronic submittals:
- .1 Submit electronic versions of all required submittals to the *Engineer* in original PDF format. Original PDF files are generated at the source; scans of paper copies will not be accepted for this purpose. Where it is not possible or practical to provide electronic copies as described, submit three (3) paper copies of documents to the *Engineer* with prior approval.
  - .2 Shop drawings:
    - .1 Subject to the requirements of 00 72 45 - GC 3.11 - SHOP DRAWINGS, submit shop detail or working drawings and manufacturer's data for all items requiring fabrication, on or off the *Site*, and for all proprietary equipment to the *Engineer* for review before any such items or equipment are commissioned for manufacturing, or are incorporated into the *Work*.
      - .1 This review of *Shop Drawings* by *Engineer* is for the sole purpose of ascertaining conformance with the general design concept.
      - .2 This review shall not mean the *Engineer* approves the detailed design depicted in the *Shop Drawings*, the responsibility for which shall remain with the *Contractor* submitting them, and such review shall not relieve the *Contractor* of responsibility for errors and/or omissions in *Shop Drawings*, or of responsibility for meeting all requirements of the *Contract Documents*.
      - .3 The *Contractor* is responsible for dimensions to be confirmed and correlated at the *Site*, for information that pertains solely to fabrication processes or to techniques of construction and installation, and for co-ordination of the *Work* of all *Subcontractors*.
    - .2 Submit shop drawings with such promptness as not to cause delay in this work, or of the works of any Sub-Contractors.
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.3 The information submitted shall clearly show the dimensions, materials or construction, performance, finish, service and installation requirements and other characteristics in sufficient detail to permit the Engineer to evaluate the suitability of the articles for the use intended.

.4 Make corrections required by the Engineer as noted and resubmit corrected copies to the Engineer for review before fabrication.

.5 The *Engineer* will mark comments on one (1) copy of each drawing or document submitted and will return this as an electronic copy for the Contractor's purposes.

.6 The *Engineer* will not review *Shop Drawings* and other material involving a large amount of information in those instances where it is evident that the *Contractor* has not used all the information contained in, or where such details are obviously not consistent with the *Contract Documents*. In such instances, the *Engineer* may reject the submission, and request removal or redaction of irrelevant information prior to re-submission.

.7 Provide the section number of the specification with each submitted shop drawing for the purpose of identification.

.3 Samples:

- .1 Submit samples where specified in the *Project Documents*, indicating details of sampling methods, date/time, and locations of sources.
- .2 Do not deliver products requiring sample *Approval* to *Site* prior to receiving written *Approval*.

.4 Mix Design:

- .1 Submit mix designs for all concrete and asphalt materials being incorporated into the *Work*.

.5 Design Verification of *Temporary Work*

- .1 Submit plans sealed by a professional engineer licenced to practice in the Province of Nova Scotia for *Temporary Work* as required by governing legislation.

.6 Operating and Maintenance Data

- .1 Submit the following prior to application for final payment:
    - .2 General description, list of equipment including nameplate information, installation, operation and maintenance instructions, included parts
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list, and spare parts recommendations.

.3 Names, addresses, and phone numbers of *Subcontractors, Suppliers,* and manufacturers.

.4 Certificates of guarantees and warranties.

.5 Typed lists and notes using drawings, diagrams, and manufacturer's literature.

.7 Test Results

.1 Submit certificates and/or reports of the results of monitoring, testing, and inspections where specified in *Project Documents.*"

**Page 2, delete subsection 1.8.3 and replace with the following:**

.3 Record Drawings:

.1 Maintain a set of As-Built Drawings for the purpose of providing red-line markups to assist the *Engineer* in generating Record Drawings. Accurately and neatly record any deviations from *Contract Documents* caused by *Site* conditions and changes ordered by *Engineer*.

.2 Print and identify drawings as "Project Record Copy". Maintain in new condition and make available for inspection on site by *Engineer*.

.3 On completion of *Work*, and prior to final inspection, submit record drawings to *Engineer*. Should record drawings not be submitted ahead of final inspection a \$5000.00 sum will be withheld as a deficiency. Once they are submitted and approved this amount will be paid to the Contractor

.4 *Contractor* is responsible for full-time construction surveying throughout execution of the *Work* for the purposes of collecting digital data suitable for the *Engineer* to produce and certify final record drawings. Discrete survey measurement points to be collected linearly, and at the location of each individual component of the *Work* - pipe installation to be recorded at each bell, flange, fitting, and stub end. Locations of utilities and all other structures of any nature which intersect or are about the line of the *Work* must be recorded. Data points, in PNEZD, to contain a unique numerical point number, northing and easting (NAD83 CSRS 2010 v6, Nova Scotia MTM Zone 5 - EPSG 8083), vertical elevation (to CGVD 2013), and a descriptor. Horizontal and vertical measurements to be in meters to a precision of one one-thousandth (0.001), and descriptors should be logical and not require

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interpretation, or include a descriptive code legend or guide.

.5 Do not backfill pipework, appurtenances, or other portions of the *Work* until necessary measurements have been taken.

.6 Prior to application for *Substantial Performance of the Work*, as described in 00 72 45 - General Conditions, submit as-built documents and survey point CSV file to *Engineer*.

**Page 2, delete subsection 1.9 and replace with the following:**

1.9 Quality Control

- .1 All costs related to the testing requirements specified in 1.9.3 will be arranged and paid for by the Owner and will be conducted by an independent third party agency. This Contractor will be expected to coordinate with the Engineer and the agency and provide access to the Work for testing and sample collection.
- .2 Within fifteen (15) *Working Days* following notice of award the Owner will submit to the Contractor a Quality Control Testing and Inspection Plan covering all phases of the *Work*. The plan shall include, but not be limited to the following:
  - .1 Identification and description of inspection and required test procedures to be used to fulfil the conditions of the *Contract*;
  - .2 The names and certifications of the individuals or testing firms selected to fulfil the requirements of this section.
- .3 In accordance with the accepted Quality Control Testing and Inspection Plan described above, the Owner will appoint, pay for, and coordinate quality control testing and inspection for the following, for verification and acceptance into the *Work*:
  - .1 Ready-mix Concrete, as follows:
    - .1 In-field testing of concrete deliveries in accordance with *Specifications* and CSA A23.1-19/A23.2-19 to verify temperature, slump, and air content of each load is within the appropriate ranges specified by the accepted mix design. Verbally report results of each test to *Engineer's* delegate immediately for field acceptance of concrete deliveries and submit written

report of test results to *Engineer* for *Project* records.

- .2 Assist the testing agency in casting QA and QC compressive strength verification specimens for 7-day and 28-day test results for the first delivery of each *Working Day* and submit laboratory results to *Engineer* for acceptance.
- .5 Construction aggregates and engineered fill materials as follows:
- .1 Sampling and laboratory testing of construction aggregates per the requirements of 1.7.3.3 and 1.7.3.4 above, if not provided by the *Supplier* of such materials.
- .2 Full-time, in-field nuclear densometer compaction testing during bedding and backfilling operations, and during installation of road gravels. The quality control testing personnel shall communicate insufficient compaction results to *Engineer's* delegate and *Contractor* immediately. Corrective measures and the results of any re-tested areas to be verified as having achieved minimum compaction requirements and shall be reported in deliverables.
- .3 Where laboratory control densities are unable to be achieved, a new control density for the material may be determined by the quality control personnel in accordance with the NSTIR Standard Specification for Highway Construction and Maintenance, Division 3, Section 5, after having received prior written consent from the *Engineer*. Verbally report results to *Engineer's* delegate immediately for field acceptance of new control density and submit results to *Engineer* for *Project* records.
- .4 The testing agency will submit a detailed test location sketches and reports of all results to *Engineer* for acceptance once minimum compaction is achieved in all areas tested.
- .6 Road asphalt as follows:
- .1 Prior to paving, final (fine) grading will be certified, witnessed, and approved by the *Engineer* and/or the testing agency to confirm compliance with *Project Drawings* for crown and slope.
- .2 Bulk sampling, coring, and laboratory testing per the NSTIR Test Methods Manual and the Standard Specification for Highway Construction and Maintenance, Division 4,
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Section 19, to determine conformance with *Specifications* and parameters established in accepted asphalt mix design formula.

.3 In accordance with TM-3, collect a minimum of two (2) sample sets on each day of paving for each road asphalt mix type for the following tests:

.1 Mix testing, per Table 2, Series D and E only;

.2 Asphalt density, per 6.2.4;

.3 Asphalt thickness, per 6.2.5.

.4 One (1) of the above sample sets must have descriptive labelling applied to the outside of each bulk sample container and asphalt core, and shall be delivered to the *Owner*. The sample set will be retained by the independent testing at a qualified laboratory agreed to by all parties, should a dispute arise.

.5 The testing agency will submit testing results to the *Engineer* and *Contractor* for acceptance and payment adjustment calculation (if required) in accordance with Table 4.

.6 If requested, ensure *Owner* and *Engineer* have adequate access to the *Work* and to locations where products being incorporated into the *Work* are being prepared.

.7 Cooperate and assist *Engineer* in conducting necessary tests when requested.

.8 Arrange for inspections and tests by authorities other than the *Engineer* when required.

.9 Do not backfill pipework, appurtenances, or other portions of the *Work* until necessary inspections by the *Engineer* are completed, QC and other required tests are completed, and passing results are achieved.

.10 The *Engineer* may order any buried *Work* to be uncovered for examination, if necessary. Correction of defective *Work* shall be paid for by *Contractor*. If *Work* was previously *Approved* and no defects are found, the *Owner* will reimburse the *Contractor* for their costs.

**Page 3, delete subsection 1.10.3 and replace with the following:**

.3 *Engineer's Site* office is not required

**Page 3, delete Subsections 1.10.6 and 1.10.7, and replace with the following:**

.6 Make arrangements and pay for any temporary power, if required. Coordinate with the

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electrical utility when arranging for, and installing temporary power.

- .7 Provide temporary water piping and connections in coordination with the *Owner*. Water will be supplied by the *Owner* as necessary.

**Page 3, after the subsections 1.10.7, add new Subsection 1.10.8 & 1.10.9 as follows:**

- .8 Ensure temporary reinstatement is maintained throughout construction *Site* for the duration of the *Project* until final reinstatement.
- .9 Access to and from all properties may be required at any time. By the end of each *Working Day*, all driveway access must be either temporarily or permanently reinstated unless otherwise directed."

**Page 3, delete Subsection 1.11.1, and replace with the following:**

- .1 Confine *Construction Equipment, Products,* and operations to within the boundaries of streets, specified right-of-way, or *Site* limits shown or *Site* secured by the *Contractor* as an operations base. Use of private property outside of the limits specified here shall be as per 1.3.11"

**Page 3, after Subsection 1.11.2, add the following:**

- .3 Keep the *Site* neat and tidy and carry out a thorough cleanup at the end of each *Working Day* (or more frequent intervals if required), to the satisfaction of the *Engineer*. This includes, but is not limited to, the following;
  - .1 Removal of gravel/soils/debris from paved and landscaped areas;
  - .2 Removal and disposal of waste materials/garbage;
  - .3 Grading (and gravelling, if required) of travelled ways to ensure a smooth unimpeded passage of vehicles;
  - .4 Application and maintenance of dust control measures, as required, and as *Approved* by the *Engineer*;
  - .5 Maintenance of safety and traffic control equipment (signs, barricades, cones, etc.)."

**Page 3, delete subsection 1.12.1, replace with the following and renumber subsequent subsections:**

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12. Traffic Control

- .1 While the *Work* is being carried out *provide* continuous traffic control in accordance with Temporary Workplace Traffic Control Manual, latest edition, as issued by the Nova Scotia Department of Transportation and Infrastructure Renewal. A Temporary Workplace Signer certified by the province of Nova Scotia is required to prepare traffic control plans and oversee traffic control operations for all *Work* performed within the right-of-way.
- .2 The basic objective of each traffic control plan is to permit the *Contractor* to *Work* within the right-of-way efficiently and effectively, while maintaining a safe and efficient movement of vehicles and pedestrians around or through temporary workplaces, and to protect workers in temporary workplaces from errant vehicles.
- .3 Traffic control plans shall be submitted to the *Engineer* for *Approval* a minimum of five (5) *Working Days* prior to commencement of the *Work* requiring the traffic control activity. Coordinate proposed traffic control activities with Acadia University during preparation of traffic control plan (where required). Plans must consider access to campus buildings and residences, especially during the **final weekend in August when students move in to begin classes in September**. Any plans found incomplete, ambiguous, or unclear will be returned for revision and re-submittal.
- .4 Any requests for full street closures are to be submitted to the *Owner* in writing at least 48 hours in advance of the proposed closure, and *Approved* in writing by the *Owner*, with notifications and public messaging per section 1.3.”.

**Page 3, add new subsection 1.12.9 as follows:**

- .9 Maintain one-way traffic flow on University Avenue and all intersecting streets affected by the *Work* at all times.

**Page 4, add new subsection 1.14.2 as follows:**

- .2 Comply with all *Owner* Health and Safety requirements for *Contractors*. Complete and
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return Health and Safety Checklist.

**Page 4 delete Subsection 1.16.1, and replace with the following:**

- .1 Prepare a Waste Management Plan, including source separating plan and waste disposal plan indicating anticipated waste types, disposal methods, and disposal locations. Plan shall be submitted to the *Engineer* for *Approval* a minimum of five (5) *Working Days* prior to commencement of the *Work*.

**Page 4, add new subsection 1.18 as follows:**

- 1.18 PHOTOGRAPHS
- .1 Prior to commencement of the Works, the Engineer may arrange for photographs to be taken of the site and those properties adjacent to the site.
  - .2 Accompany the Engineer during the taking of photographs to make any comments on the conditions of the site or adjacent properties.
  - .3 Engineer will retain photographs, together with a written report, on the condition of existing roads, sidewalks, trees, lawns, and adjacent properties as determined by mutual agreement as a record of existing conditions prior to the start of the Work.

**SECTION 01 22 00 - MEASUREMENT AND PAYMENT**

Delete Section 01 22 00 in its entirety and replace with new Section 01 22 00, attached.

**SECTION 01 57 00 - ENVIRONMENTAL PROTECTION**

Page 1, add new subsections 1.1 and 1.2 as follows, and renumber subsequent subsections:

- 1.1 WORK INCLUDED
- .1 This section specifies requirements for providing temporary erosion and sedimentation control measures, if required or directed.
- 1.2 RELATED WORK
- .1 Earthwork: Section 31 20 00

**Page 2 delete subsection 1.5.4, and replace with the following:**

- .4 Control emissions from equipment by employing the following mitigation best practices:
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- .1 Procure fuel-efficient equipment models, equipped with run-time indicators where possible, to assist in monitoring and lowering fuel consumption and cost;
- .2 Encourage reduced idling by use of automatic shut-off mechanisms where possible, and through driver training programs;
- .3 Assess the capacity of the equipment being considered, and use only equipment that meets minimum size requirements, to reduce unnecessary fuel consumption;
- .4 Regularly maintain vehicles and equipment to ensure efficient operation (e.g. regularly checking tire pressure, and conducting operational maintenance on the basis of engine hours);
- .5 Vehicle route planning to take the shortest transportation route possible;
- .6 Install energy efficient security and task lighting (e.g., LED lights);
- .7 Minimize areas of disturbance, where possible;
- .8 Arrange site toolbox talks to encourage compliance with the mitigation measures listed above, and to raise awareness of the benefits of the mitigation measures.

**SECTION 31 15 53 - EROSION AND SEDIMENT CONTROL**

**Page 1, add new subsection 2.1.1.1 as follows:**

- .1 Acceptable Product: Terrafence as manufactured by Terrafix, Envirofence as manufactured by Mirafi Inc., or approved equivalent.

**SECTION 31 20 00 - EARTHWORK**

**Page 2, add new subsection 1.6 as follows:**

**1.6 EXISTING  
STRUCTURES AND  
UNDERGROUND SERVICES**

- .1 Furnish temporary support, adequate protection and maintenance of all underground and surface structures, drains, sewers, power lines and other existing site items affected by the Works. Notify Engineer before altering or supporting an existing structure.
  - .2 Restore, upon completion of the Work, structures that have been disturbed.
  - .3 Proceed with caution in excavation and preparation of trenches so exact location of all
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buried pipes and services and underground structures may be determined and be responsible for repair of pipes, services, and structures when broken or otherwise damaged.

- .4 Whenever it is necessary to explore and excavate to determine the location of existing underground utility structures, make such examination and excavation at no additional cost to the Contract.

**Page 2, delete subsection 2.1.1 and replace with the following:**

- 2.1 MATERIALS .1 Selected Backfill: common material from site excavation, free from stumps, trees, roots, sod, organics, rocks, boulders, and any other deleterious materials. Material to be well graded having a maximum particle size not exceeding 150mm with 40% to 60% of the material retained on 75mm sieve and have a moisture content that will allow it to be compacted to the specified densities.

**Page 6, delete subsection 3.4 and replace with the following:**

- 3.4 BLASTING .1 Blasting will not be permitted. Remove rock, if encountered, by mechanical means.

**Page 7, delete subsection 3.7.7.3 and replace as follows:**

- .3 Pipe bedding material to 98% standard Proctor density.

**Page 8, add new subsections as follows:**

- 3.12 DISPOSAL OF SURPLUS EXCAVATED MATERIAL .1 Dispose of surplus excavated material as directed by the Engineer to disposal sites approved by the Town of Wolfville.
- 3.13 RESTORATION .1 Reinstate disturbed areas to condition, elevation and thickness equal to or better than that which existed before excavation, as specified in Section 32 98 00.

**SECTION 32 98 00 - REINSTATEMENT**

**Page 1, add new subsection 1.4 as follows:**

- 1.4 PAYMENT .1 Payment for reinstatement of street asphalt,
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gravel and vegetated surfaces disturbed during construction is to be included as an incidental to the work. Reinstatement of driveways and walkways will be measured separately and are included in the tender form.

**SECTION 33 11 00 - WATERMAIN**

**Page 3, delete subsection 2.1.1 and replace with the following:**

2.1 General .1 Watermain to be 200mm diameter PVC DR18.

**Page 6, delete subsection 2.10.1 and replace with the following:**

- .1 50mm diameter to AWWA C512:
  - .1 Heavy duty type body consisting of metal and nylon reinforced glass fibre high impact plastic, with a combination small and large orifice. Small orifice to be stainless steel with a minimum opening of 1 mm, valve suitable for working pressure of 2068 kPa. Size as indicated.
  - .2 Independent floats located in both orifices.
  - .3 Orifices to be capable of expelling air at a high rate during filling and at a low rate during operation and will admit air while draining the pipeline. Provide replaceable seats.
  - .4 Valves to have no moving parts except for the floats which remain in the throat area discharging air without blowing shut.
  - .5 Valves are not leak in the closed position when pipeline is filled.
    - .1 Bermad, model C30.
    - .2 Val-Matic, model 202C.
    - .3 APCO, model 145C.
    - .4 Crispin, model AL20.
    - .5 ARI Bermad D-040-C.
  - .6 Corporation stop: brass complete with IPS inside and CC outside thread, size as indicated.
    - .1 Acceptable products:
      - .1 Mueller A-218. B20045N.
      - .2 Cambridge Brass 301 NL.
  - .7 Service saddle: bronze, double stainless steel strap type.
    - .1 Acceptable products:
      - .1 Mueller BR2 SS.
      - .2 Smith-Blair 325.
      - .3 Ford 202BS.
      - .4 Robar 2706.
  - .8 Provide stainless steel nipples and ball valve between corporation stop and air relief

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END

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valve.

.9 Provide stainless steel gooseneck pipe arrangement at the threaded outlet for discharge protection.

**SECTION 39 00 00 - STANDARD DETAILS**

Delete Standard Details as applicable and replace with new details on Drawings.



PART 1 - GENERAL

1. Unit prices for all items in the Schedule of Quantities and Unit Prices are full compensation for the work necessary to complete each item in the contract and in combination for all work necessary to complete the Work as a whole.
  2. Include all of the following as required where individual quantities are not provided in the Tender Form: mobilization, demobilization, traffic control, location of in-ground services by external utilities and coordination of work by external utilities (NSPI, Aliant, etc.), environmental protection, protection of existing trees, clearing, grubbing, excavation, shoring, dewatering, backfilling, bedding, compaction, disposal of surplus materials, protective coatings, marker tape, reinstatement of all disturbed surfaces with materials and thicknesses as indicated on the Project Drawings, pipe cleaning, disinfection, pressure testing, marker stakes, topographic survey to record as-constructed features, video inspection, and all incidentals.
  3. For water main, sanitary sewer, and storm sewer items, the following are included (but are not limited to) as required where individual quantities are not provided in the Tender Form: clearing, grubbing, common excavation, shoring, dewatering, geotextile, bedding, backfilling, compaction, disposal of surplus materials, joint restraints, thrust blocks, thrust anchors, zinc anodes, insulation, polyethylene encasement, flushing, pressure, vacuum and mandrel testing, disinfection, dechlorination, cleaning, closed circuit television inspections, marker stakes, marker tape, tracer wire and test stations
  4. The unit and lump sum prices for all items in the Form of Tender "Schedule of Quantities and Unit Prices" shall include the cost for furnishing all materials, labour, tools, and equipment necessary to complete the work in accordance with the Contract, the Drawings and Specification, and shall cover all costs of surety, mobilization, permits, assistance to the Engineer and site offices and other general costs. Each item shall include for all necessary supervision, labour, materials, plant and services, security provisions, survey and all operations and allowances customary and necessary to complete each item and the Contract as a whole notwithstanding the fact that not every such necessary operation is mentioned or included specifically for measurement.
  5. All measurement shall be along a horizontal plane unless otherwise indicated.
  6. The numbers of items described below correspond to the numbers of the items in Section 00 41 43, subsection 4, Schedule of Quantities and Unit Prices.
  7. Provisional items shall mean that the unit price as tendered shall be included in the estimated Contract Price and that the Owner reserves the right to delete all or portions of this item from the estimated Contract Price.
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PART 2 - ITEMS

1. Earthwork

.1 Excavation of Unsuitable Material and Replacement with Surge Rock (Provisional)

Unit of Measurement: cubic metre (m<sup>3</sup>)

Method of Measurement: surface-to-surface volume method between topographical survey taken before the placement and compaction of select site material and the lines and elevations indicated.

This item includes: excavation and off Site disposal of materials deemed unsuitable by the Engineer; supply, placement, and compaction of surge material complete with geotextile underlay and overlay. Written authorization of Engineer required.

2. Remove and Reinststate

.1 Asphalt Driveway

Unit of Measurement: square metre (m<sup>2</sup>)

Method of Measurement: slope measure of indicated area at top surface.

This item includes: saw cutting, removal and off Site disposal of asphalt at an Engineer approved facility; supply, placement and compaction of asphalt and gravels to the thicknesses indicated on the Project Drawings.

.2 Gravel Driveway

Unit of Measurement: square metre (m<sup>2</sup>)

Method of Measurement: slope measure of indicated area at top surface.

This item includes: removal and off Site disposal of gravel; supply, placement and compaction of gravel to the lines and thicknesses shown on the Project Drawings.

.3 Asphalt Sidewalk

Unit of Measurement: square metre (m<sup>2</sup>)

Method of Measurement: slope measure of indicated area at top surface.

This item includes: saw cutting, removal and off Site disposal of asphalt at an Engineer approved facility; supply, placement and compaction of asphalt and gravels to the thicknesses indicated on

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the Project Drawings.

.4 Signs

Unit of Measurement: Each (Ea)

This item includes: excavation, removal, storage, and protection of signs complete with post and concrete foundation, and reinstallation in original location once backfilling is complete.

.5 Storm Pipe

Unit of Measurement: metre (m)

Method of Measurement: along the centreline of pipe.

This item includes: excavation, removal, storage, protection and reinstallation of storm pipe where indicated. If the pipe is unusable, as determined by the Engineer, a change order will be written covering the cost of supplying new pipe.

3. 200mm Dia. PVC DR18 Transmission WM c/w Fittings

Unit of Measurement: metre (m)

Method of Measurement: along centreline of pipe through valves and fittings.

This item includes: supply and installation of PVC watermain complete with all fittings, gaskets, tracer wire, testing, all incidentals and reinstatement of all items not covered in item 2 above.

4. Chambers

.1 Air Release Valve Chamber (Provisional)

Unit of Measurement: Each (Ea)

This item includes: supply and installation of air release chamber complete with sump, clearstone, geotextile, precast concrete chamber, ductile iron pipe section complete with restrained sold sleeves, air release valve, complete with all associated piping, valve and saddle, floor drain complete with associated pipe, joint wrap and sealants, gaskets, insulation inside and out as indicated, asphalt apron, vent pipe complete with timber post; frame, cover, flange and all fittings as required.

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5. Direct Buried Valves

Unit of Measurement: Each (Ea)

This item includes: direct buried valves complete with valve boxes, appurtenances, and anchor blocks as indicated.

6. Connection to Existing Main

Unit of Measurement: Each (Ea)

This item includes: locating existing main, removal of existing plug, connection of new pipe and supply and installation of pipe, nipples, valves, fittings, and incidentals as necessary for filling, testing, disinfection, and draining as necessary.

7. Watermain Crossings

Unit of Measurement: Each (Ea)

This item includes: locating existing mains using hand excavation or hydroexcavation, survey to determine location and elevation, and additional care (Handwork) necessary when installing new pipe.

8. Sewer Crossings

Unit of Measurement: Each (Ea)

This item includes: locating existing pipe using hand excavation or hydroexcavation, survey to determine location and elevation and including protection and support of existing piping, and the supply and installation of 300mm DR18 casing pipes and link seals as and where indicated.

9. Erosion and Sediment Control

Unit of Measurement: Lump Sum (L.S.)

This item includes: supply, installation, maintenance and subsequent removal of erosion and sediment control measures as indicated on the drawings.

10. Pipe Trench Insulation

Unit of Measurement: metre (m)

Method of Measurement: along centreline of pipe through valves and fittings.

This item includes: the supply and placement of insulation where cover is less than 1800mm as indicated on the drawings.

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11. Trench Excavation - Rock (Provisional)

Unit of Measurement: cubic metre (m<sup>3</sup>)

Method of Measurement: surface-to-surface volume method between Topographical survey taken after rock is exposed and trench dimensions as indicated on the Project Drawings.

Boulders larger than one-half cubic metre, any portion of which is within theoretical trench, will be classified as rock. Boulders removed from trench shall be measured along the three-maximum perpendicular axes.

This item includes: all incremental work for rock excavation and disposal of surplus material over and above cost of common excavation which is included in price for pipe and related items.

12. Portable Variable Message Signs (Provisional)

Unit of Measurement: Each (Ea)

This item includes: any and all costs associated with the supply, programming, maintenance, and return of digital Portable Variable Message Signs (PVMS) having a minimum of three (3) lines of programmable text and a minimum of eight (8) characters per line. Allow sufficient time to cover the full duration of complete road closures where no vehicular access will be allowed within the Work area.

Contingency Allowance

No payment will be made unless authorized by the Engineer.

Expenditures under the Contingency Allowance will be authorized in accordance with CCDC 18, GC 4.2 and the value of the expenditure will be calculated in accordance with GC 6.7 - Quantity Variations.

PART 1 - GENERAL

- 1.1 WORK INCLUDED .1 This section specifies the requirements for removing and reinstating a number of items including, but not limited to: asphalt and gravel driveways, concrete curbs, signs, flagstone and asphalt walking paths, storm piping, as well as topsoil and sod where indicated on the Project Drawings.
- 1.2 RELATED WORK .1 Earthwork: Section 31 20 00.
- 1.3 EXISTING CONDITIONS .1 Items to be demolished or removed are to be based on their condition on date that Tender is accepted.
- 1.4 PROTECTION
- .1 Prevent movement, settlement or damage of adjacent structures and services. Provide bracing, shoring as required. Repair damage caused by demolition as directed by Engineer.
  - .2 Confirm demolition work does not adversely affect adjacent watercourses, groundwater and wildlife, or contribute to excess air and noise pollution.
  - .3 Fires and burning of waste or materials is not permitted on site.
  - .4 Do not bury waste or materials on site.
  - .5 Prevent extraneous materials from contaminating air beyond application area, by providing temporary enclosures during demolition work.
  - .6 Cover or wet down dry materials and waste to prevent blowing dust and debris. Control dust on all roads.
  - .7 Protect trees, plants and foliage on site and adjacent properties where indicated.
  - .8 Protect all items scheduled for reinstatement from adverse weather, UV, large temperature fluctuations, and physical damage.
  - .9 Repair or replace any damaged item scheduled for
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reinstatement to the satisfaction of the Engineer and at no additional cost to the Contract.

1.5 REGULATORY REQUIREMENTS .1 Perform Work in compliance with applicable Federal, Provincial and Municipal Regulations.

PART 2 - PRODUCTS Not applicable.

PART 3 - EXECUTION

3.1 PREPARATION .1 Inspect site with Engineer and verify extent and location of items designated for removal, disposal, recycling, salvage, relocation and items to remain.  
.2 Engineer will create a record of existing conditions.  
.3 Locate and protect utilities. Preserve active utilities traversing site in operating condition.

3.2 EXCAVATION .1 Excavate in accordance with Section 31 20 00. Backfill any remaining holes with select backfill and reinstate surface to match surrounding surfaces.

3.3 ENVIRONMENTAL PROTECTION .1 Dispose of all materials in accordance with Nova Scotia Environment Act. Pay all costs and fees associated with the disposal.

3.4 SAFETY CODE .1 Observe construction safety measures of Provincial Government, including but not limited to the Occupational Health and Safety Act, Chapter 7; Workers' Compensation Board and Municipal authority provided that in any case of conflict or discrepancy the more stringent requirement shall apply.  
.2 Store volatile waste in closed containers and remove from premises daily.  
.3 WHMIS:  
.1 Comply with requirements of Workplace Hazardous Materials Information System (WHMIS)

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regarding use, handling, storage, and disposal of hazardous materials; and regarding labelling and provision of material safety data sheets acceptable to Labour Canada and Health and Welfare Canada.

- .4 Exercise pollution and environmental control of construction activities as specified and as required during the Work.

3.5 TOPSOIL AND SOD .1 Excavate and dispose of topsoil and sod where shown on the Project Drawings.

3.6 ASPHALT AND CONCRETE PAVEMENT .1 Saw cut as required.  
.2 Remove existing asphalt and concrete pavement where required.  
.3 Dispose of asphalt offsite in accordance with provincial requirements for the disposal of asphaltic materials.

3.7 PIPING .1 Remove pipe at the nearest joint or replace entire length.  
.2 Reinstate removed piping with new pipe as approved by the Engineer

3.8 RESTORATION .1 Restore areas and existing works outside areas of demolition to match condition of adjacent, undisturbed areas or as indicated on drawings.

3.9 CLEANUP .1 Upon completion of work, remove debris, trim surfaces and leave work site clean.



**APPENDIX A**  
**Town of Wolfville Contractor Safety Forms**



Town of Wolfville  
Joint Occupational Health & Safety Committee  
**CONTRACTOR HEALTH & SAFETY  
CHECKLIST**

## CONTRACTOR HEALTH & SAFETY CHECKLIST

Contractors must review the attached information and complete this checklist before performing work for the Town of Wolfville. This checklist will be required on an annual basis.

Return completed checklist and required documents to:

OHS Coordinator  
Town of Wolfville  
200 Dykeland Street  
Wolfville, NS B4P 1A2

Name of contractor/company: \_\_\_\_\_

Name of health and safety contact: \_\_\_\_\_

- Are you currently registered and in good standing with the Workers' Compensation Board of NS? Yes  No   
If yes, include copy of current clearance letter when returning this checklist.
- Are you currently carrying business liability insurance? Yes  No   
Amount of coverage: \_\_\_\_\_
- Copies of other documents (licenses, permits, registrations, Certificate of Recognition, certificates of competency, proof of insurances) required by the Town of Wolfville:

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Town of Wolfville  
Joint Occupational Health & Safety Committee  
**CONTRACTOR HEALTH & SAFETY  
CHECKLIST**

**I confirm that I have received a copy of the Town of Wolfville Contractor Health & Safety Requirements, that I have reviewed and will comply with that document, and that I will provide to the Town of Wolfville, on an ongoing basis, copies of the documents described above as being required by it.**

\_\_\_\_\_  
Authorized signature

\_\_\_\_\_  
Date



# Town of Wolfville Joint Occupational Health & Safety Committee **CONTRACTOR HEALTH & SAFETY REQUIREMENTS**

## CONTRACTOR HEALTH & SAFETY REQUIREMENTS

### OVERVIEW

The Town of Wolfville has set high standards for health and safety performance, and requires those same high standards from all contractors.

All contractors are required to read and comply with this program.

### GENERAL RESPONSIBILITIES

Responsibilities of the Town of Wolfville:

- Ensure that the scope of work is clearly outlined to contractors before the start of any contract.
- Inform contractors of any extraordinary hazards associated with the work.

Responsibilities of Contractors:

- Have the training, knowledge and experience to perform the work safely and properly.
- Possess, and maintain current, all necessary licenses, permits, registrations and insurances (including workers' compensation insurance).
- Comply with all relevant occupational health and safety and environmental laws, including:
  - the Nova Scotia Occupational Health and Safety Act and regulations, and
  - the Transportation of Dangerous Goods Act and other relevant federal legislation.
- Ensure that all sub-contractors hired by them to perform work for the Town of Wolfville comply with all relevant occupational health and safety laws and this program.

### SELECTION OF CONTRACTORS

1. Health and safety performance will be strongly considered by the Town of Wolfville when selecting contractors. Based on previous experience, observations, and references, all contractors must be competent to perform the work safely and properly.



## Town of Wolfville Joint Occupational Health & Safety Committee **CONTRACTOR HEALTH & SAFETY REQUIREMENTS**

2. The Town of Wolfville may request proof of compliance with the relevant health and safety laws. Contractors may need to provide copies of a safety policy and/or program and proof that they have established a safety representative and/or a health and safety committee.

### CONTRACTING OUT BY CONTRACTORS

1. Contractors must inform the Town of Wolfville if they intend to sub-contract any part of the work.
2. The Town of Wolfville must approve all sub-contractors before work begins on a job, or as soon as the need for sub-contracting arises.
3. Contractors must ensure that their own sub-contractors are aware of and comply with all Town of Wolfville health and safety requirements and relevant health and safety laws.
4. The Town of Wolfville has the right to require the removal and/or replacement of sub-contractors to ensure acceptable health and safety performance. If that occurs, the Town of Wolfville will suffer no penalty.

### BEFORE WORK BEGINS

Before work begins, contractors must:

- perform a hazard assessment and ensure that proper controls are in place (for example: establishing safe work procedures and use of appropriate safety materials, equipment, devices and clothing).
- discuss with the Town of Wolfville any special considerations necessary to perform the work safely.
- sign and return the Contractor Safety Checklist to the Town of Wolfville OHS Coordinator to indicate that the safety requirements are understood and will be complied with. Contractors will be expected to complete and return the checklist, and all required documentation, on an annual basis.
- provide the OHS Coordinator with a copy of a current clearance letter from the Workers' Compensation Board of Nova Scotia verifying that coverage is in place.
- provide satisfactory proof of licenses, permits, registrations, Certificate of Recognition, certificates of competency, other insurances, etc.



## Town of Wolfville Joint Occupational Health & Safety Committee **CONTRACTOR HEALTH & SAFETY REQUIREMENTS**

### WORKPLACE RESPONSIBILITIES

1. Contractors are responsible to provide and properly use all safety materials, equipment, devices and clothing prescribed by regulations and necessary to do the work in a safe, healthy, and environmentally responsible manner.
2. Contractors must provide adequate supervision of their employees and their sub-contractors, and ensure that they are properly trained to perform the work safely. This includes possessing all required certificates of competency and training, and meeting all requirements to designate competent persons.
3. Contractors shall ensure that their employees receive adequate rest so that they are able to perform their tasks safely and properly.
4. Contractors must perform ongoing hazard assessments to ensure that work is performed safely.
5. Contractors shall provide instructions on how to perform specific work tasks and provide training and ongoing supervision in the activities for which such contractors have been hired and shall not expect such instruction, training or supervision to be provided by the Town of Wolfville.
6. The Town of Wolfville or its representatives may inspect contractors' facilities, equipment, and work practices at any time to confirm that health and safety requirements are being met.
7. If contractors are not meeting the health and safety requirements outlined in this program, the Town of Wolfville Chief Administrative Officer, OHS Coordinator and/or department heads have the authority to intervene. Contractors may be required to take steps such as provide additional training, supervision, materials, equipment, devices, or clothing. If necessary, The Town of Wolfville may stop the work until contractors have corrected the situation. If the non-compliance continues, the contract may be cancelled. There will be no penalty to The Town of Wolfville for any of these actions taken to ensure a safe and healthy workplace.



Town of Wolfville  
Joint Occupational Health & Safety Committee  
**CONTRACTOR HEALTH & SAFETY  
REQUIREMENTS**

REPORTING ACCIDENTS, LEGAL ACTIONS & ORDERS

1. Contractors must immediately investigate and report to the Town of Wolfville all lost-time accidents, all environmental spills, and all equipment/property damage in excess of \$500 relating to work performed on behalf of the Town of Wolfville. Serious near-misses should also be investigated by contractors.
2. Contractors must immediately report to the Town of Wolfville all legal actions (including orders or charges laid by compliance officers) relating to work performed on behalf of the Town of Wolfville.
3. Contractors are responsible to indemnify the Town of Wolfville for any losses, including fines and legal expenses, arising from their health, safety or environmental liability or the health, safety or environmental liability of their sub-contractors while performing work for the Town of Wolfville.



## Town of Wolfville Joint Occupational Health & Safety Committee **CONTRACTOR HEALTH & SAFETY PROGRAM**

### **CONTRACTOR HEALTH & SAFETY PROGRAM**

#### **Program Overview:**

The purpose of this program is to describe how the Town of Wolfville manages the health and safety aspects of contractor activities. The management of these activities is necessary in order to limit liability and to help ensure a safe and healthy work place for everyone.

#### **Contractor Health & Safety Packages:**

1. The Administrative Assistant to the OHS Coordinator shall assemble Contractor Health & Safety Packages ahead of time, place them in envelopes, and keep them at the office.
2. Each package must include one copy of the following, assembled in this order, top to bottom (items a) – c) should be stapled together:
  - a) Contractor Health & Safety Letter
  - b) Contractor Health & Safety Requirements
  - c) Contractor Health & Safety Checklist

#### **When a Contractor is Hired:**

1. The OHS Coordinator shall develop a process to ensure that a Contractor Health & Safety Package is provided to each contractor, along with the purchase order, tender, etc.
2. Before providing the package to the contractor, the OHS Coordinator should consider if copies of any special licenses, permits or certifications are required. **If so, the OHS Coordinator shall ensure that those requirements are noted on the Contractor Health & Safety Checklist.**
3. The OHS Coordinator shall direct his/her Administrative Assistant to distribute Contractor Health & Safety Packages as required. The Administrative Assistant shall create a spreadsheet or similar record of all packages distributed (including to whom, date distributed, date the checklist and other documents are received, etc).





## Town of Wolfville Joint Occupational Health & Safety Committee **CONTRACTOR HEALTH & SAFETY PROGRAM**

4. It is the Administrative Assistant's responsibility to inform the OHS Coordinator about Contractor Health & Safety Packages that have been sent out, and to assist the OHS Coordinator with the tracking and follow-up of Contractor Health & Safety Checklists and related documents. Contractors are required to return the Checklists and related documents before they start work on a project.
5. Returned Contractor Health and Safety Checklists and related documents must be reviewed by the OHS Coordinator to ensure that they are signed, complete and include appropriate information. Follow-up may be required.
6. **Before work begins, contractors are required to provide a hazard assessment that identifies the hazards on that particular project and the controls that will be implemented. The OHS Coordinator must ensure that this occurs.**
7. The OHS Coordinator shall take appropriate action if, after follow-up, a contractor fails to return the Contractor Health & Safety Checklist and related documents in a reasonable amount of time. The Town should not allow contractors to begin work until all requirements are met.
8. The Administrative Assistant shall maintain the returned Contractor Health and Safety Checklists and related documents on file for at least one year after projects are completed.

### **Monitoring & Correcting Contractor Activities:**

1. The OHS Coordinator, Foremen and Lead hands are responsible for monitoring contractor activities and ensuring compliance with the Contractor Health & Safety Requirements. **Contractors are expected to meet the same high standards of OHS performance as Town employees.**
2. If a contractor's OHS performance is unacceptable, and/or if concerns exist that put people at risk, the OHS Coordinator shall take appropriate corrective action as described in the Contractor Health & Safety Requirements.