REQUEST FOR PROPOSALS
RFP-MCC-2501

PARRSBORO WATERLINE REPLACEMENT DESIGN AND TENDER PARRSBORO, NS

MUNICIPALITY OF THE COUNTY OF CUMBERLAND
UPPER NAPPAN SERVICE CENTRE
1395 BLAIR LAKE ROAD
AMHERST N.S B4H 3Y4

MARCH 12, 2025

CLOSING: MARCH 27, 2025
2:00 PM

MUNICIPALITY OF CUMBERLAND

REQUEST FOR PROPOSALS

PARRSBORO WATERLINE REPLACEMENT

DESIGN AND TENDER

INTRODUCTION

The Municipality of Cumberland (Municipality) is requesting proposals from qualified firms, to carry out engineering design for the preparation of construction drawings, tender document preparation, and construction inspection services for replacement of water mains on Whiltehall Road, Atlantic Avenue, and Templar Street, in Parrsboro NS.

This Request for Proposal (RFP) and any supporting documents supplied with it define both the form and content required of your proposal. We urge you to structure your response in accordance with the terms of this RFP. It will be by these criteria that we will determine whether a Proposal is complete, appropriate and competitive. **Proposals that do not conform to these terms and conditions may be given lesser weight than others or may be rejected.**

This document is not intended to limit the content of your Proposal, but rather, to provide a common framework for the Municipality to assess each Proposal in a professional manner in a demonstrably fair process. You may provide unsolicited information if you consider it to be relevant.

Proposal packages may be subject to disclosure under Part XX of the Nova Scotia Municipal Government Act. By submitting a Proposal, the Proponent agrees to the appropriate disclosure of the information supplied, subject to the provisions of the governing law. The Municipality cannot guarantee the confidentiality of the complete content of any Proposal after the procurement has been awarded to the successful Proponent.

SECTION 1 - TERMS AND CONDITIONS

SUBMISSION OF PROPOSALS

The following is to be used in the preparation and submission of a proposal to provide the necessary engineering, cost estimation, and tender documentation preparation for the Parrsboro Waterline Replacement Design and Tender.

1. Completed vendor proposals and other correspondence should be submitted to:

   MUNICIPALITY OF CUMBERLAND
   UPPER NAPPAN SERVICE CENTRE
   1395 BLAIR LAKE ROAD
   UPPER NAPPAN, NS
   B4H 3Y4

   ATTENTION: Mr. JUSTIN WAUGH-CRESS, P. Eng.
   DIRECTOR, ENGINEERING AND OPERATIONS

   Any proposals submitted by fax or telephone will not be accepted under any circumstances.

2. Proposals may be submitted electronically, in a PDF document, to the email below. It is the responsibility of the vendor to confirm receipt of their proposal by the Municipality. This email address is for document submission only.

   procurement@cumberlandcounty.ns.ca

   The vendor agrees that the electronic signatures of the vendor on this document is intended to have the same force and effective as manual/original signatures. Delivery of an executed copy of a proposal by electronic means permitted in this request for proposals constitutes valid and effective delivery.

3. Proposals submitted as hard copies must be submitted in a sealed envelope clearly marked **"RFP-MCC-2501 PARRSBORO WATERLINE REPLACEMENT DESIGN AND TENDER"**.

4. Please provide **three (3) copies** of your proposal, including a USB copy.

5. **Closing Time and Date:**

   Proposals are due and will not be accepted any later than **2:00 pm local time on Thursday, March 27, 2025**.

6. Late proposals will not be accepted and will be returned unopened.

7. Proposals must be submitted on firm letterhead duly signed by an authorized person.

8. Proposals will be opened on **Thursday, March 27, 2025** at the Upper Nappan Service Centre, 1395 Blair Lake Road, Upper Nappan, NS, immediately following closing at 2:00 pm local time. The opening of proposals at that time is to record receipt of them. Details of the submissions will not be publicly disclosed at that time.
   The opening of proposals will not be open to the public.

9. **Terms and Conditions**
   The terms and conditions of the **"PARRSBORO WATERLINE REPLACEMENT DESIGN AND TENDER"** proposal submitted by you are to remain firm and irrevocable for sixty days from the proposed closing date**,** and if you receive our letter of acceptance, become part of the contract with the Municipality, expiring at the completion of the tender phase of the project. This time period for review and acceptance is necessary to permit Municipal Council review and approval of the proposal. Proposal costs must remain effective during this Municipal Council approval period, which can extend to up to 60 calendar days.

PROPOSAL REGULATIONS

1. Submission of a Proposal indicates acceptance by the submitter of all the conditions contained in this RFP unless otherwise clearly and specifically noted in the Proposal submitted.

2. **Municipality's Right to Reject**

   The Municipality of Cumberland reserves the right, without prejudice,
   - to accept any Proposal,
   - to reject any or all Proposals,
   - to not be obligated to accept the lowest Proposal,
   - to accept any Proposal that it considers to be in its best interests.
   - to waive formality, informality or technicality in any Proposal.

- to reject any proposal that it feels incapable of providing the necessary resources to perform the work in a satisfactory manner.

Proponents may be required to demonstrate financial stability, authorization to provide the services being acquired, and/or regulatory agency approval or registration as needed or otherwise clarify the Proponent's capability to satisfy the invitation requirements.

3. No adjustments will be allowed to any submitted Proposals. Proposals may however, be withdrawn by written request prior to the proposal submission closing date and time.

4. Late proposals will be rejected.

5. The submitter must be prepared to include in the contract for services any oral or written representations, undertakings or guarantees that are made prior to the final agreement, including the entire response to this RFP, or parts thereof.

6. Proposals not completed in permanent, unalterable form of print will be rejected.

7. The Municipality of Cumberland shall pay no fee to any firm for the preparation and delivery of its Proposal in response to the Municipality's RFP. The Municipality will not be responsible for any costs, expenses, losses, damages or liability incurred by the Proponent as a result of, or arising out of data/information collection, the submission of any proposal, or due to the Municipality not accepting or rejecting any proposal.

8. In case of any disputes over the completeness, accuracy and/or interpretation of this RFP, the versions of such documents held by the Municipality will be considered correct. Information, offers, commitments or instruction obtained by any source other than the Municipality of Cumberland will not be binding on the Municipality.

9. Inquiries regarding this request for proposals can be directed to:

Shelby Hum
Procurement Officer
Phone: 902-667-3204
shelbyhum@cumberlandcounty.ns.ca

Enquiries and responses given may be recorded and may be distributed to all other Proponents as an Addendum. No responses shall be binding on the Municipality unless made in writing. All enquiries regarding the interpretation of these Terms and Conditions, general procurement policy or procedures must be made to the Municipality.

10. It is recommended that all parties interested in responding to this RFP, **provide their name and contact information to Shelby Hum** by email at shelbyhum@cumberlandcounty.ns.ca to ensure the receipt of any addendums or other information relative to this RFP prior to the closing date. It is however, the responsibility of all respondents to check the Municipality of Cumberland web site (www.cumberlandcounty.ns.ca) and the Nova Scotia provincial procurement website on a regular basis for any addendums or information releases for this RFP.

11. No addendums or other relevant information related to the RFP will be issued within **three (3) business days** of the RFP closing date and time of **2:00 PM Local Time Thursday, March 27, 2025**.

12. It is mandatory that all submitted proposals comply with **Section 3 – PROPOSAL REQUIREMENTS**.

SECTION 2 – SCOPE OF WORK

1. Background

Parrsboro water system has many old pipes, about 100 years old, that are a risk for leaks, build up on the inside, capacity and quality issues. There is an ongoing program to gradually replace waterlines in the system to improve water quality, flow and reliability. It is proposed to replace 270 m of 100 dia. cast iron watermain on Atlantic Avenue, 145 m of 150mm on Whitehall Road, and 185 m of 150 dia. cast iron watermain on Templar Street (Eastern Avenue to Jenks Avenue). These watermains experience water quality and flow issues on a regular basis.

This project will improve water quality to residents in the area served by these pipes. Replacement will reduce service calls and flushing efforts.

The purpose of this RFP is to invite interested proponents to provide proposals for design, tender, and construction inspection services for the waterline replacement project.

2. Project Area

The project location is Whitehall Road, Atlantic Avenue, and Templar Street in Parrsboro NS, as shown on Map No. 1.

3. Main Project Components

The proposed project components would include:

- Provide design and tender services for replacement of 270 m of 100 mm dia. watermain on Atlantic Avenue, 145 m of 150 mm on Whitehall Road, and 185 m of 150 mm watermain on Templar Street. New line sizes to be provided by the Municipality.

4. Proposal Scope and Deliverables

The consultant is expected to include within their proposals the estimated costs and time to:

- Review existing information and host kick-off meeting to discuss preferred design options with the Municipality.
- Complete engineering design services for design for the proposed project.
- Prepare tender documents and "issued for tender" drawings based on final approved engineering design.
- IFT Drawings to be aerial image based, plan view and details only, with no profiles. Sample drawings from previous project included for reference.
- Receive and respond to Contractor questions during tender period. Issue Addenda as necessary.
- Prepare Issued for Construction drawing set.
- Conduct project kick-off meeting with Municipality and the Contractor.
- Provide daily pricing to conduct on-site inspection as requested by the Municipality to confirm work conforms to design. Assume five (5) inspections.
- Record drawings to be prepared by the contractor.
- No geotechnical investigation.
- No topographic survey required. LiDAR may be used.

As a guide to creating this overall schedule, the Municipality requires that the tender be ready for release by May 1, 2025.

5. Information Available

- 2019 Parrsboro waterline project IFT Drawings attached as an example of the level of detail required for this project.

The consultant should provide a project schedule as part of their proposal. This would include the consultants design and engineering time, tending preparation, submission, receipt and review time periods, and the estimated earliest start of construction.

6. COST ESTIMATE:

The consultant is permitted to present their anticipated costs to complete the work identified in this RFP in whatever fashion they wish to address the proposal requirements. Cost estimates must include hourly rates and anticipated level of effort for identified staff.

Please indicate in your proposal cost estimate if any administration, travel or other costs are subject to a mark-up, and if so, what the mark-up percentage is.

7. Units

Units used in the engineering design and all other documentation relating to the project are to be metric. All drawings must use NAD83 CSRS98 UTM Zone 20 N coordinate system.

8. Site Visit

It is recommended that prior to any proposal preparation and submission interested proponents make a site visit to the project location. With advance notice, a Municipal representative can be available to conduct a site tour, answer questions and provide other project related information.

To schedule a site visit, please contact Andrew Thomas at (902) 664-1083 or by email at athomas@cumberlandcounty.ns.ca.

SECTION 3 – PROPOSAL REQUIREMENTS

Please provide the information requested below in the proposal submission. Please be brief and concise in your response.

1. **The Consulting Team and References**

    - Provide a general description of your firm.
    - Indicate the consulting team to be assigned to the work, including the names of any sub-consultants or partners that would be utilized. Resumes may be included as appendices.
    - Detail the extent of the team's relevant experience.
    - Please list your major municipal clients and references that would relate to this project.

2. **Proposal Format**

    - Proposals to be letter style - 3 pages maximum.

3. **Project Work Plan and Schedule**

    - Provide a detailed plan for completing the design and tender package, with a schedule that will meet the reporting date identified above.

4. **Project Fees**

    The proposal should provide a breakdown of consulting fees and estimated expenses that will conform to the Work Plan. Proponents should assume that construction will take place during the 2025 construction season. Full time construction supervision is not required for this project, site inspections at critical junctures, answering Contractor/Owner questions, progress claim review, and virtual attendance at project meetings. Proponents will assume 5 site inspections and provide a daily rate for inspections.

    In addition, please provide any specific invoicing conditions or requirements that impact the overall costing.

5. Evaluation Criteria

Each response to this Request for Proposal will be evaluated by the Municipality to determine the degree to which it responds to the requirements as set out. Because this is a Request for Proposal, other factors in addition to price will be considered when submissions are evaluated. Factors to be considered are as follows:

Criteria	Weighting
Qualifications, References of the Consulting team	**15%**
Methodology and Approach	**15%**
Work Plan and Schedule	**20%**
Cost	**50%**

6. Termination

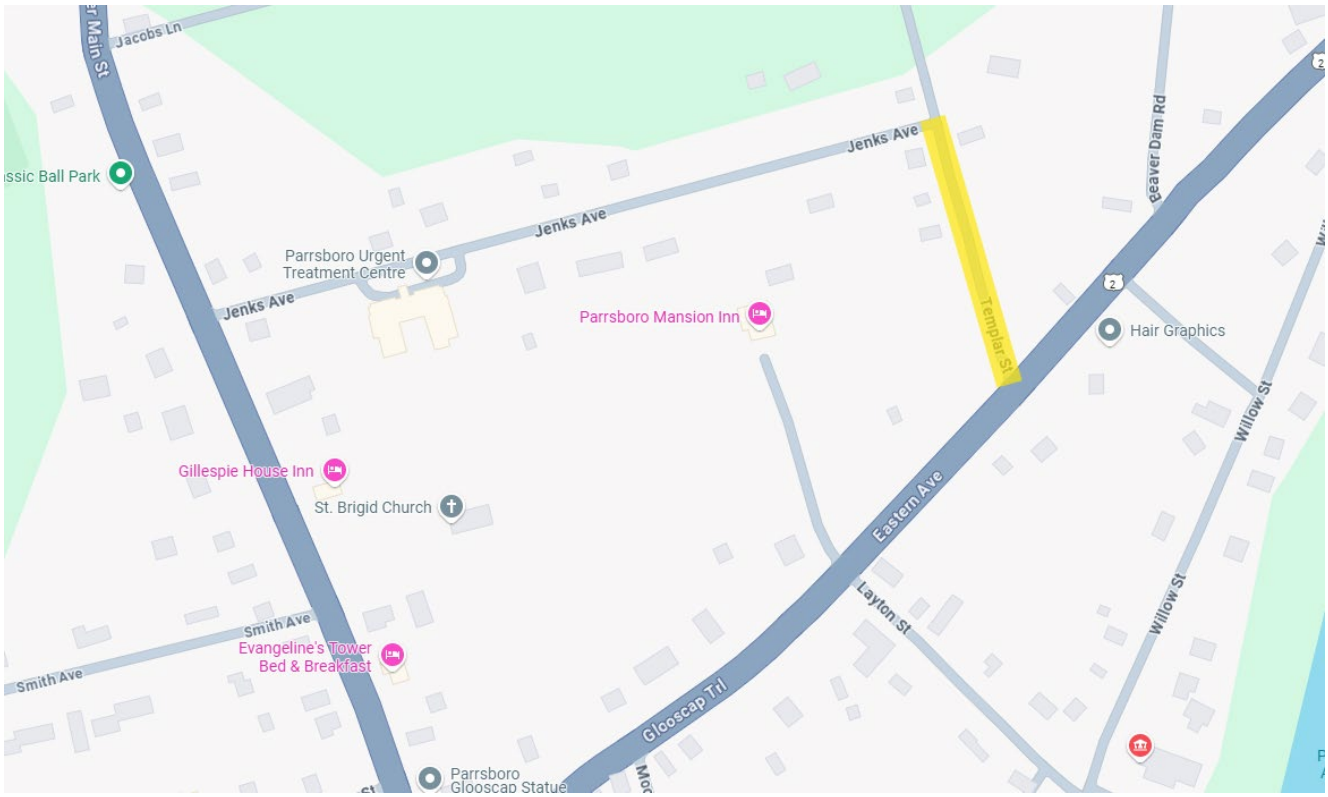
In the event that the Respondent fails to comply with any of the terms and conditions set forth in this document, the Respondent will be notified in writing and will be given fifteen days to comply with the violated sections. At the expiration of the stated period of time, if the Respondent has not complied with same, to the satisfaction of the Municipality, the Contract will be terminated. Any termination of the contract by the Municipality as aforesaid shall be without prejudice to any other rights or remedies the Municipality may have.

7. General

Provide any other information and/or comments which you feel are appropriate for the Municipality to consider in making its decision. Response to this RFP should not exceed 3 (3) pages, excluding appendices.

……End of Request for Proposal ……

MAP 1


Jacobs Ln
Main St
Jenks Ave
Jenks Ave
Jenks Ave
Parrsboro Urgent Treatment Centre
Parrsboro Mansion Inn
Templar St
Beaver Dam Rd
Hair Graphics
Willow St
Gillespie House Inn
St. Brigid Church
Eastern Ave
Layton St
Smith Ave
Smith Ave
Evangeline's Tower Bed & Breakfast
Glooscap Trl
Parrsboro Glooscap Statue


Whitehall Rd
Atlantic Ave
Atlantic Ave
Whitehall Rd
Atlantic Ave
Atlantic Ave
Atlantic Ave
Atlantic Ave

2019 Parrsboro Waterline Project IFT Drawings

(for reference)

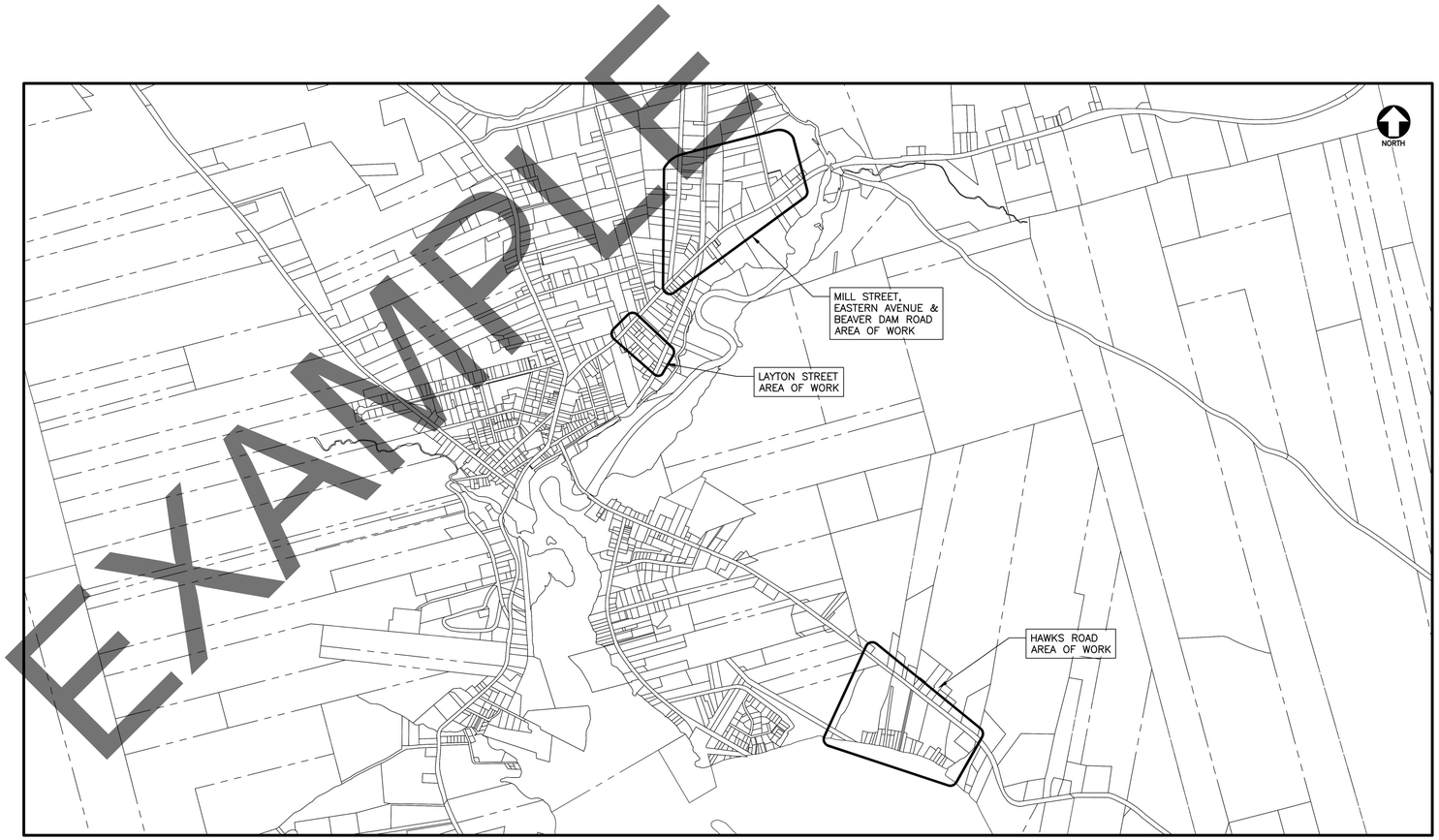
Contract No. T-MCC-1905

MUNICIPALITY OF CUMBERLAND

PARRSBORO - VARIOUS WATERMAINS

Sheet List Table

Sheet Number	Sheet Title	Sheet Description
–	COVER SHEET	
C001	OVERALL SITE PLAN	
C100	HAWKS ROAD	
C101	HAWKS ROAD	
C200	LAYTON STREET	
C300	MILL STREET	
C301	EASTERN AVENUE	
C400	DETAILS	
C401	DETAILS	



EXAMPLE

CBCL LIMITED
Consulting Engineers

municipality of cumberland

ISSUED FOR TENDER

Project No. 191014.00

AUGUST 2, 2019

DRAWING NAME: K:\PROJECTS\191014.00 PARRSBORO – VARIOUS WATERMAINS\00 CAD\01 CIVIL\04 DRAWING SHEETS\COVER SHEET\191014.00 COVER SHEET.DWG LAYOUT NAME: 6120914 COVER SHEET (ARCH D) PLOT DATE: August-02-19 11:10:57 AM CAD OPERATOR: LMACDONNELL

EASTERN AVENUE

LAYTON STREET

WILLOW STREET

EX. HYDRANT

EX. 250ø CAST IRON WATERMAIN

0+210

0+200

PROP. 150ø DR18 PVC WATERMAIN TO REPLACE EX. 150ø CAST IRON WATERMAIN. REMOVE EX. PIPING.

EX. PROPERTY LINE (TYP.)

EX. VALVE

0+180

0+160

0+140

0+120

0+100

0+080

0+060

0+040

0+020

0+000

CS

APPROX. LOCATION OF EX. 150ø CAST IRON WATERMAIN

EX. 150ø D.I. CL50 WATERMAIN

17

29

3919

41

30

67

58

72

78

APPROX. LOCATION OF EXISTING WATER LATERAL (TYP.) (NOTE 3) (DETAIL 10/C400)

REINSTATE ASPHALT (DETAIL 2/C400)

EX. HYDRANT, LATERAL AND VALVE TO BE REPLACED (DETAIL 13 & 15/C401)

LOCATION OF EX. VALVE TO BE REMOVED

NEW VALVE (NOTE 4) (DETAIL 15/C401)

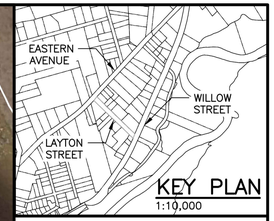
EX. VALVE

EXAMPLE

0 10.0 20.0 30.0 40.0 50.0m

1:500

NORTH



KEY PLAN
1:10,000

NOTES

1. REFER TO C001 FOR GENERAL NOTES.
2. CONTRACTOR TO PROVIDE TEMPORARY WATER.
3. LATERALS TO BE DISCONNECTED FROM EXISTING MAIN AND RE-CONNECTED TO PROPOSED WATERMAIN.
4. VALVE AND WATERMAIN CONNECTING THE VALVE TO THE TEE ON WILLOW STREET TO BE REPLACED PRIOR TO ANY OTHER WORK ON LAYTON STREET. DURATION OF DISRUPTION OF WATER SERVICE TO BE MINIMIZED DURING THE ISOLATION OF THE LINE AND REPLACEMENT OF THE VALVE.

LEGEND

- PROPERTY LINE (EX.)
- WATERMAIN (EX.)
- WATERMAIN (PROP.)
- LATERAL (PROP.)
- CS — CURB STOP (EX.)
- GATE VALVE (EX.)
- GATE VALVE (PROP.)
- WATERMAIN FITTINGS (EX.)
- WATERMAIN FITTINGS (PROP.)
- WATERMAIN BENDS (EX.)
- WATERMAIN BENDS (PROP.)
- FIRE HYDRANT (EX.)
- FIRE/YARD HYDRANT (PROP.)

municipality of cumberland

No.	Description	Date	By
C	ISSUED FOR TENDER	AUG 02/19	AD
B	ISSUED FOR APPROVAL	JUL 09/19	AD
A	ISSUED FOR 90% REVIEW	JUN 20/19	AD

Revision or Issue

MUNICIPALITY OF CUMBERLAND

PARRSBORO – VARIOUS WATERMAINS

CIVIL

LAYTON STREET

CBCL LIMITED
Consulting Engineers

CBCL No	Contract No	Date	Scale
191014.00	T-MCC-1905	JUN 2019	1:500

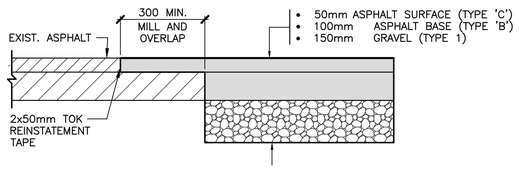
Designed	Drawn
AD	LM
Checked	Approved
JAB	JAB

Sheet No 4 of 8

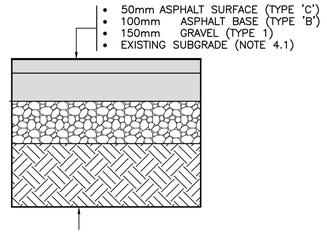
Drawing No **C200**

REGISTERED PROFESSIONAL ENGINEER PROVINCE OF NOVA SCOTIA — Aug 02/19 — G.DOYLE — 12193

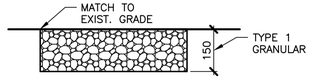
DRAWING NAME: K:\PROJECTS\191014.00 PARRSBORO – VARIOUS WATERMAINS\20 CAD\01 CIVIL\03 DESIGN FILES\191014.00 BASEPLAN-UPDATED.DWG LAYOUT NAME: LAYTON ST PLOT DATE: August-02-19 11:12:31 AM CAD OPERATOR: LMCCONNELL



1 DETAIL—ASPHALT TIE IN TO EXISTING
1:10



2 DETAIL—ASPHALT ROAD REINSTATEMENT
1:10



3 DETAIL—GRAVEL AREA REINSTATEMENT
1:10

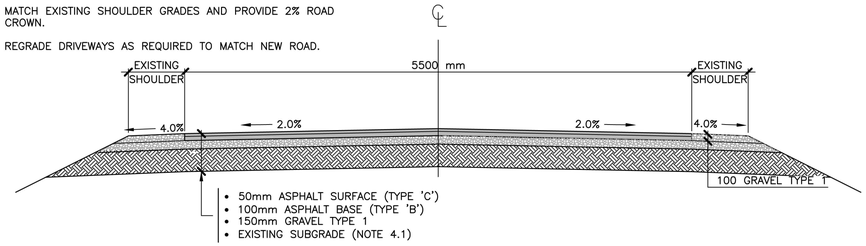
NOTES:
4.1 CONTRACTOR TO PROOF ROLL EXISTING SUBGRADE IN THE PRESENCE OF A GEOTECHNICAL ENGINEER PRIOR TO PLACING GRANULARS.

4.2 ROAD TO BE REINSTATED TO MATCH EXISTING CONDITION, INCLUDING LINE PAINTING.

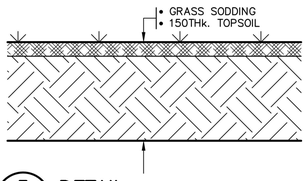
4.3 ROAD WIDTHS ARE APPROXIMATE AND ARE TO BE VERIFIED.

4.4 MATCH EXISTING SHOULDER GRADES AND PROVIDE 2% ROAD CROWN.

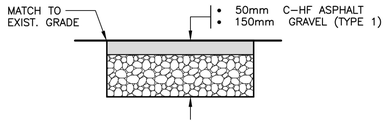
4.5 REGRADE DRIVEWAYS AS REQUIRED TO MATCH NEW ROAD.



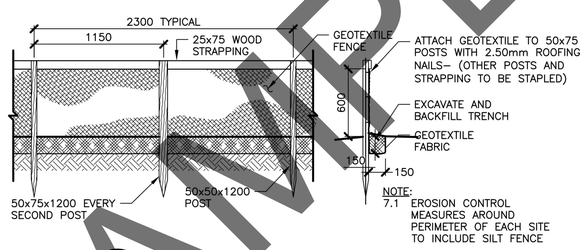
4 SECTION—ASPHALT ROAD REINSTATEMENT—CROSS SECTION
1:50



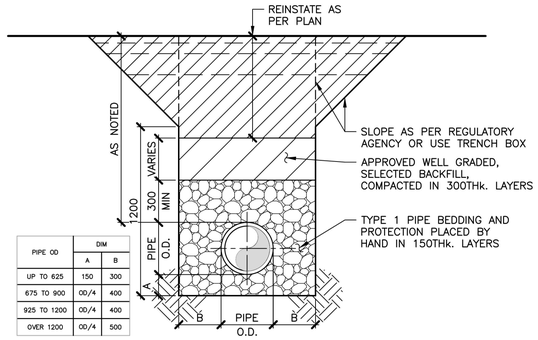
5 DETAIL—GRASSED AREA REINSTATEMENT
1:5



6 DETAIL—ASPHALT DRIVEWAY REINSTATEMENT
1:10

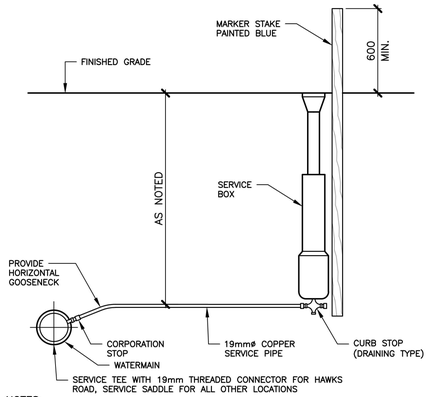


7 DETAIL—SEDIMENT CONTROL FENCE
1:25



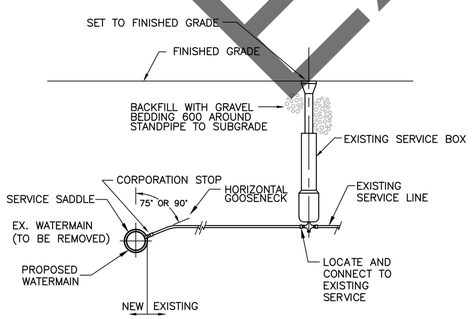
PIPE OD	DIM	
	A	B
UP TO 625	150	300
675 TO 900	OD/4	400
925 TO 1200	OD/4	400
OVER 1200	OD/4	500

8 DETAIL—TYPICAL TRENCH FOR ONE PIPE
1:20



NOTES:
9.1 SERVICE CONNECTIONS SHALL BE FITTED WITH ZINC ANODES. (DETAIL 12)

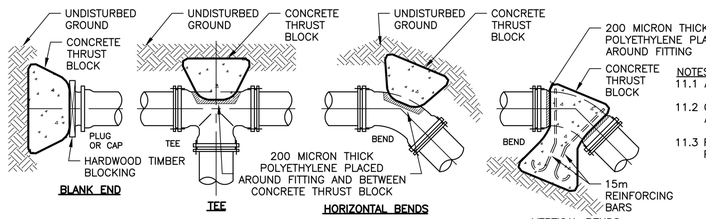
9 DETAIL—NEW WATER SERVICE CONNECTION
1:20



NOTES:
10.1 EXISTING SERVICE PIPE TO BE DISCONNECTED FROM THE EXISTING WATERMAIN AND RECONNECTED TO THE PROPOSED WATERMAIN.

10.2 SERVICE CONNECTIONS SHALL BE FITTED WITH ZINC ANODES. (DETAIL 12)

10 DETAIL—RECONNECTED WATER SERVICE TO NEW WATERMAIN
N.T.S.



NOTES:
11.1 ALL CONCRETE 25MPa

11.2 CONC. COVER TO BE MIN. 75 OVER BARS AND FITTINGS.

11.3 REINFORCING BARS ARE TO BE PRESHAPED PRIOR TO INSTALLATION

MINIMUM CONTACT AREAS FOR CONC. THRUST BLOCKS

PIPE ø	AREA m² FOR SOIL SUPPORTING CAPACITY OF 100 kPa					
mm	CAP/PLUG	TEE	90° BEND	45° BEND	22.5° BEND	11.25° BEND
100	0.25	0.25	0.32	0.20	0.16	0.16
150	0.48	0.48	0.64	0.40	0.24	0.16
200	0.80	0.80	1.12	0.64	0.32	0.16
250	1.28	1.28	1.76	0.96	0.48	0.24
300	1.76	1.76	2.56	1.44	0.72	0.40

MINIMUM DISTANCE FROM FITTING TO UNDISTURBED GROUND

PIPE ø mm	mm
100	450
150	450
200	450
250	600
300	750

VERTICAL THRUST BLOCKS THRUST COMPENSATED FOR BY MASS OF CONCRETE (m³)

PIPE ø mm	45° BEND	22.5° BEND	11.25° BEND
100	0.40	0.20	0.20
150	0.80	0.40	0.40
200	1.40	0.70	0.70
250	2.10	1.10	1.10
300	3.00	1.50	1.50

11 DETAIL—CONCRETE THRUST BLOCKS
N.T.S.

NOTES
1. FOR GENERAL NOTES SEE DRAWING C001.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

municipality of cumberland

No.	Description	Date	By
C	ISSUED FOR TENDER	AUG 02/19	AD
B	ISSUED FOR APPROVAL	JUL 09/19	AD
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Revision or Issue

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PARRSBORO – VARIOUS WATERMAINS

CIVIL

DETAILS

CBCL LIMITED
Consulting Engineers

CBCL No	Contract No	Date	Scale
191014.00	T-MCC-1905	JUN 2019	AS NOTED

Designed	Drawn
AD	LM
Checked	Approved
JAB	JAB

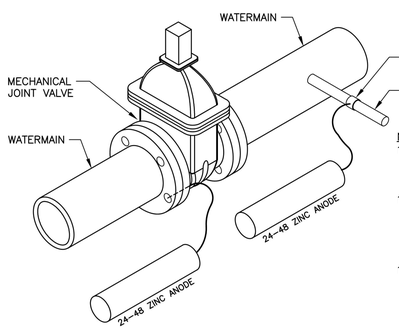
Sheet No 7 of 8

Drawing No **C400**

REGISTERED PROFESSIONAL ENGINEER PROVINCE OF NOVA SCOTIA — A.D. DOYLE — 12193 — Aug 02/19

EXAMPLE

DRAWING NAME: K:\PROJECTS\191014.00 PARRSBORO – VARIOUS WATERMAINS\00 CAD\01 CIVIL\04 DRAWING SHEETS\191014.00-DETAILS.DWG LAYOUT NAME: DETAILS-1 PLOT DATE: August-02-19 11:13:56 AM CAD OPERATOR: LMACDONNELL



NOTES:

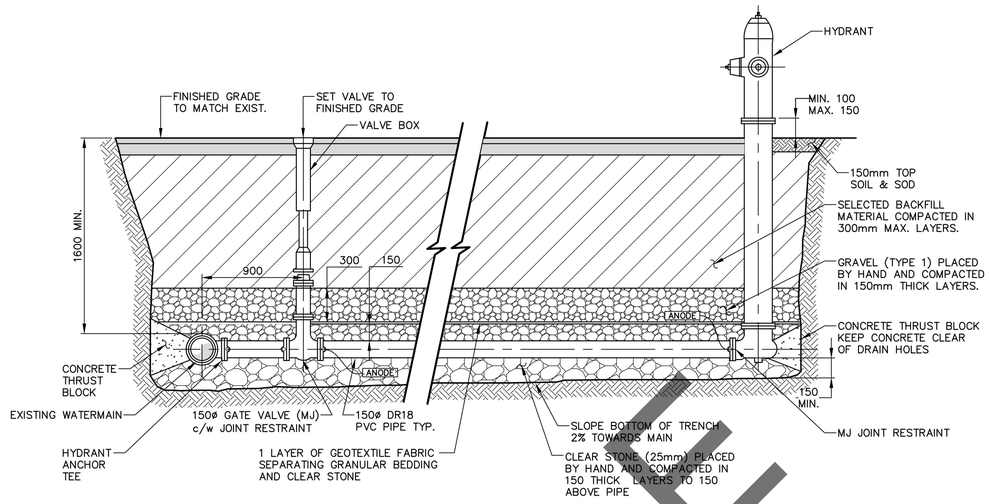
12.1 SEPARATE ANODE AND VALVE / SERVICE USING 50mm THICK RIGID INSULATION IF ANODE IS INSTALLED WITHIN 600mm OF VALVE / SERVICE.

12.2 WRAP ANODE WIRE A MINIMUM OF THREE (3) TIMES AROUND A BOLT AND WRAP WITH NEOPRENE TAPE WHEN ANODES ARE ATTACHED TO MECHANICAL JOINT VALVES. SECURE WIRE TO BOLT BY USING A SECOND NUT.

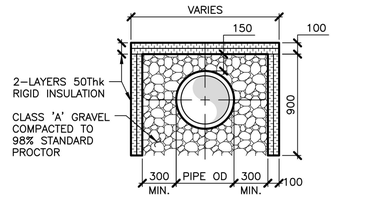
12.3 IF ANODE WIRE CANNOT BE ATTACHED AS INDICATED, ANODE WIRE MUST BE ATTACHED TO VALVE WITH SLU-70 WIRE CONNECTOR OR CADWELD. APPLY BITUMINOUS COATING TO SLU-70 WIRE CONNECTOR OR CADWELD.

12.4 GROUNDING CLAMP TO BE #3110-U FOR 19mm TO 25mm DIAMETER SERVICES OR #3903BU FOR 32mm TO 50mm DIAMETER SERVICES.

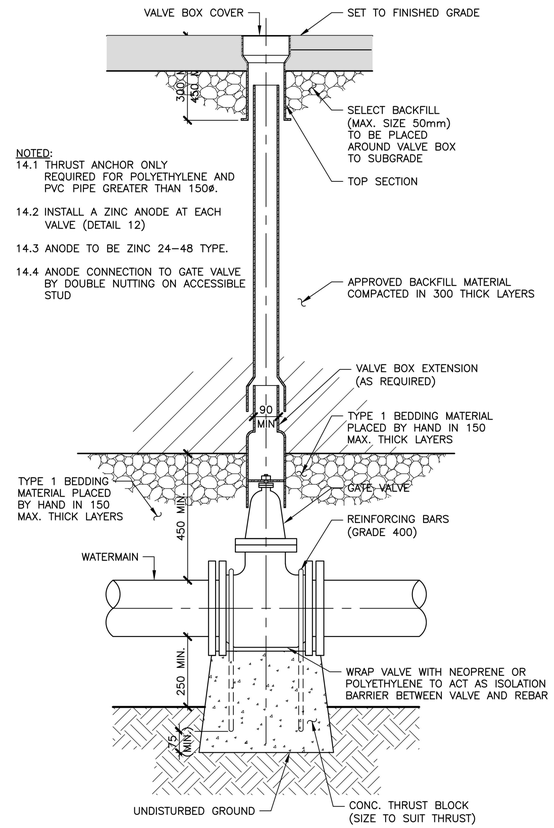
12 DETAIL—WATERMAIN ZINC ANODE
N.T.S.



13 DETAIL—HYDRANT CONNECTION (TYP.)
1:25



14 DETAIL—PIPE INSULATION
1:25 (WHERE COVER LESS THAN 1.6m)



NOTED:

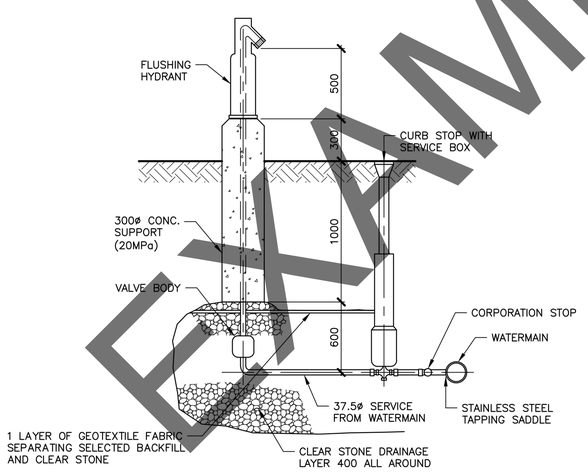
14.1 THRUST ANCHOR ONLY REQUIRED FOR POLYETHYLENE AND PVC PIPE GREATER THAN 150ø.

14.2 INSTALL A ZINC ANODE AT EACH VALVE (DETAIL 12)

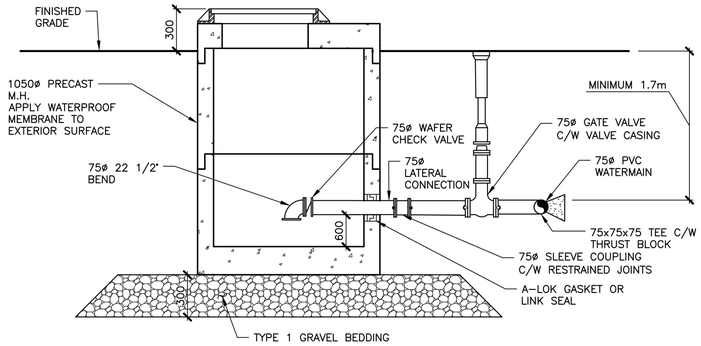
14.3 ANODE TO BE ZINC 24-48 TYPE.

14.4 ANODE CONNECTION TO GATE VALVE BY DOUBLE NUTTING ON ACCESSIBLE STUD

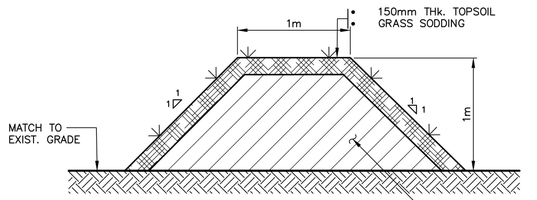
15 DETAIL—GATE VALVE AND BOX
1:10



16 DETAIL—YARD HYDRANT
1:20



17 DETAIL—DRAIN MANHOLE
N.T.S.



18 DETAIL—BERM
1:25

NOTES
1. FOR GENERAL NOTES SEE DRAWING C001.
2. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE NOTED.

municipality of cumberland

No.	Description	Date	By
C	ISSUED FOR TENDER	AUG 02/19	AD
B	ISSUED FOR APPROVAL	JUL 09/19	AD
A	ISSUED FOR 90% REVIEW	JUN 20/19	AD

Revision or Issue

MUNICIPALITY OF CUMBERLAND

PARRSBORO – VARIOUS WATERMAINS

CIVIL

DETAILS

CBCL LIMITED
Consulting Engineers

CBCL No	Contract No	Date	Scale
191014.00	T-MCC-1905	JUN 2019	AS NOTED

Designed	Drawn
AD	LM
Checked	Approved
JAB	JAB

Sheet No 8 of 8

Drawing No C401

REGISTERED PROFESSIONAL ENGINEER PROVINCE OF NOVA SCOTIA — Aug 19/19 — A.D. DOYLE — 12193

EXAMPLE

DRAWING NAME: K:\PROJECTS\191014.00 PARRSBORO - VARIOUS WATERMAINS\20 CAD\01 CIVIL\04 DRAWING SHEETS\191014.00-DETAILS.DWG LAYOUT NAME: DETAILS-2 PLOT DATE: August-02-19 11:14:10 AM CAD_OPERATOR: LMACDONNELL