

**TOWN OF FORT FRANCES**  
**OPERATIONS AND FACILITIES DIVISION**  
**CIPP LINING OF SANITARY SEWER MAINS**  
**TENDER NO. 23-OF-03**  
**MARCH 1, 2023**

**TENDER NO. 22-OF-03**

**CIPP LINING OF SANITARY SEWER MAINS**

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**Section I**  
**TOWN OF FORT FRANCES**  
**OPERATIONS AND FACILITIES DIVISION**  
**CALL FOR TENDER**  
**CIPP LINING OF SANITARY SEWER MAINS**

Sealed Tenders clearly marked “**Tender No. 23-OF-03**” will be received by the Corporation of the Town of Fort Frances (the “Town”) up to but not later than:

2:00 pm Local Fort Frances Time  
**Tuesday, March 28, 2023**

After which time such proposals will be opened publicly and read aloud at the Fort Frances Civic Centre, 320 Portage Avenue, Fort Frances, Ontario..

Certain Tender Forms (“Tender Forms”) are required to be submitted. Please submit such completed Tender Forms to:

The Corporation of the Town of Fort Frances  
Attention: Chief Administrative Officer  
Town of Fort Frances  
320 Portage Avenue  
Fort Frances, Ontario  
P9A 3P9  
Fax: 1-807-274-8479

Information relating to this Tender, is available at the Information Desk, Fort Frances Civic Centre, 320 Portage Avenue, Fort Frances, Ontario

Please direct any questions regarding this tender to: Craig Miller, Environmental Superintendent (807) 274-9893, [cmiller@fortfrances.ca](mailto:cmiller@fortfrances.ca)

Lowest or any Tender not necessarily accepted. The Corporation of the Town of Fort Frances (the “Town”) reserves the right to reject any or all Tenders, to waive irregularities and informalities therein, and to award the contract in the best interest of the Town in its sole and unfettered discretion. Tender award has to be approved by Council. See Tender information, Tender Forms and other Tender documents, for all terms, conditions and requirements.

## SECTION 2

### TENDER INFORMATION

- 2.1 The Tenderer acknowledges that the Town shall have the right to reject any, or all, Tenders for any reason, or to accept any Tender which the Town in its sole unfettered discretion deems most advantageous to itself. The lowest, or any, Tender will not necessarily be accepted and the Town shall have the unfettered right to:
- (a) accept any regular, irregular, unbalanced, informal or qualified Tender;
  - (b) disqualify Tenders not submitted in accordance with the requirements of any Tender documents;
  - (c) accept a Tender which is not the lowest Tender; and
  - (d) reject a Tender that is the lowest Tender (and even if it is the only Tender received).
- 2.2 The Town reserves the right to consider, during the evaluation of Tenders:
- (a) information provided in the Tender document itself;
  - (b) information provided in response to enquiries of credit and industry references set out in the Tender;
  - (c) information received in response to enquiries made by the Town of third parties apart from those disclosed in the Tender in relation to the reputation, reliability, experience and capabilities of the Tenderer,
  - (d) the manner in which the Tenderer provides services to others;
  - (e) the experience and qualification of the Tenderer's senior management, and project management;
  - (f) the compliance of the Tenderer with the Town's requirements and specifications, and
  - (h) any other thing or matter which the Town, in its sole unfettered discretion, deems appropriate.
- 2.3 By submitting a Tender, the Tenderer acknowledges the Town's rights under this section 2 and absolutely waives any right, or cause of action against the Town and its consultants, by reason of the Town's failure to accept the Tender

submitted by the Tenderer, whether such right or cause of action arises in contract, negligence, or otherwise.

- 2.4 (a) The following schedules are attached to and form an integral part hereof:
- (i) Schedule 1 - Tender Forms (the “Tender Forms”);
  - (ii) Schedule 2 - Standard Form of Agreement (the “Agreement”);
  - (iii) Schedule 3 - Occupational Health and Safety Agreement (the “OH&S Agreement”); and
  - (iv) Schedule 4 - Specifications and Other Provisions (the “Specifications and Other Provisions”).
  - (v) Schedule 5 – Map of locations
- (b) In this Tender, the Tender Information, Tender Forms, Addenda (as defined in section 2.5), the Agreement, and the Specifications and Other Provisions, are collectively referred to as the “Tender Documents”.
- 2.5 Tenderers may, up to the three (3) business days prior to Closing Time, be advised by Addenda of, without limitation, additions to, deletions from, alterations in, or other changes to, the Tender Documents. All such changes shall become an integral part of the Tender Documents and allowed for by the Tenderer in its Tender and Tender pricing. The Tender Forms provide for an acknowledgement by the Tenderer of receipt by the Tenderer of any and all Addenda.
- 2.6 All Tenders are to be submitted upon the Tender forms.
- 2.7 This Tender closes at 2:00 p.m. Local (Fort Frances) time, **March 28, 2023** (herein sometimes referred to as the “Closing Time”), after which time Tenders received will be opened publicly and read aloud at the Fort Frances Civic Centre, 320 Portage Avenue, Fort Frances, Ontario.
- Two (2) sets of originally signed Tender Forms fully completed, sealed and marked “**Tender No. 23-OF-03**” must be received by the Town Administrator or designee up to but not later than the Closing Time.
- 2.8 The Tenderer shall examine the Tender Documents as soon as possible, and immediately notify the Town Administrator or designee of any errors, omissions or conflicts discovered.
- 2.9 Tenders received prior to the Closing Time may be withdrawn by the Tenderer only upon, and by, written notice of withdrawal, which written notice of withdrawal must be received by the Town Administrator no later than the Closing Time. If

such written notice of withdrawal is not so received by the Town Administrator, such Tender shall be deemed as being open for the Town to consider and/or accept. The last Tender received shall invalidate all previous Tenders received from the same Tenderer.

- 2.10 Tender award has to be approved by Council of the Town (“Council”). No Tender will be awarded except after approval of Council.
- 2.11 Tenderers are advised to review the Tender Documents for all terms, conditions and requirements. For general informational purposes only, Tenderers are advised that:

The Town is requesting Tenders for the supply and delivery of certain material (all as more fully detailed in the Tender Documents):

- (i) **CIPP lining of 222m of 450mm CLP Sanitary Sewer Main along the Third Street East ROW between Armit Avenue and Crowe Avenue;**
- (ii) **CIPP lining of 103m of 300mm VCT & CMP Sanitary Sewer Main along Minnie Avenue between 2<sup>nd</sup> Street East and Third Street East;**
- (iii) **CIPP lining of 58m of 300mm AC Sanitary Sewer Main along Armit Avenue where it crosses below the CN tracks;**
- (iv) **CIPP lining of 38m of 300mm CLP Sanitary Sewer Main along Christie Avenue where it crosses below the CN tracks; and**
- (v) **CIPP lining of 87m of 225mm CLP Sanitary Sewer Main along Victoria Avenue where it crosses below the CN tracks.**

- 2.12 As it is the responsibility of the Tenderer to determine levy and collection of the Harmonized and Sales Tax (HST), the Tenderer is requested to ensure that it provides its HST number (or alternatively cite the basis for exemption in lieu thereof), and that the amounts bid show the HST separately where and as required by the Tender Documents.
- 2.13 The Town is governed by the Municipal Freedom of Information and Protection of Privacy Act. Tenderers shall and do hereby consent that Tenders and Tender contents may be made public as a condition of the Tendering process.
- 2.14 A deposit (in the Tender Documents sometimes referred to as the “Deposit”) by way of certified cheque, bid bond, or equivalent, in the amount of **10%** of the Total Tender Price payable to the Town shall accompany each Tender submitted.
- 2.15 Forthwith upon the Town notifying a Tenderer that such Tenderer has been awarded the Tender, such Tenderer shall:

- (a) execute the Agreement;
- (b) deliver, to the Town, bonds, proof of insurance, the OH&S Agreement, Workers' Safety Insurance Board ("WSIB") clearance certificate, and otherwise, as required in and by the Tender Forms and elsewhere in the other Tender Documents; and
- (c) be ready to supply and deliver, and supply and deliver, in accordance with the Tender Documents, CIPP Lining of Sanitary Sewer Mains, as successfully tendered for.

If the Tenderer fails to deliver to the Town the Agreement and the OH&S Agreement properly executed by the Tenderer or to supply the specified bonds and insurance documents, within two weeks of the date of acceptance of the Tender, or to start the supply and delivery when directed:

- (i) the Town shall be entitled, without prejudice to any other right or remedy it may have, to deem the Tenderer to have abandoned the Tender made by the Tenderer, and the Town shall be entitled to retain the Deposit as liquidated damages (and not as a penalty); and
- (ii) the Tenderer shall pay to the Town the difference between, the Total Tender Price set out in its Tender and any other Tender which the Town accepts (if such other Tender is for a larger amount) and, in addition thereto, any costs which the Town may incur by reason of the Town re-Tendering, and, further, the Tenderer shall fully indemnify and save harmless the Town, its officers, employees, and agents from all loss, damage, liability, cost, charge and expense whatever which it, they or any of them may suffer, incur or be put to by reason of such default or failure of the Tenderer.

2.16 Deposits of unsuccessful Tenderers will be returned not later than three weeks following the Tender award. Except as otherwise provided for herein, the Deposit of the successful Tenderer will be returned with the first progress certificate.

2.17 The successful tenderer(s) shall take out and keep in force, throughout and for the duration of such tenderer's obligations to and/or contract with the Town but in any event no less than the all the year(s) for which the tenderer is awarded the tender for CIPP Lining of Sanitary Sewer Mains, the following policies:

### **Commercial General Liability**

The Proponent shall, at their expense obtain and keep in force during the term of the Agreement, Commercial General Liability Insurance satisfactory to the Town of Fort Frances and underwritten by an insurer licensed to conduct business in the Province of Ontario. The policy shall provide coverage for Bodily Injury, Property Damage and Personal Injury and shall include but not be limited to:

- a. A limit of liability of not less than \$2,000,000/occurrence with an aggregate of not less than \$2,000,000
- b. Add the Town of Fort Frances as an additional insured with respect to the operations of the Named Insured
- c. The policy shall contain a provision for cross liability and severability of interest in respect of the Named Insured
- d. Non-owned automobile coverage with a limit not less than \$2,000,000 and shall include contractual non-owned coverage (SEF 96)
- e. Products and completed operations coverage
- f. Broad Form Property Damage
- g. Contractual Liability
- h. Work performed on Behalf of the Named Insured by Sub-Contractors
- i. The policy shall provide 30 days prior notice of cancellation

### **Automobile Insurance**

Standard Form Automobile Liability Insurance that complies with all requirements of the current legislation of the Province of Ontario, having an inclusive limit of not less than \$2,000,000 per occurrence for Third Party Liability, in respect of the use or operation of vehicles owned, operated or leased by the Proponent.

### **Primary Coverage**

The proponent's insurance shall be primary coverage and not additional to and shall not seek contribution from any other insurance policies available to the municipality.

### **Certificate of Insurance**

The proponent shall provide a Certificate of Insurance evidencing coverage in force at least 10 days prior to contract commencement.

The Supplier shall defend, indemnify and save harmless the Town of Fort Frances its elected officials, officers, employees and agents from and against any and all claims of any nature, actions, causes of action, losses, expenses, fines, costs (including legal costs), interest or damages of every nature and kind whatsoever, including but not limited to bodily injury, sickness, disease or death or to damage to or destruction of tangible property including loss of revenue or incurred expense resulting from disruption of service, arising out of or allegedly attributable to the negligence, acts, errors, omissions, misfeasance, nonfeasance, fraud or willful misconduct of the Supplier, its directors, officers, employees, agents, contractors and subcontractors, or any of them, in connection with or in any way related to the delivery or performance of this Contract. This indemnity shall be in addition to and not in lieu of any insurance to be provided by the Supplier in accordance with this Contract and shall survive this Contract.

The Supplier agrees to defend, indemnify, and save harmless the Town of Fort Frances from and against any and all claims of any nature, actions, causes of action, losses, expenses, fines, costs (including legal costs), interest or damages of every nature and kind whatsoever arising out of or related to the Supplier's status with WSIB. This indemnity shall be in addition to and not in lieu of any proof of WSIB status and compliance to be provided by the Supplier in accordance with this Contract and shall survive this Contract.

- 2.18 Tenders may be submitted via facsimile to the Town office (807-274-8479) provided that:
- (a) the original of such Tenders shall be received by the Town within 5 business days of the Closing Time; and
  - (b) the Town shall not be liable, and assumes no responsibility whatsoever, for proper receipt of such facsimile transmittals or anything else relating to such facsimile.
- 2.19 In the Tender Documents, the singular, or masculine, or personal, pronouns herein shall be construed as meaning the plural, or feminine, or neuter, as the context requires.
- 2.20 If your company is awarded the tender by Council, there will be a requirement for your company to be responsible to make application and obtain a Town of Fort Frances business license. Business License application can be obtained from the Town office at 320 Portage Avenue.
- 2.21 The Contractor shall provide:
- a. Performance Bond, in the Form of CCDC 221, in the amount of 100% of the Contract Price,
  - b. and a Labour and Material Payment Bond, in the Form of CCDC 222, in the amount of 25% of the Contract Price.

## SCHEDULE 1

### TENDER FORMS

Tender No. 23-OF-03

#### CIPP LINING OF SANITARY SEWER MAINS

The following Tender is hereby submitted to

THE CORPORATION OF THE TOWN OF FORT FRANCES  
(the "Town")

1. This Tender is submitted by \_\_\_\_\_  
(hereinafter sometimes referred to as the "Tenderer").
2. In the Tender Documents "Work" means the total provision of all labour, materials, plant, equipment, services, and otherwise, necessary for the proper execution and completion, in accordance with the Tender Documents, of the supply and delivery to and for the benefit and satisfaction of the Town, of:
  - (a) CIPP Lining of Sanitary Sewer Mains works, if the Town awards the Tender for the sanitary sewer main lining to the Tenderer; or
  - (b) those Type(s) of CIPP Lining of Sanitary Sewer Mains works for which the Tenderer submits, and is awarded, the Tender.
3. The Tenderer acknowledges and agrees that:
  - (a) the items and quantities set out in, the Schedules of Unit Prices below (which shall be deemed to be attached to and form part of these Tender Forms) or elsewhere in the Tender Documents, are not to be and shall not be taken as a guarantee of actual quantities required;
  - (b) the Town reserves the right to increase, decrease or delete quantities of any or all items set out in, the Schedules of Unit Prices below or elsewhere in the Tender Documents, and no claim resulting from any increase, decrease or deletion in items and/or quantities will be considered;
  - (c) the Total Unit Price(s) given or set out by the Tenderer in this Tender:
    - (i) shall and does include all costs, expenses, and charges whatsoever for the performance and completion of the Work by the Tenderer, including, without

limitation, for all labour, materials, plant, equipment, services, duties, taxes, patent royalties, insurance, transportation, and otherwise; and

- (ii) shall apply for the purpose of progress payments and shall apply throughout the time period of Years or part thereof for which the Tenderer may be awarded a Tender except that any increase or decrease in taxes such as HST after the date of the awarding of the Tender shall increase or decrease the Total Unit Price accordingly by the amount of such increase or decrease in tax.

4. The undersigned Tenderer:

- (a) confirms that the Tenderer has examined the Tender Documents and ascertained all necessary particulars of and with regard to the Work to the Tenderer's satisfaction;
- (b) submits the following Tender and agrees, if such Tender is accepted, to:
  - (i) enter into the Agreement and the OH&S Agreement and provide same to the Town duly executed; and
  - (ii) perform and complete the Work for the respective Total Unit Price(s) and Total Prices quoted by the Tenderer herein except as may be increased or decreased by increase or decrease in taxes (such as HST) as set out in paragraph 3 hereof.

5. The Tenderer encloses herewith the Deposit.

6. The undersigned acknowledges receipt of the following addenda:

<u>No.</u>	<u>Date Issued</u>	<u>Date Received</u>
_____	_____	_____
_____	_____	_____

7. The Tenderer shall, forthwith upon request of the Town, provide a "Statement of Good Standing" and/or clearance certificate and/or such other evidence of compliance (with regard to workers' compensation insurance, including payments due thereunder) satisfactory to the Town, from the WSIB of Ontario.

Dated at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

SIGNATURE OF TENDERER:

\_\_\_\_\_  
Witness to signature of Tenderer

\_\_\_\_\_  
If a corporation, the person signing has authority  
to bind such corporation

Print name of Witness:

PRINT NAME AND TITLE OF PERSON  
SIGNING:

\_\_\_\_\_

\_\_\_\_\_

IF A CORPORATION, PRINT PROPER NAME  
OF CORPORATION:

\_\_\_\_\_

Address of Witness:

Address of Tenderer:

\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

Phone Number of Witness:

Phone Number of Tenderer:

\_\_\_\_\_

\_\_\_\_\_

Fax Number: \_\_\_\_\_

Cell Number: \_\_\_\_\_

## Schedule of Unit Prices

Any work called for in these Contract Documents, shown on the plans, or which is necessary for the completion of the Work called for in these Contract Documents and which is not specifically listed as a separate payment item in this document shall be deemed incidental to the performance of the Work and to the general purpose of the Contract; no separate payment will be made on account of any such Work, but the costs of any such incidental Work shall be included in the Unit and Lump Sum Prices.

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE (\$)	AMOUNT (\$)
<b>1</b>	<b>GENERAL</b>				
1.1	Mobilization and Demobilization	L.S.	1		
1.2	Bonding and Insurance	L.S.	1		
<b>2</b>	<b>LINING</b>				
2.1	CIPP lining of 450mm CLP Sanitary Sewer Main along the Third Street East ROW between Armit Avenue and Crowe Avenue	m	222		
2.2	CIPP lining of 300mm VCT & CMP Sanitary Sewer Main along Minnie Avenue between 2nd Street East and Third Street East	m	103		
2.3	CIPP lining of 300mm AC Sanitary Sewer Main along Armit Avenue where it crosses below the CN tracks	m	58		
2.4	CIPP lining of 38m of 300mm CLP Sanitary Sewer Main along Christie Avenue where it crosses below the CN tracks	m	38		
2.5	CIPP lining of 87m of 225mm CLP Sanitary Sewer Main along Victoria Avenue where it crosses below the CN tracks.	m	87		
2.6*	Unit Price Per Metre for Additional 450mm CLP Sanitary Sewer Main	m	1		N/A
2.7*	Unit Price Per Meter for Additional 300mm CLP Sanitary Sewer Main	m	1		N/A
2.8*	Unit Price Per Meter for Additional 225mm CLP Sanitary Sewer Main	m	1		N/A
<b>Subtotal</b>					
<b>HST</b>					
<b>TOTAL TENDER PRICE</b>				<b>\$ _____</b>	

Items marked with an asterisk (\*) are provisional items and will only be included in the total tender at the determination of the Town's Contract Administrator.

**Contractors Intended Start Date:** \_\_\_\_\_

**Contractors Anticipated work Duration:** \_\_\_\_\_

Listing of Subcontractors

Name	Works	Previous Work

Tenderers Experience in Similar Work

Year	Description of Contract	Owners Name	Value

## SCHEDULE 2

### AGREEMENT

THIS AGREEMENT made this \_\_\_\_\_ day of \_\_\_\_\_, 2023.

BETWEEN:

\_\_\_\_\_  
(herein sometimes referred to as the "Tenderer" or the "Contractor")

- and -

The Corporation of the Town of Fort Frances  
(the "Town")

Whereas the Contractor has represented to the Town that the Contractor is well able to perform the Work described in the Tender Documents for the respective Total Unit Price(s), quoted by the Tenderer in the Tender.

Now therefore the Contractor and the Town (herein sometimes referred to as the "Parties") undertake and agree as follows:

1. The Tenderer shall perform and complete the Work:
  - (a) to, and for, the benefit and satisfaction of the Town, in accordance with the Tender Documents;

- (b) for the respective Total Unit Price(s) and Total Prices quoted by the Tenderer in the Tender Forms except as may be increased or decreased by increase or decrease in taxes (such as HST) as set out in paragraphs 3 and 4 of the Tender Forms.
- 2. The Tender Documents shall collectively be and the whole shall constitute the Contract between the Parties.
- 3. The Town agrees to pay to the Contractor in lawful money of Canada for the performance of the Work with the amounts to be paid on account thereof being determined by actual measured quantities in accordance with the Specifications and Other Provisions and subject to adjustments, additions, deductions and deletions as provided in and by the Tender Documents. The Town shall pay on account thereof upon the approval of the Town Manager, Operations and Facilities Division (in the Tender Documents the Town Manager, Operations and Facilities Division is sometimes referred to as the "Manager"). Upon receipt of invoices, any adjustments to monies owing will be made with notification to the Contractor.
- 4. If the Town fails to make payments to the Contractor as they become due under the terms of the Tender Documents, interest equal to the current bank prime rate + 2% per annum on such unpaid amounts shall become due and payable until payment.
- 5. If:
  - (a) the Contractor should be adjudged bankrupt, or becomes insolvent, or makes a general assignment for the benefit of creditors, or if a receiver is appointed of the Tenderer or the Tenderer's business or any part thereof; or
  - (b) a petition in bankruptcy for liquidation, reorganization, or other proceeding, is filed by or against the Tenderer;
  - (c) the Contractor fails or neglects to properly perform or complete the Work or otherwise fails to comply with the requirements of the Tender Documents (including, without limitation, failure to meet specifications, or to meet delivery dates, or otherwise)

the Town may, without prejudice to any other right or remedy it may have, terminate this Agreement by giving the Contractor written notice.

The Contractor's obligation under the Tender Documents as to quality, correction and warranty of the work performed by him up to the time of termination shall continue in force after such termination.

- 6. Time shall in all respects be of the essence.

7. Neither this Agreement nor any rights or entitlements under it shall be assignable or transferable by the Contractor without the prior written consent of the Town.

8. Any notice required or permitted to be given hereunder shall be in writing and shall be effectively given if:

(a) delivered personally;

(b) sent by prepaid courier service or mail; or

(c) sent prepaid by telecopier, telex or other similar means of electronic communication (confirmed on the same or following day by prepaid mail) addressed,

(i) in case of notice to the Town, as follows:

320 Portage Avenue  
FORT FRANCES, Ontario  
P9A 3P9  
Attention: Administrator

(ii) in case of the Contractor, as follows:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Any notice so given shall be deemed conclusively to have been given and received when so personally delivered or sent by telex, telecopier or other electronic communication or on the second day following the sending thereof by private courier or mail. Any Party hereto or others mentioned above may change any particulars of its address for notice by notice to the others in the manner aforesaid.

IN WITNESSETH WHEREOF the Parties hereto have executed this Agreement.

SIGNATURE OF CONTRACTOR:

\_\_\_\_\_

Witness to signature of Tenderer

If a corporation, the person signing has the authority to bind such corporation

Print name of Witness:

PRINT NAME AND TITLE OF PERSON SIGNING:

\_\_\_\_\_

\_\_\_\_\_

IF A CORPORATION, PRINT PROPER NAME OF CORPORATION:

\_\_\_\_\_

Address of Witness:

Address of Contractor:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone Number of Witness:

Phone Number of Contractor:

\_\_\_\_\_

\_\_\_\_\_

Fax Number: \_\_\_\_\_

Cell Number: \_\_\_\_\_

The Corporation of the Town of Fort Frances

per: \_\_\_\_\_

per: \_\_\_\_\_

I/we have authority to bind the Town

**SCHEDULE 3**

**OCCUPATIONAL HEALTH AND SAFETY AGREEMENT**

The undersigned Tenderer, \_\_\_\_\_  
shall and does hereby agree and confirm that:

1. it is aware that the Town places great importance on the compliance with and adherence to the Occupational Health and Safety Act (the "Act") and the safety standards and policies of all authorities having jurisdiction;
2. all Work performed by the Tenderer or on its behalf shall be in conformity with the Act and the construction, health, and safety standards and policies of all authorities having jurisdiction;
3. the Tenderer and its employees, personnel, contractors, subcontractors, agents and/or representatives are knowledgeable and well versed in and with the requirements of, the Act and the safety procedures required for during the performance and completion of the Work;
4. all persons involved with the Work shall be required to wear proper safety equipment at all times; and
5. the Tenderer shall be solely responsible for, and the Tenderer shall not hold nor seek to hold the Town responsible in any way for, any violations of the Act or the failure of the Tenderer to comply with and adhere to the safety standards and policies of any and all authorities having jurisdiction.

SIGNATURE OF CONTRACTOR:

\_\_\_\_\_  
Witness to signature of Tenderer

\_\_\_\_\_  
If a corporation, the person signing has authority to bind such corporation

Print name of Witness:  
\_\_\_\_\_

PRINT NAME AND TITLE OF PERSON SIGNING:  
\_\_\_\_\_

IF A CORPORATION, PRINT PROPER NAME  
OF CORPORATION:

\_\_\_\_\_

Address of Witness:

Address of Contractor:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Phone Number of Witness:

Phone Number of Contractor:

\_\_\_\_\_

\_\_\_\_\_

Fax Number: \_\_\_\_\_

Cell Number: \_\_\_\_\_

The Corporation of the Town of Fort Frances  
per:

\_\_\_\_\_

per:

\_\_\_\_\_

I/we have authority to bind the Town

Date: \_\_\_\_\_, 2023.

## **SCHEDULE 4- SPECIFICATIONS FOR CURED-IN-PLACE PIPE (CIPP)**

### **1. INTRODUCTION**

1.1 It is the intent of this specification to provide for the reconstruction of pipelines and conduits by the installation of a resin-impregnated flexible tube, which is tightly formed to the original conduit. The resin is cured using either hot water under hydrostatic pressure or steam pressure within the tube. The Cured-In-Place Pipe (CIPP) will be continuous and tight fitting. The work shall be started by a mutually agreed upon start date between the Town and the Tenderer.

### **2. SCOPE OF WORK – MAP IN APPENDIX A AND CCTV REPORTS IN APPENDIX B**

#### **2.0 Third Street West ROW between Armit Ave. and Crowe Ave. SL02026 & SL02027**

Average Depth of Main: 3.5 – 3.8m  
Approximate Length: 222m  
Existing Pipe Material: CLP  
Pipe Diameter: 450mm  
No. of Service Connections: 4 capped & 4 active

#### **2.1 Minnie Avenue between Second Street East and Third Street East SL03039**

Average Depth of Main: 2.8 – 2.9m  
Approximate Length: 103m  
Existing Pipe Material: 2m VCT & 101m CMP  
Pipe Diameter: 300mm  
No. of Service Connections: 0

#### **2.2 Armit Avenue CN Crossing SL02083**

Average Depth of Main: 3.5 – 3.6m  
Approximate Length: 58m  
Existing Pipe Material: AC  
Pipe Diameter: 300mm  
No. of Service Connections: 0

#### **2.3 Christie Avenue CN Crossing SL02094**

Average Depth of Main: 3.8 – 4.0m  
Approximate Length: 38m  
Existing Pipe Material: CLP  
Pipe Diameter: 300mm  
No. of Service Connections: 1 active

#### **2.4 Victoria Avenue CN Crossing SL02101**

Average Depth of Main: 2.9 – 3.0m  
Approximate Length: 87m  
Existing Pipe Material: CLP  
Pipe Diameter: 225mm  
No. of Service Connections: 6 capped & 4 active

### **3. SPECIAL PROVISIONS**

**3.1** Three of the sanitary sewer main sections cross under the CN Rail ROW and 3 active rail lines. The Town of Fort Frances has engaged CN on this project and they have confirmed that a Work Permit will be required to be submitted to CN for the above mentioned project. The Town will complete the work permit forms and submit on behalf of the Town and Contractor.

**3.2** Attached in Appendix C is CN's safety procedures for when working in proximity to a railway which all contractors must abide by. No crossing of the rail lines by the contractor's employees will be permitted through the duration of the work.

### **4. REFERENCED DOCUMENTS**

**4.1** This specification references standards from the American Society for Testing and Materials, such as: ASTM F1216 (Rehabilitation of Existing Pipelines and Conduits by the Inversion and Curing of a Resin-Impregnated Tube), ASTM F1743 (Rehabilitation of Existing Pipelines and Conduits by Pulled-in-Place Installation of Cured-in-Place Thermosetting Resin Pipe (CIPP)), ASTM D5813 (Cured-in-Place Thermosetting Resin Sewer Piping Systems), ASTM D790 (Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials), and D2990 (Tensile, Compressive, and Flexural Creep and Creep-Rupture of Plastics) which are made a part hereof by such reference and shall be the latest edition and revision thereof. In case of conflicting requirements between this specification and these referenced documents, this specification will govern.

### **5. PRODUCT, MANUFACTURER/INSTALLER QUALIFICATION REQUIREMENTS**

**5.1** Since sewer products are intended to have a 50-year design life, and in order to minimize the Owner's risk, only proven products with substantial successful long-term track records will be approved. All trenchless rehabilitation products and installers must be pre-approved prior to the formal opening of proposals.

Products and Installers seeking approval must meet all of the following criteria to be deemed Commercially Acceptable:

5.1.1 For a Product to be considered Commercially Proven, a minimum of 20 successful wastewater collection system projects of a similar size and scope of work shall have been completed in Canada and documented to the satisfaction of the Owner to assure commercial viability.

5.1.2 For the Bidding Company to be considered as a Commercially Proven Installer, the Company must satisfy all insurance, financial, and bonding requirements of the Owner, and must have had at least 5 (five) years active experience in commercial installation. In addition, the Installer must have successfully installed at least 50,000 meters, and/or 400 manhole-to-manhole installations of the Cured-In-Place Product intended for use in wastewater collection systems in Canada with at least 20,000 meters installed within the Province of Ontario. Acceptable documentation of these minimum installations must be submitted to the Owner. Installer's project manager must have a minimum of 5

years of CIPP installation experience, while under the employment of the Bidding Company.

5.1.3 Sewer rehabilitation products submitted for approval must provide third party test results supporting the structural performance (short-term and long-term) of the product and such data shall be satisfactory to the Owner. No product will be approved without independent third-party testing verification.

5.1.4 Both the rehabilitation manufacturing and installation processes shall operate under a quality management system which is third-party certified to ISO 9000 or other recognized third-party certified organization standards. Proof of certification shall be required for approval.

5.1.5 The owner authorizes the use of proven materials that serve to enhance the pipe performance specified herein. Proven materials have passed independent laboratory testing, not excluding long-term (10,000 hour) structural behavior testing and have been successfully installed to repair failing host pipes in Canada for at least 4 years. In addition to the aforementioned, the owner may require that the contractor demonstrate that the enhancements proposed exceed the specifications herein, prior to the installation of the enhanced material systems. This section in no way shall be interpreted as authorization to deviate from the minimum standard practices set forth herein.

5.1.6 The Bidding/Installing Company must own and operate its own permitted wet-out facility where the resin impregnation of the CIPP tube will be carried out. Documentation of such facility shall be submitted for pre-approval.

## **6. MATERIALS**

**6.1** Tube - The sewn Tube shall consist of one or more layers of absorbent non-woven felt fabric and meet the requirements of ASTM F1216, Section 5.1 or ASTM F1743, Section 5.2.1 or ASTM D 5813, Sections 5 and 6. The tube shall be constructed to withstand installation pressures, have sufficient strength to bridge missing pipe, and stretch to fit irregular pipe sections.

6.1.1 The wet-out Tube shall have a relatively uniform thickness that when compressed at installation pressures will equal or exceed the calculated minimum design CIPP wall thickness.

6.1.2 The Tube shall be manufactured to a size that when installed will tightly fit the internal circumference and length of the original pipe. Allowance should be made for circumferential stretching during installation.

6.1.3 The outside layer of the Tube shall be coated with an impermeable, flexible membrane that will contain the resin and allow the resin impregnation (wet out) procedure to be monitored.

6.1.4 The Tube shall contain no intermediate or encapsulated elastomeric layers. No material shall be included in the Tube that may cause delamination in the cured CIPP. No dry or unsaturated layers shall be evident.

6.1.5 The wall color of the interior pipe surface of CIPP after installation shall be a relatively light reflective color so that a clear detailed examination with closed circuit television inspection equipment may be made.

6.1.6 Seams in the Tube shall be stronger than the non-seamed felt material.

6.1.7 The Tube shall be marked at regular intervals along its entire length, not to exceed 1.5m. Such markings shall include the Manufacturers name or identifying symbol. The tubes must be manufactured in Canada and/or the USA.

**6.2** Resin - The resin system shall be a corrosion resistant polyester, vinyl ester, or epoxy and catalyst system that when cured within the tube create a composite that satisfies the requirements of ASTM F1216, ASTM D5813 and ASTM F1743, including the physical properties therein, and those which are to be utilized in the submitted and approved design of the CIPP for this project. The resin shall produce a CIPP that will comply with the structural and chemical resistance requirements of this specification.

## **7. STRUCTURAL REQUIREMENTS**

**7.1** The CIPP shall be designed as per ASTM F1216, Appendix X.1. The CIPP design shall assume no bonding to the original pipe wall.

**7.2** The Contractor must have performed long-term testing for flexural creep of the CIPP pipe material installed by his Company. Such testing results are to be used to determine the long-term, time dependent flexural modulus to be utilized in the product design. This is a performance test of the materials (Tube and Resin) and general workmanship of the installation and curing as defined within the relevant ASTM standard. A percentage of the instantaneous flexural modulus value (as measured by ASTM D790 testing) will be used in design calculations for external buckling. The percentage, or the long-term creep retention value utilized, will be verified by this testing. Retention values exceeding 50% of the short-term test results shall not be applied unless substantiated by qualified third-party test data to the Owner's satisfaction. The materials utilized for this project shall be of a quality equal to or better than the materials used in the long-term test with respect to the initial flexural modulus used in the CIPP design.

**7.3** The Enhancement Factor 'K' to be used in 'Partially Deteriorated' Design conditions shall be assigned a value of 7.

**7.4** The layers of the cured CIPP shall be uniformly bonded. It shall not be possible to separate any two layers with a probe or point of a knife blade so that the layers separate cleanly or the probe or knife blade moves freely between the layers. If the layers separate during field sample testing, new samples will be required to be obtained from the installed pipe. Any reoccurrence may cause rejection of the work.

**7.5** The cured pipe material (CIPP) shall conform to the structural properties, as listed below.

## MINIMUM CIPP PHYSICAL PROPERTIES

<u>Property</u>	<u>Test Method</u>	<u>Cured Polyester min. per ASTM F1216</u>	<u>Composite Enhanced Resin</u>
Flexural Modulus (Initial)	ASTM D790	1,724 MPa (250,000 psi)	2,757 MPa (400,000 psi)
Flexural Strength	ASTM D790	31 MPa (4,500 psi)	31 MPa (4,500 psi)

**7.6** The required structural CIPP wall thickness shall be based as a minimum, on the physical properties in Section 5.5, or greater values if substantiated by independent lab testing and in accordance with the design equations in the Appendix X1. Design Considerations of ASTM F1216, and the following design parameters:

Design Safety Factor (Typically value = 1.5 to 2)	= 2.0
Retention Factor for Long-Term Flexural Modulus to be used in Design (As determined by long-term tests described in section 5.2 and approved by the Owner)	= 50%
Ovality* (Calculated from (X1.1 of ASTM F1216)	= 2%
Enhancement Factor, K	= 7 (Per Section 5.3)
Groundwater Depth (Above invert of existing pipe) *	= Local conditions (m)
Soil Depth (Above crown of existing pipe) *	= Local Conditions (m)
Soil Modulus **	= 1920 kg/m <sup>3</sup> (120 pcf)
Soil Density **	= 6.89 MPa (1000 psi)
Live Load **	= H20 Highway
Design Condition (Partially or Fully deteriorated) ***	= FD

\* Denotes information, which can be provided here or in inspection videotapes or project construction plans. Multiple lines segments may require a table of values.

\*\* Denotes information required only for fully deteriorated design conditions.

\*\*\* Based on review of video logs, conditions of pipeline can be fully or partially deteriorated.

(See ASTM F1216 Appendix) The Owner will be sole judge as to pipe conditions and parameters utilized in design.

**7.7** Any layers of the tube that are not saturated with resin prior to insertion into the existing pipe shall not be included in the structural CIPP wall thickness computation.

## **8. TESTING REQUIREMENTS**

**8.1** Chemical Resistance - The CIPP shall meet the chemical resistance requirements of ASTM F1216, Appendix X2. CIPP samples for testing shall be of tube and resin system similar to that proposed for actual construction. It is required that CIPP samples with and without plastic coating meet these chemical-testing requirements.

**8.2** Hydraulic Capacity - Overall, the hydraulic cross-section shall be maintained as large as possible. The CIPP shall have a minimum of the full flow capacity of the original pipe before rehabilitation. Calculated capacities may be derived using a commonly accepted roughness coefficient for the existing pipe material taking into consideration its age and condition.

**8.3** CIPP Field Samples - When requested by the Owner, the Contractor shall submit test results from field installations of the same resin system and tube materials as proposed for the actual installation. These test results must verify that the CIPP physical properties specified in Section 7 have been achieved in previous field applications. Samples for this project shall be made and tested as described in Section 10.1.

## **9. WORK SCHEDULE**

**9.1** A preliminary construction schedule should be included with the tender with a completion date for all the work by September 15, 2023. The schedule shall include a realistic time frame for all tasks.

**9.2** The Contractor must establish a detailed work schedule to be supplied to the Town's Contract Administrator for approval prior to the commencement of the work.

**9.3** The progress of the work shall be carried out according to this agreed schedule without delays within the control of the Contractor.

**9.4** Any changes in scheduling must include a minimum notification of 24 hours.

**9.5** If the weather does not permit the work to be completed as scheduled, the Contractor will complete the work on the next day that meets the weather requirements. The Town's Contract Administrator will be responsible for making the final decision whether to proceed or delay due to weather conditions.

**9.6** The Town reserves the right to cancel any work scheduled and reschedule it at a later date due to unforeseen circumstances. The Town will provide 24 hours' notice (if possible) of any cancellation.

## **10. PROJECT DOCUMENTATION**

**10.1** Upon completion of the work, the following is a list of project documentation and forms that should be delivered to the Town's Contract Administrator by the Contractor:

10.1.1 Print out from the coating rig.

10.1.2 Pre- and post- CCTV inspection digital files and reports.

## **11. INSTALLATION RESPONSIBILITIES FOR INCIDENTAL ITEMS**

**11.1** It shall be the responsibility of the Owner to locate and designate all manhole access points open and accessible for the work and provide rights-of-access to these locations. If a street must be closed to traffic because of the orientation of the sewer, the Owner shall institute the actions necessary to provide access during this for the mutually agreed time period. The Owner shall also provide free access to water hydrants for cleaning, installation and other process related work items requiring water. The contractor shall supply backflow devices for installation onto the hydrants.

**11.2** Cleaning of Sewer Lines - The Contractor, when required, shall remove all internal debris out of the sewer line that will interfere with the installation of the CIPP. The Owner shall also provide a dumpsite for all debris removed from the sewers during the cleaning operation. Unless stated otherwise, it is assumed this site will be at or near the sewage treatment facility to which the debris would have arrived in absence of the cleaning operation. Any hazardous waste material encountered during this project will be considered as a changed condition.

**11.3** Bypassing Sewage - The Contractor, when required, shall provide for the flow of sewage around the section or sections of pipe designated for repair. Plugging the line at an existing upstream manhole and pumping the flow into a downstream manhole or adjacent system shall make the bypass. The pump(s) and bypass line(s) shall be of adequate capacity to accommodate the sewage flow. The Owner may require a detail of the bypass plan to be submitted.

**11.4** Inspection of Pipelines - Inspection of pipelines shall be performed by experienced personnel trained in locating breaks, obstacles and service connections using close circuit television (CCTV) inspection techniques. The pipeline interior shall be carefully inspected to determine the location of any conditions that may prevent proper installation of CIPP. These shall be noted and corrected. A digital video and suitable written log for each line section shall be produced for later reference by the Owner.

**11.5** Post-Lining Inspection of Pipelines - A CCTV Camera system will be used to fully inspect the lining to ensure proper coverage. This work will be completed by the Contractor.

11.5.1 A record of the post-lining CCTV inspection shall be kept by the Contractor and a digital copy provided to the Town's Contract Administrator for their records.

11.5.2 Post lining inspection should ensure that pipe ends are free of defects (which may promote water ingress between the coating and the pipe) and that all active service connections are clear and operational.

11.5.3 Any service connections that are shown to be plugged or restricted must be cut out by the Contractor. Any damage to the service connection or the lining caused by the reinstatement process will require immediate corrective action at the contractors expense.

11.5.4 Any remediation must be reviewed and signed off by the Contractor and the Town's Contract Administrator. A re-inspection must then follow.

**11.6** Line Obstructions - It shall be the responsibility of the Contractor to clear the line of obstructions such as solids and roots that will prevent the insertion of CIPP. If pre-installation inspection reveals an obstruction such as a protruding service connection, dropped joint, or a collapse that will prevent the installation process, that was not evident on the pre-bid video and it cannot be removed by conventional sewer cleaning equipment, then the Contractor shall make a point repair excavation to uncover and remove or repair the obstruction. Such excavation shall be approved in writing by the Owner's representative prior to the commencement of the work and shall be considered as a separate pay item.

**11.7** Public Notification - The Contractor shall make every effort to maintain sewer service usage throughout the duration of the project. In the event that a connection will be out of service, the longest period of no service shall be 8 hours. A public notification program shall be implemented, and shall as a minimum, require the Contractor to be responsible for contacting each home or business connected to the sanitary sewer and informing them of the work to be conducted, and when the sewer will be off-line. The Contractor shall also provide the following:

- A. Written notice to be delivered to each home or business the day prior to the beginning of work being conducted on the section, and a local telephone number of the Contractor they can call to discuss the project or any potential problems.
- B. Personal contact with any home or business, which cannot be reconnected within the time stated in the written notice.

**11.8** The Contractor shall be responsible for confirming the locations of all branch service connections prior to installing the CIPP.

## **12. INSTALLATION**

**12.1** CIPP installation shall be in accordance with ASTM F1216, Section 7, or ASTM F1743, Section 6, with the following modifications:

12.1.1 Resin Impregnation - The quantity of resin used for tube impregnation shall be sufficient to fill the volume of air voids in the tube with additional allowances for polymerization shrinkage and the potential loss of resin during installation through cracks and irregularities in the original pipe wall, as applicable.

12.1.2 Tube Insertion – The wet-out tube shall be positioned in the pipeline using either inversion or a pull-in method as defined within relevant ASTM standards previously stipulated. If pulled into place, a power winch or its equivalent should be utilized and care should be exercised not to damage the tube as a result of pull-in friction. The tube should be pulled-in or inverted through an existing manhole or approved access point and fully extend to the next designated manhole or termination point.

12.1.3 Temperature gauges shall be placed between the tube and the host pipe's invert position to monitor the temperatures during the cure cycle.

12.1.4 Curing shall be accomplished by utilizing hot water under hydrostatic pressure or air/steam pressure in accordance with the manufacturer's recommended cure schedule. Once the inversion has started, pressure shall be maintained between the minimum and maximum pressures until fully cured and cooled down. A cool-down process shall be conducted that complies with the resin manufacturer's specification.

### **13. REINSTATEMENT OF BRANCH SERVICE CONNECTIONS**

**13.1** It is the intent of these specifications that branch service connections to buildings be re-opened without excavation, utilizing a remotely controlled cutting device, monitored by CCTV. The Contractor shall certify a minimum of two complete functional cutters plus key spare components are on the job site before each installation or are in the immediate area of the jobsite and can be quickly obtained. Unless otherwise directed by the Owner or his authorized representative, all active laterals will be reinstated. No additional payment will be made for excavations for the purpose of reopening connections and the Contractor will be responsible for all costs and liability associated with such excavation and restoration work.

### **14. INSPECTION**

**14.1** CIPP samples shall be prepared for each installation designated by the owner/engineer or approximately 20% of the project's installations. Pipe physical properties will be tested in accordance with ASTM F1216 or ASTM F1743, Section 8, using either method proposed. The flexural properties must meet or exceed the values listed in the table on page 4 of this specification, Table 1 of ASTM F1216 or the values submitted to the Owner/engineer by the contractor for this project's CIPP wall design, whichever is greater.

**14.2** Wall thickness of samples shall be determined as described in paragraph 8.1.6 of ASTM F1743. The minimum wall thickness at any point shall not be less than 87½% of the submitted minimum design wall thickness as calculated in paragraph 7.6 of this document.

**14.3** Visual inspection of the CIPP shall be in accordance with ASTM F1743, Section 8.6.

### **15. CLEAN-UP**

**15.1** Upon acceptance of the installation work and testing, the Contractor shall restore the project area affected by the operations to a condition at least equal to that existing prior to the work.




**16. PAYMENT**

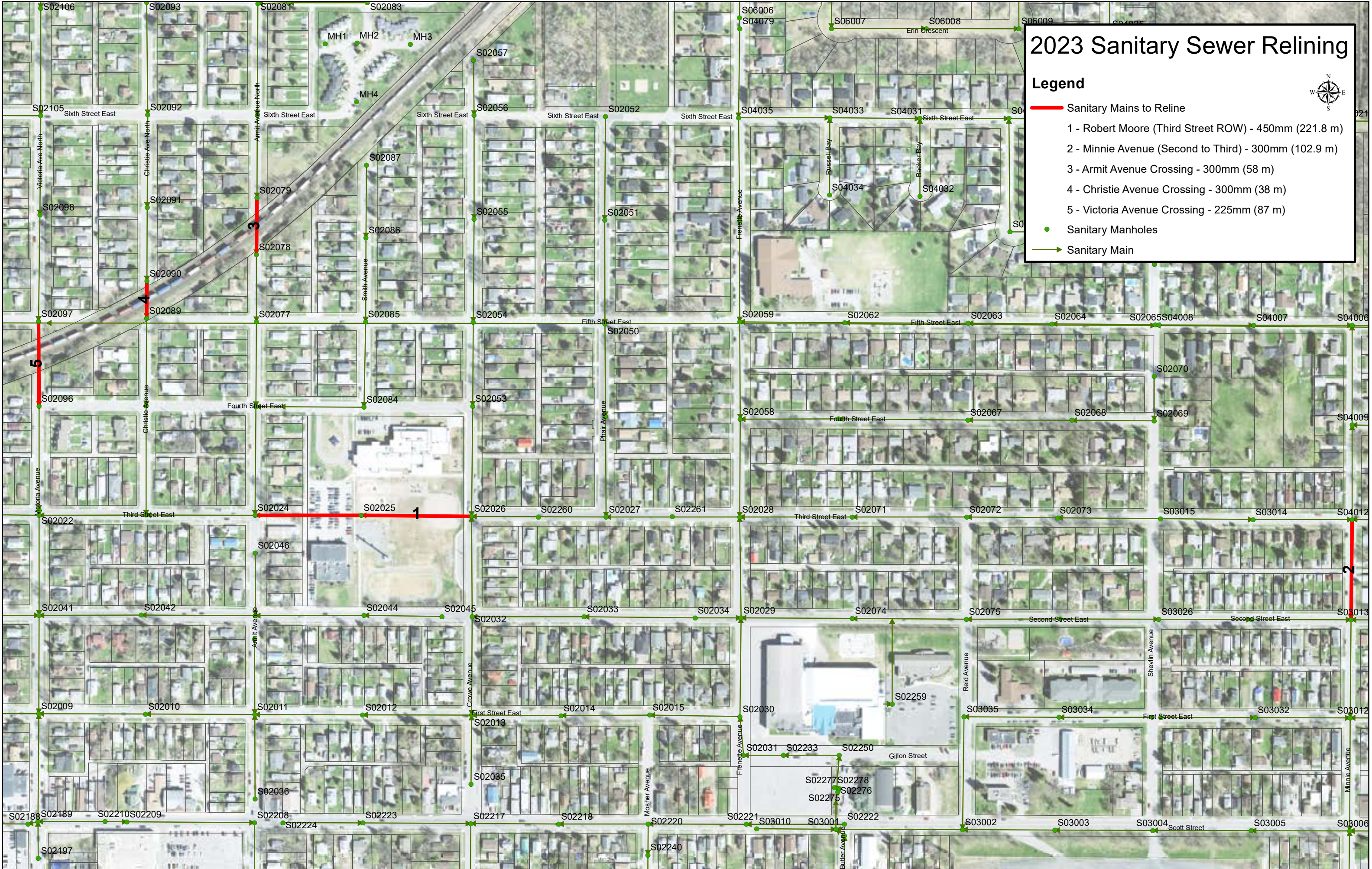
**16.1** Payment for the work included in this section will be in accordance with the prices set forth in the proposal for the quantity of work performed. Progress payments will be made monthly based on the work performed during that period.

**Appendix A – MAP OF SANITARY SEWER MAIN LOCATIONS TO BE LINED  
(HIGHLIGHTED IN RED)**

# 2023 Sanitary Sewer Relining

## Legend

-  Sanitary Mains to Reline
- 1 - Robert Moore (Third Street ROW) - 450mm (221.8 m)
- 2 - Minnie Avenue (Second to Third) - 300mm (102.9 m)
- 3 - Armit Avenue Crossing - 300mm (58 m)
- 4 - Christie Avenue Crossing - 300mm (38 m)
- 5 - Victoria Avenue Crossing - 225mm (87 m)
-  Sanitary Manholes
-  Sanitary Main



**Appendix B – MOST RECENT CCTV REPORTS OF SECTIONS BEING LINED**



Cambrian Vacuum Corp.  
 3144 Arthur St.  
 Rosslyn ON P7K 0P5  
 Phone: (807) 935-2829  
 Fax: (807) 935-2838

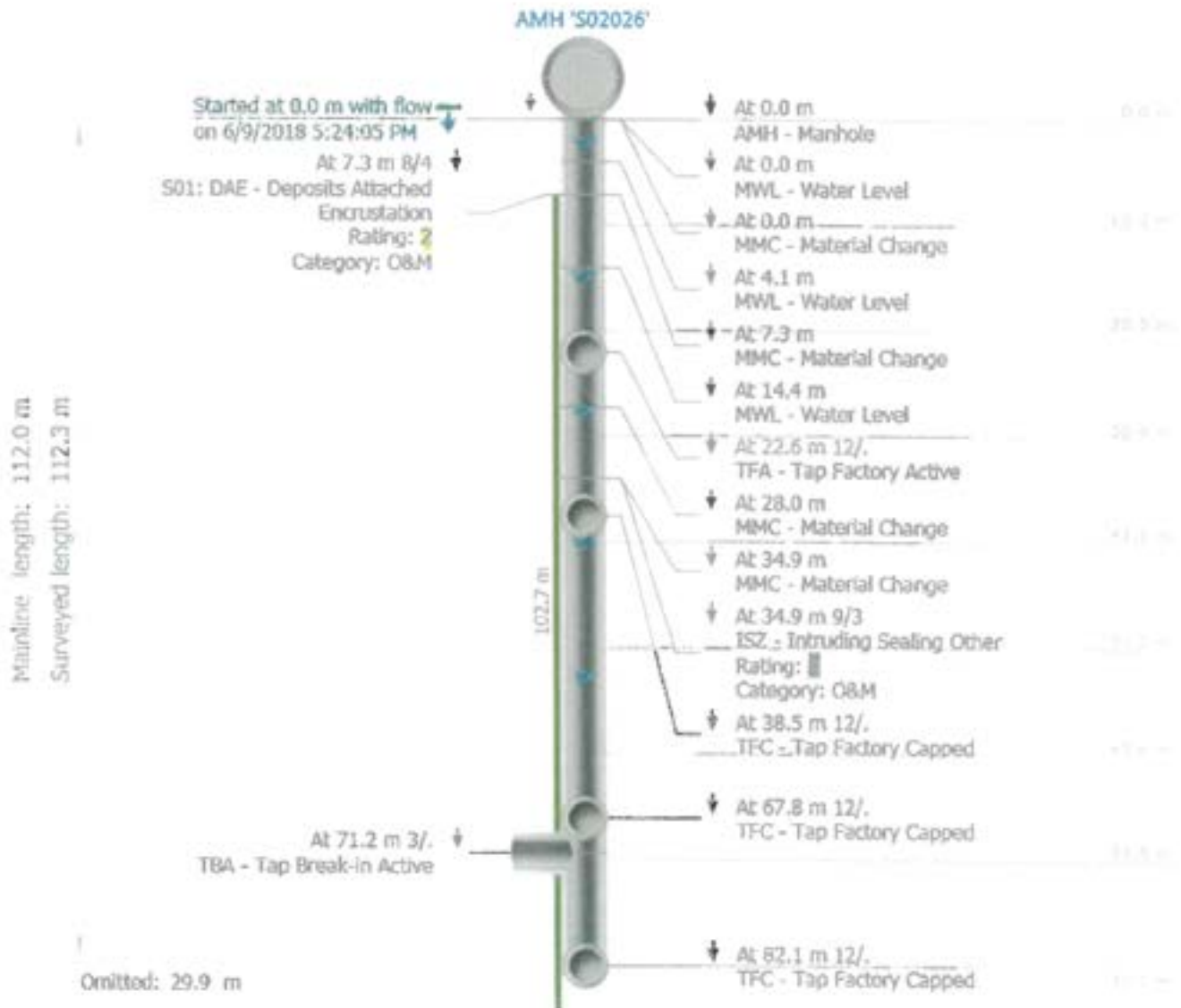
## Main Inspections Summary

### 2018-FortFrances-3rd-St-E

Mainline ID	End date/time	Surveyed by	Start MH	Finish MH	Material	Height	Total length	Length
SL02027	6/9/2018 6:49 PM	JT	S02026	S02025	VCP	450 mm	112.0 m	112.3 m
SL02026	6/9/2018 8:44 PM	JT	S02025	S02024	VCP	450 mm	108.0 m	108.4 m
<b>Sub-Total</b>							<b>220.00 m</b>	<b>220.66 m</b>
<b>Total</b>							<b>220.00 m</b>	<b>220.66 m</b>

## Main Inspections Pipe Run

Project name:	Mainline ID:	City:	Street:
<b>2018-FortFrances-3rd-St-E</b>	<b>SL02027</b>	<b>Fort Frances</b>	<b>Third Street East</b>
Start date/time:	Direction:	Weather:	Location code:
<b>6/9/2018 5:24 PM</b>	<b>D</b>	<b>1</b>	<b>C</b>
Shape:	Material:	Height:	Width:
<b>C</b>	<b>VCP</b>	<b>450 mm</b>	<b>450 mm</b>



Project name: 2018-FortFrances-3rd-St-E  
Mainline ID: SL02027

Start date/time: 6/9/2018 5:24 PM

Direction: D

Weather:

1



Some observations have distance greater than the pipe length

Project name: Mainline ID:  
**2018-FortFrances-3rd-St-E SL02027**

Start date/time:  
**6/9/2018 5:24 PM**

Direction:  
**D**

Weather:  
**1**

---

Stopped at 112.3 m with flow  
on 6/9/2018 6:49:04 PM

↓ At 112.3 m  
AMH - Manhole

## Main Inspections and Scoring

Mainline ID: <b>SL02027</b>	City: <b>Fort Frances</b>	Street: <b>Third Street East</b>	Project name: <b>2018-FortFrances-3rd-St-E</b>
Upstream MH No: <b>S02026</b>	Downstream MH No: <b>S02025</b>	Start date/time: <b>6/9/2018 5:24 PM</b>	End date/time: <b>6/9/2018 6:49 PM</b>
Shape: <b>C</b>	Material: <b>VCP</b>	Height: <b>450 mm</b>	Width: <b>450 mm</b>
Total length: <b>112.0 m</b>	Length surveyed: <b>112.3 m</b>	Purpose: <b>F</b>	Work order no.:
Surveyed by: <b>JT</b>	Weather: <b>1</b>	Status: <b>Completed</b>	

Additional info:

From MH On Crowe To MH @ Robert Moore Yard

### Scores

Calculated at: 6/9/2018 6:49:05 PM

Grade	Segment Grade	Structural:			O&M:				Overall:	
		Pipe Rating	Quick Rating	Pipe Rating Index	Segment Grade	Pipe Rating	Quick Rating	Pipe Rating Index	Pipe Rating	Pipe Rating Index
1	0	0	0000	0.00	0	137	312L	2.01	137	2.01
2	0				134					
3	0				3					
4	0				0					
5	0				0					

### Observations

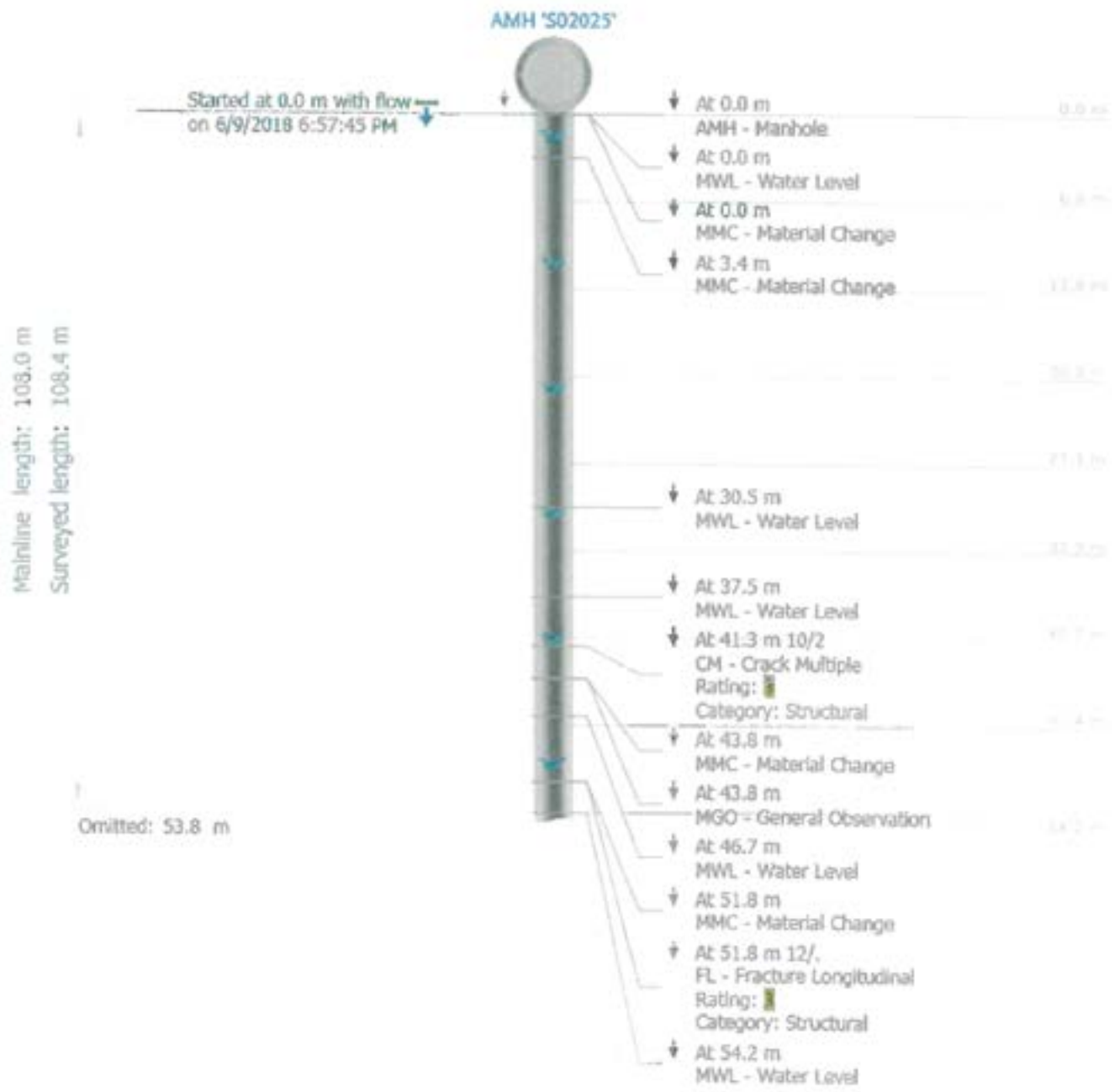
Distance	Dir.	Length	From/To	Code	Modifier	Rating
0.0 m	D		/	AMH		
0.0 m	D		/	MWL		
0.0 m	D		/	MMC		
4.1 m	D		/	MWL		
7.3 m	D		/	MMC		
7.3 m	D		8 / 4	DAE		2
14.4 m	D		/	MWL		
22.6 m	D		12 /	TFA		
28.0 m	D		/	MMC		
34.9 m	D		/	MMC		
34.9 m	D		9 / 3	ISZ		3
38.5 m	D		12 /	TFC		
67.8 m	D		12 /	TFC		
71.2 m	D		3 /	TBA		
82.1 m	D		12 /	TFC		
91.0 m	D		/	MWL		

## Observations

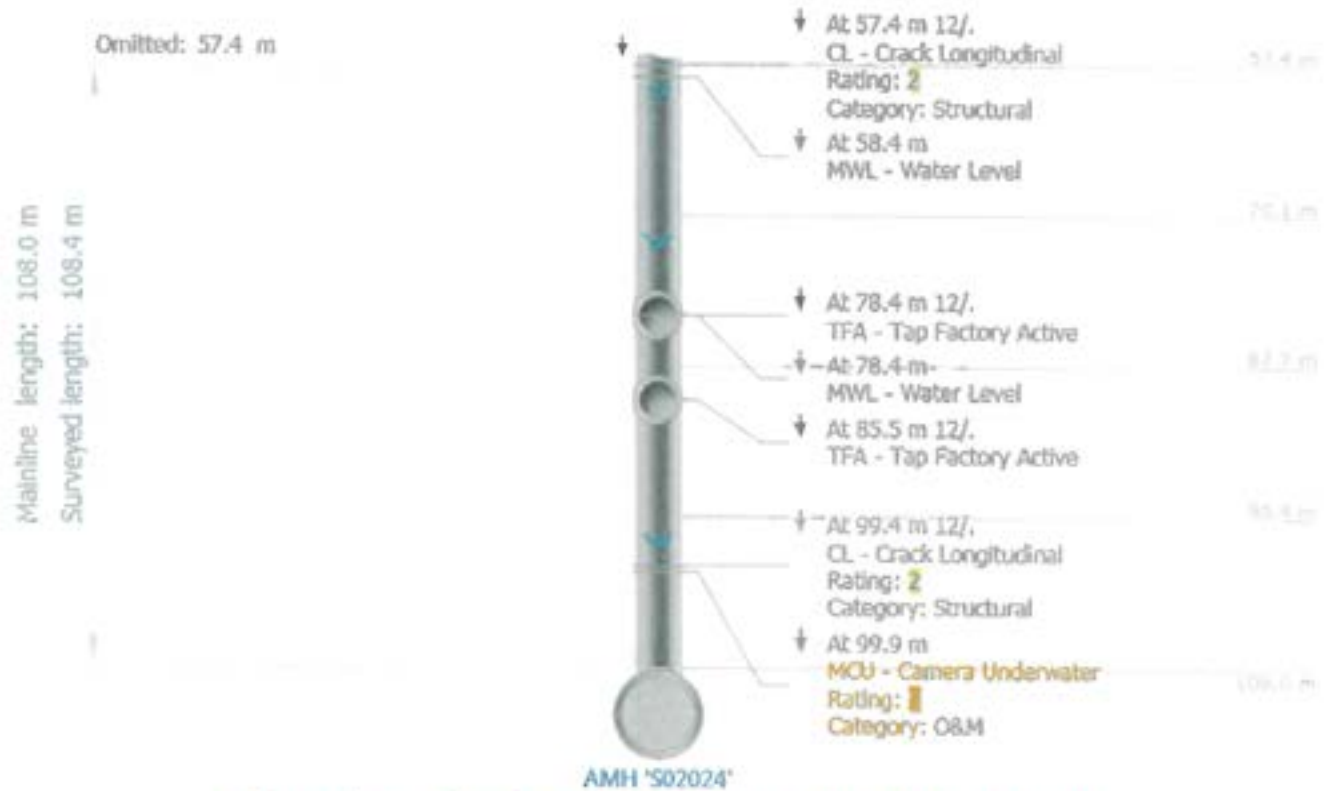
Distance	Dir.	Length	From/To	Code	Modifier	Rating
99.5 m	D		12 /	TFC		
100.8 m	D		/	MMC		
102.6 m	D		/	MMC		
110.0 m	D		8 / 4	DAE		2
112.3 m	D		/	AMH		

# Main Inspections Pipe Run

Project name: <b>2018-FortFrances-3rd-St-E</b>	Mainline ID: <b>SL02026</b>	City: <b>Fort Frances</b>	Street: <b>Third Street East</b>
Start date/time: <b>6/9/2018 6:57 PM</b>	Direction: <b>D</b>	Weather: <b>1</b>	Location code: <b>Y</b>
Shape: <b>C</b>	Material: <b>VCP</b>	Height: <b>450 mm</b>	Width: <b>450 mm</b>



Weather:  
1



Some observations have distance greater than the pipe length

Project name: Mainline ID:  
**2018-FortFrances-3rd-St-E SL02026**

Start date/time:  
**6/9/2018 6:57 PM**

Direction:  
**D**

Weather:  
**1**

---

Stopped at 108.4 m with flow ↓  
on 6/9/2018 8:44:18 PM

↑ At 108.4 m  
AMH - Manhole

# Main Inspections and Scoring

Mainline ID: <b>SL02026</b>	City: <b>Fort Frances</b>	Street: <b>Third Street East</b>	Project name: <b>2018-FortFrances-3rd-St-E</b>
Upstream MH No: <b>S02025</b>	Downstream MH No: <b>S02024</b>	Start date/time: <b>6/9/2018 6:57 PM</b>	End date/time: <b>6/9/2018 8:44 PM</b>
Shape: <b>C</b>	Material: <b>VCP</b>	Height: <b>450 mm</b>	Width: <b>450 mm</b>
Total length: <b>108.0 m</b>	Length surveyed: <b>108.4 m</b>	Purpose: <b>F</b>	Work order no.:
Surveyed by: <b>JT</b>	Weather: <b>1</b>	Status: <b>Completed</b>	

Additional info:

From MH @ Robert Moore To MH @ Armit

## Scores

Calculated at: 6/9/2018 8:44:19 PM

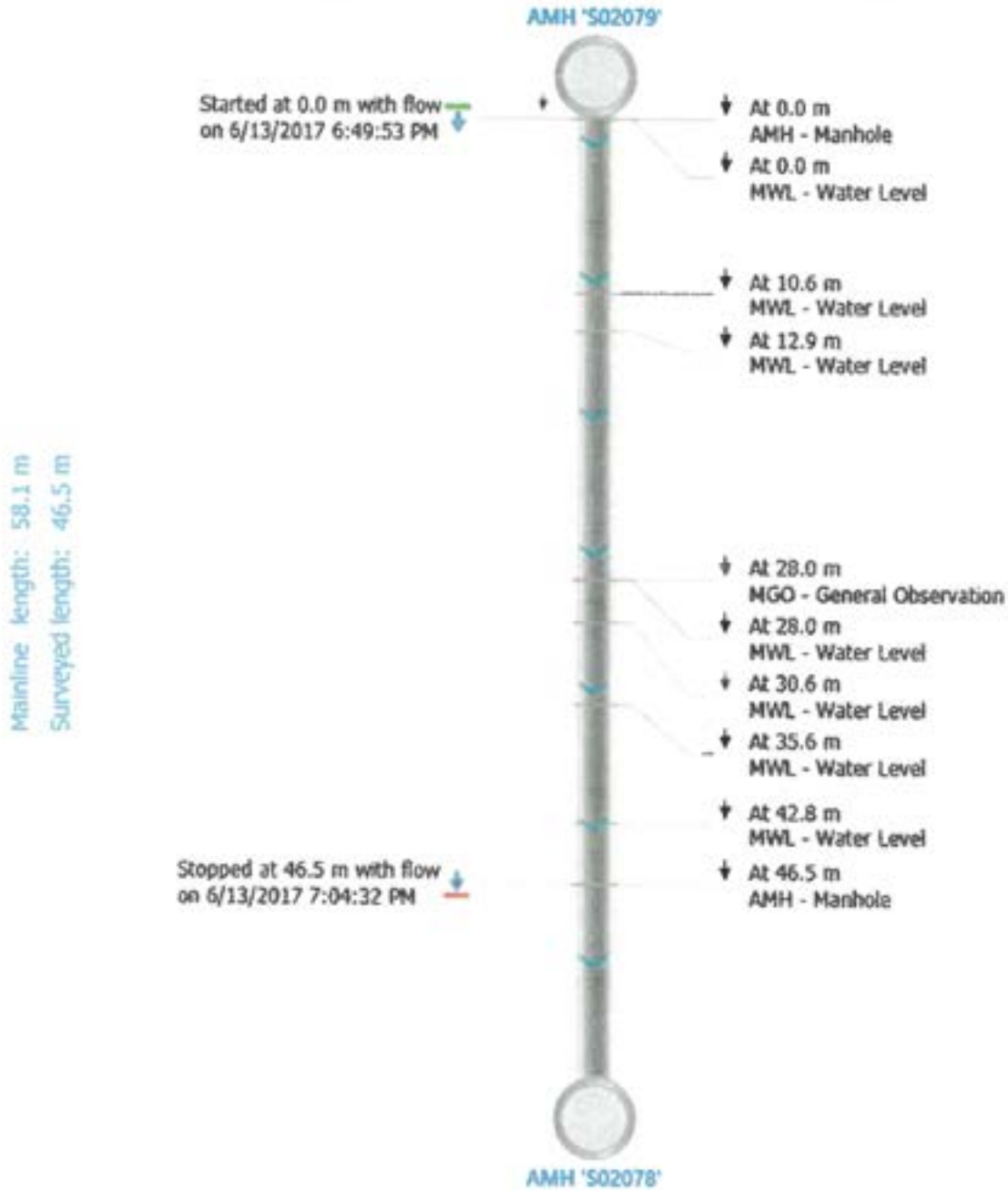
Grade	Structural:				O&M:				Overall:	
	Segment Grade	Pipe Rating	Quick Rating	Pipe Rating Index	Segment Grade	Pipe Rating	Quick Rating	Pipe Rating Index	Pipe Rating	Pipe Rating Index
1	0	10	3222	2.50	0	4	4100	4.00	14	2.80
2	4				0					
3	6				0					
4	0				4					
5	0				0					

## Observations

Distance	Dir.	Length	From/To	Code	Modifier	Rating
0.0 m	D		/	AMH		
0.0 m	D		/	MWL		
0.0 m	D		/	MMC		
3.4 m	D		/	MMC		
30.5 m	D		/	MWL		
37.5 m	D		/	MWL		
41.3 m	D		10 / 2	CM		3
43.8 m	D		/	MMC		
43.8 m	D		/	MGO		
46.7 m	D		/	MWL		
51.8 m	D		/	MMC		
51.8 m	D		12 /	FL		3
54.2 m	D		/	MWL		
57.4 m	D		12 /	CL		2
58.4 m	D		/	MWL		
78.4 m	D		12 /	TFA		
78.4 m	D		/	MWL		
85.5 m	D		12 /	TFA		
99.4 m	D		12 /	CL		2
99.9 m	D		/	MCU		4
108.4 m	D		/	AMH		

# Main Inspections Pipe Run

Project name:	Mainline ID:	City:	Street:
<b>2017-FortFrances-Armit Ave.N</b>	<b>SL02083</b>	<b>Fort Frances</b>	<b>Armit Ave.N</b>
Start date/time:	Direction:	Weather:	Location code:
<b>6/13/2017 6:49 PM</b>	<b>D</b>	<b>1</b>	
Shape:	Material:	Height:	Width:
<b>C</b>	<b>AC</b>	<b>300 mm</b>	<b>300 mm</b>



# Main Inspections and Scoring

Mainline ID: <b>SL02083</b>	City: <b>Fort Frances</b>	Street: <b>Armit Ave.N</b>	Project name: <b>2017-FortFrances-Armit Ave.N</b>
Upstream MH No: <b>S02079</b>	Downstream MH No: <b>S02078</b>	Start date/time: <b>6/13/2017 6:49 PM</b>	End date/time: <b>6/13/2017 7:04 PM</b>
Shape: <b>C</b>	Material: <b>AC</b>	Height: <b>300 mm</b>	Width: <b>300 mm</b>
Total length: <b>58.1 m</b>	Length surveyed: <b>46.5 m</b>	Purpose: <b>F</b>	Work order no.:
Surveyed by: <b>JMG</b>	Weather: <b>1</b>	Status: <b>Completed</b>	
Additional info:			

## Scores

Calculated at: 6/13/2017 7:04:32 PM

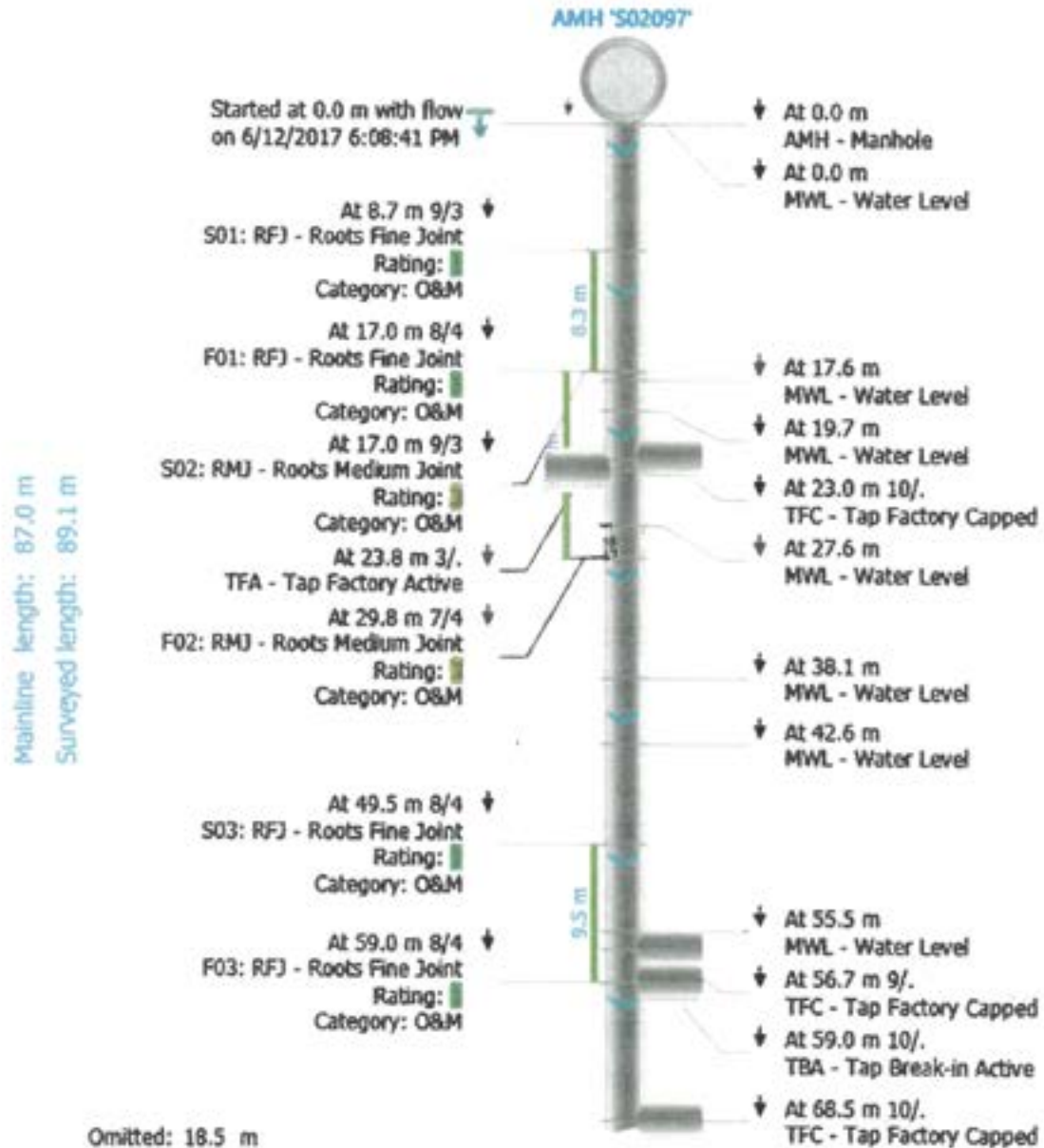
Grade	Structural:				O&M:				Overall:	
	Segment Grade	Pipe Rating	Quick Rating	Pipe Rating Index	Segment Grade	Pipe Rating	Quick Rating	Pipe Rating Index	Pipe Rating	Pipe Rating Index
1	0	0	0000	0.00	0	0	0000	0.00	0	0.00
2	0				0					
3	0				0					
4	0				0					
5	0				0					

## Observations

Distance	Dir.	Length	From/To	Code	Modifier	Rating
0.0 m	D		/	AMH		
0.0 m	D		/	MWL		
10.6 m	D		/	MWL		
12.9 m	D		/	MWL		
28.0 m	D		/	MGO		
28.0 m	D		/	MWL		
30.6 m	D		/	MWL		
35.6 m	D		/	MWL		
42.8 m	D		/	MWL		
46.5 m	D		/	AMH		

# Main Inspections Pipe Run

Project name: <b>2017-FortFrances-Victoria Ave.N</b>	Mainline ID: <b>SL02101</b>	City: <b>Fort Frances</b>	Street: <b>Victoria Ave.N</b>
Start date/time: <b>6/12/2017 6:08 PM</b>	Direction: <b>D</b>	Weather: <b>1</b>	Location code:
Shape: <b>C</b>	Material: <b>CT</b>	Height: <b>225 mm</b>	Width: <b>225 mm</b>

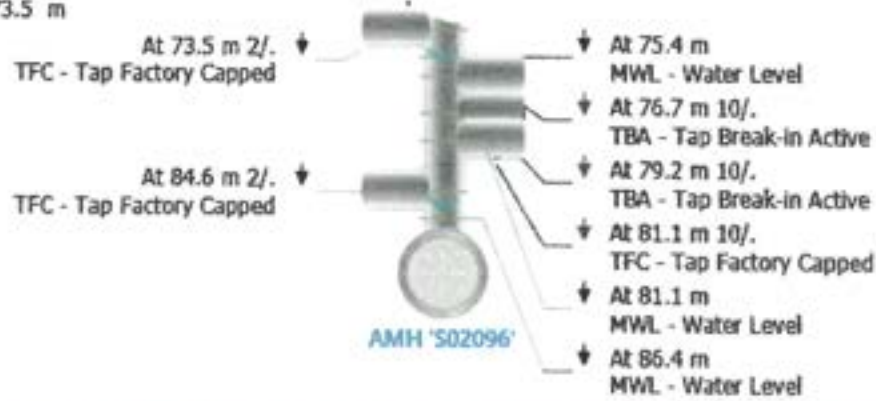


Weather:

1

Mainline length: 87.0 m  
Surveyed length: 89.1 m

Omitted: 73.5 m



Some observations have distance greater than the pipe length

Project name: Mainline ID:  
**2017-FortFrances-Victoria SL02101**  
**Ave.N**

Start date/time:  
**6/12/2017 6:08 PM**

Direction:  
**D**

Weather:  
**1**

---

Stopped at 89.1 m with flow  
on 6/12/2017 6:53:46 PM



At 88.8 m  
MWL - Water Level



At 89.1 m  
AMH - Manhole

# Main Inspections and Scoring

Mainline ID: <b>SL02101</b>	City: <b>Fort Frances</b>	Street: <b>Victoria Ave.N</b>	Project name: <b>2017-FortFrances-Victoria Ave.N</b>
Upstream MH No: <b>S02097</b>	Downstream MH No: <b>S02096</b>	Start date/time: <b>6/12/2017 6:08 PM</b>	End date/time: <b>6/12/2017 6:53 PM</b>
Shape: <b>C</b>	Material: <b>CT</b>	Height: <b>225 mm</b>	Width: <b>225 mm</b>
Total length: <b>87.0 m</b>	Length surveyed: <b>89.1 m</b>	Purpose: <b>F</b>	Work order no.:
Surveyed by: <b>JMG</b>	Weather: <b>1</b>	Status: <b>Completed</b>	
Additional info:			

## Scores

Calculated at: 6/12/2017 6:53:47 PM

Grade	Segment Grade	Structural:			O&M:				Overall:	
		Pipe Rating	Quick Rating	Pipe Rating Index	Segment Grade	Pipe Rating	Quick Rating	Pipe Rating Index	Pipe Rating	Pipe Rating Index
1	0	0	0000	0.00	11	35	381A	1.84	35	1.84
2	0				0					
3	0				24					
4	0				0					
5	0				0					

## Observations

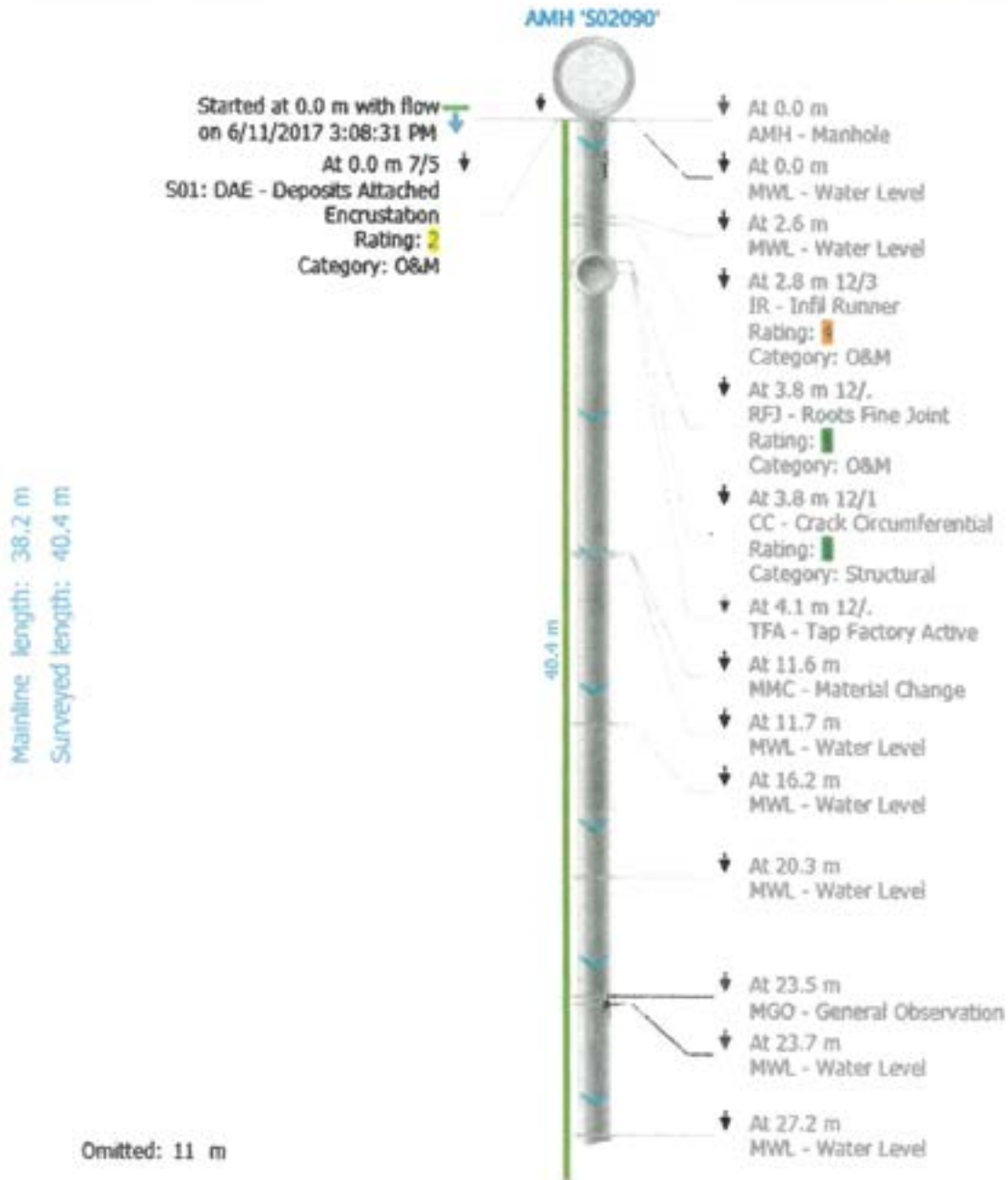
Distance	Dir.	Length	From/To	Code	Modifier	Rating
0.0 m	D		/	AMH		
0.0 m	D		/	MWL		
8.7 m	D		9 / 3	RFJ		1
17.0 m	D		8 / 4	RFJ		1
17.0 m	D		9 / 3	RMJ		3
17.6 m	D		/	MWL		
19.7 m	D		/	MWL		
23.0 m	D		10 /	TFC		
23.8 m	D		3 /	TFA		
27.6 m	D		/	MWL		
29.8 m	D		7 / 4	RMJ		3
38.1 m	D		/	MWL		
42.6 m	D		/	MWL		
49.5 m	D		8 / 4	RFJ		1
55.5 m	D		/	MWL		
56.7 m	D		9 /	TFC		
59.0 m	D		8 / 4	RFJ		1
59.0 m	D		10 /	TBA		
68.5 m	D		10 /	TFC		
73.5 m	D		2 /	TFC		

## Observations

Distance	Dir.	Length	From/To	Code	Modifier	Rating
75.4 m	D		/	MWL		
76.7 m	D		10 /	TBA		
79.2 m	D		10 /	TBA		
81.1 m	D		10 /	TFC		
81.1 m	D		/	MWL		
84.6 m	D		2 /	TFC		
86.4 m	D		/	MWL		
88.8 m	D		/	MWL		
89.1 m	D		/	AMH		

# Main Inspections Pipe Run

Project name:	Mainline ID:	City:	Street:
2017-FortFrances-Christie Ave.N	SL02094	Fort Frances	Christie Ave.N
Start date/time:	Direction:	Weather:	Location code:
6/11/2017 3:08 PM	D	1	
Shape:	Material:	Height:	Width:
C	VCP	300 mm	300 mm



Weather:

1

Mainline length: 38.2 m  
Surveyed length: 40.4 m  
Omitted: 33.2 m



Some observations have distance greater than the pipe length

Project name: Mainline ID:  
**2017-FortFrances-Christie SL02094**  
**Ave.N**

Start date/time:  
**6/11/2017 3:08 PM**

Direction:  
**D**

Weather:

**1**

---

At 40.4 m 7/5 ↓  
F01: DAE - Deposits Attached  
Encrustation  
Rating: 2  
Category: O&M  
Stopped at 40.4 m with flow ↓  
on 6/11/2017 7:27:58 PM ↓

↓ At 40.4 m  
AMH - Manhole

# Main Inspections and Scoring

Mainline ID: <b>SL02094</b>	City: <b>Fort Frances</b>	Street: <b>Christie Ave.N</b>	Project name: <b>2017-FortFrances-Christie Ave.N</b>
Upstream MH No: <b>S02090</b>	Downstream MH No: <b>S02089</b>	Start date/time: <b>6/11/2017 3:08 PM</b>	End date/time: <b>6/11/2017 7:27 PM</b>
Shape: <b>C</b>	Material: <b>VCP</b>	Height: <b>300 mm</b>	Width: <b>300 mm</b>
Total length: <b>38.2 m</b>	Length surveyed: <b>40.4 m</b>	Purpose:	Work order no.:
Surveyed by: <b>JMG</b>	Weather: <b>1</b>	Status: <b>Completed</b>	
Additional info:			

## Scores

Calculated at: 6/11/2017 7:27:58 PM

Grade	Segment Grade	Structural:			O&M:				Overall:	
		Pipe Rating	Quick Rating	Pipe Rating Index	Segment Grade	Pipe Rating	Quick Rating	Pipe Rating Index	Pipe Rating	Pipe Rating Index
1	1	1	1100	1.00	1	59	412D	2.03	60	2.00
2	0				54					
3	0				0					
4	0				4					
5	0				0					

## Observations

Distance	Dir.	Length	From/To	Code	Modifier	Rating
0.0 m	D		/	AMH		
0.0 m	D		/	MWL		
0.0 m	D		7 / 5	DAE		2
2.6 m	D		/	MWL		
2.8 m	D		12 / 3	IR		4
3.8 m	D		12 /	RFJ		1
3.8 m	D		12 / 1	CC		1
4.1 m	D		12 /	TFA		
11.6 m	D		/	MMC		
11.7 m	D		/	MWL		
16.2 m	D		/	MWL		
20.3 m	D		/	MWL		
23.5 m	D		/	MGO		
23.7 m	D		/	MWL		
27.2 m	D		/	MWL		
33.2 m	D		/	MWL		
36.1 m	D		/	MMC		
36.9 m	D		/	MWL		
37.3 m	D		/	MGO		
37.3 m	D		/	MWL		

## Observations

Distance	Dir.	Length	From/To	Code	Modifier	Rating
40.4 m	D		/	AMH		
40.4 m	D		7 / 5	DAE		2

# Pipe summary and condition details



## Pipe identification

Pipe:	SLO3039
Direction of flow:	S04012 -> S03013

## Pipe location

Road:	MINNIE AVE	<u>UPSTREAM</u>	<u>DOWNSTREAM</u>
Crossroad:		Easting (X):	Easting (X):
Drainage Area:		Northing (Y):	Northing (Y):
City:	FORT FRANCES	Elevation (Z):	Elevation (Z):
Location:		GPS Accuracy:	
Location details:		Coordinate System:	
Owner:	FORT FRANCES	Vertical Datum:	
Road segment:			

## Pipe characteristics

Pipe Use:	Sanitary Sewage Pipe	Surveyed Length:	23.13
Height:	300	Total length:	
Width:		Joint length:	
Shape:	Circular	Rim/Inv.:	2.95
Material:	Corrugated Metal Pipe	Grade/Inv.:	
Lining:		Rim/Grade:	
Coating Method:		Rim/Inv.:	3.12
Year Constructed:		Grade/Inv.:	
Year renewed:		Rim/Grade:	

## Additional details

Inspection Status:	Complete Inspection	Surveyed by:	LEE PIPER
Date:	10/05/2019 10:13 AM	Certificate Number:	U07180703002223
Project:		Reviewed By:	
Customer:	FORT FRANCES 18-796	Reviewer Certificate:	
PO number:		Pre-Cleaning:	Light Cleaning
Work Order:		Date cleaned:	
Purpose:		Media Label:	
Weather:		Unit of measurement:	Metric
Flow control:		Sheet Number:	
Used Technology:		Additional information:	redo another video with more flushing as per city.

Structural rating	O&M rating	Overall rating	Failure
Peak: 4	Peak: 2	Peak: 4	Consequence: 4.4
Quick rating: 443C	Quick rating: 2800	Quick rating: 443C	Likelihood: 4.4
Score: 82	Score: 30	Score: 112	Risk:
Index: 3.2	Index: 2	Index: 2.7	

## Additional information

redo another video with more flushing as per city.
--

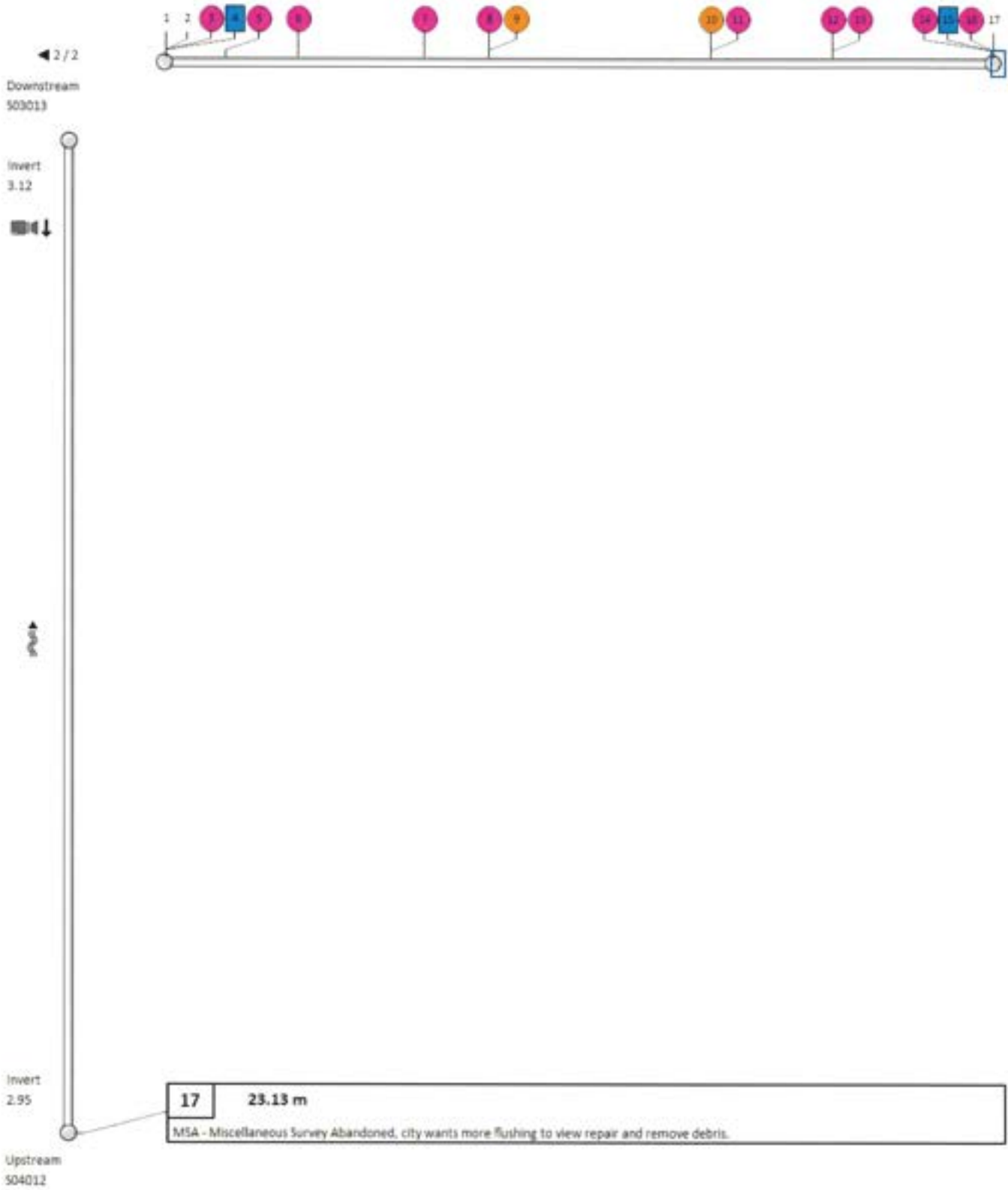
## Other information

Information 1:	Information 6:
Information 2:	Information 7:
Information 3:	Information 8:
Information 4:	Information 9:
Information 5:	Information 10:

# Pipe summary and condition details



# Pipe summary and condition details



# Pipe summary and condition details



## Pipe Identification

Pipe:	SLO3039-1
Direction of flow:	S04012 --> S03013

## Pipe location

Road:	MINNIE AVE	<u>UPSTREAM</u>	<u>DOWNSTREAM</u>
Crossroad:		Easting (X):	Easting (X):
Drainage Area:		Northing (Y):	Northing (Y):
City:	FORT FRANCES	Elevation (Z):	Elevation (Z):
Location:		GPS Accuracy:	
Location details:		Coordinate System:	
Owner:	FORT FRANCES	Vertical Datum:	
Road segment:			

## Pipe characteristics

Pipe Use:	Sanitary Sewage Pipe	Surveyed Length:	101.53
Height:	300	Total length:	
Width:		Joint length:	
Shape:	Circular	Rim/Inv.:	2.95
Material:	Corrugated Metal Pipe	Grade/Inv.:	
Lining:		Rim/Grade:	
Coating Method:		Rim/Inv.:	3.12
Year Constructed:		Grade/Inv.:	
Year renewed:		Rim/Grade:	

## Additional details

Inspection Status:	Complete Inspection	Surveyed by:	LEE PIPER
Date:	10/05/2019 12:05 PM	Certificate Number:	U07180703002223
Project:		Reviewed By:	
Customer:	FORT FRANCES 18-796	Reviewer Certificate:	
PO number:		Pre-Cleaning:	Heavy Cleaning
Work Order:		Date cleaned:	10/05/2019
Purpose:		Media Label:	
Weather:		Unit of measurement:	Metric
Flow control:		Sheet Number:	
Used Technology:	CCTV	Additional information:	

Structural rating	O&M rating	Overall rating	Failure
Peak: 5	Peak: 3	Peak: 5	Consequence:
Quick rating: 5543	Quick rating: 312M	Quick rating: 5543	Likelihood: 5.5
Score: 340	Score: 143	Score: 483	Risk:
Index: 2.9	Index: 2	Index: 2.6	

## Additional information

--

## Other information

Information 1:	Information 6:
Information 2:	Information 7:
Information 3:	Information 8:
Information 4:	Information 9:
Information 5:	Information 10:

# Pipe summary and condition details



# Pipe summary and condition details



# Pipe summary and condition details



## Pipe identification

Pipe:	SLO3039
Direction of flow:	S04012 -> S03013

## Pipe location

Road:	MINNIE AVE	<u>UPSTREAM</u>	<u>DOWNSTREAM</u>
Crossroad:		Easting (X):	Easting (X):
Drainage Area:		Northing (Y):	Northing (Y):
City:	FORT FRANCES	Elevation (Z):	Elevation (Z):
Location:		GPS Accuracy:	
Location details:		Coordinate System:	
Owner:	FORT FRANCES	Vertical Datum:	
Road segment:			

## Pipe characteristics

Pipe Use:	Sanitary Sewage Pipe	Surveyed Length:	17.45
Height:	300	Total length:	
Width:		Joint length:	
Shape:	Circular	Rim/Inv.:	2.95
Material:	Corrugated Metal Pipe	Grade/Inv.:	
Lining:		Rim/Grade:	
Coating Method:		Rim/Inv.:	3.12
Year Constructed:		Grade/Inv.:	
Year renewed:		Rim/Grade:	

## Additional details

Inspection Status:	Complete Inspection	Surveyed by:	LEE PIPER
Date:	10/05/2019 9:06 AM	Certificate Number:	U07180703002223
Project:		Reviewed By:	
Customer:	FORT FRANCES 18-796	Reviewer Certificate:	
PO number:		Pre-Cleaning:	Light Cleaning
Work Order:		Date cleaned:	10/05/2019
Purpose:		Media Label:	
Weather:		Unit of measurement:	Metric
Flow control:		Sheet Number:	
Used Technology:	CCTV	Additional information:	msa for 90% sag.

Structural rating	O&M rating	Overall rating	Failure
Peak: 3	Peak: 2	Peak: 3	Consequence:
Quick rating: 3800	Quick rating: 2A00	Quick rating: 3B2A	Likelihood: 4
Score: 45	Score: 24	Score: 69	Risk:
Index: 3	Index: 2	Index: 2.6	

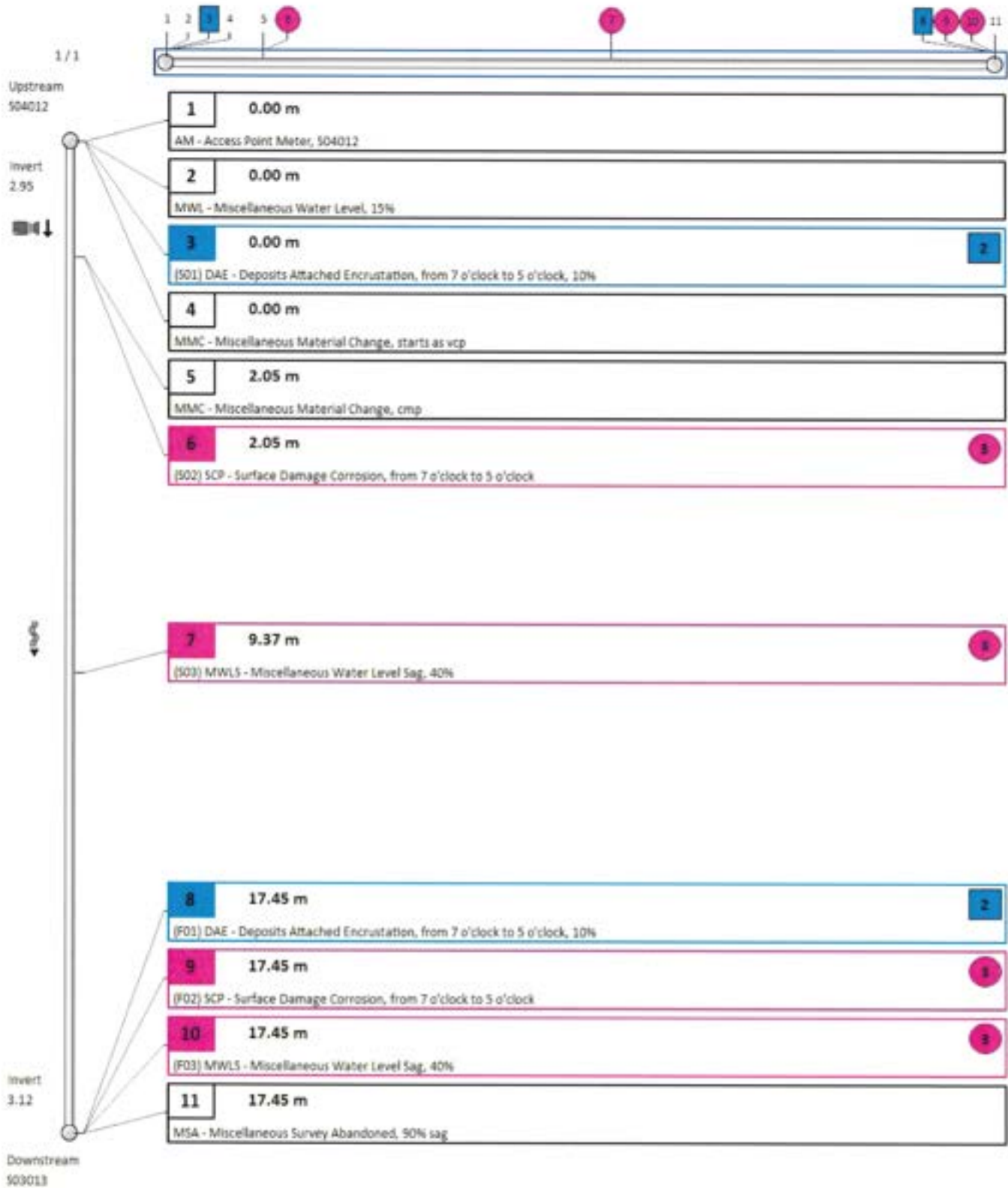
## Additional information

msa for 90% sag.
------------------

## Other information

Information 1:	Information 6:
Information 2:	Information 7:
Information 3:	Information 8:
Information 4:	Information 9:
Information 5:	Information 10:

# Pipe summary and condition details



**Appendix C – CN Safety Guidelines for Contractors and Non-CN Personnel**



## **SAFETY GUIDELINES FOR CONTRACTORS AND NON-CN PERSONNEL**

### **Introduction**

This document is a condensed version of CN's mandatory safety training for Contractors and non-CN personnel. It should be noted that this document is not a substitute for the mandatory safety training for Contractors and non-CN personnel including eRailsafe or Contractor Orientation as the case may be. For the purposes of this document "Contractor" may also apply to individuals on CN property, whether under contract to CN or not.

Contractor's employees or subcontractors performing work within the CN right-of-way must familiarize themselves with CN's Contractor Safety Package, complete a Contractor Orientation Course and must be registered on the Contractor Completion Database which can be found at the following website: [www.contractororientation.com](http://www.contractororientation.com). If you have been contracted by CN and are completing work on behalf of CN, you are required to ensure anyone working on the project within CN right of way, or within 30 feet of the nearest rail (whichever is greater), has completed eRailSafe. This course can be found at the following website: [www.erailsafecanada.com](http://www.erailsafecanada.com)

These guidelines are not to be considered as a substitute for the applicable government regulations. These guidelines are the minimum requirement and must be exceeded where the hazard or government regulations warrant.

It is not possible to deal with every hazard in this one document. These guidelines are to be employed in conjunction with Government Acts, Regulations, local Ordinances, CN Safety and Operating Rules Standards, and good judgment to facilitate the safe completion of the work.

Additional information regarding safe work practices may be included in contract documents and specifications. In the event of a discrepancy between these guidelines and the contract, the contract shall govern.

### **CN's Basic Safety Requirements**

The Contractor's attention is drawn to the following highlights from CN's "Basic Safety Requirements":

1. Take all reasonable measures to ensure the protection of employees, customers, property, and the general public.
2. Address promptly all environmental and safety concerns.
3. Analyze all accidents or incidents resulting in, or having potential for, loss or injury, and take remedial action promptly to prevent recurrence.
4. Require all persons granted access to Company property to comply with applicable Risk Management policies, standards, and procedures.
5. Provide employees with appropriate training to enable them to work safely.
6. Inspect personal protective equipment (PPE), tools and equipment before use to ensure that they are in good working condition.
7. Contractor's employees or subcontractors performing work within the CN right-of-way must familiarize themselves with CN's Contractor Safety Package, complete a Contractor Orientation Course and must be registered on the Contractor Completion Database which can be found at the following website: <https://contractororientation.com> If you have been contracted by CN and are completing work on behalf of CN, you are required to ensure anyone working on the project within CN right of way has completed eRailSafe. This can be found at the following website: [www.erailsafecanada.com](http://www.erailsafecanada.com)

#### ***CN's Risk Management policy is premised on the following:***

- to work in a safe manner is a condition of employment/Contract;
- all accidents or incidents resulting in loss or injury are preventable;
- it is possible to eliminate or safeguard all operating conditions that may result in injury, property damage, or other losses;
- employees will be provided with appropriate training to enable them to work safely;
- employees and management must work jointly in efforts to promptly resolve and improve safety and health conditions in the workplace.

## **GENERAL RULES AND INFORMATION**

***“Expect the movement of a train, engine, rail car or track unit at any time, on any track, in either direction. Protect yourself and others from the movement of trains, engines, railcars and track units and do not expect them to stop.”***

If any situation arises which affects the safe movement of trains, CN must be contacted immediately at:

**1-800-465-9239.**

Alternatively, contact CN's Network Operations Centre in Edmonton at:

**1-800-661-3963.**

Before any digging is performed on CN property, proper clearance and instructions must be obtained through the Information Technology Command Centre (ITCC Network Management Centre) at:

**1-800-661-3687 or 1-800-NO1-FOTS.**

***In an emergency, any object waved violently by anyone on or near the track is a signal for trains to stop.***

Violation of CN's mandatory Contractor Safety training or contravention of these guidelines may result in the immediate removal of the Contractor or the offending personnel from CN property.

### **Compliance with Government Regulations**

Contractors shall follow all applicable Federal, Provincial, and Municipal Acts, Regulations, Laws and Codes, including but not limited to those related to the licensing of workers, occupational health and safety, transportation or handling of dangerous substances, inspection and certification of equipment. As CN is a federally regulated enterprise, Contractors are advised that work undertaken on CN right-of-way may be governed by Federal regulation.

The Contractor must become familiar with all applicable regulations and must ensure compliance by workers at the job site. Supplementary instructions may be issued by CN representatives from time to time.

### **Contractor's Responsibility**

1. Before entering upon CN right-of-way, the Contractor must have all documentation properly executed and available for review by CN personnel at the working site. (i.e. Permits, Licenses, Contract Documents, Contractor Safety Approved identification card and/or Waivers).
2. Daily briefings must be held at every work site to review the contents of these guidelines and any unique conditions at the site relating to safety. A record must be kept of such briefings by the Contractor's responsible person at the work site. Work site briefings must be updated regularly as the job conditions change
3. Unless explicitly permitted by CN, no equipment or vehicle may enter upon the operated right-of-way.
4. Unless explicitly permitted by CN, no work shall take place within thirty (30) feet of the nearest rail except in the presence of a CN Protecting Foreman. The CN Protecting Foreman is concerned only with the safe movement of trains and will not be responsible for the safety of the Contractor, the Contractor's personnel or the Contractor's equipment.
5. Contractor's personnel must not crawl under, climb over or pass through standing railway equipment.
6. Contractor's personnel must not cross a track within thirty (30) feet, of standing railway equipment.
7. CN has many power and/or communication cables buried within the CN right-of-way. The Contractor shall be sure of their location before making any excavation, driving stakes or otherwise penetrating the ground surface. In the event of any excavation work that strikes an underground cable adjacent to CN's track, the contractor must make immediate contact with CN
8. In accordance with CN's safety standards, Contractor's personnel must wear CN required personal protective equipment at all times while on CN right-of-way. Such equipment will include hard hats, safety glasses, reflective apparel, safety footwear (protective footwear shall meet or exceed CSA Z195 and/or ASTM F2413, shall cover and support the ankle and have a defined heel. In

Canada, the defined heel must be a minimum of 9 mm (3/8 inch) and shall not exceed 25 mm (1 inch). In the US, the defined heel must be a minimum of 12 mm (1/2 inch) and shall not exceed 25mm (1 inch). Boots must be equipped with laces, which must be laced to the top and tied. Hearing and respiratory protection and fall arrest equipment shall be worn where signs are posted or when a potential hazard exists.

9. No CN plant, signal, structure, equipment or property of any kind may be tampered with, modified or removed.
10. "Hi-rail" equipment shall only be operated on the track by personnel qualified in the latest version of the "Canadian Rail Operating Rules".
11. Horseplay, practical jokes, fighting or any other activity that may create a hazard will not be tolerated.
12. Contractor's personnel must immediately abide by instructions from CN personnel.

#### **Approaching Train**

1. On the approach of a train, the Protecting Person will communicate to the Contractor's Responsible Person, either by radio or by personal contact, that a train is approaching.
2. After receiving the train information from the Protecting Person, the Contractor's Responsible Person must ensure that all workers, equipment and materials are "Clear Of The Track" (as defined in 5.3.5. below) then communicate this to the Protecting Person.
3. The Protecting Person will not authorize any trains through the working limits nor authorize cancellation of protection before receiving confirmation that all workers have been alerted, stopped working and the track is clear of workers and machinery.
4. After the train has passed, no one is to foul or occupy the track until the Protecting Person has given the authorization. Authorization will be communicated to the Contractor's Responsible Person.

#### **Clear Of The Track**

To be Clear of the Track shall be defined as:

1. All work has been stopped.
2. All workers are made aware of the approaching train and route to be followed.
3. All workers, equipment and material have been positioned beyond the clearance limits or at any other location deemed safe by CN. (at least 5 meters (15 feet) from the nearest rail of the track on which the train is to pass with additional allowances for curvature and super elevation).
4. All off-track equipment by special approval less than 5 (15 feet) meters of the nearest rail has stopped working and operators have left their equipment.
5. All off-track equipment more than 5 meters (15 feet) from the nearest rail has stopped working. Operators may remain in their cabs unless directed otherwise by the Contractor's Responsible Person. All equipment must be properly secured against unintentional movement
6. All on-track equipment has been moved into the siding or other track as per the Protecting Person's instruction. Operators will leave their equipment unless directed otherwise by the Contractor's Responsible Person. All unattended equipment must be properly secured against unintentional movement
7. Booms, cranes or other similar equipment have been immobilized and the boom is parallel to the railway track(s), and clear of the nearest rail be 5 meters (15 feet)
8. Provided there is no possible way for the worker to become unintentionally foul of a passing train, and at the discretion of the CN Supervisor, workers may continue working.

## **POLICY TO PREVENT WORKPLACE ALCOHOL AND DRUG PROBLEMS**

### **Policy standards**

The Contractor, subcontractors, employees, suppliers and visitors must remain free from any adverse effects of alcohol or other drugs and conduct themselves in an appropriate manner while on CN business or premises. The Contractor must ensure that all those having access to the site adhere to the following standards when on CN business or premises, including vehicles and equipment:

1. No use, possession, distribution or sale of illegal drugs or drug paraphernalia.
2. No use, possession, distribution or sale of beverage alcohol or any form of alcohol.
3. Responsible use of prescribed and over-the-counter medications.
4. No distribution, offering or sale of prescription medications.
5. To report for duty and remain during the entire period of duty free of the negative effects of alcohol and other drugs, including the after effects of such use.

### **Consequences of violation**

Failure to meet these standards will be considered a breach of the contract. This may at CN's sole discretion, trigger the suspension or termination of the contract.

### **Policy violation procedures**

Where CN has reasonable grounds to believe any individual in the employ of the Contractor or a supplier is on duty in an unsafe condition or otherwise in violation of the Policy, or where during the preliminary phase of any investigation such an individual has been identified as being directly involved in the chain of acts or omissions leading up to an accident or incident:

1. CN will escort the individual(s) to a safe place.
2. CN will notify the Contractor or supplier.
3. The Contractor will investigate the situation.
4. The Contractor must satisfy CN that there has been no policy breach.
5. If a policy breach has occurred, the individual will not be allowed to continue providing services to CN without written permission from a CN official, and he/she will be required to adhere to any conditions governing his/her return.

### **Firearms**

Firearms (loaded or empty) are not permitted on CN property, except for CN Police officers and other designated persons performing authorized work and when authorized to do so. In all cases, any firearms must be accompanied with a written authorization from the Chief of CN Police and the person should have in his possession all pertinent government permits.

### **Explosives**

No explosives will be permitted on CN property without written CN approval.

### **Vehicles**

Contractor's vehicles on the site must be in safe operating condition. Operators must observe all site speed limits. Unattended vehicles must not be left running unnecessarily. Where they must be left running, the parking brake must be applied. The operator is responsible for the safety of all passengers and the stability of materials being transported.

All vehicles will be parked in a pre-determined area and where required, a designated Contractor entrance shall be used.

### **Smoking in the Workplace**

Smoking is not permitted in any CN interior workplace or motor vehicle.

## **Security**

Contractor's personnel will proceed directly to the Contractor's work location. Contractor's employees must remain at their designated work site and must not wander about the site.

The Contractor shall not permit persons other than the Contractor's personnel to enter the site without the prior written authority of the CN representative.

## **Emergency Evacuation Procedures**

Prior to commencing work, all Contractor's employees must be familiar with the emergency evacuation plan for that work site. The Contractor shall issue written emergency and rescue procedures to the Contractor's personnel and shall post such procedures on the job site.

## **Unsafe Conditions or Practices**

Contractors shall correct or report any unsafe conditions or practices they observe. All such conditions or practices shall be reported to the CN representative at the work site as soon as practical.

## **Reporting Accidents/Incidents**

All accidents/incidents occurring on CN property, that result in or had the potential of causing serious injury, lost work days, vehicle or property damage must be reported to the CN representative within twenty-four (24) hours. All such incidents will be fully investigated by the Contractor.

The Contractor shall subsequently provide a written report to CN (i.e. Company Officer assigned as Liaison to Contractor) within seven (7) days detailing the nature of the incident, the cause(s), regulatory authorities notified, and a specific action plan to prevent recurrence.

## **Treatment of Injured Personnel (Contractors)**

Contractors shall ensure the following is provided for their personnel as required by CN and in accordance with applicable government regulations:

1. Adequate first-aid supplies and equipment.
2. Qualified personnel to render first-aid treatment.

## **Audio and Visual Recording Equipment**

Cameras and audio-visual equipment are not permitted on CN property without prior approval. Use of personal electronic devices such as smart phones for the purpose of recording video, photographic or audio information is prohibited while on CN property.

## **Summary**

In conclusion, CN requires the full cooperation of the Contractor and the Contractor's employees with these guidelines and all other applicable regulations. Should there be any doubt as to the meaning or interpretation of these guidelines, consult with the CN representative responsible for the worksite.

## **Contractor Acknowledgement**

Contractor/Sub-contractor personnel must read and understand CN's "Safety Guidelines for Contractors and Non-CN Personnel". The Contractor/Sub-contractor must also follow the appropriate Contractor Safety training.