



# Invitation to Tender

CITY OF KENORA

## INVITATION TO TENDER / ADVERTISEMENT

Sealed Tenders  
for:

2025 City of Kenora Sewer and Water Reconstruction  
(the "Project")  
Tender Number: 411-431-001-25A

Will be received  
by:

**City of Kenora**  
(the "City")

at:

**1 Main Street South**  
**Kenora, ON P9N 3X2**  
**Attention: City Clerk**

Time and date for Tender Closing is:

11:00:00 a.m. CST/CDT on Thursday, April 17, 2025  
(the "Tender Closing")

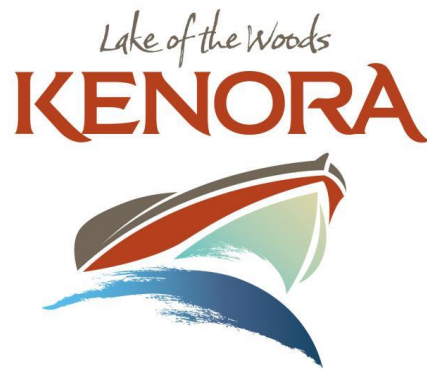
1. The work to be undertaken generally involves, but is not necessarily limited to:  
storm sewer and roadway reconstruction (the "Work") as set out on the list of drawings and specifications described as follows: **Refer to Section 16, Section 17, and Section 19 of Appendix Four – Contract, Specifications and Drawings of the Tender documents.**
2. The CITY's consultant for the Project is: **N/A**
3. The Successful Bidder shall achieve substantial performance of the Work for the Project by: **Refer to Article 13 of the Instructions to Tenderers.**
4. The drawings and specifications for the Project can be obtained from **MERX under the name '2025 City of Kenora Sewer and Water Reconstruction'**. Deposits paid to obtain the drawings and specifications will be refunded to unsuccessful bidder(s) at the discretion of the CITY.
5. All written inquiries regarding the technical aspects of the drawings and specifications for the Work shall be emailed to **Stefan Stiller, P.Eng, sstiller@kenora.ca**, however the bidder(s) acknowledge and agree that the CITY does not have an obligation to provide a response to any written inquiry and that it is in the sole and unfettered discretion of the CITY to provide any written response to a written inquiry. Telephone inquiries will not be replied to.
6. Submission of a tender by a Bidder gives the CITY the right to require the Bidder to execute the contract to perform the Work as set out within the tender documents. Tenders may not be withdrawn after the Tender Closing and will be irrevocable and open for acceptance by the CITY for a period of sixty (60) days following the end of the day of the Tender Closing. The Successful Bidder will be notified in writing of the award of the Tender when the CITY delivers a letter of intent to the Successful Bidder.

# INSTRUCTIONS TO TENDERERS

For

City of Kenora, Ontario

2025 Sewer and Water  
Reconstruction



2025 Sewer and Water Reconstruction

APRIL 2025

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## **1.0 BACKGROUND**

1.1 The City of Kenora (the “CITY”) is seeking tenders for **City of Kenora 2025 Sewer and Water Reconstruction** (the “Work”) as more particularly set out in Appendix “ONE” and Appendix “FOUR” attached to these Instructions to Tenderers. The Work includes the construction of the following:

- Ninth Street North from Mellick Avenue to Scramble Avenue: Surface, Water, Sanitary Sewer, Sanitary Force Main, and Storm Sewer works – approximately 210 metres;
- Mellick Avenue from 9<sup>th</sup> Street North to 10<sup>th</sup> Street North: Surface, Water, Sanitary Sewer, and Storm Sewer works – approximately 165 metres

## **2.0 SUBMISSION OF TENDERS**

2.1 The CITY will receive sealed tenders until: **11:00:00 a.m. CST Thursday, April 17, 2025** (“Tender Closing”).

2.2 Each Tender shall be addressed to the CITY in a sealed envelope clearly marked with the Tenderer’s name, address and tender number. The sealed envelope containing the Tender shall be delivered before the Tender Closing to the CITY in accordance with the Invitation to Tender and the Instructions to Tenderers at:

**City of Kenora  
1 Main Street South  
Kenora, ON P9N 3X2  
Attention: Heather Pihulak, City Clerk**

Emailed and faxed tenders will **NOT** be accepted and will be returned to the Tenderer.

2.3 Inquiries are permitted until **April 14<sup>nd</sup> at 4:00pm CST** and are to be directed to the below City Contact via email.

**Stefan Stiller, P.Eng – Project Engineer  
sstiller@kenora.ca**

2.4 In the event of a dispute or issue about whether or not a tender complies with the Instructions to Tenderers, the CITY reserves the right to retain and open a copy of the tender in question in order to seek and obtain a legal opinion in relation thereto. The opening of a tender does not in any way constitute an admission by the CITY as to the compliance, or not, of the subject tender.

2.5 In the event when circumstances require it, the CITY may not open the tender publicly and an Addendum will be issued altering this Article 2.0 to include only an email submission.

### **3.0 TENDER FORM AND UNIT PRICE SCHEDULE**

- 3.1 Each Tenderer shall submit a complete tender on the Tender Form and Unit Price Schedule which forms part of the Tender Documents with the blank spaces filled in. The tender sum must be written in words as well as figures, and must be for a sum in Canadian Dollars including all tariffs, freight, duties and taxes other than the Harmonized Sales Tax which must be shown as a separate amount unless otherwise specifically stipulated (hereinafter referred to as the "Tender Sum"). In the event of a discrepancy between an amount written in words and an amount written in figures, the amount written in words shall be deemed the intended amount. Tenders shall be written in English.
- 3.2 The Tender Form and Unit Price Schedule must be completed in their entirety. All blank spaces shall be filled with a numerical value or text, as applicable. The entry of "zero" or "\$0.00" in any field within the Tender Form or Unit Price Schedule shall be deemed an acceptable response and shall not, in and of itself, render the Tender incomplete.
- 3.3 Notwithstanding the foregoing, the CITY shall be entitled to accept a Tender in such form as the CITY in its sole and unfettered discretion deems acceptable irrespective of irregularities whether of a trivial or substantial nature, or whether the Tender is noncompliant in a trivial or substantial manner.
- 3.4 The CITY shall not be obligated to accept Tenders that are unsigned, incomplete, conditional, illegible, unbalanced, obscure, contain irregularities of any kind, or contain mathematical or calculation errors of any kind. On Unit Price Tenders, if there is a discrepancy found between the unit price and the extended amount, the unit price shall be deemed to represent the intention of the Tenderer. Discrepancies between words and figures will be resolved in favour of the words. Discrepancies between the indicated sum of any figures and the correct sum thereof will be resolved in favour of the correct sum. Any discrepancies between the Tender Form and a post Tender Closing submission required by the Tender Documents will be resolved in favour of the post Tender submission.
- 3.5 Tenders shall not be withdrawn, modified or clarified after being delivered in accordance with the Tender Documents unless such withdrawal, modification or clarification is made in writing and actually received by Heather Pihulak, City Clerk of the CITY prior to the Tender Closing. Any withdrawal, modification or clarification of the Tender must be followed by a letter of confirmation signed and sealed in the same manner as the Tender and delivered to the address for the CITY in the Invitation to Tender within 48 hours of the Notice of the Withdrawal, Modification or Clarification.

### **4.0 THE FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY ACT**

- 4.1 All documents submitted to the CITY will be subject to the protection and disclosure provisions of Ontario's *Freedom of Information and Protection of Privacy Act* ("FOIP"). FOIP allows persons a right of access to records in the CITY's custody or control. It also prohibits the CITY from disclosing the Tenderer's personal or business information where disclosure would be harmful to the Tenderer's business interests or would be an

unreasonable invasion of personal privacy as defined in sections 17 and 21 of *FOIP*. Tenderers are encouraged to identify what portions of their submissions are confidential and what harm could reasonably be expected from its disclosure. However, the CITY cannot assure Tenderers that any portion of the Tenderer's documents can be kept confidential under FOIP.

## **5.0 TENDER DOCUMENTS**

5.1 The documents for the tender are:

- Invitation to Tender
- Instructions to Tenderers
- Appendix One – Tender Form and Unit Price Schedule
- Appendix Two – Submission Documents
- Appendix Three – Tender Submission Checklist
- Appendix Four – Contract, Specifications and Drawings  
(hereinafter collectively referred to as the "Tender Documents")

By submitting its Tender, the Tenderer acknowledges and agrees that it has received and reviewed the Tender Documents.

## **6.0 VARIATION IN TENDER DOCUMENTS AND NO IMPLIED OBLIGATIONS**

- 6.1 The Tenderer shall carefully examine the Tender Documents. Any errors, omissions, discrepancies or clauses requiring clarification shall be reported in writing to the CITY at least 5 calendar days prior to the Tender Closing. Where necessary the CITY shall respond to reported errors, omissions, discrepancies or clauses requiring clarification by way of Addenda.
- 6.2 Should a Tenderer fail to report any such errors, omissions, discrepancies or clauses requiring clarification at least 5 calendar days prior to the Tender Closing, the CITY shall be the sole judge as to the intent of the Tender Documents.
- 6.3 No implied obligation of any kind by or on behalf of the CITY shall arise from anything in the Tender Documents, and the express covenants and agreements contained in the Tender Documents and made by the CITY, are and shall be the only covenants and agreements that apply.
- 6.4 Without limiting the generality of Article 6.3, the Tender Documents supersede all communications, negotiations, agreements, representations and warranties either written or oral relating to the subject matter of the Tender made prior to the Tender Closing, and no changes shall be made to the Tender Documents except by written Addenda.

## **7.0 ADDENDA**

- 7.1 Any changes to the Tender shall be in writing in the form of Addenda. Any Addenda issued to the Tender shall form part of the Tender Documents, whether or not the receipt of same has been acknowledged by a Tenderer, and the cost for doing the work therein shall be included in the Tender Sum. Verbal representations shall not be binding on the CITY nor form part of the Tender Documents. Technical inquiries into the meaning or intent of the Tender Documents must be submitted in writing to the person identified in Article 2.3 of the Instructions to Tenderers.

## **8.0 TENDER**

- 8.1 Tenders submitting Tenders shall be actively engaged in the line of work required by the Tender Documents and shall be able to refer to work of a similar nature performed by them. They shall be fully conversant with the general technical phraseology in the English language of the lines of work covered by the Tender Documents.
- 8.2 Each Tenderer shall review the Tender Documents provided by the CITY and confirm that it is in possession of a full set of Tender Documents when preparing its Tender.
- 8.3 Tenders shall be properly executed in full compliance with the following requirements:
- 8.3.1 The signatures of persons executing the Tender must be in their respective handwriting; and
  - 8.3.2 If the Tender the Tender is made by a limited company, the full name of the company shall be accurately printed immediately above the signatures of its duly authorized officers and the corporate seal shall be affixed;
  - 8.3.3 If the Tender is made by a partnership, the firm name or business name shall be accurately printed above the signature of the firm and the Tender shall be signed by a partner or partners who have authority to sign for the partnership;
  - 8.3.4 If the Tender is made by an individual carrying on business under the name other than its own, its business name together with its name shall be printed immediately above its signature or
  - 8.3.5 If the Tender is made by a sole proprietor who carries on business in its own name, the proprietor shall print its name immediately below its signature.
- 8.4 Tenders received from agents representing principals must be accompanied by a Power of Attorney signed by the said principals showing that the agents are duly authorized to sign and submit the Tender and have full power to execute the Contract on behalf of their principals. The execution of the Contract will bind the principals and have the same effect as if it were duly signed by the principals.

## **9.0 TENDER DEPOSIT**

- 9.1 The Tenderer is required to submit with its Tender, a Consent of Surety and a Bid Bond in a form acceptable to the CITY, or in lieu of a Bid Bond, a Tenderer may submit, along with a Consent of Surety, a certified cheque or an irrevocable letter of credit in favour of the CITY equal to 10% of the Tender Sum as a guarantee that, if awarded the contract for the Work, the Tenderer will execute a contract and the Labour and Material Payment, and Performance Bonds referred to in Article 10 within the specified time frames.
- 9.2 The Bid Bonds, certified cheques or irrevocable letters of credit of the unsuccessful Tenderers shall be returned as soon as possible after the Contract has been duly executed by the Successful Tenderer.
- 9.3 The CITY will not pay any interest on money furnished as security.
- 9.4 The Bid Bond and Consent of Surety shall be issued by a Surety Company licensed in the Province of Ontario and satisfactory to the CITY.

## **10.0 PERFORMANCE AND LABOUR AND MATERIAL BONDS**

- 10.1 The Successful Tenderer shall be required to furnish at its own expense a Performance Bond and Labour and Materials Payment Bond. For the purposes of this Article, both of these bonds shall be referred to as the "Bonds".
- 10.2 The Performance Bond shall guarantee the faithful performance of the Contract, and in default thereof, shall protect the CITY against any losses or damage arising by reason of failure of the Successful Tenderer to faithfully perform the Contract.
- 10.3 The Bonds are to be issued by a Surety Company licensed in the Province of Ontario and satisfactory to the CITY in the amount of 100% of the Contract Price for the Performance Bond and 50% of the contract price for the Labour and Materials Payment Bond.
- 10.4 The Performance Bond shall remain in force as a Maintenance Bond for the Warranty Period as defined in the Contract. For Contract values not including Harmonized Sales Tax greater than \$500,000 the Bonds must be provided using Form 31 and Form 32 under Section 85.1 of the Construction Act, Ontario.
- 10.5 The Bonds shall be in the form set out in the Tender Documents or in such other form as may be acceptable to the CITY.
- 10.6 The CITY may consider alternate forms of security in lieu of the Bonds. The Tenderer shall make known any alternative form of security it wishes the CITY to consider and obtain the CITY's approval prior to submitting a Tender.
- 10.7 The Successful Tenderer shall provide all required Bonds to the CITY no later than 5 working days after receipt of the Letter of Intent from the CITY provided in accordance with Article 17. The Bonds must be received prior to the execution of the contract.

- 10.8 The Successful Tenderer shall supply all required Bonds before any Work is undertaken by the Successful Tenderer.
- 10.9 No payment shall be made by the CITY to the Successful Tenderer for any of the Work performed by the Successful Tenderer until the required Bonds have been provided.

## **11.0 INSURANCE**

- 11.1 The Tender shall be accompanied by a Certificate of Insurance, certifying that the insurance as required by the Contract, is in place or, if the required insurance is not in place, by a Letter of Insurability or Undertaking of Insurance in standard form from the Tenderer's Insurance Broker certifying that the required insurance will be issued to the Tenderer if the Tenderer is the Successful Tenderer.
- 11.2 The Successful Tenderer shall be required to secure and maintain at its own expense the insurance provided for in the Contract.
- 11.3 The Successful Tenderer shall provide all required insurance to the CITY no later than 5 working days after receipt of a Letter of Intent from the CITY provided in accordance with Article 17.

## **12.0 WORK SCHEDULE**

- 12.1 The Tender shall be accompanied by a Work Schedule. The Work Schedule shall be in the form of a Gantt Chart and shall show dates of commencement and completion of various parts of the Work, ordering and delivery dates of product, phasing and timing for various subcontracts, and all other detailed information.

## **13.0 COMMENCEMENT AND COMPLETION OF THE WORK**

- 13.1 The Successful Tenderer shall commence the Work by May 1, 2025, and shall achieve substantial completion of the Work as defined in the contract by September 1, 2025.

## **14.0 SITE CONDITIONS**

- 14.1 The Tenderer is responsible for inspecting the site(s) of the Work and for making whatever inquiries or arrangements necessary for it to become fully informed of the nature of the site(s) of the Work, including the soil structure and topography of the site(s), and of the Work to be performed and all matters which may in any way affect the Work. Without limiting the foregoing, by the submission of its Tender, the Tenderer acknowledges that it has investigated and satisfied itself as to:

- 14.1.1 the nature of the Work;
  - 14.1.2 the location and all conditions relating to the location of the Work including, but not limited to, accessibility, general character, surface and sub-surface conditions, soil structure, utilities, road, uncertainties of seasonal weather and all other physical, topographical, geological and geographic conditions;
  - 14.1.3 the general character, conditions, laws and restrictions applicable to the Work that might affect the performance of the Work;
  - 14.1.4 all environmental risks, conditions, laws and restrictions applicable to the Work that might affect the Work; and
  - 14.1.5 the magnitude of the work required to execute and complete the Work.
- 14.2 The Tenderer is fully responsible for obtaining all information required for the preparation of its Tender and for the execution of the Work. The CITY is not responsible for undertaking any investigations to assist the Tenderer. Any information, plans, drawings, shop drawings or existing equipment or facilities, photos of the original construction, reports or other documents which are not included or referred to in the Tender Documents (the "Non-Tender Information"), form no part of this Tender. The CITY and the CITY's Consultants assume no responsibility of any kind whatsoever arising from or relating to its failure to include or refer to such Non-Tender Information. Tenderers who obtain or rely upon such Non-Tender Information or other documents, do so entirely at their own risk.
- 14.3 The Tenderer's obligation to become familiar with the information described in Article 14.1 is not lessened or discharged by reason of any technical reports, including soils reports or data, test hole drilling reports or other soils information, made available or supplied in conjunction with the tendering process. Any technical reports so provided are for information only and neither the CITY nor the CITY's Consultants accept or assume any responsibility for the contents or accuracy of such technical reports and the Tenderer agrees that the CITY, the CITY's Consultants and their representatives shall not be liable in any way to the Tenderer in respect of such technical reports. The Tenderer further agrees that it shall not rely upon any oral information provided to it by the CITY, the CITY's Consultants or their representatives.

## **15.0 PRIME COST AND CONTINGENCY SUMS**

- 15.1 The Tenderer shall include in its Tender Sum any prime cost sums or contingency sums. The Harmonized Sales Tax shall be shown as a separate amount.

## **16.0 PERMITS AND INSPECTIONS**

- 16.1 The Tenderer shall include in its Tender Sum the cost of permits and inspections required by any governmental or other authority having jurisdiction or as required to fully perform the Work in accordance with the Contract.

## **17.0 SUCCESSFUL TENDERER**

- 17.1 Award of Contract by the CITY occurs once the Tenderer receives a Letter of Intent duly executed by Stefan Stiller, P.Eng – Project Engineer of the CITY after Stefan Stiller, P.Eng – Project Engineer has been duly and legally authorized by the CITY to send such Letter of Intent.
- 17.2 Following the receipt of the Letter of Intent, the Successful Tenderer shall provide the Performance Bond and Labour and Material Payment Bond within the time required in Article 10.7. The Successful Tenderer shall also provide a Certificate of Insurance unless previously provided.
- 17.2.1 Upon the Successful Tenderer complying with the requirements of both Articles 17.2 and 17.4, the certified cheque or Bid Bond or irrevocable letter of credit, as the case may be, shall be returned to the Successful Tenderer.
- 17.2.2 If the Successful Tenderer fails to comply with either or both of the requirements of Articles 17.2 and 17.4, the certified cheque or Bid Bond or irrevocable letter of credit, as the case may be, shall be forfeited to the CITY as compensation for damages the CITY may suffer.
- 17.3 The forfeiture of a Successful Tenderer's certified cheque or Bid Bond or irrevocable letter of credit shall not be construed as a waiver of any rights or remedies which the CITY may have against such Tenderer for loss or damages incurred or suffered in excess of the amount of such certified cheque or Bid Bond or irrevocable letter of credit.
- 17.4 Within 5 working days of receipt of the Contract from the CITY, the Successful Tenderer shall duly execute the Contract and return the Contract to the CITY.

## **18.0 TENDER EVALUATION CRITERIA**

- 18.1 Each Tender will be evaluated on the basis of the criteria listed below and the CITY will have the sole and unfettered discretion to award up to the maximum number of points for each criteria as listed below. By submitting a Tender, the Tenderer acknowledges and agrees that the CITY has, and it is hereby entitled to exercise, the sole and unfettered discretion to award the points for the evaluation of the noted criteria.
- 18.2 By submitting its Tender, each Tenderer acknowledges and agrees that it waives any right to contest in any legal proceedings, the decision of the CITY to award points in respect of the criteria noted below. The criteria for evaluation are as follows:



18.2.1 The Tender will be evaluated on lowest price.

18.2.2 The City's selection of the successful Bidder be based on which Bidder has provided a Bid on terms which the City determines, in its sole and unfettered discretion, to be most beneficial or most advantageous to the City based on any criteria that may be employed by the City from time to time. The lowest or any Bid will not necessarily be accepted. After the selection of a Bidder, the City has, in its sole and unfettered discretion, the right to negotiate with that Bidder and, as part of that negotiation, to negotiate changes, amendments, or modifications to the Bid as submitted, without offering other Bidders the opportunity to amend their Bids. The City shall incur no liability to any Bidder as a result of these discussions, negotiations, or modifications. By submitting its Bid, each Bidder waives its right to contest in any action, application, case or legal proceeding (in any court) the decision of the City to conduct any negotiation or the decision by the City of which Bidder has submitted the most advantageous Bid. Both the City and the Bidder expressly agree and acknowledge that all statements made by either side in the course of any negotiation are without prejudice and strictly confidential.

18.2.3 The City reserves the right to accept a Bid other than the lowest Bid without stating reasons.

## **19.0 WORKERS' COMPENSATION**

19.1 Each Tenderer is to submit with its Tender, a letter of account from the Workers' Compensation Board – Ontario. This letter is to be current and must be dated no earlier than 21 calendar days prior to the Tender Closing.

19.2 The Tenderers who do not have an account with the Workers' Compensation Board- Ontario shall provide with their Tender evidence of a subcontractor or other company that will carry such coverage on their behalf.

19.3 If the Tenderer is performing work in any exempt industry within the meaning of the Workers Compensation Board Act (the "WCB Act") and does not carry coverage, the Tenderer acknowledges that:

19.3.1 The CITY is subject to a deeming order under s. 14(2) of the WCB Act (the "Deeming Order"); and

19.3.2 The Deeming Order states that all of the Tenderer's employees, directors, proprietors, partners or employees are deemed to be CITY employees for the purposes of the WCB Act while performing work for the CITY; and

19.3.3 The effect of the Deeming Order is that the Tenderer's employees, directors, proprietors and partners who are injured while performing work for the CITY under the Contract, have no right to sue anyone and are limited to a claim under the WCB Act.

19.4 The Tenderer shall communicate the existence and effect of the Deeming Order to all of its employees, directors, proprietors, partners or employees.

19.5 The CITY will reject any Tender which fails to comply with the provisions set out in Article 19.

## **20.0 REGISTRATION**

20.1 Prior to commencing the Work, the Successful Tenderer shall obtain all authorizations required by the laws of the Province of Ontario and of the Country of Canada enabling it to carry on business to complete the Work required under the Contract. Failure to be properly authorized shall entitle the CITY to forthwith terminate the Contract without compensation.

## **21.0 TENDERS EXCEEDING BUDGET**

21.1 In addition to the rights contained within Article 21 herein, if the Tender Sum of every Tenderer exceeds the amount the CITY has budgeted for the Work, the CITY may reject all Tenders or attempt to negotiate a lower price with the Tenderer who, in the sole and unfettered discretion of the CITY, has submitted the most advantageous Tender.

21.2 Each Tenderer acknowledges and agrees that the CITY has the sole and unfettered discretion to employ any criteria in order to determine the Tender most advantageous to the CITY, that the CITY has no obligation to neither disclose such criteria nor employ the criteria listed outlined in Article 18 Tender Evaluation Criteria.

21.3 By submitting its Tender, each Tenderer waives its right to contest in any action, application, case or legal proceeding in any court, the decision which the CITY may pursue under Article 21.1 and Article 21.2 herein.

21.4 If the Tender Sum of every Tenderer exceeds the amount budgeted for the Work and the CITY negotiates with the Tenderer who has submitted the Tender considered most advantageous to the CITY:

21.4.1 All statements made by either side in the course of negotiation are without prejudice and confidential;

21.4.2 In particular, the CITY's attempt to negotiate with such Tenderer does not constitute a rejection of its Tender; and

21.4.3 The CITY will not attempt to obtain a lower price for the same work that the Tenderer originally bid on, but may attempt to obtain a lower price for an altered or reduced scope of work. In no event will the CITY be obliged to disclose the amount budgeted for the Work.

## **~~22.0 CERTIFICATE OF RECOGNITIONG ("C.O.R") SAFETY PROGRAM REQUIREMENT~~**

Article 22.0 does not apply to this Tender.

## **23.0 CANADIAN FREE TRADE AGREEMENT**

23.1.1 The provisions of the Canadian Free Trade Agreement (“CFTA”) apply to this Tender.

## **24.0 ACCEPTANCE OR REJECTION OF TENDERS**

24.1 As it is the purpose of the CITY to obtain the Tender most suitable and most advantageous to the interests of the CITY, and notwithstanding anything else contained within the Tender Documents, the CITY reserves the right, in its sole and unfettered discretion, to reject or accept any Tender, including the right to reject all Tenders. Without limiting the generality of the foregoing, any Tender which

- a) is incomplete, obscure, irregular or unrealistic;
- b) is non-compliant in a trivial/immaterial or substantial/material manner, or conditional;
- c) has erasures or corrections;
- d) omits a price on any one or more items in the Tender;
- e) fails to complete the information required in the Tender;
- f) is accompanied by an insufficient certified cheque, irrevocable letter of credit or by a Bid Bond in an unsatisfactory form,

may at the CITY’s sole and unfettered discretion be rejected or accepted. Further, a Tender may be rejected or accepted on the basis of the CITY’s unfettered assessment of its best interest, which includes the CITY’s unfettered assessment as to a Tenderer’s past work performance for the CITY or for anyone else or as to a Tenderer’s financial capabilities, completion schedule, or ability to perform the Work, or the CITY’s desire to reduce the number of different contractors on the location of the Work at any given time. The CITY reserves the right to negotiate after Tender Closing time with the Tenderer that the CITY deems has provided the most advantageous Tender; in no event will the CITY be required to offer any modified terms to any other Tenderer prior to entering into a Contract with the successful Tenderer and the CITY shall incur no liability to any other Tenderers as a result of such negotiation or modification.

## **25.0 LAW AND FORUM OF TENDER**

25.1 The law to be applied in respect of the Tender Documents and the Contract shall be the law of the Province of Ontario and all civil actions commenced in relation to the Tender Documents or Contract shall be adjudicated by the Courts of the Province of Ontario and by submitting Tenders, Tenderers are taken to have agreed to attorn to the jurisdiction of the Courts of the said Province.

## **26.0 ACCEPTANCE PERIOD**

- 26.1 The Tender shall be irrevocable and open for acceptance by the CITY for the period of time contained in the Invitation to Tender, namely, sixty (60) days following the end of the day of the Tender Closing. The time and date of the Tender Closing is as defined in the Invitation to Tender.

## APPENDIX ONE : TENDER FORM AND UNIT PRICE SCHEDULE

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Tender Number: 411-431-001-25A

Tender Title: City of Kenora – 2025 Sewer and Water Reconstruction

We, \_\_\_\_\_  
(Company)

of \_\_\_\_\_  
(Business Address)

having examined the Tender Documents as issued by: the City of Kenora (the “City”), and having visited the site(s) of where the Work is required to be undertaken; hereby offer to enter into a Contract to perform the Work required by the Tender Documents for the Tender Sum as follows:

1. B.1 Ninth Street North (Mellick Ave to Scramble Ave) \$ \_\_\_\_\_
2. B.2 Mellick Avenue (9<sup>th</sup> St N to 10<sup>th</sup> St N) \$ \_\_\_\_\_
3. Tender Sum (summation of Items 1-2 above)
4. \_\_\_\_\_  
(Tender Sum written in words)
5. \_\_\_\_\_  
(Tender Sum in figures)
5. Ontario Harmonized Sales Tax (HST = 13%) \$ \_\_\_\_\_
6. Tender Sum (summation of Items 4 & 6 above)
7. \_\_\_\_\_  
(Total including HST written in words)
8. \_\_\_\_\_  
(Total including HST in figures)

in Canadian funds, which price includes any specified cash and contingency allowances and the applicable taxes in force at this date and except as may be otherwise provided in the Tender Documents.

**Unit Price Schedule:**

The Unit Price Schedule shall be completed in accordance with the Tender Documents, any errors will be corrected as identified in Article 3.0.

**Project B.1 along 9th Street North**

Item No.	Description	Est. Qty.	Units	Unit Price	Item Amount
<b>MISCELLANEOUS ITEMS</b>					
1	Mobilization/Demobilization		Lump Sum		\$
3	Traffic Control		Lump Sum		\$
5	Subsurface Utility Investigations		Lump Sum		\$
<b>REMOVALS ITEMS</b>					
6	Asphalt Pavement Removal, Full Depth	2,799	m <sup>2</sup>	\$	\$
7	Asphalt Pavement Removal, Partial Depth (Milling)	15	m <sup>2</sup>	\$	\$
8	Concrete Curb & Gutter Removal	24	m	\$	\$
9	Concrete Sidewalk Removal	322	m <sup>2</sup>	\$	\$
10	Watermain/Services Removal	350	m	\$	\$
11	Hydrant Set Removal	1	ea	\$	\$
12	Sanitary Sewer Removal	156	m	\$	\$
13	Sanitary Sewer Structure Removal	2	ea	\$	\$
14	Storm Sewer Removal	246	m	\$	\$
15	Storm Sewer Structure Removal	7	ea	\$	\$
16	8x8 Wood Post Removal		Lump Sum		\$
<b>STORM SEWER</b>					
17	CB5 - Precast Catch Basin, 600x600mm		Lump Sum		\$
18	CB6 - Precast Catch Basin, 600x600mm		Lump Sum		\$
19	CB9 - Precast Catch Basin, 600x600mm		Lump Sum		\$
20	CB12 - Precast Catch Basin, 600x600mm		Lump Sum		\$
21	CBMH7 - Precast Catch Basin Maintenance Hole, 900mmØ		Lump Sum		\$
22	CBMH8 - Precast Catch Basin Maintenance Hole, 900mmØ		Lump Sum		\$
23	CBMH10 - Precast Catch Basin Maintenance Hole, 900mmØ		Lump Sum		\$
24	CBMH11 - Precast Catch Basin Maintenance Hole, 900mmØ		Lump Sum		\$
25	300mmØ PVC DR25 Storm Sewer - CB6 to CB7	12.7	m	\$	\$

26	300mmØ PVC DR35 Storm Sewer - CB9 to CBMH10	8.8	m	\$	\$
27	300mmØ PVC DR35 Storm Sewer - CB12 to Existing ST-CB-9284	17.5	m	\$	\$
28	450mmØ PVC DR25 Storm Sewer - CB3 to CB5	20.3	m	\$	\$
29	450mmØ PVC DR35 Storm Sewer - CB5 to CBMH7	62.7	m	\$	\$
30	525mmØ PVC DR35 Storm Sewer - CBMH7 to CBMH8	29.6	m	\$	\$
31	525mmØ PVC DR35 Storm Sewer - CBMH8 to CBMH11	36	m	\$	\$
32	600mmØ PVC DR25 Storm Sewer - CBMH10 to CBMH11	18.1	m	\$	\$
33	600mmØ PVC DR35 Storm Sewer - CBMH11 to Existing ST-CBMH-8425	69.1	m	\$	\$
34	Adjust Existing Catch Basin - ST-CBMH-9109	Lump Sum			\$
35	Extruded Expanded Polystyrene - 25mm Thickness	50	m <sup>2</sup>	\$	\$
<b>SANITARY SEWER</b>					
36	Sanitary Sewer Bypass System	Lump Sum			\$
37	SAMH3 - Precast Maintenance Hole, 1200mmØ c/w 300mm wide joint wrapping	Lump Sum			\$
38	SAMH4 - Precast Maintenance Hole, 1200mmØ c/w 300mm wide joint wrapping	Lump Sum			\$
39	SAMH5 - Precast Maintenance Hole, 1200mmØ c/w 300mm wide joint wrapping	Lump Sum			\$
40	250mmØ PVC Cap	1	ea	\$	\$
41	300mmØ PVC Cap	1	ea	\$	\$
42	250mmØ PVC DR35 Sanitary Sewer - PVC Cap to SAMH3	12.6	m	\$	\$
43	300mmØ PVC DR35 Sanitary Sewer - SAMH5 to SAMH4	13.5	m	\$	\$
44	300mmØ PVC DR35 Sanitary Sewer - PVC Cap to SAMH4	36.4	m	\$	\$
45	300mmØ PVC DR35 Sanitary Sewer - SAMH4 to SAMH3	119.8	m	\$	\$
46	375mmØ PVC DR35 Sanitary Sewer - SAMH3 to exist.	12.8	m	\$	\$
47	150mmØ PVC DR35 Commercial Sanitary Services	37	m	\$	\$
48	Sanitary Service Connection & Appurtenances	4	ea	\$	\$
49	Extruded Expanded Polystyrene - 25mm Thickness	15	m <sup>2</sup>	\$	\$
<b>WATERMAIN</b>					
50	Temporary Potable Water Supply Services	Lump Sum			\$



51	Connection to City's Watermain System	4	ea	\$	\$
52	150mmØ PVC DR18 Watermain	18	m	\$	\$
53	200mmØ PVC DR18 Watermain	23	m	\$	\$
54	250mmØ PVC DR18 Watermain	206	m	\$	\$
55	150mm x 250mm Reducer	1	ea	\$	\$
56	250mm x 250mm x 200mm Ø PVC Tee	1	ea	\$	\$
57	150mmØ Coupler	1	ea	\$	\$
58	150mmØ Cap	1	ea	\$	\$
59	200mmØ Coupler	1	ea	\$	\$
60	200mmØ Cap	1	ea	\$	\$
61	150mmØ Gate Valve	2	ea	\$	\$
62	200mmØ Gate Valve	2	ea	\$	\$
63	250mmØ Gate Valve	6	ea	\$	\$
64	Fire Hydrant & Valve Installation	1	ea	\$	\$
65	19mmØ Type K Copper Residential Water Service with Thaw Cable	8	m	\$	\$
66	19mmØ Residential Water Service Connection & Appurtenances incl. water valve box to contain thaw cable and curb stop	2	ea	\$	\$
67	25mmØ Type K Copper Commercial Water Service with Thaw Cable	21	m	\$	\$
68	25mmØ Commercial Water Service Connection & Appurtenances incl. water valve box to contain thaw cable and curb stop	2	ea	\$	\$
69	150mmØ PVC DR18 Water Service	34	m	\$	\$
70	150mmØ PVC DR18 Water Service Connection & Appurtenances	3	ea	\$	\$
71	250mm x 150mm x 250mm x 150 Ø PVC Cross	1	ea	\$	\$
72	250mm x 200mm x 250mm x 200 Ø PVC Cross	1	ea	\$	\$
73	Extruded Expanded Polystyrene - 25mm Thickness	50	m <sup>2</sup>	\$	\$
<b>ROADWAY</b>					
74	Earth Excavation - Grading, Roadway	1,842	m <sup>3</sup>	\$	\$
75	Pipe Subdrain - 150mmØ	427	m	\$	\$
76	Geotextile	2,935	m <sup>2</sup>	\$	\$
77	Geogrid	2,935	m <sup>2</sup>	\$	\$
78	Granular "B", Roadway (In-Place)	996	m <sup>3</sup>	\$	\$
79	Granular "A", Roadway (In-Place)	332	m <sup>3</sup>	\$	\$
80	HL8 Hot Mix Asphalt - Base Course	304	tonnes	\$	\$

81	HL3 Hot Mix Asphalt - Surface Course	304	tonnes	\$	\$
82	HL3 Hot Mix Asphalt - Driveway & Boulevards	487	m²	\$	\$
83	Tack Coat	2,364	m²	\$	\$
84	Concrete Curb & Gutter	342	m	\$	\$
85	Reinforced Concrete Curb & Gutter	99	m	\$	\$
86	Concrete Sidewalk	240	m²	\$	\$
87	Reinforced Concrete Sidewalk (200mm Thickness)	33	m²	\$	\$
88	Tactile Indicators - (Brick Provided by the City)	8	ea	\$	\$
89	Conduit for Future Street Crossing Lights	Lump Sum			\$
90	Restore Retaining Walls, Walkways & Gardens	Lump Sum			\$
91	Topsoil & Sod	749	m²	\$	\$
92	Street Lighting - Reuse 4 ex. Luminaires	Lump Sum			\$
93	Forcemain into SANMH5	Lump Sum			\$
94	Removal of forcemain from SANMH4 to SANMH3	Lump Sum			\$
PROVISIONAL ITEMS					
95	Soils Investigations and Remediations	Lump Sum			\$
SUBTOTAL MISCELLANEOUS ITEMS					\$
SUBTOTAL REMOVALS ITEMS					\$
SUBTOTAL STORM SEWER					\$
SUBTOTAL SANITARY SEWER					\$
SUBTOTAL WATERMAIN					\$
SUBTOTAL ROADWAY					\$
CONTRACT VALUE - Project B.1 along 9th Street North					\$

Definitions: ea – each, m – Linear Metres, m<sup>2</sup> – Square Metres, m<sup>3</sup> - Cubic Metres

**Project B.2 along Mellick Avenue**

Item No.	Description	Est. Qty.	Units	Unit Price	Item Amount
<b>MISCELLANEOUS ITEMS</b>					
1	Mobilization/Demobilization		Lump Sum		\$
3	Traffic Control		Lump Sum		\$
5	Subsurface Utility Investigations		Lump Sum		\$
<b>REMOVALS ITEMS</b>					
6	Asphalt Pavement Removal, Full Depth	1,866	m <sup>2</sup>	\$	\$
7	Asphalt Pavement Removal, Partial Depth (Milling)	12	m <sup>2</sup>	\$	\$
8	Concrete Curb & Gutter Removal	288	m	\$	\$
9	Concrete Sidewalk Removal	441	m <sup>2</sup>	\$	\$
10	Street Light and Overhead Wire Removal Existing luminaires to be salvaged and re-used		Lump Sum		\$
11	Watermain/Services Removal	334	m	\$	\$
12	Hydrant Set Removal	1	ea	\$	\$
13	Sanitary Sewer Removal	169	m	\$	\$
14	Sanitary Sewer Structure Removal	2	ea	\$	\$
15	Storm Sewer Removal	110	m	\$	\$
16	Storm Sewer Structure Removal	4	ea	\$	\$
<b>STORM SEWER</b>					
17	CB1 - Precast Catch Basin, 600x600mm		Lump Sum		\$
18	CB2 - Precast Catch Basin, 600x600mm		Lump Sum		\$
19	CB3 - Precast Catch Basin, 600x600mm		Lump Sum		\$
20	CB4 - Precast Catch Basin, 600x600mm		Lump Sum		\$
21	300mmØ PVC DR25 Storm Sewer - CB1 to CB2	11.2	m	\$	\$
22	300mmØ PVC DR25 Storm Sewer - CB4 to CB3	10.5	m	\$	\$
23	450mmØ PVC DR25 Storm Sewer - CB2 to CB3	71.7	m	\$	\$
<b>SANITARY SEWER</b>					
24	Sanitary Sewer Bypass System		Lump Sum		\$
25	SAMH1 - Precast Maintenance Hole, 1200mmØ c/w 300mm wide joint wrapping		Lump Sum		\$

26	SAMH2 - Precast Maintenance Hole, 1200mmØ c/w 300mm wide joint wrapping	Lump Sum			\$
27	300mmØ PVC DR35 Sanitary Sewer - SAMH1 to SAMH2	70.6	m	\$	\$
28	300mmØ PVC DR35 Sanitary Sewer - SAMH2 to SAMH3	97.6	m	\$	\$
29	100mmØ PVC DR35 Sanitary Services - Remove and Replace	151	m	\$	\$
30	Sanitary Service Connection & Appurtenances	15	ea	\$	\$
<b>WATERMAIN</b>					
31	Temporary Potable Water Supply Services	Lump Sum			\$
32	Connection to City's Watermain System	4	ea	\$	\$
33	150mmØ PVC DR18 Watermain	18	m	\$	\$
34	200mmØ PVC DR18 Watermain	170	m	\$	\$
35	200mm x 200mm x 100mm Ø PVC Tee	1	ea	\$	\$
36	200mm x 200mm x 150mm Ø PVC Tee	2	ea	\$	\$
37	100mmØ Gate Valve	1	ea	\$	\$
38	200mmØ Gate Valve	3	ea	\$	\$
39	200mmØ PVC Elbow - 11¼°	2	ea	\$	\$
40	Fire Hydrant & Valve Installation	2	ea	\$	\$
41	19mmØ Type K Copper Residential Water Service with Thaw Cable	159	m	\$	\$
42	19mmØ Residential Water Service Connection & Appurtenances incl. water valve box to contain thaw cable and curb stop	15	ea	\$	\$
43	25mmØ Type K Copper Commercial Water Service with Thaw Cable	7	m	\$	\$
44	25mmØ Commercial Water Service Connection & Appurtenances incl. water valve box to contain thaw cable and curb stop	1	ea	\$	\$
45	200mm x 200mm x 200mm x 200 Ø PVC Cross	1	ea	\$	\$
46	Extruded Expanded Polystyrene - 25mm Thickness	50	m²	\$	\$
<b>ROADWAY</b>					
47	Earth Excavation - Grading, Roadway	1,350	m³	\$	\$
48	Pipe Subdrain - 150mmØ	304	m	\$	\$
49	Geotextile	2,480	m²	\$	\$

50	Geogrid	2,480	m²	\$	\$
51	Granular “B”, Roadway (In-Place)	740	m³	\$	\$
52	Granular “A”, Roadway (In-Place)	247	m³	\$	\$
53	HL8 Hot Mix Asphalt - Base Course	226	tonnes	\$	\$
54	HL3 Hot Mix Asphalt - Surface Course	226	tonnes	\$	\$
55	HL3 Hot Mix Asphalt - Driveway & Boulevards	441	m²	\$	\$
56	Tack Coat	1,768	m²	\$	\$
57	Concrete Curb & Gutter	268	m	\$	\$
58	Reinforced Concrete Curb & Gutter	45	m	\$	\$
59	Concrete Sidewalk	398	m²	\$	\$
60	Reinforced Concrete Sidewalk (200mm Thickness)	44	m²	\$	\$
61	Pavement Markings	Lump Sum			\$
62	Restore Retaining Walls, Walkways & Gardens	Lump Sum			\$
63	Topsoil & Sod	542	m²	\$	\$
64	Street Lighting - Reuse 3 ex. Luminaires	Lump Sum			\$
PROVISIONAL ITEMS					
65	Soils Investigations and Remediations	Lump Sum			\$
SUBTOTAL MISCELLANEOUS ITEMS					\$
SUBTOTAL REMOVALS ITEMS					\$
SUBTOTAL STORM SEWER					\$
SUBTOTAL SANITARY SEWER					\$
SUBTOTAL WATERMAIN					\$
SUBTOTAL ROADWAY					\$
CONTRACT VALUE - Project B.2 along Mellick Avenue					\$

Definitions: ea – each, m – Linear Metres, m<sup>2</sup> – Square Metres, m<sup>3</sup> - Cubic Metres

**Signatures:**

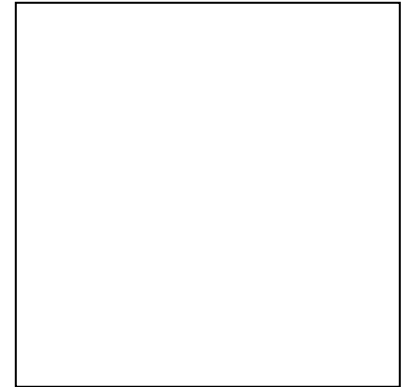
Signed, sealed and submitted for and on behalf of:

Company:

\_\_\_\_\_  
(Name)

\_\_\_\_\_  
(Street Address or Postal Box Number)

\_\_\_\_\_  
(City, Province & Postal Code)



*Corporate Seal*

*(**must** be affixed above for all corporations submitting a bid)*

Business Structure:

☐ Limited Company

☐ Partnership

☐ Sole Proprietor

☐ Other: \_\_\_\_\_

Signature: \_\_\_\_\_

Name & Title: \_\_\_\_\_  
(Please Print or Type)

Witness: \_\_\_\_\_

Dated at \_\_\_\_\_ this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

## APPENDIX TWO: SUBMISSION DOCUMENTS

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## Schedule of Subcontractors

The Contractor states that the following Subcontractors shall be utilized on this Contract:

Items of Work

Subcontractor

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The Contractor agrees that if a named Subcontractor is not acceptable to the City, the Contractor shall name an acceptable alternative Subcontractor.



**Schedule of Suppliers and Manufacturers of Materials**

The Contractor states that the following material suppliers and manufacturers shall be utilized for the supply items on this Contract.

Items	Supplier	Manufacturer

The Contractor agrees that, if a named supplier or manufacturer of materials and equipment is not acceptable to the City, the Contractor shall name an acceptable alternative.

## Schedule of Equipment

The Contractor states that the equipment listed shall be available for the Work on this Contract.

The Contractor agrees that if the equipment listed is not acceptable to the City, the Contractor shall identify acceptable alternatives.

[illegible]

## Undertaking to Comply

1. I/We hereby undertake:
  - To comply with all applicable health and safety and environmental legislation in the performance of this contract;
  - To maintain a safe and healthy work environment during the performance of this contract;
  - That a Joint Health and Safety Committee or the appointment of a Health and Safety Representative is undertaken as applies to the Occupational Health & Safety Act.
  
2. I/We hereby agree:
  - That compliance with all health and safety and environmental legislation is a condition of the contract and that non-compliance with same may, at the City of Kenora's (hereinafter the City) discretion, lead to the termination of this Contract;
  - To permit the City to audit my/our health and safety and environment records during the term of the contract and upon its conclusion and to cooperate fully with any such audit(s);
  
3. I/We understand that contractor safety deficiencies will be addressed by the City in the following progressive steps;
  - The infraction(s) will be identified to the Contractor (site supervisor) verbally and documented as such.
  - The Contractor's Head Office will be contacted about the infraction(s), orally and in writing
  - If the infraction(s) remain, a written notice will be presented to the Contractor's Head Office and a fine of a minimum of \$100 up to a maximum of \$1000 per infraction will be deducted from the payment due to the Contractor
  - If required by law to immediately report the infraction(s), the City shall report the infraction to the appropriate ministry (ies).
  - The City may, at the City's discretion, suspend or terminate the contract and/or withhold payment by the City.
  - I/we acknowledge and agree that, depending on the nature and/or seriousness of the deficiency, the City reserves the right to bypass any or all of the steps described herein.
  
4. I/We hereby acknowledge receipt of a copy of the City's Contractor Safety Policy/Program and that I/We understand and undertake to adhere to the terms of this Policy and to cooperate with the City in its efforts to ensure compliance thereunder.
  - I/We have received and read the "City of Kenora Contractor Safety Program". As the Prime Consultant or authorized representative of the contracted services, I understand that I am fully responsible for ensuring that all of our employees, subcontractors, and visitors comply with all necessary rules and regulations outlined therein and with all applicable regulations made under the Occupational Health and Safety Act.
  - Prior to commencement of Work, The Contractor will be advised as to which of the listed items on page 6 of 10 on the "Contractor Document Requirements" form of the "City of

Kenora Contractor Safety Program” will need to be provided to The City Representative for review.

- See Appendix A for reference to The City of Kenora Health and Safety Policy and Contractor Safety Program.

Authorized Representative:

(Print Name)

(Signature)

(Date)

Company Name

Witness:

(Print Name)

(Signature)

(Date)

Name of Administrator of Contractor’s Health and Safety Program:

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## Indemnification Agreement

In consideration of the Corporation of the City of Kenora (the City) agreeing to contract with the undersigned

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(Name of contractor)

Hereby agrees and covenants that they shall indemnify and save harmless the City and all persons for whom it is in law responsible, from any and all claims, action suits, damages or costs arising or alleged to arise from the action, default or negligence of the undersigned, its agents or servants in their performing work or supplying materials on City property, or elsewhere at the City's request as laid out in Section 4.15.2 – Indemnification.

This indemnity shall include all administrative costs, adjusting costs, and legal costs on a substantial indemnity basis.

This indemnity shall be limited in respect to work performed or services supplied between April 1, 2025 to December 31, 2027

Dated \_\_\_\_\_ 2025

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(Name of contractor)

Per: \_\_\_\_\_

(Signature)

## Schedule of Alternative Proposals

The Contractor offers the following alternative units of equipment, materials, or methods of doing the Work, and offers to increase or decrease the Contract Price as stated for each unit of equipment, materials or methods of doing the Work. The increase or decrease includes allowance for the cost of making any adjustments to the Work, which may be required in order to make the proposed alternative fit into the Work as originally specified. The increase or decrease in price shall be added to or subtracted from the price bid for the Work as originally specified. A Change Order will be issued should the alternative(s) be accepted.

Item No.	Specification Section	Original Item	Bid Price	Alternate Item	Alternate Price Difference

The Contractor provides for review by the City the following details concerning the alternative equipment, materials, or methods of doing the Work. If insufficient space exists, please attach additional pages. Attach all back up information and specifications.

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## APPENDIX THREE: TENDER SUBMISSION CHECKLIST

The Tender Submission Checklist is provided for the convenience of Tenderers as a summary of mandatory submission requirements. In the event of any discrepancy between the Tender Articles and the Tender Submission Checklist, the Tender Articles shall govern. The Checklist is for reference only, and the City makes no representations or warranties regarding its accuracy or completeness. By submitting a Tender, the Tenderer acknowledges and agrees that the City shall not be held liable for any errors, omissions, or discrepancies in the Checklist and expressly waives any and all claims, demands, or legal actions against the City arising from or relating to its use.

- 1) Tender Form and Unit Price Schedule – Article 3.0 – Completed in the form provided in Appendix One
- 2) Tender Deposit - Article 9.0 – Consent of Surety and a Bid Bond
- 3) Insurance – Article 11.0 – Certificate of insurance or a Letter of Insurability or Undertaking of insurance. Level of insurance detailed in Appendix Four – Contract and Specifications.
- 4) Work Schedule – Article 12.0
- 5) Workers' Compensation – Article 19.0 – Letter of account from the Workers' Compensation Board – Ontario or alternatives as listed in Article 19.0
- 6) Schedule of Subcontractors – Appendix Two
- 7) Schedule of Suppliers and Manufacturers of Materials – Appendix Two
- 8) Schedule of Equipment – Appendix Two
- 9) Undertaking to Comply – Appendix Two
- 10) Indemnification Agreement – Appendix Two
- 11) Schedule of Alternative Proposals – Appendix Two (Optional)

## APPENDIX FOUR: CONTRACT, SPECIFICATIONS AND DRAWINGS

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# CONTRACT AND SPECIFICATIONS

For

City of Kenora, Ontario

2025 Sewer and Water  
Reconstruction



2025 Sewer and Water Reconstruction

APRIL 2025



**CITY OF KENORA**  
**2025 Sewer and Water Reconstruction**  
NOTICE

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**IMPORTANT NOTICE**

This Contract Document was prepared exclusively for the Corporation of the City of Kenora. The Contract Document contains proprietary and confidential information that shall not be reproduced in any manner or disclosed to or discussed with any other parties without the express written permission of the City. Information in this document is to be considered the intellectual property of the City in accordance with Canadian copyright law.

The quality of information, conclusions and estimates contained herein is consistent with the level of effort provided by the City and are based on: i) information available at the time of preparation, ii) data supplied by outside sources, and iii) the assumptions, conditions and qualifications set forth in this document. This Contract Document is for the sole use of the City of Kenora, Contractor, Subcontractor, and Suppliers having a contract for the execution of the Works covered in the Contract Documents, in whole or in part. It is intended to be used by the City of Kenora only, subject to the terms and conditions stated herein. Any other use of, or reliance on, this document by any third party is at that party's sole risk.



**CITY OF KENORA**  
**2025 Sewer and Water Reconstruction**  
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**2025 Sewer and Water Reconstruction**  
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**CITY OF KENORA**  
**2025 Sewer and Water Reconstruction**  
**UNIT PRICE CONTRACT**

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**00500**

## **1. UNIT PRICE CONTRACT (00500)**

The Contract made in \_\_\_\_\_ (\_\_\_\_ completed copies) the \_\_\_\_\_ day of \_\_\_\_\_ in the year Two Thousand and Twenty-Five by and between

Corporation of the City of Kenora

---

Hereinafter called the "City"

And

---

Hereinafter called the "Contractor"

The City and Contractor undertake and agree as follows:

### **1.1 The Work**

The Contractor shall:

Perform all the Work required by the Contract Documents for:

CITY OF KENORA – 2025 Sewer and Water Reconstruction

---

Do and fulfil everything required by this Contract, and

Commence the Work by the 1<sup>st</sup> day of May 2025, and in any event attain Substantial Performance as certified by the City no later than the 1st day of September 2025.

### **1.2 Contract Documents**

The Contract is comprised of the Instructions to Tenderers, Tender Form and Unit Price Schedule, Submission Documents, and this Unit Price Contract and the following applicable attachments hereto:

General Conditions of Contract;

Supplementary Conditions;

General Requirements;

Construction Survey;

Regulatory Requirements;

Utilities;

Measurement and Payment;

Project Management and Coordination;





**CITY OF KENORA**  
**2025 Sewer and Water Reconstruction**  
**UNIT PRICE CONTRACT**

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**00500**

Environmental Protection;

Contract Closeout;

Submittals;

Quality Control;

Temporary Facilities;

Products/Workmanship;

Contract Drawings, Permits and Attachments; and

Supplemental Specifications including any additional documents or specifications that may be noted herein.

Each of the above shall be read into and form part of the Contract, and the whole shall constitute the Contract between the parties. During the progress of the Work, the City's Representative will furnish to the Contractor with such additional instructions as may, in the opinion of the City's Representative, be necessary to supplement or clarify the Contract Documents. All such instructions will be consistent with the intent of the Contract Documents. Additional instructions may be in the form of drawings, samples, models, or oral or written instructions.

### **1.3 Contract Price**

The Contract Price is Dollars \_\_\_\_\_ in Canadian funds, which price is the aggregate of the estimated unit quantities multiplied by the Unit Prices, and the Lump Sum Items set out in the executed Bid, including applicable taxes. This Contract Price will be varied as the actual quantities handled vary, and will be subject to adjustments as may be determined in accordance with the Contract Documents.

### **1.4 Payment**

The parties agree that the Contractor shall, in full consideration for the performance of all of its obligations and services (the Work), be paid for such obligations and services in accordance with the provisions of the Contract.

### **1.5 Insurance**

The Contractor's insurance obligations are as specified in Section 2.18 – Insurance.

### **1.6 Proper Law and Jurisdiction**

The Contract shall be governed and construed under the laws in force in the Province of Ontario, including the federal laws of Canada applicable therein, without regard to conflict of law rules. The courts having exclusive supervisory jurisdiction with respect to matters relating to this Contract, other than with respect to enforcement, shall be the courts of the Province of Ontario. The Contractor hereby specifically agrees that any order or award obtained in any arbitration relating to this Contract can be enforced in the courts of any jurisdiction in which the Contractor carries on business, has offices or has assets, and the Contractor hereby consents to same.



**CITY OF KENORA**  
**2025 Sewer and Water Reconstruction**  
UNIT PRICE CONTRACT

---

**00500**

**1.7 Addresses for Notices**

All communications in writing between the parties, or between them and the City's Representative, shall be delivered or sent to the individual, or a member of the firm, or on to an officer of the party for whom they are intended to the address below. Such notices shall be deemed to be received if delivered, or, when delivered, or, if sent by prepaid mail or courier, when they should in due course of mail or courier service be delivered. Although the parties may use electronic communications for the purposes of general communication, email will not be used for delivery of a notice as required or called for under this Contract.

The City at:

60 Fourteenth Street North, KENORA, ON, P9N 4M9

---

With a copy to the City's Representative at:

N/A (CITY ISSUED)

---

The Contractor at:

---

**1.8 Succession**

This Contract shall be binding upon and endure to the benefit of each of the parties hereto, their respective heirs, legal representatives, successors and permitted assigns.

***[Signature page follows]***



**CITY OF KENORA**  
**2025 Sewer and Water Reconstruction**  
**UNIT PRICE CONTRACT**

---

**00500**

**1.9 Signatures**

In witness whereof the parties hereto have caused this Contract to be properly executed.

**FOR LIMITED COMPANY**

The Corporate Seal of

the Corporate Seal of

\_\_\_\_\_  
(City)

\_\_\_\_\_  
(Contractor)

Was hereunto affixed in the presence of:

was hereunto affixed in the  
presence of:

\_\_\_\_\_  
(Clerk)

\_\_\_\_\_  
(Authorized Signing Officer)

\_\_\_\_\_  
(Mayor)

\_\_\_\_\_  
(Witness)

(Seal)

(Seal)



**CITY OF KENORA**  
**2025 Sewer and Water Reconstruction**  
UNIT PRICE CONTRACT

**00500**

**FOR INDIVIDUAL OR PARTNERSHIP**

Signed, Sealed and Delivered By

\_\_\_\_\_  
(City)

\_\_\_\_\_  
(Contractor)

\_\_\_\_\_  
(Clerk)

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Mayor)

(Seal)

(Seal)

In the presence of:

\_\_\_\_\_  
(Witness Signature)

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Occupation: \_\_\_\_\_

## **2. GENERAL CONDITIONS OF THE CONTRACT (00700)**

### **2.1 Definitions**

**"Bid"** shall mean the documents prepared and submitted by the Bidder in response to the Tender.

**"Bidder"** shall mean each individual, partnership, company, corporation, joint venture or any other entity who receives the Bid Documents in contemplation of submission of a Bid.

**"Bid Documents"** shall mean the documents prepared and furnished by the City's Representative and received by each Bidder as part of the Tender.

**"Bid Security"** shall mean a bid bond in the amount as specified in the appropriate Section of this document

**"Bid Period"** shall mean the period of time from when the City's Representative first makes available the Bid Documents until the Closing Time.

**"Calendar Days"** shall have the meaning ascribed to such term in Section 8.3.3 – Calculation of Calendar Days.

**"Clearance Certificate"** or **"CC"** shall mean a safety certificate relevant to construction industry and which is recognized by Workplace Safety and Insurance Board (WSIB) Ontario.

**"Change"** shall mean any change and may include and/or consist of any one or more of the following

An addition, omission, modification, alteration, substitution, change, deduction, delay or cancellation of the Work, or any change to the Work Schedule;

A change to the character or quality of any Products or supplies described in the Contract Documents; and

Execution of additional work.

**"Change Order"** shall have the meaning ascribed to such term in Section 2.7.1 Change Orders

**"City"** shall mean Corporation of the City of Kenora, Ontario.

**"City's Representative"** shall mean person appointed by the City, also referred to herein as "Contract Administrator".

**"Completion Date(s)"** shall mean the date and/or dates specified for final completion of all or portions of the Work as identified in Article 13.0 COMMENCEMENT AND COMPLETION OF THE WORK of the Instructions to Tenderers.

**"Consent of Surety"** shall mean the consent form required to be executed by the surety as set out in Article 9.0 TENDER DEPOSIT of the Instructions to Tenderers.

**"Contract"** shall mean the Unit Price Contract together with all those Contract Documents listed in Section 1.2 – Contract Documents and includes the Instructions to Tenderers, Tender Form and Unit Price Schedule, and Submission Documents, as applicable.

**"Contract Design Change Proposal"** shall have the meaning ascribed to such term in Section 2.7.3 – Contractor Change Requests and Proposals.

**"Contract Documents"** shall mean all documents relating to the Work issued by or through the City's Representative that are incorporated into the Contract and all variations and modifications issued by or approved by the City's Representative, including all amendments thereto incorporated before their execution as agreed upon between the parties in writing.

**"Contract Price"** shall originally mean the sum stated in Section 1.3 – Contract Price of the Unit Price Contract which sum may be adjusted from time during the progress of the Work pursuant to a Change Order.

**"Contract Security"** shall mean the Performance Bond, the Labour and Material Payment Bond or any other security that may be required by the City pursuant to the terms and conditions of the Contract Documents from time to time.

**"Contract Term"** shall mean the time period from the date of execution of this Contract first written above in Section 1 – Unit Price Contract until the date of specified in the Final Acceptance Certificate for all of the Work.

**"Contractor"** shall mean the party of the second part, as named in the Contract Agreement, who has been duly appointed and authorized by the City to proceed with Works as outlined herein.

**"Deficiency Holdback"** shall mean the City's Representative estimate of the cost of completing deficiencies in, or correcting defects in the Work.

**"Engineering Documents"** shall mean drawings, plans, models, designs, specifications, reports, photographs, computer software if proprietary to the City or City's Representative, surveys, calculations and other data, including computer print outs, contained in the Contract or which are otherwise used in connection with the Project, and which were prepared by or on behalf of the City's Representative and are instrument of service for the execution of the Work.

**"Final Acceptance Certificate"** shall mean the certificate issued by the City's Representative in accordance with Section 2.14.7 – Final Acceptance Certificate.

**"Final Payment"** shall mean all sums due to the Contractor when terms and conditions of the Contract appear to be complete, except for the requirements of the provisions as to Warranty.

**"Force Majeure Event"** means any event or circumstance which:

is not within the reasonable control of the party (the **"Affected Party"**) claiming it is affected by an event or circumstance; and does not arise by reason of the negligence or default of the Affected Party; and includes:

acts of God, including action of the elements, epidemics, landslides, earthquakes, floods, or natural disaster; industry-wide and provincial-wide strikes, work stoppages, restraints of labour, or other industrial/labour disturbances; acts of the public enemy, including wars which are either declared or undeclared, terrorism, blockades and insurrections; the refusal of or delay in obtaining any necessary applicable permits required to perform the Work provided that the Affected Party has acted in a timely and reasonable manner in endeavoring to secure them; and any act or failure to act by federal or provincial governments or any authority; the term Force Majeure Event does not include the following:

- A lack of funds or inability to pay amounts owed under this Contract for any reason whatsoever or an inability to use available funds;
- The default or delay of any contractor of, or contractor to, a party (except where constituting, caused by or arising out of an event or circumstance which satisfies the requirements of subsections above;
- Cyclones, tornados, floods or natural disasters which are reasonably foreseeable to occur within a 100 year cycle in the geographical region of the Place of the Work and for which reasonable precautions can be taken to prevent or overcome the effect of;

- Shortages of labour (other than under subsection above and accommodation that may affect the establishment, operation or maintenance of the Project;
- A mechanical breakdown (except where constituting, caused by or arising out of an event or circumstance which satisfies the requirements of subsections above);
- non-availability of materials or equipment or other resources, other than materials or equipment that is unavailable due to an event that affected a Subcontractor and that, if it had happened to a party hereunder, would have come within the scope of subsections above); or
- Seasonal conditions of any access roads to the Place of the Work.

**"Hazardous Substances"** shall mean any toxic or hazardous solid, liquid, gaseous, thermal, or electromagnetic irritant or contaminant, and includes, without limitation, pollutants, moulds and hazardous and special materials and wastes whether or not defined as such in any federal, provincial, territorial or municipal laws, statutes or regulations.

**"Insurance Certificate(s)"** shall mean any certificate of insurance evidencing that the Contractor is insured in accordance with the provisions of Section 2.18 – Insurance or as may be directed by the City's Representative from time to time.

**"Labour and Material Payment Bond"** shall mean the bond issued in the name of the City as specified in Article 10.0 PERFORMANCE AND LABOUR AND MATERIAL BONDS of the Instructions to Tenderers. to assure the Contract makes payment to all parties it is contracted to for the performance of the Work on the standard bond form - Canadian Construction Association Document No. (S) 22 or as acceptable to The City.

**"Law(s)"** shall mean all applicable laws, rules, regulations, by-laws, codes, or other governmental provisions having the force of laws, however designated, whether federal, provincial, regional or local, and whether legislative, judicial or administrative in origin, applicable at any time to the Work, and includes laws of equity.

**"Liabilities"** shall mean any and all actions, causes of action, prosecutions, charges, orders, claims, damages, losses, liabilities (including in connection with the death of or injury to any individual or damage to or loss of any property, including property of the City), costs and expenses (including legal fees and expenses and court costs on a solicitor and own client basis), fines, penalties, royalties or other payments.

**"Lump Sum Item(s)"** shall mean those items identified as "lump sum" (L.S) under the unit price column in APPENDIX "ONE" – TENDER FORM AND UNIT PRICE SCHEDULE.

**"Net Cost"** shall mean the proven cost of Products, including labour (including actual worker's pay), Workers' Compensation Insurance, Canada Pension Plan, workers' premium for Unemployment Insurance, holiday pay and medical benefits, payments to a proportionate part of the wages of foremen, plant and tools, equipment rental, and other costs, as applicable to the item being costed.

**"Notice of Award"** shall mean the written notice provided by the City's Representative to the successful Bidder stating that the City intends to enter into the Contract with that Bidder.

**"Notice to proceed"** shall mean the written or verbal conformational notice provided by the City's Representative to the Contractor specifying the time period in which the Contractor is to commence the Work.

**"OH&S Act"** means the *Occupational Health and Safety Act* (Ontario), all regulations promulgated thereunder, and all adopted codes made and adopted thereunder, as amended from time to time.

**"Other Project Participant"** shall mean a person, firm or corporation employed by, or having a separate contract directly or indirectly with the City, for work on the Project other than the Work as specifically described by this Contract.

**"OTM"** means the Ontario Traffic Manual, all regulations and codes promulgated thereunder, and all adopted codes made and adopted thereunder, as amended from time to time.

**"Performance Bond"** shall mean the bond issued in the name of the City as specified in Article 10.0 PERFORMANCE AND LABOUR AND MATERIAL BONDS of the Instructions to Tenderers. to assure the faithful performance of the Contract, including any corrections to the Work under Warranty on the standard performance bond form - Canadian Construction Association Document No. (S) 21 or as acceptable by The City.

**"Person"** shall include any individual, partnership, limited partnership, firm, trust, body corporate, government, governmental body, agency or instrumentality, unincorporated body of persons or association.

**"Personnel"** shall mean in relation to any Person, the employees, officers, directors, consultants and agents of such Person and includes in the case of the Contractor, its Subcontractors and Subcontractors' employees, officers, directors, consultants and agents engaged in the performance of the Work in respect of the Project.

**"Place of the Work"** shall mean the site or location of the Work, designated in the Contract Documents.

**"Products"** shall mean all materials, machinery, equipment and fixtures forming, or intended to form, the completed Work or a part thereof, but excludes machinery and equipment used for preparation, fabrication, conveying and erection of the Work and normally referred to as construction machinery and equipment.

**"Prime Contractor"** shall mean the "Constructor" as defined in the Occupational Health and Safety Act, Ontario Ministry of Labour.

**"Progress Payment Certificate"** shall mean the certificate issued by the City's Representative to the City on a monthly basis during the performance of the Work describing the payments to be made to the Contractor.

**"Project"** shall mean the total endeavor contemplated in this Contract of which the Work may be the whole or a part.

**"Project Documents"** shall have the meaning ascribed to such term Section 2.11 – Ownership of Documents and Models.

**"Provisional"** shall have the meaning for items that have been arranged for the present Work that may or may not be required, or scope of work that is undefined.

**"Remedial Work"** shall have the meaning ascribed to such term in Section 2.14.3 – Remedies for Breach of Warranty.

**"Shop Drawings"** shall mean drawings, diagrams, illustrations, schedules, performance charts, technical brochures and other data that are to be provided by the Contractor or by others to illustrate details of a portion of the Work.





**"Subcontractor"** shall have the meaning ascribed thereto in the *Construction Act R.S.O. 1990, c. C.30* (Ontario).

**"Substantial Completion Certificate"** shall mean the certificate issued by the City's Representative certifying that the Work has been completed by the Contractor, except for the requirements of the provisions as to Warranty in accordance with Section 2.8 – Substantial Performance and 2.8.2 Substantial Completion Certificate.

**"Substantial Performance"** shall mean when all Work or a portion thereof (excluding Work required during the Warranty Period) has been completed by the Contractor in accordance with the specifications and plans such that the Work is ready for use or is being used for the purpose intended and is so certified and/or accepted by the City's Representative.

**"Tax"** or **"Taxes"** shall mean all taxes, however denominated, including any interest, penalties or other additions that may become payable in respect thereof, imposed by any taxing authority, which taxes shall include all income or profits taxes (including, but not limited to, federal income taxes and provincial income taxes), capital taxes, withholding taxes, payroll and employee withholding taxes, employment insurance (including provincial health insurance, old age benefits, welfare funds, pensions and annuities and disability insurance), social insurance taxes, sales and use taxes, goods and services tax, value added taxes, ad valorem taxes, excise taxes, customs duties, tariffs, franchise taxes, gross receipts taxes, business license taxes, occupation taxes, real and personal property taxes, stamp taxes, environmental taxes, transfer taxes, workers' compensation and other governmental charges, and other obligations of the same or of a similar nature to any of the foregoing (together with any penalties, interest or other similar amounts thereon);

**"Total Completion"** shall mean that the Work has been completed, except for the requirements of the provisions as to Warranty.

**"Warranty Period"** shall mean:

- a) in relation to Work performed before the Substantial Completion Certificate is issued, a period of one (1) year commencing on the date the Substantial Completion Certificate is issued; and
- b) In relation to Work performed after the Substantial Completion Certificate is issued, a period of one (1) years commencing on the date that Work is fully completed.

**"Work"** means the services and obligations to be performed by Contractor as provided in the Contract Documents and includes the provision of all labour, supervision and equipment required, in accordance with the Contract Documents, and further includes any work that is not expressly described in the Contract Documents, but which is nevertheless necessary for or ancillary to the proper execution of the work, including the construction work required by this Contract.

**"Work Schedule"** shall have the meaning ascribed to such term in Section 2.6.2 – Work Schedule

**"Working Day"** shall mean a day other than a Saturday, Sunday, statutory holiday or statutory vacation day that is observed by the construction industry in the area of the Place of the Work. Reference to a day, other than a Working Day, indicates a calendar day.

**"Work Product"** shall have the meaning ascribed to such term Section 2.11 – Ownership of Documents and Models.

**"Unit Price Contract"** means the covering agreement titled Unit Price Contract to which all Contract Documents are attached.



**"Unit Prices"** shall mean those prices identified under the unit price column in APPENDIX "ONE" – TENDER FORM AND UNIT PRICE SCHEDULE for each individual Bid item.

**"Utilities"** shall mean utilities and facilities that are located on, in or near the property, continued within the proposed work and that may be affected by the construction, and shall include, but not be limited to, pipelines, drainage works, irrigation works, water works, sewage works, power facilities, telephone facilities, cable facilities and related appurtenances.

## **2.2 Conflict in Documents**

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

In the event of any conflict between the Contract Documents, the following shall apply:

Documents of later date shall govern over earlier documents of the same classification;

Figured dimensions shown on the drawings shall govern even though they may differ from scaled dimensions;

In the event that two (2) or more plans show conflicting information, the information on the most recently dated plan shall govern;

Drawings of larger scale shall govern over those of smaller scale;

Specifications shall govern over drawings;

Except for Supplementary Specifications (if any) and the Unit Price Contract section, the General Conditions of the Contract shall govern over all other sections of Contract;

Supplementary Specifications, where included in the Contract Documents, shall govern over the General Conditions of the Contract;

The Unit Price Contract section shall govern over all documents; and

Any Law, technical and manufacturer's standard, or code of practice referred to in the Contract Documents shall be the version current at the time any such Law, technical and manufacturer's standard, or code of the Contract is being interpreted.

## **2.3 Specification and Guidelines**

Local Design Guidelines, Standards and General Construction Specifications shall form part of these specifications and Contract Documents. In an event of a conflict between the Local Design Guidelines, Standards and General Construction Specifications and these specifications, the more stringent requirement shall govern.

## **2.4 Administration of the Contract**

City's Representative

The City's Representative shall be authorized and empowered to bind the City in respect of any matter or thing arising in respect of this Contract and shall be authorized, without limitation, to:



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Reject any Products supplied by the Contractor, or any part of the Work, which in the opinion of City's Representative is defective or fails to comply with the requirements of the Contract Documents;

Approve, in whole or in part, or reject the Contractor's applications for payment;

Advise the Contractor with respect to the Work, including the administration of Change Orders;

Make determinations concerning the cause of any delay or whether an extension of time for completing the Work will be given; and

Order that the Contractor stop carrying out the Work, or any portion thereof, should the Contractor fail to comply with the Law or environmental protection requirements of the Contract Documents.

The City's Representative shall be authorized to resolve any conflicts that exist within the Contract Documents, which decisions shall be made in writing. The City's Representative shall be the interpreter of the requirements of the Contract Documents and shall make findings as to the performance thereunder by the Contractor. The Contractor shall notify the City's Representative, in writing, within five (5) Working Days should the Contractor hold that a decision by the City's Representative is in error or at variance with the Contract Documents. If the question of error or variance is not resolved within five (5) Working Days, and the City's Representative decides that the Work in dispute shall be carried out, the Contractor shall act according to the City's Representative's written decision.

The City's Representative shall be authorized to represent and act for and on behalf of the City in connection with this Contract, to exercise all the rights granted to the City and to seek all the remedies available to the City under this Contract on behalf of the City. Any direction, request or document issued by the City's Representative shall be treated for all purposes under this Contract as having been issued by the City. All communications (whether written or oral), relating to this Contract including submittals and requests for authorization or approval, shall be addressed by the Contractor to the City's Representative, notwithstanding that the provisions of this Contract may refer to the City.

The City's Representative will not, except by written notice to the Contractor, stop or delay any part of the Work pending instructions or proposed changes in the Work.

If the City removes or replaces the City's Representative, the City shall appoint a City's Representative whose status, under the Contract, shall be that of the former City's Representative.

Nothing contained in the Contract Documents shall create any contractual relationship between the City's Representative and the Contractor.

## **2.5 City**

### **City's Responsibilities**

The City will promptly fulfill all of the City's responsibilities so as not to impede the Contractor's orderly performance of the Work.

The City will promptly consider requests by the Contractor for directions or decisions and diligently inform the City's Representative of the City's direction or decision within a reasonable time so as not to delay the Work.



The City will not enter into contracts with Other Project Participants that are incompatible or inconsistent with the Work to be provided under this Contract.

#### City's Property

The City shall indemnify and hold harmless the Contractor from and against all claims, demands, losses, costs, damages, actions, suits or proceedings arising out of the Contractor's performance of the Contract that are attributable to lack of title or a defect in the title, to the Place of the Work.

Materials at the Place of the Work not supplied by the Contractor, whether existing structures, vegetation, top soil, gravel, sand or other excavated or piled materials, are the property of the City or of the City of the land on which the Work is located. Only those materials specifically noted in the specification or on drawings as belonging to the Contractor shall become the Contractor's property.

#### City's Right of Entry

The City and City's Representative shall have the right to enter, occupy, and use the Work, in whole or in part, at any time before completion of the Contract, if such entry, occupation and use does not prevent or interfere with the performance of the Work by the Contractor.

Such entry, occupation and use shall neither be considered as acceptance of the Work by the City nor shall it relieve the Contractor of responsibility to complete the Work in accordance with this Contract.

### **2.6 Execution of the Work**

#### Contractor's Responsibilities and Control of the Work

The Contractor shall be prepared to begin the Work outlined in the Contract Documents in accordance with the Work Schedule.

Contractor shall perform work expeditiously and with adequate forces to achieve interim and Total Completion within the Contract Term. The Contractor shall meet each of the following Completion Dates or be liable for liquidated damages in each instance for failure to do so as provided in Section 8.9 - Liquidated Damages.

The Contractor shall have complete control of the Work and shall effectively direct and supervise the Work to ensure conformance with the Contract Documents. The Contractor shall be solely responsible for all the construction means, methods, techniques, sequences and procedures, and for coordinating all parts of the Work.

The Contractor shall have the sole responsibility for the design, erection, operation, maintenance and removal of temporary structures and other temporary facilities, and the design and execution of construction methods required in their use. The Contractor shall engage and pay for registered engineering personnel skilled in the appropriate discipline to perform these functions, where required by Law or by the Contract Documents, and in all cases where such temporary facilities and their methods of construction are of such a nature that professional engineering skill is required to produce safe and satisfactory results.

Notwithstanding the foregoing, the Contractor acknowledges that the City has appointed the City's Representative to administer this Contract for and on behalf of City and that the City's



Representative shall have the right to guide the Contractor with respect to the performance of its obligations pursuant to the terms of this Contract.

#### Work Schedule

The Contractor shall, within seven (7) days after execution of this Contract, prepare and submit to the City's Representative for review and approval, the following schedules:

A Gantt chart depiction of proposed project schedule;

A schedule of all Shop Drawings and submittals required

A schedule of material deliveries; and

A schedule of construction phases,

(Collectively, the "**Work Schedule**").

The Work Schedule shall show dates of commencement and completion of various parts of the Work, ordering and delivery dates of product, phasing and timing for various subcontracts, and all other detailed information, to the satisfaction of the City's Representative. Once accepted by the City's Representative, the Work Schedule shall be changed only in accordance with Section 2.7 Changes in the Work.

An updated Gantt chart shall accompany each monthly invoice.

If at any time the Contractor has been granted additional time under Section 2.7 Changes in the Work or Section 2.9 – Delays, it shall forthwith submit a revised Work Schedule to the City's Representative for review and approval, and same shall be in sufficient detail, to the satisfaction of the City's Representative.

The City reserves the right to withhold payment from the Contractor if such Work Schedule is not submitted within the seven (7) days provided above or, in the case of a Change Order, if a revised Work Schedule is not submitted prior to the next application for payment.

#### Progress Reports

The Contractor shall maintain an accurate record of the progress of the Work and shall, each week, submit such record to the City's Representative on the last Working Day of the week.

#### Place of the Work

##### Superintendence

The Contractor shall employ a competent superintendent who shall be in attendance at the Place of the Work at all times while the Work is being performed. If the superintendent is not at the Place of the Work, the Work is to cease. The superintendent shall represent the Contractor at the Place of the Work, and directions given to him shall be held to have been given to the Contractor. Directions may, at the sole discretion of the City's Representative, be confirmed by the City's Representative in writing to the Contractor.

The superintendent shall be satisfactory to the City's Representative and shall not be changed by the Contractor except for good reason, and only then after consultation with, and agreement by, the City's Representative.



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The City or the City's Representative, at its sole discretion, shall have the authority to order the removal from the Place of the Work of any superintendent, supervisor, foreman or other employee at the Place of the Work should the City or the City's Representative consider such person detrimental to the progress or quality of the Work. Any person so removed shall not be re-employed at the Place of the Work by the Contractor or by a Subcontractor.

#### **Access**

Necessary access or easements to the Place of the Work will be arranged by the City and the Contractor shall have use of this access for the purposes of this Contract. Any such use shall not interfere with operations of the City, any Other Project Participant or persons employed by the City, or with the rights of any other Persons.

The Contractor may wish to arrange for special easements, or special use of adjoining or neighbouring public or private properties, for the purpose of expediting the Work. The Contractor shall hold the City and the City's Representative harmless from any claims arising from use thereof.

#### **Use of Place of the Work**

The Contractor shall confine its equipment and plant, storage of materials and its operations to limits indicated by Laws, ordinances, permits, the Contract Documents or by specific direction of the City's Representative, and shall not unreasonably encumber the Place of the Work.

The Contractor shall protect the Work, the City's property and all property adjacent to the City's property from damage that may arise as a result of the Contractor's actions and shall be responsible for any damage to the same as a result of the Contractor's performance of the Work in accordance with Section 2.15 – Liability and Indemnity.

The Contractor shall not interfere in any way with the work or scheduling of any Other Project Participant or employee of the City. In order to avoid or minimize such interference, the City's Representative may, in its absolute discretion, establish schedules or methods and shall notify the Contractor accordingly. The Contractor shall, without receiving any additional payment, comply with the schedules or methods established by the City's Representative.

#### **Snow Removal**

The Contractor shall remove snow and ice from access roads, parking areas, office and storage areas. The Contractor shall remove snow and ice from other surfaces, as necessary for construction.

#### **Inspection of the Work**

The City, the City's Representative and their respective authorized representatives shall have access to the Place of the Work at any time for inspection of the Work. The Contractor shall cooperate and provide sufficient, safe and proper facilities for such access and review of the Work by the City and the City's Representative and the inspection of the Work by authorized agencies.

If special tests, inspections or approvals are required by the Contract Documents, the City's Representative's instructions or by Law, the Contractor shall give the City's Representative and where applicable, the relevant authorized authority, adequate prior notice of when such Work will be ready for review and inspection. Inspection by the City's Representative will be made promptly. Inspections by other authorities shall be arranged by the Contractor and the Contractor shall notify the City's Representative of the date and time that such inspection is scheduled. The Contractor



shall furnish, promptly to the City's Representative, two (2) copies of all certificates and inspection reports relating to the Work.

If, without the approval of the City's Representative or, where applicable, the authorized authority, the Contractor covers, or permits to be covered, any of the Work that is subject to special tests, inspection or approval before any such special tests and approvals are completed, the Contractor shall, if so directed, uncover such Work, to have the inspections or tests satisfactorily completed and thereafter recovered the Work at the Contractor's sole risk and expense.

The City's Representative may direct examination of Work beyond the usual inspections of the City's Representative. If such Work is found to be in accordance with the Contract Documents, the City shall pay the cost of such examination and, where applicable, recovering the Work.

## **2.7 Changes in the Work**

### **Change Orders**

The City may, but only through the City's Representative, without invalidating the Contract, make a Change by issuing a written change order ("**Change Order**") to the Contractor, which may, at the City's Representative's discretion, include adjustment of the Contract Price or Work Schedule. Subject to valuation pursuant to Section 2.7.2 – Valuation and Certificate of Changes in the Work, where applicable, the Contractor shall provide notice of whether it agrees with any such Change Order within three (3) Working Days of its receiving the Change Order from the City or the City's Representative. If the Contractor provides notice that it agrees with such proposed Change Order then the City's notice of change shall be effective and this Contract shall be amended as specified in such Change Order. If the Contractor does not respond within such three (3) Working Days it will be deemed to have agreed to the Change Order. If the Contractor provides notice that it disputes such Change Order within such three (3) Working Days, then the City may issue notice requiring the Contractor to comply with the Change Order, in which event the Contractor shall comply with the Change Order, but may refer its dispute with same to dispute resolution pursuant to Section 2.19 – Dispute Resolution. Payment for any additional work outlined in any Change Order shall be as provided therein.

The Contractor shall not make or proceed with any Change in any circumstances unless and until a Change Order has been issued by the City's Representative, provided that in the event of an emergency that the City or the City's Representative determines endangers or may endanger life or property, the Contractor will perform the Work according to oral instructions from the City or the City's Representative, which the City's Representative will confirm in a Change Order as soon as practicable after issuing any such oral instruction. In the case of ordered emergency work, the Contractor shall keep accurate records of actual costs incurred, and any time taken to address such emergency work, in order to support any claim for additional compensation, or any Change to the Work or change to the Work Schedule or Completion Date.

### **Valuation and Certification of Changes in the Work**

If the City's Representative is of the opinion that a Change in the Work is justified, the method of determining the costs of such Change shall be established by the City's Representative in one of, or a combination of, the following methods:

- a) By the Contractor's estimate and acceptance by the City of a lump sum;
- b) By Unit Prices set out in the Contract or subsequently agreed upon by the City and the Contractor;

- c) By the Contractor's net cost and a fixed or percentage fee as provided in the Contract Documents. On labour by the Contractor, twenty percent (20%) (Total) overhead and profit on the actual wage paid to workers will be allowed. All labour will be paid at straight time rates unless overtime is authorized in writing in advance. On material supplied by the Contractor, ten percent (10%) (Total) handling and profit will be allowed. On work of a Subcontractor, ten percent (10%) (Total) overhead and profit will be allowed. On equipment rental, including operator, fuel, grease and maintenance, either locally accepted rental rates or the "Schedule of Rental Rates for Construction Equipment, Including Model and Specification Reference – OPSS 127" (latest update of rates when available) will apply. The transportation costs for any equipment which has to be brought to the Place of the Work pursuant to a Change Order will be negotiated. The rental shall be paid for actual hours of use for the Work only.

Whenever practical, notice will be given of a proposed change by the issue of a Proposed Change Notice.

For Changes in the Work paid in accordance with above, the form of presentation of costs and methods of measurement shall be determined by the City's Representative and the Contractor before proceeding with the Change. The Contractor shall keep accurate records of quantities or costs and present an account of the cost of the Change in the Work, together with vouchers, where applicable.

For Changes in Work paid in accordance with above, the Contractor shall quote charges beside each item and attach a complete list breakdown showing separately, materials, labour, and percent mark-up for each item.

When the valuation of Change in Work is to be determined either by estimate and acceptance in a lump sum, or by cost and fixed or percentage fee, the valuation shall be in accordance with the following:

- a) Cost of material required for the change at list price less trade discount plus 5% profit;
- b) Cost of labour and supervision required for the change, including all statutory labour agreement charges as per mutually agreed hourly rates;
- c) Cost of the use of rented or owned equipment required for the change at standard rental rates plus transportation costs plus 5% profit.
- d) If requested, the Contractor shall submit details of quantities, prices and fees as outlined above, together with substantiating documentation.

If the method of valuation or measurement of the Change or modification to the Contract Price cannot be promptly agreed upon, then the City may issue notice requiring the Contractor to comply with the Change Order as issued by the City's Representative, in which event the Contractor shall comply with the Change Order. In the event that either party disputes a Change Order or the modification to the Contract Price therein, the City's Representative shall seek to settle all claims of the Contractor or of the City as soon as practicable. If the City's Representative cannot settle such a dispute either party may refer it to dispute resolution pursuant to Section 2.19 – Dispute Resolution.

#### Contractor Change Requests and Proposals

If the Contractor requests a Change to the Work, Work Schedule or Contract Price, the Contractor shall prepare and submit to the City's Representative, at no cost to the City, a detailed written



proposal for such proposed Change. If the City's Representative approves such Change proposal, the City's Representative shall, after approval by the City, issue a written Change Order to the Contractor to proceed with the Change. The value of work performed pursuant to the Change Order shall be included for payment with the next Progress Payment Certificate. If the City rejects such Change proposal, the City may instruct the Contractor to re-do the Change proposal, not proceed with any Change or issue a Change Order in accordance with Section 2.7.2 – Valuation and Certification of Changes in the Work.

If the Contractor proposes a Change to the City's Contract design or any component thereof, the Contractor shall prepare and submit to the City's Representative, at no cost to the City. Contract design changes may be accepted or rejected at the discretion of the City and the City's Representative. If the Contract design change is approved and the City and the Contractor have agreed upon the terms and conditions of such alternate design, the City's Representative shall issue a Change Order that reflects such agreed upon change.

## **2.8 Substantial Performance and Substantial Completion Certificate**

### **Notice of Substantial Performance**

When the Contractor is of the opinion that the Work is substantially performed, it shall give written notice to the City's Representative that the Contractor has reached Substantial Performance. The City's Representative shall, on behalf of the City, within five (5) Working Days of receipt of such notice, make an inspection and assessment of the Work. The City's Representative shall, within five (5) Working Days of making an inspection, advise the Contractor, in writing, of (i) any deficiencies in the Work, the costs of completing the Work and/or correcting any Work and, where applicable, a listing of the items of Work that cannot be completed on account of Force Majeure which do not impair the usefulness of the Work for the purposes intended; and (ii) whether a Substantial Completion Certificate will be issued. Thereafter the Contractor shall diligently and forthwith act to remedy any issues with the Work as identified by the City or the City's Representative.

In the event of deficiencies in the Work, in the opinion of the City's Representative, the City's Representative shall, in its absolute discretion, determine the Deficiency Holdback and certify such list of defects and/or deficiencies in the Work.

### **Substantial Completion Certificate**

When the Contractor is of the opinion that they have reached Total Completion of the Work, the Contractor shall give notice to the City's Representative identifying the date of Total Completion. Within five (5) Working Days of receipt of such notice, the City's Representative shall inspect and review the Work and shall either;

- a) issue a Substantial Completion Certificate, stating that the Work is ready for use, or is being used for the purposes intended, and indicate the Warranty Period; or
- b) Advise the Contractor of the reasons the Work is not fully complete.

Thereafter, the Contractor shall diligently and forthwith act to remedy any issues with the Work as identified by the City or the City's Representative, and thereafter may re-apply for a Substantial Completion Certificate in the manner hereinbefore provided. The issuance of the Substantial Completion Certificate shall not relieve the Contractor of any obligations pursuant to the Contract Documents.

## **2.9 Delays**

### **City's Delay**

If, in the opinion of the City's Representative, the Contractor is delayed in the performance of the Work or any part thereof as a result of any act, error or omission of the City, the City's Representative or any of their respective Personnel, the Contractor shall immediately, and in any event not later than five (5) days after the commencement of the delay, give written notice thereof to the City's Representative setting out in detail the cause of the delay and the effect of the delay on the Contractor's ability to carry out the Work, including the number of its Personnel made idle by such delay and the effect any such delay will have on the Work Schedule and any other matters the Contractor deems relevant.

If the City's Representative determines that the delay was caused by the City, the City's Representative or any of their respective Personnel, and that it affects the Contractor's ability to carry out the Work, the City's Representative may, by way of an issuance of a Change Order at its sole option and discretion, modify the Work Schedule, or otherwise extend the Construction Completion Date by an amount necessary to overcome the time lost as a result of the delay.

Bidders are advised that, should a labour dispute and/or job action occur involving City of Kenora municipal employees, during any of the time work is to be performed, it remains a requirement of the successful bidder/contractor that all works related to the project continue without interruption, and that the project be completed within the timelines detailed in the tender.

### **Contractor's Delay**

If the Contractor fails to perform the Work in accordance with the requirements of the Work Schedule or if the Contractor fails to comply with any Laws or OH&S Act requirements, including those set forth in this Contract, which results in an order that the Contractor immediately stop the Work or any part thereof or pursuant to the order of any authority, and, in the sole opinion of the City or the City's Representative, it appears that as a result of the foregoing the Contractor will not be able to meet the dates set out in the Work Schedule, the City or the City's Representative may request that the Contractor work overtime, acquire and utilize necessary additional equipment, hire additional qualified manpower or perform other acts as may be necessary to accelerate the progress of the Work so that it is done in accordance with the dates and time frame set out in the Work Schedule, at the sole expense of the Contractor. Night work will not be permitted and Work on Saturday and Sunday shall be in accordance with the Kenora bylaws where performance of the Work is being completed.

If such stop work order was not issued as a result of any act or fault of the Contractor or its Personnel, then the Work Schedule shall be adjusted or Completion Date extended as determined by the City or City's Representative.

### **Force Majeure Delay**

### **Force Majeure Event**

If the Contractor is rendered unable, wholly or in part, by a Force Majeure Event to carry out its obligations under the Contract, other than its obligations to make payment of money due hereunder, the Contractor shall give written notice to the City's Representative stating full particulars of such Force Majeure Event as soon as possible after the occurrence thereof, but in any event no later than five (5) days after the commencement of the Force Majeure Event. The

obligations of the Contractor that cannot be performed because of the Force Majeure Event shall be suspended during the continuance of any inability caused by the Force Majeure Event, provided that the Contractor takes all reasonable action to either remedy the effect of the Force Majeure Event or resume the performance of the suspended obligations with all reasonable dispatch.

#### **Extension of the Completion Date**

If the Work is suspended as a result of a Force Majeure Event and the City's Representative on investigation determines that the suspension will affect the Contractor's ability to attain Total Completion by the Completion Date, the City's Representative may, at its sole option and discretion, by way of a Change Order, extend the time for attaining Total Completion or extend the Completion Date by an amount equivalent to the duration of the suspension of Work caused by the Force Majeure Event.

#### **No Increase to the Contract Price**

If the time for attaining a Substantial Completion Certificate is extended pursuant to Section 2.9.3 – Force Majeure Delay, the Contractor shall not be entitled to an increase in the Contract Price, including payment of any costs incurred by the Contractor as a result of the suspension of Work. Where the Contractor experiences a Force Majeure Event and sends a written notice, such Force Majeure Event shall only excuse the Contractor's obligations for that portion of the Work that is directly affected by the Force Majeure Event.

No extension of the Contract Term shall be considered for delay unless written notice of claim is given to the City's Representative within fourteen (14) days of the commencement of the basis for such a claim.

### **2.10 Default and Termination**

#### **City's Right to Terminate for Default**

In addition to any other right or remedy that the City may have at Law, or otherwise, City shall have the right to terminate the Contractor's right to perform any or all of the Work or may terminate the Contract, by providing written notice to the Contractor in the event:

the Contractor becomes insolvent or unable to pay its debts generally as they become due, commits any act of bankruptcy, makes a general assignment for the benefit of creditors, or should a receiver be appointed on account of its insolvency, or should it take advantage of any legislation for the benefit of insolvent persons, or enter into any arrangement with its creditors, in any which case the Contract shall terminate immediately on issuing such notice; or

The Contractor, in the opinion of the City or City's Representative in its sole discretion:

Is neglecting to execute the Work properly or in accordance with the Work Schedule;

Is failing, or has failed, to perform any provision of the Contract;

Refuses or fails to supply sufficiently skilled workers, provide proper workmanship, supply sufficient or proper Products, construction machinery or equipment;

Persistently disregards Law or ordinances, or the City's Representative's instructions; or

Otherwise violates to a substantial degree the provisions of the Contract,

and the Contractor has failed to correct such failure or default within five (5) Working Days (or such other time as specified in the notice) of

receipt of notice; provided however, if the failure or default is such that, in the opinion of the City's Representative, it cannot be corrected within the time specified in the notice, the Contractor shall be deemed to have complied with the notice if the Contractor:

Commences the correction of the failure or default within the time specified in the notice; and

Furnishes the City's Representative with a schedule for such correction, acceptable to the City's Representative, within the time specified and completes such correction within the time or times set forth in such schedule.

If the City terminates the Contract or the Contractor's right to perform the Work in accordance with this Section 2.10.1 – City's Right to Terminate for Default, the City is entitled:

- a) to take possession of the Place of the Work and Products thereon and utilize the construction machinery and equipment, the whole subject to the rights of third parties, and to finish the Work by whatever methods the City may deem expedient but without undue delay or expense;
- b) To withhold any further payment to the Contractor until the Work has been completed in accordance with this Contract;
- c) upon Total Completion of the Work, charge the Contractor the amount by which the full cost of finishing the Work, as certified by the City's Representative, including compensation to the City's Representative for additional services and a reasonable allowance as determined by the City's Representative to cover the cost of any corrections which may be required by General Conditions Section 2.14 - Warranty, exceeds the unpaid balance of the Contract Price, or, if such cost of finishing the Work is less than the unpaid balance of the Contract Price, pay the Contractor the difference; and
- d) on expiry of the Warranty Period or periods, charge the Contractor the amount by which the cost of corrections under General Conditions Section 2.14 - Warranty exceeds the allowance provided for such corrections, as described in c) above, or, if the cost of such corrections is less than the allowance, pay the Contractor the difference.

#### Termination at City's Discretion

The City may, at any time, and for any reason, in its discretion, terminate the Work or any part thereof by giving written notice to the Contractor, whether or not the Contractor is in default. If the City terminates the Work in accordance with this Section 2.10.1, the Contractor shall be entitled to compensation for only the portion of the Work performed by the Contractor to the date of termination, subject to any claims the City may have arising therefrom under this Contract, at Law or otherwise.

#### Contractor's Right to Terminate

In addition to any other right or remedy that the Contractor may have at Law, or otherwise, the Contractor may terminate the Contract by providing written notice to the City, with a copy to the City's Representative, in the event:

- a) the City becomes insolvent or unable to pay its debts generally as they become due, commits any act of bankruptcy, makes a general assignment for the benefit of creditors,

or should a receiver be appointed on account of its insolvency, or should it take advantage of any legislation for the benefit of insolvent persons, or enter into any arrangement with its creditors, in any which case the Contract shall terminate immediately on issuing such notice;

- b) the Work should be stopped or otherwise delayed for a period of thirty (30) days or more under an order of any court, or other public authority, provided such order was not issued as the result of any act or fault of the Contractor or of anyone directly or indirectly employed by him, or acting on their request; or
- c) the City fails to pay to the Contractor within forty-five (45) days of the issue date of any Progress Payment Certificate, subject always to the City's rights under Law or this Contract to withhold payment or make deductions; provided such written notice shall advise the City that if such default is not corrected within ten (10) Working Days from the City's receipt of the written notice, the Contractor may, without prejudice to any other right or remedy the Contractor may have, terminate the Contract.

If the Contractor terminates the Contract under the provisions of Section 2.10.3 (b) set out above, the Contractor shall be entitled to be paid for all Work performed up to the date of termination. The City's Representative shall, in its absolute discretion, certify the value of such Work to the said date. If the Contractor terminates the Contract under the provisions of Section 2.10.3 (a) or (c) set out above, the Contractor shall also be entitled to two and one half percent (2 1/2%) of the difference between such value and the Contract Price, if such value is less than fifty percent (50%) of the Contract Price, and to five percent (5%) of the difference between such value and the Contract Price, if such value is fifty percent (50%) or more of the contract Price, in lieu of all other claims for damages.

## **2.11 Ownership of Documents and Models**

The Contractor agrees that all reports, surveys, studies, specifications, memoranda, drawings, other documents, work products and materials furnished by the Contractor, or by any Subcontractor to the Contractor ("**Project Documents**"), and used in the performance of the Work shall be the sole and exclusive property of the City or for use by the City for any purpose without any additional compensation to the Contractor or any Subcontractor and shall be immediately delivered to the City upon the City's written request. The Contractor shall not and shall cause its Subcontractors not to release or publish any data or documents used in the performance of the Work without the prior written consent of the City.

Other than as may be required for the performance of the Work hereunder, nothing in this Contract shall be construed as granting the Contractor any license or other right to use any intellectual or other property that the City, the City's Representative or their respective Personnel may now or hereafter own, possess, or in which the City, the City's Representative or their respective Personnel may hold licensing rights. The Engineering Documents are not to be used on any other project without the prior written consent of the City's Representative.

In addition, the parties agree that all work product, materials, documents and intellectual property (including without limitation all inventions, designs, ideas, discoveries, works, creations, patents, copyrights and trade-marks) and all intellectual property rights or other rights relating thereto developed by the Contractor or its Personnel during the course of, or in connection with, the performance of the Work, by the Contractor or its Personnel (collectively "**Work Product**") shall be the property of, and owned by, the City. The Contractor agrees that it has no Ownership rights of any kind therein.



The Contractor hereby assigns and, upon performance of each element of the Work, automatically assigns, to the City all of the Contractor's and its Personnel's right, title and interest, if any, in the Project Documents and Work Product. This assignment includes any and all rights to secure any intellectual property, patent, trade-mark, copyright, industrial design or other registrations (including any renewals or extensions thereto) with respect of the Work Product. The Contractor hereby unconditionally and irrevocably waives, and shall cause its Personnel to unconditionally and irrevocably waive, all moral rights of the Contractor or its Personnel that exist or may exist in any Work Product. The Contractor shall, upon the City's request, obtain from each and every one of its Personnel any agreement or assignment required to confirm Ownership rights in the Project Documents and Work Product in favour of the City, the licenses granted herein and the waiver of all moral rights therein.

If Contractor or its Personnel incorporate into any Project Documents or Work Product any pre-existing intellectual property owned by the Contractor or its Personnel or in which the Contractor or its Personnel has an interest, the City is hereby granted and shall have a nonexclusive, royalty-free, irrevocable, perpetual, worldwide license to make, have made, modify, use, sell, license (at any level) and in any other way exploit such pre-existing intellectual property as part of or in connection with such Project Documents or Work Product, without obligation to account to, or obtain consent from, the Contractor or its Personnel.

## **2.12 Subcontractors and Other Project Participants**

### **Subcontractors**

The Contractor agrees to incorporate in each subcontract, to the extent applicable, the terms and conditions of this Contract along with the requirement that no Subcontractor shall further subcontract any portion of its work without first receiving the written approval of the City's Representative, and a provision permitting the assignment of any such subcontract from the Contractor to the City.

The Contractor shall provide to the City a complete list of all of its Subcontractors prior to the commencement of the Work and the City and the City's Representative reserve the right to reject any Subcontractor or to require the termination of any subcontract at any time, and for any reason in the discretion of the City or City's Representative, including if, in the opinion of City or City's Representative, the Subcontractor is not capable of performing the Work in accordance with the requirements of the Contract Documents or fails to perform the Work in accordance with the requirements of the Contract Documents. As of the date hereof, the City has approved those Subcontractors listed in APPENDIX "TWO" – SUBMISSION DOCUMENTS. Subsequent approvals of Subcontractors by the City or the City's Representative must be in writing.

The City's approval of any Subcontractor shall not create any relationship whatsoever between the City and the City's Representative and any Subcontractor, but the Contractor shall be and remain fully liable to the City as if no such subcontract had been approved by the City.

Notwithstanding anything to the contrary contained herein, the Contractor shall remain fully responsible to the City for any act, omission, indebtedness, or Liabilities of any of the Contractor's Subcontractors and of any Personnel either directly or indirectly employed by its Subcontractors. The Contractor agrees to preserve and protect the rights of the City under the Contract with respect to any Work to be performed by Subcontractors.

### **Other Project Participants**

The City reserves the right to enter into separate contracts in connection with the Project and to coordinate insurance coverage.

The City's Representative will coordinate the work of Other Project Participants as it affects the Work of this Contract.

The City will take all reasonable precautions to avoid labour or other disputes on the Project arising from the work of Other Project Participants but shall not be in any way liable for delays or costs occasioned by such disputes, beyond the provisions of Section 2.9.1 – City's Delay.

The Contractor shall coordinate its work with that of Other Project Participants and connect or interface as described in Section 9 – Project Management and Coordination. If the Contractor causes delay to the Other Project Participants resulting in the work of the Other Project Participants being accelerated, the Contractor shall be solely liable for the costs of such acceleration.

The Contractor shall report to the City's Representative, in writing, any apparent deficiencies in Other Project Participants work which could affect the Work as prescribed by this Contract, immediately as they come to the Contractor's attention. Failure to report shall invalidate any claims by the Contractor against the City by reason of the deficiencies of Other Project Participants' work, except those deficiencies which the Contractor could not reasonably have been aware of.

### **2.13 Performance Assurance**

#### **Bonds**

The Contractor shall provide the Performance Bond and the Labour and Material Payment Bond prior to commencing any Work on this Contract.

The City shall have the right to require the Contractor to provide and maintain additional bonds throughout the performance of the Contract, as specified by the City or the City's Representative from time to time. If the City requests bonds of the Contractor that were not required prior to the execution of this Contract, the City shall reimburse for such cost, the Contractor on receipt of a receipted premium demand and the executed bond itself.

All bonds shall be issued by a duly incorporated surety company approved by the City and authorized to transact a business of suretyship in the Province of Ontario. The forms of such bonds shall be acceptable to the City.

### **2.14 Warranty**

#### **Warranties**

The Contractor represents and warrants that all Work, including Products, performed or provided by the Contractor shall be performed or provided (a) in a good and workmanlike manner; (b) in compliance with the Contract Documents and instructions of City or City's Representative, as the case may be; and (c) free from defects in design, workmanship and materials, and free of any defect in title.

To ensure the City has benefit of any and all Products or system warranties offered by manufacturers or others, the Contractor shall ensure that all Warranties are assignable and are assigned to the City in the City's name. Such assignment shall not relieve the Contractor of its obligations under this Section 2.14 – Warranty.



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No certificate of the City's Representative nor payment hereunder shall relieve the Contractor from its responsibility herein.

#### Rejected Work

City's Representative shall have the right to reject any Work or Products, or any part of the Work or Products, whether incorporated into the Work or not, which in the opinion of the City's Representative is defective or fails to comply with the requirements of the Contract Documents.

#### Remedies for Breach of Warranty

Notwithstanding any other remedies the City may have hereunder, at Law or otherwise, the Contractor shall, at its sole expense, promptly correct or remedy any defect or failure in the Work performed by the Contractor and correct, remedy or replace, at the Contractor's sole expense, any failure or defect in the Products supplied by the Contractor, whether incorporated into the Work or not, which appears defective:

- a) in relation to Work performed before the Substantial Completion Certificate is issued, during a period of one (1) years after the Substantial Completion Certificate is issued; and
- b) In relation to Work performed after the Substantial Completion Certificate is issued, during a period of one (1) years following the date that Work is fully completed,

(Referred to in this Section as the "**Remedial Work**").

The Contractor agrees that it shall be solely responsible for the Remedial Work and shall pay for the cost of Remedial Work, together with the cost of any damage to other work or property caused by the defect, failure or Remedial Work and the cost of any testing as the City may require to verify the Remedial Work complies with the requirements of the Contract Documents or the Remedial Work performed in relation to other work or property is performed satisfactorily.

The Contractor further warrants that the Remedial Work shall be free from failure or defect for a period of the later of: Warranty Period; or one year following the completion of the Remedial Work, whichever is longer and that it shall promptly repair or replace any Remedial Work which appears defective prior to or during the first year from the date the Remedial Work is completed, and shall bear the cost of any damage to other work or property caused by the defect, failure or Remedial Work and the cost of any testing as City may require to verify the Remedial Work complies with the requirements of the Contract Documents or the Remedial Work performed in relation to other work or property is performed satisfactorily.

#### City Performed Remedial Work

The City reserves the right to correct defective or rejected Work and deduct the cost of the same from the Contract Price.

The City may, in an emergency or if the Contractor fails to correct defects for any reason, perform the Work or Remedial Work, or direct someone else on its behalf to perform the same, and deduct the cost of the same from the Contract Price.

#### Non Performance of the Remedial Work

If, in the opinion of the City's Representative, it is not expedient to correct defective Work or Work not completed in accordance with the Contract Documents, the City may deduct from the Contract





Price the difference in value between the Work completed to date and the Work completed as required by the Contract; the amount of which shall be determined by the City's Representative in its absolute discretion.

#### Notice of Defects

Each party hereto shall promptly provide written notice to the other, with a copy to the City's Representative, of any observed defects or deficiencies in the Work, including Products supplied by the Contractor or its Subcontractors, whether it is Work required by this Contract or Remedial Work. Provision of such Notice shall not relieve the Contractor of any of its obligations hereunder.

The City's Representative will endeavour, two (2) months prior to termination of the Warranty Period, notify the City and the Contractor, by written notice, that a final inspection of the Work is required and shall, in such notice, fix a date for such inspection which shall be within the next ten (10) days. The inspection will be carried out by the City's Representative, who may be accompanied by the City and the Contractor. The City's Representative will record defects requiring repair or correction and will instruct the Contractor, in writing, to remedy such defects within fifteen (15) days. If the Contractor refuses or neglects, for any reason, to correct such defects, the City may correct them or direct someone else, on its behalf, to correct them, and charge the Contractor for all costs of such correction.

#### Final Acceptance Certificate

The Contractor is not relieved of their obligation to maintain the Work until such time as the City signs the Final Acceptance Certificate. The City may request an extension to the Warranty Period due to faulty materials or poor workmanship. The Contractor will be held responsible for maintaining the system for this period of extension at no cost to the City.

After due notification, in writing, to the Contractor, the City may proceed with correction of any fault at the expense of the Contractor and their surety. In emergency situations endangering life or public property, the City shall proceed with repairs and thereupon advise the Contractor of the failure, and resulting costs shall be paid by the Contractor.

The City's Representative will issue a Final Acceptance Certificate to the Contractor when the Warranty Period is complete, all maintenance deficiencies are rectified, and approval has been received from the City.

### **2.15 Liability and Indemnity**

#### Liability

Each party hereto shall be liable to the other party for all Liabilities of whatever nature which may be brought against the other party or which the other party may incur, sustain or pay that is attributable to or arises out of the fault or negligence of such party or such party's Personnel. The party that is liable to the other shall, where applicable, be subrogated to the rights of the other party in respect of such fault or negligence.

#### Indemnification

The Contractor shall at all times and without limitation, be fully liable for, and shall indemnify and save harmless the City and its Personnel, including the City Representative, from and against all liabilities, losses, injuries, costs, damages, legal fees, disbursements, fines, penalties, expenses,

all manner of actions, causes of action, claims, demands and proceedings, all of whatever nature and kind, which any of the City and its Personnel may sustain, pay or incur or which may be brought or made against all or any of them, and whether or not incurred, in connection with any action or other proceedings or claims or demands made by third parties, relating to, or resulting from or arising out of all or any of the following:

- (a) The misconduct, omission, negligent action or negligent failure to act, as the case may be, of the Contractor or any of those Persons for whom the Contractor is responsible at Law (including, without limitation, any of its Personnel or Subcontractors);
- (b) The costs of repairs, clean-up or restoration paid by the City and any fines levied against the City or the Contractor;
- (c) any breach, violation or non-performance of any representation, warranty, obligation, covenant, condition or agreement in this Contract set forth and contained on the part of the Contractor to be fulfilled, kept, observed or performed, as the case may be;
- (d) any damages to third parties caused by, resulting at any time from, arising out of or in consequence of the misconduct, negligent action or failure to act of the Contractor or any of those Persons for whom the Contractor is responsible at Law (including, without limitation, any of its Personnel or Subcontractors);
- (e) any damages, costs, fines, expenses and penalties that the City is required to pay on account of the Contractor performing the Work in breach of any Workers Compensation Legislation order or regulation, liens filed against any part of the Work or Products after the time available to the Contractor for filing liens;
- (f) any damages, costs, fines, expenses and penalties arising out of or as a result of the Contractor's failure, or the failure of any Person for whom the Contractor is responsible at Law, to comply with the requirements of any environmental regulations and save harmless the City from any environmental deficiencies caused by the Contractor or any of its Personnel or anyone for whose acts or omissions the Contractor may be liable;
- (g) any liabilities arising in connection with any damage to property or injury to any Person or Other Project Participant arising in the performance of the Work, including any Remedial Work; or
- (h) Any non-compliance by the Contractor or any of its Personnel or anyone for whose acts or omissions the Contractor may be liable with any Laws, including all OH&S Act requirements at the Place of the Work.

The provisions under this section are in addition to and shall not prejudice any other rights of the City at Law or in equity.

The City shall indemnify and hold harmless the Contractor and its Personnel from and against claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of the Contractor's performance of the Contract which are attributable to a lack of or defect in title to the Project Site.

If the City performs work at the Project Site at the same time as the Contractor is performing the Work, then the City shall indemnify and hold harmless the Contractor and its Personnel from and against claims, demands, losses, costs, damages, actions, suits or proceedings by third parties that arise out of or are attributable to, any act or omission or alleged act or omission of the City and its Personnel in the performance of that work.



Claims under this Section shall be made, in writing, to the party liable within ten (10) Working Days after the first observance of such claim or damage, and may be settled by negotiation, or in the manner set out in Section 2.19 – Dispute Resolution, for the settlement of disputes.

If the Contractor becomes liable to pay or satisfy any final order, judgment or award against the City, then the Contractor, upon undertaking to indemnify the City against any and all costs, shall have the right to appeal in the name of the City such final order or judgment to any and all courts of competent jurisdiction.

Nothing in the Contract Documents or any approval, expressed or implied, of the City's Representative or the City, shall relieve the Contractor of any liability as set forth herein or which may be imposed by Law. The indemnity shall be limited in the respect of the work performed or services rendered within this contract.

### **2.16 Worker's Compensation**

Prior to commencing Work, and to accompany all progress payments/invoicing including holdback releases, and at any time during the Contract Term, when requested by the City's Representative, the Contractor shall provide evidence that the Contractor and all Subcontractors have complied with all requirements of the Province in which the Work is being completed with respect to Workers' Compensation, including payments due thereunder.

### **2.17 Miscellaneous**

#### **Entire Agreement**

This Contract constitutes the entire agreement between the City and the Contractor relating to the Work and supersedes all prior agreements between them, whether written or oral, respecting the Work. No other terms, conditions or warranties, whether express or implied, form a part of this Contract.

#### **Time of Essence**

Time is of the essence for this Contract.

#### **Assignment**

Neither party to the Contract shall assign the Contract, nor any portion thereof, without the prior written consent of the other.

#### **Waiver**

Failure by either party to insist on any one or more instances upon the strict performance of any one of the covenants contained herein shall not be construed as a waiver or relinquishment of such covenants. For greater certainty, if the Contractor fails to complete the Work, or any specified portion of the Work, within the times specified in the Work Schedule, but nevertheless is permitted to proceed and complete the Work, such permission shall not modify nor waive in any respect any responsibility of the Contractor for damages arising from such non-completion within the time specified.

No waiver by any party of any such covenant shall be deemed to have been made unless expressly made in writing signed by the waiving party.



#### Amendment

No change to this Contract or of any term or condition hereof shall be valid unless reduced to writing and signed by both parties hereto or made pursuant to a Change Order issued pursuant to this Contract.

#### Rights and Remedies Cumulative

Notwithstanding any other provisions of this Contract, the rights, remedies, warranties and indemnities provided to City under this Contract shall be cumulative and in addition to and not in substitution for any rights, remedies, warranties or indemnities provided by Law or in equity or otherwise.

#### Joint and Several

If Contractor is a joint venture or partnership, the Persons comprising the joint venture or partnership are jointly and severally liable to City for the joint venture or partnership's obligations pursuant to this Contract and Contractor represents and warrants that it has due authorization and authority to execute this Contract on behalf of the other joint venturers or partners and bind such joint venturers or partners hereto.

#### Further Assurances

The parties shall from time to time execute such further documents and instruments and do all acts and things as the other party may reasonably require to effectively carry out or better evidence or perfect the full intent and meaning of this Contract. This includes, but is not limited to, all acts or documentation required by City to effectively carry out or evidence tax credits or refund claims.

#### Survival

All covenants, agreements, representations, warranties and indemnities which by their nature extend beyond any termination or expiry of this Contract shall, notwithstanding anything else herein contained, continue in full force and effect notwithstanding the expiration or termination of this Contract.

### **2.18 Insurance**

The Contractor shall provide, maintain and pay for the insurance coverage's listed hereafter.

The specific minimum requirements of insurance required under this Contract are as follows:

Comprehensive Public Liability and Property Damage Insurance, Ten Million Dollars (\$10,000,000.00).

Automobile Liability Insurance, Ten Million Dollars (\$10,000,000.00).

Unmanned aerial vehicle liability insurance with respect to owned or non-owned aircraft (if used directly or indirectly in the performance of the Work), Five Million Dollars (\$5,000,000.00)

Without in any way limiting the obligations or liabilities of the Contractor, the Contractor shall maintain and keep in force during the Contract Term until the date specified in the Final

Acceptance Certificate, in an insurance company or companies and under policies of insurance acceptable to and approved by the City, the following insurance with limits not less than that shown under the Special Conditions of the Contract. Insurance policies shall remain in force for the duration of the contract, including the specified Warranty Period and until the date of issuance of the Final Acceptance Certificate. No policy shall be altered in any manner that would affect the interest of the City, nor cancelled, either by the Contractor or the insurer, without thirty (30) days' notice by registered mail to the City. When changes in the contract are material to the risk, the Contractor shall notify the insurance and the surety. All policies required under this clause shall name the City and the City's Representative as an additional insured, and shall indemnify the City and the City's Representative, their officers and agents.

Automobile Liability Insurance on all vehicles used in connection with the work under this contract, whether owned by the contractor or their sub-contractors or not, shall include any and all liability assumed under this contract.

Aircraft or Watercraft Liability covering all licensed craft, whether owned by either the Contractor or the sub-contractor or chartered, used in connection with the work under this contract shall cover any liability assumed under this contract.

Comprehensive Public Liability and Property Damage Insurance shall apply to all operations of the contractor in connection with this contract. This protection shall include, but not be limited to, the contractor's contingent liability with respect to subcontractors, contractual liability assumed under this contract, completed operations, and, if Worker's Compensation Act is not applicable, to any employees of the contractor or their subcontractors employer's liability. The Contractor shall have the City and the City's Representative added as an additional insured, with cross-liability to such insurance. The City shall be named as a certificate holder on all policies/coverages.

The Contractor shall deposit with the City, at the office from which the contract is let, before commencement of the work, insurance policies or certified copies thereof, required under the above. Original policies will be returned to the contractor without undue delay.

## **2.19 Dispute Resolution**

The parties will make reasonable efforts to resolve disputes arising under this Contract by amicable negotiations. They agree to provide frank, candid and timely disclosure of relevant facts, information and documents to facilitate these negotiations, without prejudice to their rights and recourses. If within ten (10) Working Days, representatives of the parties cannot resolve a matter, the matter will be escalated to an appropriate senior officer of each the City, the City's Representative and the Contractor.

If a dispute has not been resolved by negotiations by senior officers of the parties within ten (10) Working Days from the date it is referred to them, either party may notify the other party that it wishes the dispute to be resolved by mediation. If the parties are unable to agree upon the choice of a mediator, either party may apply to a superior court in the jurisdiction where the project is located to appoint a mediator.

Should mediation not resolve the dispute, a party may refer the unresolved dispute to the courts or, upon mutual agreement, to any other form of dispute resolution, including binding arbitration.

Unless the parties otherwise agree, any mediation or arbitration under this Contract will be conducted in accordance with Ontario Rules of Court (the New Rules) - Alternative Dispute



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Resolution, as applied to and compatible with this Contract, save that arbitration will be limited to a single arbitrator.

Any endeavour to resolve disputes arising out of this Contract by negotiation, mediation or other means of dispute resolution, including arbitration, will be conducted on a confidential basis.

The parties agree to submit to the exclusive jurisdiction of the courts in the Place of the Work if a dispute is to be resolved by the courts, or to mediation or arbitration at the Place of the Work if a dispute is to be resolved by mediation or arbitration.

**END OF SECTION**



### **3. SUPPLEMENTARY CONDITIONS (00800)**

Supplementary conditions shall not apply to this tender

**END OF SECTION**

## **4. GENERAL REQUIREMENTS (01010)**

### **4.1 General**

The Contractor acknowledges that it has examined the Place of the Work under this Contract, and is completely familiar with every detail of the scope and intent of the Work required. The Contractor further acknowledges that it has examined the site and the surrounding areas, and is familiar with all conditions and/or restrictions that could affect or limit their operation due to such things as environmental constraints, public traffic, existing utilities, and property of others. The Contractor shall supply all materials required for this Contract.

### **4.2 Safety Requirements**

The Contractor must possess a Clearance Certificate (CC) that is relevant to their industry and that is issued by Ontario Workplace Safety and Insurance Board.

The Contractor shall be the Prime Contractor for the Project, pursuant to all Laws and the OH&S Act, and shall have primary responsibility for the safety of all workers and equipment on the Project in accordance with such Laws.

During the progress of the Work, the Contractor shall complete Monthly Health and Safety Summary Reports and submit these reports to the City's Representative's Representative at the end of each month.

The Contractor shall adhere to the City's Health and Safety Policy. Prior to the commencement of Work the Contractor will be required to review and submit a signed copy of the City "Contractor Safety Program" along with applicable documents in the "Contractor Document Requirements", as identified and requested by the City.

### **4.3 Municipal Water System**

It is imperative that all works performed on the City's water distribution system be documented in order to satisfy requirements of the MECP. To that end, the City has provided a form which is appended to this document, detailing critical activities relating to water works proposed under this Contract.

Upon commencement of water works in each section of the project area, the Contractor shall initiate a dedicated form for that location, in order to provide a record of activities including but not limited to, valve operations by the City, disinfection of temporary water mains, cuts made to existing water mains, and confirmatory sampling performed by the City prior to the commissioning of any newly-constructed mains.

The form shall be kept up-to-date, and shall be available on the job site at all times to record activities as they occur.

The City will provide the Contractor a more detailed overview of this form during pre-job discussions.

The Contractor may be required to tie into a municipal water system to undertake the proposed Work. When this is required, the Contractor shall:

Notify the City of the proposed Work and schedule. Have the City exercise the applicable valves prior to proceeding with the Work.





Supply all water necessary for the Work and obtain written permission from the City prior to using any hydrants.

The City will require their own personnel to operate their valves and/or hydrants. The Contractor shall not operate any valve or hydrant connected to the City's water system.

Make an agreement with the City for use of City water.

Be responsible for the supply of all water necessary for the Work.

Supply 1 week written notice to any property Owner affected by water service disruption and a 48 hour follow up notice.

Provide alternative water service if the water disruption is longer than four (4) hours.

Each existing or planned water connection must receive their own dedicated temporary water service, including multi unit residences where more than 1 services is existing or planned. Building to building water connections are not permitted.

The above noted requirements shall be done at the Contractor's cost.

#### **4.4 Anti-Tamper Devices**

The contractor is responsible for providing an anti-tamper / vandalism device to protect temporary water connections at the backflow prevention system. The device must be approved by the City of Kenora representative prior to installation.

#### **4.5 Water Main Testing**

Water main testing is to occur as per OPSS 441. The City of Kenora Representative must be present to witness the water main testing procedures.

#### **4.6 Water Main Disinfection**

See Appendix "E" – Water Main Disinfection Procedures for MECP regulations on water main disinfection including new mains and temporary water connections. Contractor to verify Water Main Disinfection Procedures is the most recent publication by the MECP.

The contractor is responsible for all required disinfection of new water mains and any temporary water connections required.

Backflow prevention devices are to be supplied, installed, tested and certified by the Contractor. The Contractor must provide the City Representative with proof of testing and installation certifications as outlined in Appendix "E" – Water Main Disinfection Procedures Section 1.1.1.

The City of Kenora Operator in Charge must be present during final connections of new water mains including new mains and temporary water. The City of Kenora Operator in Charge must also be present during disinfection to confirm the chlorine dosages and residuals.

#### **4.7 Notification of Disruption of Water Services**

If water service disruption is necessary to carry out the work, provide written notice to residents or occupants of the building 1 week in advance. Identify the duration of the water disruption.

Provide temporary water supply to buildings if existing water service connections are shut down. The cost shall be included in the overall tender price. No extra payment will be allowed.

During normal working hours, i.e. 8:00 a.m. – 4:30 p.m., Monday through Friday, notify the City 24 hours in advance for shutting down of water supply to buildings and/or operating (opening/closing) of water valves. Works intended by the Contractor to be performed outside of normal City working hours, should be preceded by a minimum notice period of two working days provided to the City, in order to ensure the City's ability to respond.

#### **4.8 Salvage and Disposal of Materials**

Materials taken off-site for salvage or disposal at a site of the Contractor's choice, or at a designated municipal site or other site as directed by the City's Representative, shall be disposed of in a manner suitable to the City's Representative.

Material designated for salvage shall be carefully handled and not damaged, and neatly stockpiled. Written approval is required from the Owners of the disposal sites that they are satisfied with the disposal and the cleanup of their property, and shall be submitted as evidence of their acceptance before final payment is made.

The MECP has mandated that plans are now required for the management of excess construction soil. The Contractor shall maintain a record of all materials excavated and removed from the job site. All excavated materials originating from within the job site shall be recorded, the record to include point of origin of the load within the project limits, hauling destination, identification of the haulage vehicle and volume of soil in cubic metres. A copy of the load slip shall be provided to the City including a summary sheet identifying daily and total volumes of soil for each disposal site utilized by the Contractor.

Any hydro-carbon impacted material encountered during excavation shall be reported to the City. No such material shall be moved off-site until a toxicity characteristic leaching procedure (TCLP) has been performed on the subject material. The Contractor shall be aware of the time-lag involved in the sampling, shipping, laboratory analysis, and reporting of results, and shall schedule their work accordingly. The City will not entertain claims from the Contractor related to the delay period associated with the time-lag while the contaminated and impacted soils are being tested, and the disposal of the contaminated and impacted soils are included in the required scope of work of the project. Confirmed contaminated and impacted soils will typically be directed to the Kenora Area Landfill located on the Jones Road approximately 12km north of Highway 17A, and disposal will be based on a weight basis via the City of Kenora Transfer Station weigh scale located at 401 Mellick Avenue.

#### **4.9 Coordination**

##### **Cooperation**

The Contractor shall cooperate with Other Project Participants and ensure that all of its Subcontractors cooperate with each other, and with Other Project Participants, to ensure that work will be carried out expeditiously.

The Contractor shall ensure that all Subcontractors examine the drawings and specifications covering the work of others that may affect the performance of their work. The Contractor shall examine the work of others and report to the City's Representative, in writing, of any defects or



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deficiencies that may affect its Work. In the absence of any such report, the Contractor shall be held to have waived all claims due to defects in such Work.

#### Use of Premises

Because of other work within, and adjacent to, the Place of the Work, the Contractor shall not have the exclusive occupancy of the area within, or adjacent to, the Place of the Work. The Contractor shall cooperate with companies, the Owners of various utilities and Other Project Participants, and shall coordinate and arrange the sequence of its Work in order to expedite the completion of the project while upholding the OH&S "Constructor" responsibilities and requirements.

The Contractor shall confine apparatus, the storage of Products and the operations of workers to limits indicated by Laws, ordinances, permits and by directions of the City's Representative. The Contractor shall not unreasonably clutter the premises with Products.

#### Responsibility for Existing Features

All of the existing facilities, whether or not shown on the drawings, must remain in service in their present locations or as described, and shall be protected by the Contractor against damage by construction equipment and operations until the temporary or permanent replacement facilities are in place and in service. The City's Representative has shown the existing facilities on the contract drawings from information made available from the Owners of each facility. The City's Representative assumes no responsibility for the accuracy or completeness of the information shown.

Location of existing facilities shall be investigated and verified in the field by the Contractor. Excavation in the vicinity of existing structures and utilities shall be carefully performed. The Contractor will be held responsible for any damage to, and for maintenance and protection of, existing structures and utilities.

The locating of any utilities is the responsibility of the Contractor, who shall pay for any service supplied for that purpose.

Fences, or other existing features at locations that interfere with construction operations, shall be safely removed by the Contractor and re-erected on completion of the works as required by the City's Representative.

The Contractor shall notify and obtain locates from the appropriate representatives of utility companies or departments of its intention to carry out operations in the vicinity of any utility structure, at least one (1) week in advance of commencement of such operations and shall maintain current locate clearance certificates and utility agreements. The Contractor shall provide the City Representative with locate certificates and utility agreements for record within five (5) days after receiving them. The Contractor shall be responsible for any errors or omissions with respect to the required locates/clearance certificates and or utility agreements including but not limited to void/expired locate certificates and or utility agreements charges. The Contractor shall indemnify the City with respect to any charges and or penalties laid against the City due to Contractor negligence. If so required the City may retain the right to deduct charges laid against the City due to Contractor negligence, from the contract Work.

The Contractor shall make suitable arrangement with the utility company or municipal department for the protection of pipelines, conduits, drains, lines, wiring or other structures, whether

underground, on the surface or overhead, and satisfy the company or department that the methods or operations are effective.

#### **Conflict with Existing Services**

Where it becomes necessary to relocate existing main lines or house connections due to conflict with new installations, extra compensation may be allowed for such Work under the Change provisions (Section 2.7 – Changes in the Work) of this Contract. The Contractor shall prospect ahead of excavation for pipe likely to cross trench and take care to avoid damage to such pipe lines. If damage occurs, the Contractor shall replace damaged pipe lines at Contractor's expense and no additional cost to City. In each case, prior to commencing work, the Contractor shall obtain City's Representative's approval for method of relocation.

Payment for the work of relocation, including extra materials, will be made as "Changes in the Work". The Contractor shall maintain on hand a supply of such pipe and fittings so that work is not unduly delayed. No payment will be made for exploratory excavations, any delay caused in progress of Work or for standing time of equipment or men idle during work of relocation.

#### **Construction Constraints**

The Contractor's work schedule shall recognize the constraints placed on their work program by the existing and proposed facilities, whether or not described herein or on the drawings, and whether or not the relocated facilities are wholly or partially constructed under this contract or by others.

#### **4.10 Specifications**

For convenience of reference only, the specifications are separated into titled sections (see Table of Contents). Sections are identified by title and the correlating specification number.

#### **4.11 Haul Routes**

All hauling on local roads or municipal streets is to be on designated truck routes only, unless special permission is received from the City or Ministry of Transportation Ontario.

The Contractor shall obtain approval from the Municipality, City, and City's Representative prior to using any road as a haul road.

The Contractor shall be responsible for damage and/or spillage on all roads used for hauling materials and equipment to and from the Place of the Work, subject to the City's Representative being satisfied such damage or spillage was a direct result of the actions of the Contractor or one of the Contractor's agents in the performance of the Work required under this Contract.

The Contractor shall be responsible for regular maintenance of haul roads including dust control.

Upon notification by the City's Representative that Remedial Work is necessary, the Contractor shall immediately clean and/or restore the affected areas designated by the City's Representative. This Work shall be performed at no extra cost to the City.

#### **4.12 Examination**

The Contractor shall examine drawings and soils reports, and visit the Place of the Work to determine existing conditions. No additional compensation will be given for extra work due to existing conditions that such examination should have disclosed.

The Contractor shall examine previously constructed work. Notify City's Representative in writing of any conditions which may prejudice proper completion of the work. Commencement of work implies acceptance of existing conditions.

It shall be the Contractor's responsibility to examine all other drawings and specifications that may have an effect on any portion of the Work to be undertaken, and verify in the field all connections to, and locations of, all existing structures and equipment.

#### **4.13 Protection**

The Contractor shall protect all monuments, bench marks, stakes and lines and any existing structures, services, appurtenances, trees and shrubs located at the Place of the Work. Disturbed, affected and/or missing survey bars to be re-instated by an Ontario Land Surveyor at no cost to the City.

The Contractor shall repair or replace items damaged by this Work to City's Representative's approval at Contractor's expense, and at no cost to City.

The Contractor shall notify the City's Representative forty eight (48) hours in advance of the required removal of any survey points.

When compacting around concrete structures, the Contractor shall use portable vibrators.

#### **4.14 De-watering**

The Contractor shall keep excavations free of water at all times by trenching, well points, ditches, sumps and pumps of sufficient capacity. The method and location of piping for water disposal shall be to governing authorities' approval.

Water flow through fresh concrete is not permitted. The Contractor shall bypass pump to the next manhole during placing of concrete, and for at least twenty four (24) hours after, unless from sumps separated from concrete with watertight walls or other methods approved by City's Representative.

Water flow over inverts, foundations, and pipe joints, or through utilities piping, is not permitted unless approved by City's Representative in writing.

#### **4.15 Notification of Residents**

##### **General**

The Contractor shall notify, in writing, every business/resident whose lot is fronting, backing or immediately adjacent to the construction site, at least seven (7) days in advance of construction in the affected areas. Print notice on the Contractor's letterhead and submit for review to the City's Representative prior to delivery. Give approximate dates of construction in affected areas and clearly indicate Contractor's name, address and telephone number, as well as a telephone number which residents can call for 24 hour emergency service. This notice shall also include a contact person for reporting damage to personal property, alternative parking, access, garbage disposal and temporary water systems. A notice which warns parents of the dangers that exist on construction sites should be included in a notice delivered to every household in the vicinity of construction.

##### **Notification of Disruption of Sanitary Services**



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**01010**

In the event that it should become necessary to disrupt sanitary services to any building during construction, the Contractor is required to provide written notice 7 days prior to the intended disruption.

Any disruption to private residences must be restricted to the Contractors working hours. Temporary services shall be provided to the residents after the Contractor has completed work for the day if required. The cost shall be included in the overall tender price. No extra payments will be allowed.

**END OF SECTION**

## **5. CONSTRUCTION SURVEY (01050)**

### **5.1 Requirements Included**

The Contractor shall provide a dedicated project surveyor for the duration of the work with total station and/or GPS methods/capability.

The Contractor is responsible for field engineering survey services to manage the installation of the Work using horizontal and vertical survey control referenced from existing survey monuments or benchmarks. The Contractor is expected to establish their own control points if a total station is being utilized on the project. The City will provide the Contractor, within reason, GPS coordinates for such points in a Northing, Easting, and Elevation format. The Contractor shall work within the coordinate system implied by these values. Any discrepancies between assigned GPS coordinates and total station measurements shall be reported to the City immediately.

If survey-grade GPS is being used by the Contractor, the City will, in conjunction with the project surveyor perform comparative measurements on fixed points at key locations. In the case of significant discrepancies, the City may elect to have the Contractor complete the survey works with a total station.

Prior to ground disturbance in any of the locations outlined in this Tender, the Contractor shall perform a topographic survey of existing conditions at each of the locations, including at a minimum, centerlines, edges of pavement, sidewalks, and adjacent private walkways and driveways. Any additional features likely to become obscured by construction activities, such as water valves and maintenance holes, should be included in the Contractor's survey, as should any other features likely to be impacted or altered by construction.

The Contractor is to determine that all survey is correct prior to starting construction.

### **5.2 Survey Control**

The City Representative shall provide the Contractor a copy of their survey control for the purpose of checking and confirming record information.

The Contractor shall be responsible for the conformance and recording of the finished work to this data, even though it may be checked by the City's Representative. The City's Representative's accepts no responsibility regarding the data it has supplied. Critical elevations (existing elevations, etc.) are to be surveyed by the Contractor, and any discrepancies or deviations from the plans are to be reported immediately to the City's Representative.

The Contractor shall employ on this Contract sufficient persons capable of controlling grades and alignments, preparing record drawings, etc. from the plan data provided by the City's Representative.

When rechecking of the work is required because of previous deficiencies, the Contractor shall reimburse the City for all costs incurred.

### **5.3 Construction Survey Layout**

The Contractor will set a reference point hubline, for elevations and lines, with hubs at intervals which the City's Representative deems suitable for the performance of the work. Grade sheets will be submitted to the City's representative for underground utilities and surface construction.

**END OF SECTION**



## **6. REGULATORY REQUIREMENTS (01060)**

### **6.1 General**

#### Permits/Inspections/Fees/Certificates

The Contractor shall provide all necessary notices, and obtain and pay for all permits, licenses, certificates and governmental inspections in force required for the performance of the Work.

All necessary certificates shall be furnished as evidence that the installations conform to the laws and regulations of all authorities having jurisdiction, before final certificates are issued.

The Contractor shall give all required notices and comply with all local, provincial and federal laws, ordinances, rules, regulations, codes and orders relating to the Work, that are in force, or become in force, during the performance of the Work.

### **6.2 Applicable Codes/Standards**

Where dates with specified standards are noted, or where specified standards are not dated, the Contractor shall conform to the latest issue of specified standards, as amended and revised to the date of execution of this Contract.

### **6.3 Safety**

The Contractor shall observe and enforce all construction safety measures required by all Laws, codes, the Workplace Safety & Insurance Board, the OH&S Act and all applicable municipal statutes and authorities. In the event of discrepancy between any provisions of such authorities, the most stringent provisions shall apply.

The Contractor shall employ a qualified specialty Engineer for the design of all false work for the temporary support of all structural elements, earth banks, roads, or other features

The Contractor shall make available four (4) "Visitor safety helmets and high visibility safety vests" for authorized visitors.

If "NO SMOKING" regulations are in effect in areas of the Work, the Contractor shall ensure that all workers comply with the regulations.

The Contractor shall ensure that all workers comply with the City's safety regulations, where such regulations are in effect.

The Contractor shall not load, or permit to be loaded, any part of the Work with a weight, load or force that will exceed the design loading and endanger its safety.

### **6.4 Working Limits/Temporary Easements**

The Contractor shall confine all operations within the City's property limits. Where encroachment on areas beyond staked lines or property lines is necessary, make arrangements separately with the property Owners.

The Contractor shall obtain consent of adjoining property Owners regarding need for any temporary easements or any other encroachment, well in advance of the encroachment. Upon completion of Contract, make good any damage to adjacent property.

### **6.5 Metric Usage**

#### General Policy



Contractors are required to provide metric products in the sizes called for in the Contract Documents, except where a valid claim can be made that a particular product is not available on the Canadian market.

Claims for exemption from use of metric products shall be in writing and fully substantiated with supporting documentation, prior to commencing work. Promptly submit claims to the City's Representative for consideration and ruling. Non-metric products may not be used unless Contractor's claim has been approved in writing by the City's Representative.

Difficulties caused by the Contractor's lack of planning and effort to obtain metric products that are available on the Canadian market will not be considered sufficient reason for claiming that they cannot be provided.

Claims for additional costs due to provision of specified metric products will not be considered.

### General Usage

SI metric units of measurement are used exclusively on the drawings and in the specifications, with exceptions as follows:

Certain nominal values that are related to some CSA standards will remain in imperial measure pending the publication of revised standards that will specify the correct metric values and units to be used.

In case of conflict between metric and imperial terminology, metric terminology shall govern.

The metric language conforms to the CSA Canadian Metric Practice Guide (CAN3-Z234, 1-76).

Where numeric dates are used, e.g. 1990-09-16; conform to four (4) digits for year, two (2) digits for month, two (2) digits for day; in descending order and separated by hyphens.

## **6.6 Fire Prevention and Protection**

Perform all work in a fire safe manner.

Comply with all applicable governmental requirements and, without limiting the generality of the foregoing, and supply and maintain at the job site adequate and proper firefighting equipment.

## **6.7 Accident and Accident Reports**

Except as otherwise agreed to in the Contract, supply and maintain all articles necessary for giving first aid to any person who may be injured on the job site and establish an emergency procedure for the immediate removal of any injured person to a hospital or a doctor's care in accordance with applicable legislative and regulatory requirements.

Promptly report in writing to the City and City's Representative all accidents of any sort arising out of or in connection with the performance of the work whether on or adjacent to the job site, giving full details and statements of witnesses.

If death or serious injuries or damages are caused, the accident shall be promptly reported by the Contractor to the City and the City's Representative by telephone or messenger in addition to any reporting required under provincial laws and regulations.

If a claim is made by anyone against the Contractor or any subcontractor on account of any accident, the Contractor shall promptly report the facts in writing to the City and the City's Representative, giving full details of the claim.



**END OF SECTION**

## **7. UTILITIES (01070)**

### **7.1 General**

It is the Contractor's responsibility to locate and clearly mark all Utilities (both underground and above-ground) on the ground before commencing its construction operations. The Contractor shall be responsible for contacting all affected utility Owners or operators to determine the existence and location of all utility installations, maintaining liaison with the utility Owners or operators concerning the adjustment of all utilities and coordinating their operations. The Contractor shall assume full responsibility for safeguarding all existing and relocated utility installations during the progress of the Work.

The Contractor will notify all known utility Owners or operators to adjust their utility installations as necessary, within or adjacent to the Work. All such utility adjustments will be made by the utility City or operator, except as otherwise provided for in the special provisions or as specifically noted on the plans.

It is understood and agreed that the Contractor has considered the present and proposed position of all permanent and temporary utilities. No additional compensation will be paid by the City for any delay, inconvenience or damage sustained by the Contractor that is caused by the existence of, or adjustment to, the utilities.

It is further understood and agreed that the Contractor has considered the scheduling of those items of the Work essential to the adjustment of the utilities, and that the Work will be scheduled and performed at the time required to accommodate these adjustments and without additional compensation.

Additional specific requirements for work in the vicinity of Utilities, and coordination with the Owners and/or operators, may be provided by applicable utility Owners.

### **7.2 Liability**

The Contractor is responsible for the cost of repairing any Utilities damaged as a result of its operations.

In order for the City to obtain the necessary permission from the affected companies for construction in the proximity of their pipelines and other facilities, the City may be required to enter into agreements with the respective utility Owners and assume liability for damages that may occur as a result of the Contractor's operations in those areas. In the event the City become liable for these damages by virtue of any agreements made between themselves and the companies, the Contractor shall save harmless and indemnify the City in accordance with the provisions of this Contract and shall be fully responsible for its operations.

### **7.3 Precautionary Measures**

Where the requirements of this section conflict with the requirements of other sections of the specifications, or with bylaw or ordinances, the more stringent requirements shall apply.

The Contractor shall take all precautionary measures as may be necessary when working over or adjacent to utility installations whether above or below ground and shall control their equipment and method of construction to prevent damage to any utility and its appurtenances.

Under no circumstances shall the Contractor carry out any construction operations over adjacent to any utility until the required adjustments and protection as required for the proposed construction have been completed. Additionally, he shall provide at least forty eight (48) hours' notice to the utility Owner or operator in advance of commencing their construction operations in

that area. After completion of the utility work by the utility Owner or operator, the Contractor shall continue to work in close liaison with the utility Owner/operator and, if the utility Owner or operator so requires, ensure that a representative of the affected utility Owner or operator is present at all times during active equipment operations at that location. The Contractor shall ensure that no equipment crosses or operates over or under any utility installation at locations other than where required protection has specifically been provided, and he shall work in close cooperation with the utility Owner or operator in the execution of the work. When construction is involved in the vicinity of any unprotected utility installation, the Contractor shall exercise extreme caution to ensure that the utility installation is not damaged by the construction equipment or applied loads. When haul road or equipment crossings are required at locations other than where the department has specifically arranged for the crossing, it shall be the Contractor's responsibility to determine, provide, and install any protective works necessary and to observe any other precautions which are required.

## **7.4 Pipelines**

### **General**

Pipelines may be located within the limits of this Project. Any adjacent work will be carried out concurrently with the construction operations.

Dependent upon the magnitude and degree of complexity of the adjustment required, the work may not be completed until the latter stage of their operations. In that event, the Contractor shall be required to arrange their operations clear of those pipelines until the required adjustments are completed and permission to construct in their vicinity is received. The Contractor shall not have any claim for compensation or damages against the City for any stoppage, delays, inconvenience or damage sustained by him due to any interference from the pipelines, or the operation of moving them.

### **Precautionary Measures to be taken when working in the Vicinity of Pipelines**

Prior to the commencement of construction operations, the Contractor shall review the Project with representatives of each pipeline company and the City's Representative to determine the location and specifics of each pipeline within the project limits. Upon completion of this step the Contractor may begin their operations, and shall carry out all work in the vicinity of pipelines in accordance with the following precautionary measures.

The Contractor, being fully aware of the location of all pipelines, shall mark the location of the same so their positions are readily identifiable to all work forces.

Under no circumstances shall work be commenced within thirty metres (30m) of any right of way until the required adjustments (if any) have been completed and a written crossing agreement has been received from the affected company.

The Contractor shall contact the company representative seventy two (72) hours prior to commencing construction operations within thirty metres (30m) of a pipeline, so arrangements may be made to have a company representative, or their delegate, present during the period machinery is being employed within thirty metres (30m) of a pipeline. Absolutely no Work shall be undertaken within these limits until a company representative is present at the Place of the Work and has authorized the same.

No operations involving the use of machinery shall be commenced within five metres (5m) of a pipeline until the line has been hand exposed, its location accurately referenced, and any required

protection is put in place and/or adjustment to the pipeline is complete. The exposure and backfilling of the pipelines shall be undertaken by the Contractor under the direct supervision of the City's Representative and the pipeline company's representative. The exposure and backfilling of pipelines will not be paid for separately, and will be considered incidental to the Work items in APPENDIX "ONE" – TENDER FORM AND UNIT PRICE SCHEDULE.

If the Contractor proposes to move any construction equipment across the pipeline right-of-way prior to the commencement of construction operations, the Contractor shall use timbers or a pad of earth, if the pipeline company so desires or the City's Representative so directs. This protection shall be constructed to specifications established by the pipeline company and the City's Representative. All labor, equipment, materials and incidentals, as may be required for the protection of a pipeline and the safe execution of work, will not be paid for separately and will be considered incidental to the Work items in APPENDIX "ONE" – TENDER FORM AND UNIT PRICE SCHEDULE.

Clearing required within thirty metres (30m) of a pipeline shall be carried out using suitable hand operated tools, and burning or burial of debris within thirty metres (30m) of a pipeline is strictly prohibited. The method of removal and disposal of the debris shall require the approval of the City's Representative. Clearing shall be incidental to the work and not paid for separately.

The Contractor shall not store, park or drive any equipment, materials and/or vehicles over or along any pipeline right-of-way, except as reasonably necessary in the actual construction of the roadway.

Notwithstanding the foregoing, the Contractor shall conduct their operations in the vicinity of all pipelines in accordance with all Laws including the *National Energy Board Act* (Canada) and other related legislation.

#### Pipeline Accidents

The Contractor is advised that in the event of a pipeline accident, all Work is to cease immediately, and he is to contact the Pipeline Company representative in the area.

### 7.5 Utility Locate

Contact **Ontario One Call** five (5) working days prior to any excavation or ground disturbance.

The Contractor shall have the Municipality or Location facility locate and consent documents available at the Place of Work.

At its discretion, the utility provider may require that no work activity shall commence within five metres (5m) of the utility providers' facilities without a representative being present. Any standby service that the Contractor requires for extended periods, due to lateness or the length of the Project, is subject to rescheduling in the event of other utility provider commitments.

The Contractor shall carry out all Work in the crossing area in a proper and diligent manner, and in accordance with good engineering and construction practices.

When performing the Work, the Contractor shall comply with any additional conditions and protection requirements, as directed by the utility provider representative, for the purpose of protecting its facilities. The utility provider may withhold approval to cross if, in its reasonable opinion, it determines that the excavation cannot be done safely.

The Contractor shall ensure that no damage occurs to existing facilities while the work is being performed in the work area, including damage that may result from the use of heavy work equipment outside the crossing area.

If the utility providers' facility is to be exposed overnight due to the Contractor's work, all protective apparatus and costs shall be borne by the Contractor.

Before proceeding to excavate within five metres (5m) of the crossing area, the Contractor shall fully expose the utility providers' facility by hand digging. The Contractor shall not use, or permit the use of, an excavating machinery within one point five metres (1.5m) of either side of any existing utility providers' facility, unless otherwise agreed to by the utility providers' representative.

Auguring, drilling or pipe pushing by the Contractor is permitted under or over a utility providers' facility only if the head end of the augur, drill or pipe is visible (that is, open parallel trench on approach side of the utility providers' facility maximum three metres (3m) and a minimum of one metre (1m) from the utility providers' facility).

The Contractor shall not reduce the depth of the soil covering the utility providers' facility.

The Contractor shall, where applicable, install and maintain suitable markers indicating the location of a utility providers' facility in the crossing area during performance of the Work.

Where necessary, the Contractor shall support a utility providers' facility as required, or as directed by the utility provider, while any Work is being carried out. If the Contractor is required to build a support structure to protect a utility providers' facility, the Contractor shall provide the utility provider with plans for the structure that are certified by that Utility provider and reviewed by the City's representative.

In the event that a utility providers' facility suffers contact damage or other damage as a result of the Contractor's Work, the utility provider shall be notified, and its repair shall be carried out, as directed by the utility provider, at the Contractor's cost.

The Contractor must contact the utility provider prior to re-entering the crossing area to carry out repairs on, or removal of its facilities.

The Contractor must maintain a minimum distance of fifteen metres (15m) between the Contractor's geophysical operations and a utility providers' fibre optic facilities, and one metre (1m) distance between the Contractor's geophysical operations and a utility providers' "other than fibre" facility. If such distances cannot be maintained, and the utility provider is required to reinstall or relocate its facilities, the Contractor shall bear the responsible costs thereof.

The Contractor must maintain up to date and current locates from each utility for each work site. Copies of the locate sheets are to be kept on the work site, and shared with the City of Kenora representative prior to start up.

## **7.6 Railway Crossing Construction**

### **General**

When Work is undertaken within the limits of the railway right-of-way for the construction of new crossing and utilities, or for the hauling of embankment construction material across the railway tracks, the Contractor shall coordinate their operations with the railway company and shall ensure that the following precautionary measures are observed:

Prior to commencing equipment operations within the railway right-of-way, the Contractor shall provide the required notice to the Track Supervisor of the applicable railway company, and obtain



the required railway work permits (as applicable) and provide copies of such permits and communication to the City.

The Contractor shall determine from the railway company possible additional measures that may be required for the protection of their personnel and facilities, including any supplementary insurance coverage beyond that stipulated in the Supplemental Conditions. The cost of this insurance coverage will not be paid for separately, but shall be considered to be included in the applicable unit price bid.

At the discretion of the Track Supervisor, a flag person will be employed to protect the trains and operating equipment. Normally the railway company will provide the flag person upon receipt of three (3) working days' notice to the Track Supervisor.

The crossing shall only be used by rubber-tired equipment. A temporary mat shall be placed over the rails to facilitate the movement of tracked equipment. The railway shall be maintained free of dirt, debris and obstructions at all times. The crossing shall not be used for other than the purpose herein provided.

The Contractor shall determine the exact location and depth of any underground railway signal or telecommunication cables, prior to commencing construction operations. These cables shall be located by means of hand digging by the Contractor's forces under direct supervision of a representative of the railway company.

No extra payment will be made, or changes allowed, for work done in connection with locating the cables. Additionally, the Contractor shall be held wholly and solely responsible for any damages to these cables that may be attributed to their operations

The Contractor shall be fully responsible for their work operations adjacent to the rail line when working within the railway right-of-way, and indemnify and hold harmless the City from any and all claims, demands, actions and costs whatsoever, that may arise directly or indirectly out of any act or omission of the Contractor, their employees, agents or subcontractors, in the performance of the Work.

## **7.7 Power Lines**

### **General**

The power utility has power facilities that may be within the limits of this project, and alterations to their facilities may be carried out concurrently with the proposed work. Therefore, the Contractor shall maintain close liaison with the power utility and schedule their operations accordingly. The Contractor shall maintain Prime Contractor ("Constructor") responsibilities as per the OH&S when coordinating and working alongside utility providers.

The Contractor, in undertaking any work near existing power lines shall comply with the OH&S Act and applicable electrical and utility codes and regulations.

Prior to commencement of power line relocation, the Contractor shall first carry out the necessary right-of-way clearing. The clearing for power lines may also include clearing an additional strip (up to 6 metres wide) immediately adjacent to the right-of-way, payment for which will be made at the applicable unit price bid for "Clearing" or "Clearing and Timber Salvage". When the Contract does not contain bid items for clearing or clearing and timber salvage, any required clearing will be considered incidental to the work. It shall be the Contractor's responsibility to maintain liaison with the power company to ensure that the necessary land clearances have been arranged.

**END OF SECTION**

## **8. MEASUREMENT AND PAYMENT (01120)**

### **8.1 General**

#### **Contract Price**

The City shall, subject to the terms of this Contract, pay to Contractor as full and total compensation for properly performed Work the Contract Price.

The Contract Price as delineated for various items of Work outlined in APPENDIX "ONE" – TENDER FORM AND UNIT PRICE SCHEDULE shall include the supply of all labour, material, Products, and equipment necessary to construct the Work in accordance with the Contract Documents, unless specifically noted otherwise. The prices bid for supply and installation shall be full compensation for supplying, hauling, installing, cleaning and placing in service together with all other Work subsidiary and incidental thereto for which separate payment is not provided elsewhere.

Where the Contract Price shows separate items for supply and installation, the prices bid for supply shall include supplying, delivering, loading, unloading and all allowances for handling, storage, breakage and waste. Payment will be made only for material actually installed in the Work.

Payment for supply-only items shall be made only for material and Products brought to the Place of the Work and in the Contractor's care, and shall then become the property of the City.

#### **Changes**

The Contract Price is subject to adjustment in accordance with the Change provisions described Section 2.7 – Changes in the Work. In the event that a Change results in an increase to the Contract Price, Contractor shall also be entitled to payment for such Change as determined in accordance with Section 2.7.2 – Valuation and Certification of Changes in the Work.

#### **Payment**

The City shall, within forty-five (45) days of the date of the City's Representative's issuance of any Progress Payment Certificate, make payment to the Contractor on account. The actual payment made is subject to the City's rights under Law, and the provisions of this Contract, to make deductions.

If the City fails to make payment to the Contractor as they become due under the terms of this Contract or in any award by arbitration or court, interest at the rate of one percent (1%) per month of such unpaid amounts, including earned interest, shall also become due and payable until payment. Such interest shall be calculated and added to any unpaid amounts monthly.

#### **Currency**

All amounts referred to in the context of this Contract shall be in Canadian dollars.

### **8.2 Payment Certificates**

#### **Progress Payment Certificates**

In accordance with the provisions of this Contract, the City shall:



- a) Make payments to the Contractor on account of the Contract Price. The amounts of such payments shall be based on the Progress Payment Certificates issued by the City's Representative;
- b) Upon Substantial Performance of the Work and issuance of the Substantial Completion Certificate, pay to the Contractor any unpaid balance of the Contract Price then due including holdback monies then due; provided the Contractor is in compliance with the *Construction Act*, (Ontario), and specification outlined herein.

The Progress Payment Certificate will be prepared by the City's Representative on a monthly basis as the Work progresses and it shall be for the monthly period ending on the final day of each month or as mutually agreed upon by the City Representative and Contractor.

If a Progress Payment is revised following review by the City Representative, the date of submission shall be updated to indicate the revised date of the submission.

Before the first Progress Payment Certificate, the Contractor shall submit to the City's Representative, a Contract Price breakdown for the Lump Sum Items of the Work, aggregating the total amount of the lump sum price(s) and divided so as to facilitate evaluation of applications for payment. Unless a specific date is provided in the Supplementary Conditions, the breakdown shall also identify the date of the month for all monthly claim periods.

The Progress Payment Certificate shall identify the items of Work, actual quantities completed on the Work, Unit Prices, Lump Sums Items, the total of money paid to date, all holdback sums and the net amount approved for payment up to the last day of the agreed monthly period. Measurement for payment shall be in accordance with the relevant provisions of the specifications. The Progress Payment Certificate shall apply only to the value of the Work performed and Products furnished to the Place of the Work.

No Progress Payment Certificate, nor any payments made thereunder shall constitute acceptance of any Work or Products not in accordance with the Contract Documents.

### **8.3 Bid Items**

#### **Lump Sum Bid Items**

At the end of each payment period, the City's Representative, in cooperation with the Contractor, will estimate payment for any Lump Sum Items based on percentage complete or as detailed below. The following are typical Lump Sum Items that may appear in APPENDIX "ONE" – TENDER FORM AND UNIT PRICE SCHEDULE:

#### **Mobilization and Demobilization**

Where mobilization and demobilization is included as a Lump Sum Item, it shall include the Contractor's costs of mobilization at the beginning of the Project and the cost of demobilization at the end of the Project. Mobilization shall include, but not be limited to items such as bonding, insurance, permits, moving personnel, equipment, materials, supplies and incidentals to the Place of the Work, the establishment of offices, camps and other facilities necessary to undertake the Work and all expenses incurred for other work and operations that must be performed prior to the commencement of the Work. Demobilization shall include items such as submission of Operation & Maintenance Manuals & submission of Drawings of Record, removal of all personnel, materials and equipment, and cleanup of the Place of the Work. For greater certainty, the SUBMISSION OF THESE ITEMS SHALL BE PRIOR TO THE SUBMISSION OF THE LAST PROGRESS PAYMENT.



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**01120**

Payment for mobilization and demobilization will be made as follows, as approved by the City's Representative:

- Sixty percent (60%) of the lump sum bid will be included in the first Progress Payment Certificate if, and only if, the value of Work completed other than mobilization exceeds ten (10%) of the Contract Price. In the event that the amount of the first Progress Payment, other than mobilization, does not exceed ten percent (10%) of the Contract Price, it will be paid (pro rata) on subsequent Progress Payments; and

Forty percent (40%) of the lump sum bid will be included in the final Progress Payment Certificate upon cleaning up of the Place of the Work and demobilization to the satisfaction of the City's Representative.

When the amount bid for Mobilization exceeds ten percent (10%) of the Contract Price, the City will withhold the portion in excess of ten percent (10%) of the Contract Price until the issuance of the Substantial Completion Certificate. The City's Representative may, at their discretion, recommend partial payment if mobilization or demobilization is not complete.

The amount specified in the Contract Price for mobilization and demobilization will be paid only once, regardless of the number of times the Contractor mobilizes or demobilizes. If the Contract does not contain an amount for mobilization and demobilization, such work shall be considered incidental to the Work and no direct payment will be made for the costs associated with it.

#### Site Services

Where site services is included as a Lump Sum Item, it shall include the supply, installation and connection of the following site services (as stated and shown in Contract drawings, specifications, and appendices and all incidental and associated work for which separate payment is not specified elsewhere):

Site landscaping and drainage;

Access road;

Sidewalk;

Site clearing; and

Site conditions

#### Project Closure

Where Project closure is included as a Lump Sum Item it shall include the start-up, commissioning, maintenance and procedure manuals, as built drawings, training and demonstration and all incidental work for which separate payment is not specified elsewhere.

#### Duration of Work and Site Occupancy

When the Contract Price contains a bid item for "Site Occupancy", Bidders shall indicate the number of Calendar Days required to complete the Work under the "estimated quantity" column of APPENDIX "ONE" – TENDER FORM AND UNIT PRICE SCHEDULE and extend that number of days times the unit price per day to get the total bid for "Site Occupancy".

#### Payment for Site Occupancy

Payment for "Site Occupancy" will be made as follows:



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**MEASUREMENT AND PAYMENT**

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If the Contractor completes the Work in more than the number of Calendar Days entered in the "Site Occupancy" bid item, an assessment equal to the unit price per day as shown multiplied by the difference between the estimated and actual number of Calendar Days will be made and charged to the Contractor. This assessment will be deducted from any monies due the Contractor.

If the Contractor completes the work in fewer Calendar Days than the number entered in the "Site Occupancy" bid item, a payment will be made equal to the unit price per day as shown multiplied by the difference between the estimated and actual number of Calendar Days.

If the Contractor completes the work in the exact number of days entered in the "Site Occupancy" bid item, no payment will be made.

#### Calculation of Calendar Days

Calendar Days will be calculated as whole days. The assessment of Calendar Days will commence on the day of the first disturbance within the Project limits. Thereafter, every day will be counted as a Calendar Day with the exception of when:

The Contractor is prohibited from working due to restrictions imposed by local bylaws after the Contract has been awarded or as a result of directives from the City,

The Contractor schedules employee time off subject to the conditions specified herein,

The Project is delayed due to inclement weather subject to the conditions specified herein,

The Project is shut down for winter, or

The Contractor pre-schedules interruptions to continuous execution of the Work as a result of the desire to schedule distinct phases of the Work at different times. Distinct phases are generally defined as the larger Work groups such as site grading, underground installations, or surface work improvements, that require different types of equipment; however, the City's Representative may approve scheduled interruptions for other components of the Work at their discretion. Any such interruptions must be identified in the Contractor's construction schedule and approved by the City (collectively, "**Calendar Days**")

#### Employee Time Off

The Contractor will be granted a maximum of eight (8) non-charged days per thirty (30) day period for the purpose of allowing employee time off, providing:

The City's Representative is given at least seven (7) days' notice,

There is no construction taking place that requires the presence of the City's Representative, and

No more than five (5) consecutive days are taken at one time.

The thirty (30) day period will start at the commencement of Work, as defined above, and any of the time off days not taken in a specified thirty (30) day period will not be permitted to be used in subsequent periods. When the estimated number of Calendar Days required to complete the Project is less than thirty (30), the number of allowable days off for this purpose will be calculated on a prorated basis and rounded to the nearest whole number of days.

#### Inclement Weather

On a day that the Contractor works less than a normal working day at the Place of Work for reasons of inclement weather, but works at least half of a normal working day, that day will be counted as a Calendar Day. A normal working day shall comprise the average duration worked



by the Contractor on the preceding five (5) uninterrupted working days. A day on which the Contractor is unable to work at the Place of the Work, or works less than half a normal working day, for reasons of inclement weather or conditions resulting from inclement weather, shall not be counted as a Calendar Day.

#### **General Site Occupancy Conditions**

Assessment of Calendar Days will cease only when, in the opinion of the City's Representative, the Project is ready for the Construction Completion inspection. Calendar Days will not be assessed during the period from the date of completion of the entire Work to the actual date of the Construction Completion inspection, or during the completion of any deficiencies identified through the Construction Completion inspection.

The City's Representative will, on a weekly basis, prepare a statement for the Contractor showing the number of Calendar Days worked on the Contract during that week. In the event that the Contractor disagrees with the number of Calendar Days shown on the statement, he shall, within one (1) week of the date of such statement, notify the City's Representative in writing of reasons for the disagreement, otherwise the number of Calendar Days shown on the statement shall be considered final.

An increase in the number of Calendar Days to complete the Work will be considered for an increase in quantities, late delivery of City supplied materials, design changes to the Project, or any other reason that, in the opinion of the City's Representative, is outside the control of the Contractor, or could not have been reasonably foreseen by the Contractor.

If the Contractor believes there is an entitlement to an extension of the number of Calendar Days required to complete the Work, he shall, prior to the completion of the Work, submit a written request to the City's Representative setting out the reasons for the request, justifying the number of additional days required.

#### **8.4 Incidental Work**

The following will be considered incidental to the Work under this Contract, and separate payment will not be made:

Locating and protecting existing utilities and structures;

Ground and surface water disposal;

Restoration of any existing facilities damaged during construction;

Coordination with the Client, City's Representative, Other Project Participants and utility authorities as required;

Dewatering of the Place of Work for construction purposes; and

Any other work related to the performance of the Contract for which separate payment is not specified elsewhere.

#### **8.5 Additional City Rights Related to Payment**

Holdbacks

The City shall be entitled to deduct and retain all amounts as may be prescribed pursuant to the *Construction Act*, (Ontario) or equivalent legislation or otherwise prescribed by Laws. All such amounts retained by City shall be paid to the Contractor in accordance with the terms and conditions of such Laws.

Notwithstanding any other provisions of this Contract:

Upon acceptance of a notice of Substantial Performance and the issuance of a Substantial Completion Certificate by the City's Representative on behalf of the City, the City shall pay the Contractor any holdbacks following the expiration of any holdback period prescribed by Laws and applicable to the Place of the Work, provided that no lien derived under any subcontract is outstanding, and the Contractor has submitted to the City a sworn statement that all accounts for labour, subcontractors, products, construction machinery and equipment, and any other indebtedness that may have been incurred by the Contractor in the performance of the Contract and for which the City might in any way be held responsible, have been paid in full except holdback monies properly retained.

The Contractor is to advertise the acceptance of Form 9 – “Certificate of Substantial Performance” of the Contract under Section 32 of the Act (Appendix C) in the “Daily Commercial News”, Link2Build, or other *Construction Act* compliant outlet acceptable to the City, to publicise the start of the sixty (60) day lien holdback period. The advertisement should be issued concurrently with acceptance date of the Substantial Completion Certificate. The Contractor shall provide proof of publication to the City.

## **8.6 2% Warranty Holdback**

### **Scope**

This specification covers the requirements of the contract administration of a 2% Warranty Holdback for Remedial Work.

References - Section 2.14 – Warranty

## **8.7 Administration**

In conjunction with the Remedial Work outlined in Section 2.14 – Warranty, a 2% Warranty Holdback will be retained for Remedial Work purposes. The 2% Warranty Holdback will not be released to the Contractor until a one (1) year warranty period has expired and all deficient items have been rectified and completed as outlined under Section 2.14 – Warranty.

### **Set Off**

The City shall have the right to apply any monies due to Contractor or any affiliate of Contractor howsoever arising toward the payment of any sums which Contractor or any affiliate of Contractor may now or hereafter owe to City.

## **8.8 Taxes**

### **Harmonized Sales Tax (HST)**

HST applies to this contract. The successful Contractor will indicate on each application for payment, as a separate amount, the appropriate HST the City of Kenora is obligated to pay. This

amount will be paid to the Contractor in addition to the amount certified for payment under the Contract. HST shall be added to the Contractor's invoice amount as required pursuant to any Laws including the *Excise Tax Act* (ETA) Canada. Payment of HST on any holdback shall be made at the time of final holdback release.

#### General

Except for HST payable by City, Contractor is exclusively liable for, and shall pay before delinquency, all Taxes imposed or levied by any taxing authority in respect of the performance of the Work and this Contract. Contractor shall be liable for, and shall indemnify and hold the City harmless from and against all such Taxes, expenses or costs incurred or suffered by City attributable to Contractor's failure to pay Taxes. City may deduct or withhold from any payments made under this Contract (without any gross-up for the Taxes so withheld or indemnity to Contractor) any amounts that are required to be deducted or withheld therefrom in respect of any Taxes pursuant to any Laws, shall remit such amounts to the applicable taxing authority and shall, within a reasonable time, furnish a Tax form, receipt or other evidence to Contractor showing payment of any Tax or withholding.

#### **8.9 Liquidated Damages**

If the Contractor fails to complete and deliver the Work or any of the specified portion of the Work, by the Completion Date required by the Contract Documents, it is agreed that the Contractor shall pay to the City, as liquidated damages, five hundred dollars (\$500.00) for each calendar day that any portion of the Work, in the opinion of the City's Representative, remains incomplete after the Completion Date, and the City, in addition to any other rights and remedies it may have, shall be entitled to deduct from any payments due to the Contractor the additional costs to the City of the engineering services incurred as a result of the Contractor's failure to complete the Work on time. The liquidated damages described above are a genuine pre-estimate, to the best of the parties' abilities, of the financial, reputational, and other non-financial damages that the City will suffer as a result of the Contractor failing to complete the work on time and are not a penalty.

**END OF SECTION**



## **9. PROJECT MANAGEMENT AND COORDINATION (01130)**

### **9.1 General**

The Contractor shall be responsible for:

- a) Coordination of Work with Other Project Participants under the administration of the City's Representative.
- b) Coordination with utility companies.

The City's Representative shall be responsible for:

- a) Construction organization and start up meetings.
- b) Progress meetings.

### **9.2 Coordination**

Although the specifications set forth the work of various trades under separate Divisions, it is not intended that the work of that trade is limited to or includes all work set forth in that particular division. The Contractor shall delegate the extent of the Work to be done by the various trades and shall coordinate execution of the Work by all trades.

Although the specifications are separated into titled divisions, neither the City's Representative nor the City will act as an arbitrator to establish limits of any agreements between the Contractor and their Subcontractor.

The Contractor shall coordinate with other Project Participants.

### **9.3 Project Progress Meetings**

The City shall:

- a) Schedule and administer weekly project meetings throughout progress of Work, as determined by City's Representative.
- b) Schedule and administer pre-installation meetings when specified in the Contract Documents and when required to coordinate related or affected work.
- c) Prepare agenda for meetings.
- d) Distribute written notice of each meeting two (2) days in advance of meeting date to Contractor
- e) Provide physical space and make arrangements for meetings.
- f) Preside at meetings.
- g) Record minutes. Include significant proceedings and decisions. Identify action by parties.
- h) Reproduce and distribute copies of minutes within three (3) days after each meeting and transmit to meeting participants, affected parties not in attendance, City and City's Representative.

The City's Representative will schedule and administer project meetings throughout the progress of the Work.

The City shall provide physical space, table and chairs for all participants and make arrangements for meetings.

Representatives of Contractor, Subcontractor and suppliers attending meetings shall be qualified and authorized to act on behalf of the party each represents

#### **9.4 Communications Required**

The Contractor shall notify the City Representative and the City of Kenora Corporate Services Department via the [communications@kenora.ca](mailto:communications@kenora.ca) email ten (10) business days prior to mobilization to a worksite. The email must state the date when the Contractor will mobilize to the site and must include a copy of the approved traffic control plan as per Section 12 Submittals.

When the work requires a deviation from an approved traffic control plan submitted under Section 12 Submittals consistent in accordance with Section 14 Temporary Facilities, the Contractor must submit to the City's Representative an updated traffic control plan a minimum of three (3) *Working Days* prior to the planned deviation. The City's Representative shall within one (1) business day review the submission and if approved submit to City of Kenora Corporate Services for distribution.

In situations where the request is incomplete and has not been approved the Contractor must revise and resubmit the plan to the City of Kenora. The City's Representative shall within one (1) business day review the submission and if approved submit to City of Kenora Corporate Services for distribution.

#### **9.5 Construction Organization and Start Up**

Within ten (10) days after execution of the Contract, the City's Representative will request a meeting of all parties in contract to discuss and resolve administrative procedures and responsibilities.

The appropriate senior representatives of the City, City's Representative, and the Contractor are to be in attendance. The Contractor may invite senior representatives of major Subcontractors if he so desires.

After time and location of meeting is established, the Contractor shall notify all parties concerned to attend.

The City's Representative will chair and record discussion and decisions, and will circulate minutes to all parties present.

Construction Organization and Start up Meeting (Pre-construction meeting) will be arranged by the City's Representative after Award of the Contract to discuss and resolve administrative procedures and responsibilities.

The meeting will be held at the City's Representative's Administration Office, or at an alternate location at or near the Place of the Work.

Representatives of the City, City's Representative, Contractor, Major Subcontractors, Field Inspectors and Supervisor must be in attendance.

The City's Representative will chair and record discussions and decisions, and circulate the minutes to all parties concerned.

Agenda will include, but not limited to the following:

- a) Appointment of official representatives of participants in the Work;
- b) Safety, roles and responsibilities of designates;
- c) Weekly Safety meeting with all employees;



- d) Schedule of the Work, progress scheduling;
- e) Requirements for temporary facilities, site sign, offices, storage sheds, utilities, fences;
- f) Delivery schedule of specified equipment;
- g) Site security;
- h) Contemplated Change Order and Change Order, procedures, approvals required, mark-up percentage permitted, time extensions, overtime, administrative requirements;
- i) City-supplied products;
- j) Drawing of Records;
- k) Monthly Progress Claims, administrative procedures, photographs and hold backs;
- l) Appointment of inspection and testing agencies or firms; and
- m) Insurances and transcript of policies.

#### **9.6 On-Site Documents**

The Contractor shall maintain at the Place of the Work, one (1) copy of each of the following:

- a) Contract Documents;
- b) Contract Drawings;
- c) Specifications;
- d) Addenda;
- e) Change Order;
- f) Reviewed Shop Drawings;
- g) Modifications to the Contract;
- h) Field Test Results;
- i) Copy of the up to date Construction schedule;
- j) Manufacturer's Installation and Application; and
- k) Labour conditions and wage schedules.

#### **9.7 Schedule**

The Contractor shall submit the Work Schedule in accordance with Section 2.6.2 – Work Schedule and revise and resubmit such Work Schedule as directed by the City's Representative as per the provisions of this Contract.

**END OF SECTION**

## **10. ENVIRONMENTAL PROTECTION (01140)**

### **10.1 Noise Controls**

The Contractor shall comply with the requirements of municipal and/or provincial bylaws regarding noise abatement and hours of work, and shall take all necessary steps to ensure the generation and transmission of noise and vibration which is found to be objectionable is corrected at no additional cost to the City and to the satisfaction of the City's Representative.

Night work or holiday work does require written permission from the City/Municipality.

### **10.2 Dust Control**

The Contractor shall perform the work in a manner that will not produce an objectionable amount of dust, as determined by the City. Dust control measures shall be paid for by the Contractor. The Contractor shall use all means necessary to control dust on and near the Place of the Work and moisten surfaces as required to prevent dust nuisances to the public, surrounding properties and others at the Place of the Work. The Contractor shall supply the water as needed for dust control.

### **10.3 Environmental Management**

The Contractor shall not dump, spill or dispose of any overburden, trees, brush, petroleum products, camp refuse or other debris into any watercourse, reservoir or other natural water basin, or into any area that may ultimately cause pollution to water drainage or storage systems. The Contractor shall clean up any deposits of waste arising from their Work that may cause subsequent pollution, and should he fail to do so, the City may, without further notice, arrange the cleanup of such deposits at the expense of the Contractor. Any inert solid waste materials resulting from the production of asphalt concrete pavement, concrete or soil cement shall be stored by the Contractor in stockpiles during activities and operations on the disturbed land. The Contractor shall remove and dispose of such material in a manner acceptable to the appropriate regulatory agencies and the City's Representative, on completion of the Work.

Maintain temporary erosion and pollution control features installed under this contract and provide an emergency spill response plan for mechanical fluid spills.

The Contractor shall conduct their operations in accordance with the current legislation concerning pollution control, including the Environmental Protection and Enhancement Act and other related legislation.

It shall be the Contractor's responsibility to familiarize himself with the applicable legislation and regulations and obtain all necessary permits and approvals for their operations.

#### **Environmental Permits, and Other Regulations**

The City's Representative will obtain the environmental permits required in respect of stream crossings, and will have planned the general project schedule in compliance with such permit. The Contractor shall conduct their operations in all respect to comply with the conditions of the permit as referenced in the Contract.

The natural banks of streams shall not be disturbed, except as noted on the plans or by permission of the City's Representative. If a cut is permitted, the area is to be restored to its original condition

to the satisfaction of the City's Representative. Restoration may include re-seeding and the establishment of permanent vegetation.

The Contractor shall obtain whatever further permits may be found necessary, and shall provide the City's Representative with written confirmation of the approval, by the permit agencies, of their full compliance before holdback will be released.

#### Responsibility and Conditions of Payment for Environmental Management

The Contractor shall comply with all conditions of all environmental approvals and permits for the project, familiarize himself with the applicable legislation and regulations concerning environmental protection, and shall conduct their activities in accordance with such legislation and regulations.

The Contract documents may specify the use of various erosion control or environmental control devices at specific locations throughout the project. These are items that are considered necessary for erosion or environmental control for some period of time following the completion of construction. The timing of the installation or construction of these devices, and the quantities required, will be specified in the Contract or determined by the City's Representative. These devices, only at the locations and quantities specified in the Contract, will be paid for at the applicable unit prices for the specific device used.

All other environmental or erosion control devices or procedures required to ensure compliance with the applicable legislation, regulations or approvals during construction are deemed to be necessary only as "temporary environmental control measures", and shall be the direct responsibility of the Contractor. This shall include the responsibility for determining the quantities, nature and locations of such devices or procedures and the timing of each event. The Contractor shall, to the extent possible, identify these devices or procedures in writing to the City Representative.

If, at any time during the Project, it is determined that the devices or procedures detailed above (any specific measures, locations or quantities proposed) are insufficient, the Contractor shall modify the Plan accordingly.

No separate payment will be made for any "temporary environmental control measures" undertaken by the Contractor, regardless of whether or not the temporary measure had been included prior or whether or not the Contract contains a bid item for the device(s) or procedure(s) used. Removing and disposing of material from silt containment ponds and sediment barriers will be incidental to the Work.

#### Reporting Procedures for Spills of Deleterious or Hazardous Substances

During construction, any releases of silt or other deleterious substances into a body of water or watercourse shall be immediately reported to the City's Representative, Ministry of Natural Resources and Forestry, Ministry of Environment, Conservation and Parks, and the Federal Department of Fisheries and Oceans (1-800-222-6514).

In the event of the release of silt or other deleterious substance into a body of water or watercourse, the Contractor shall take all reasonable measures to contain the release and repair any damage at their expense.

Spills or releases of Hazardous Substances shall also be immediately reported to the City's Representative and Ministry of Natural Resources and Forestry, Ministry of Environment,

Conservation and Parks, and, if a body of water is involved, the City's Representative and Federal Department of Fisheries and Oceans (1-800-222-6514). The Contractor shall take all reasonable measures to contain and clean up the spill, and any such work shall be performed in accordance with the applicable legislation and regulations at the Contractor's expense.

#### **10.4 Pollution Control**

The Contractor shall conform to local ordinances and bylaws relating to littering of streets, dust and noise. Conduct noisy operations in such a manner as to cause the least disturbance to neighbouring residents.

The Contractor shall take precautions to prevent depositing mud or debris on public or private roadways adjacent to the work. Clean up immediately, otherwise the City's Representative will direct necessary clean up, with all costs back-charged to the Contractor.

Perform the work in conformance with the applicable sections of the Provincial Regulations with respect to air and water pollution control requirements.

Maintain temporary erosion and pollution control features installed under this contract.

Control emissions from equipment and plant to local authorities' emission requirements.

Cover dry materials and rubbish to prevent blowing dust and debris.

Tightly seal against corrosion and rust all containers of fuel, hazardous or toxic chemicals.

Vehicle and equipment maintenance shall occur in designated areas. Contain and handle all maintenance fluids in accordance with the current National Fire Code of Canada. Spillage on the ground is prohibited.

Hoses and equipment for transfer of fuels and other hazardous fluids shall be in good condition, properly functioning with approved check valves and shall be attended by a qualified person for the duration of transfer of fuels or hazardous fluids.

Greasy and oily rags and oil waste shall be contained in approved, sealed containers. Remove from the worksite and dispose of this material in accordance with the most stringent of applicable Federal, Provincial and Municipal Regulations.

The use of oil for dust control is prohibited. Use only fresh water.

Comply with any Local, Provincial or Federal Noise Bylaws or Regulations.

#### **10.5 Disposal of Wastes**

Burying of rubbish and waste on site is not permitted.

Disposal of waste or volatile materials into waterways, storm or sanitary sewers is not permitted.

Pumping or draining water containing silt in suspension into waterways, sewers or drainage systems is prohibited.

#### **10.6 Work Adjacent to Waterways**

Requirements and regulations for working around water bodies and water body banks shall conform to the specifications laid out in OPSS.PROV 182.

#### **10.7 Site Cleaning and Plant Protection**

Remove trees, fences and other structures from the site of the work, as necessary to perform the work. Tree removal must be approved by the City's Representative.

Remove only those items that must be removed, or are clearly shown on the drawings to be removed.

Protect all remaining trees, plants, fences and other items from damage during construction.

Restrict the stripping of topsoil and vegetation to areas indicated or approved by the City's Representative.

Take precautions to prevent depositing mud or debris on public or private roadways adjacent to the work. Clean up immediately, otherwise the City's Representative will direct necessary cleanup with all costs charged to the Contractor.

Pay special attention to the existing surface features on site and in private lots. In particular where fences, garbage bins and sheds, landscaping and other surface features are affected, reinstate these existing surface features after backfilling.

### **10.8 Fires**

Fires and burning of rubbish on site are not permitted unless approved by City/Municipality.

### **10.9 Drainage**

Provide temporary drainage and pumping as necessary to keep excavations and site free from water.

Do not pump water containing suspended materials into waterways, sewer or drainage systems.

Control disposal or runoff of water containing suspended materials or other harmful substances in accordance with local authority requirements.

### **10.10 Spillages**

Report immediately to the City's Representative any accidental spill of chemicals, liquid or dry.

Report immediately to the City's Representative all spills of fuel whether contained in a dyke or otherwise.

Identify the spill, take all safety precautions before approaching it, determine the source of the leak, attempt to stop the flow, and contain the escaped material.

Report the spill to the appropriate environmental authority if required, including but not limited to the Ministry of Environment, Conservation and Parks 1-866-663-8477 (MOETIPS).

**END OF SECTION**

## **11. CONTRACT CLOSEOUT (01160)**

### **11.1 Work Included**

- a) Final cleaning
- b) Document submission
- c) Project commissioning
- d) Inspection and takeover procedures

### **11.2 Final Cleaning**

When the work is substantially performed, the Contractor shall remove surplus products, tools, construction machinery and equipment not required for the performance of the remaining work.

The Contractor shall remove waste products and debris other than that caused by the City, other Contractors or their employees, and leave the work clean and suitable for acceptance by City.

When the work is totally performed, remove remaining products, tools, construction machinery and equipment. The Contractor shall remove waste products and debris other than that caused by the City or other Contractors.

The Contractor shall remove waste materials and debris from the site at regularly scheduled times or dispose of as directed by the City's Representative. Do not burn waste materials on site.

The Contractor shall make arrangements with and obtain permits from authorities having jurisdiction for disposal of waste and debris.

### **11.3 Documents**

The Contractor shall collect reviewed submittals and assemble documents executed by Subcontractors, suppliers and manufacturers.

The Contractor shall submit material prior to final Progress Certificate Application.

The Contractor shall provide warranties and bonds fully executed and notarized.

The Contractor shall execute transition of Performance and Labour and Materials Payment Bond to warranty period requirements.

The Contractor shall submit a final Progress Certificate giving total adjusted Contract Sum, previous payments and monies remaining due, including the statutory declaration.

As specified in other sections of the specifications, the Contractor is required to provide a set of engineering drawings with approved changes made during construction and as built details marked in red for review by the City's Representative, who will prepare record drawings. The Contractor is also required to provide service connection reports, survey notes, test results and all other documents. Such information shall be turned over to the City's Representative before the Substantial Completion Certificate is issued.

Record documents shall be neat, legible and accurate.

### **11.4 Project Commissioning**

The Contractor shall:

Expedite and complete deficiencies and defects identified by the City's Representative.

Submit required documentation such as statutory declarations, Workers' Compensation Certificates, warranties, certificates of approval or acceptance from regulatory bodies.

Review inspection and testing reports to verify conformance to the intent of the documents and that changes, repairs or replacements have been completed.

Provide on-going review, inspection and attendance to maintenance and repair problems during the Warranty periods.

#### **11.5 Takeover Procedure**

Prior to application of Substantial Completion Certificates, the Contractor shall carefully inspect the work and ensure it is complete, and the site is clean. The Contractor shall notify the City's Representative in writing, of satisfactory completion of the work and request an inspection.

**END OF SECTION**



## **12. SUBMITTALS (01300)**

### **12.1 Traffic Accommodation Strategy**

The Contractor shall submit a Traffic Accommodation Strategy to the City's Representative for review at least fourteen (14) calendar days prior to the pre-construction meeting, in accordance with Ontario Traffic Manual (OTM) Book 7 – current edition.

### **12.2 Shop Drawings**

The Contractor shall arrange for the preparation of clearly identified Shop Drawings as specified, or as the City's Representative may reasonably request. Shop Drawings are to clearly indicate materials, methods of construction and attachment or anchorage, erection diagrams, connections, explanatory notes and other information necessary for completion of Work. Shop Drawings are to indicate their relationship to design drawings and specifications. The Contractor shall notify the City's Representative in writing of any deviations in Shop Drawings from the requirements of the Contract Documents.

The Contractor shall:

Submit materials and equipment by manufacturer, trade name and model number. Include copies of applicable brochure or catalogue material. Do not assume applicable catalogues are available in the City's Representative's office. Maintenance and operating manuals are not suitable submittal material.

Clearly mark each sheet of printed submittal material (using arrows, underlining or circling) to show particular sizes, types, model numbers, ratings, capacities, options, and similar criteria for item, actually being proposed. Cross out non applicable material. Specifically note on the submittal specified features, such as special tank linings, pump seals, impellor type, materials, painting, etc.

Include dimensional data for roughing-in and installation; technical data sufficient to check that equipment meets requirements of drawings and specifications; wiring, piping, and service connection data; and motor sizes, complete with voltage ratings and schedules as applicable.

Examine all Shop Drawings, prior to submission to the City's Representative, to ensure that all necessary requirements have been determined and verified, and that each shop drawing has been checked and coordinated with the requirements of the Work and the Contract Documents. Examination of each shop drawing shall be indicated by stamp, date and signature of a responsible person. Shop Drawings not stamped, signed and dated will be returned without being reviewed and shall be considered rejected.

Submit Shop Drawings to the City's Representative for their review, with reasonable promptness and in an orderly sequence, so as to cause no delay in Work. Failure to submit Shop Drawings in ample time is not to be considered sufficient reason for an extension of Contract Term, and no claim for extension by reason of such default will be allowed. If requested, the City's Representative will jointly prepare a schedule fixing the dates for submission and return of Shop Drawings.

The City's Representative will review and return Shop Drawings in accordance with any schedule agreed upon or otherwise with reasonable promptness, so as to cause no delay in Work.

Submit three (3) copies of white prints to the City's Representative for review.



Shop drawing review by the City's Representative is solely to ascertain conformance with the general design concept. Responsibility for approval of detail design inherent in Shop Drawings rests with the Contractor, and review by the City's Representative shall not imply such approval.

Review by the City's Representative shall not relieve the Contractor of their responsibility for errors or omissions in Shop Drawings, or for proper completion of the Work in accordance with the Contract Documents.

Responsibility for verification and correlation of field dimensions, fabrication processes, techniques of construction, and installation and co-ordination of all parts of the Work rests with the Contractor.

Shop Drawings will be returned to the Contractor with one of the following notations:

- a) When stamped "REVIEWED", distribute additional copies as required for execution of the Work.
- b) When stamped "REVIEWED AS MODIFIED", ensure that all copies for use are modified and distributed, same as specified for "REVIEWED".
- c) When stamped "REVISE & RE-SUBMIT", make the necessary revisions, consistent with the Contract, and submit again for review.
- d) When stamped "NOT REVIEWED", submit other drawings, brochures, or other necessary information for review, consistent with the Contract.

Only Shop Drawings bearing "REVIEWED" or "REVIEWED AS MODIFIED" shall be used on the Work, unless otherwise authorized by the City's Representative.

Application of any of the above stamps is not to be inferred as lessening any of the Contractor's responsibilities outlined in this Contract.

After submittals are stamped "REVIEWED" or "REVIEWED AS MODIFIED", no further revisions are permitted unless resubmitted to the City's Representative for further review.

Any adjustments made on Shop Drawings by the City's Representative are not intended to change the Contract Price. If it is deemed that such adjustments affect the Contract Price, clearly state as such in writing prior to proceeding with fabrication and installation of work.

The Contractor shall make changes in Shop Drawings, which the City's Representative may require, consistent with Contract Documents.

When resubmitting, the Contractor shall notify the City's Representative in writing of any revisions to the Shop Drawings other than those requested by the City's Representative.

Shop Drawings indicating design requirements not included in the Contract documents require the seal of a Professional Engineer, registered in the province of the Place of the Work. City's Representative calculations shall be submitted for review, if requested, and signed by a Professional Engineer.

### **12.3 Record Drawings**

After award of Contract, the City's Representative will provide a complete set of drawings to the Contractor for the purpose of maintaining "as-built" record drawings. The Contractor shall accurately record significant deviations from Contract documents caused by site conditions and changes ordered by the City's Representative.

The Contractor shall record locations of concealed elements of construction. Identify drawings as "Project Record Copy". Maintain in good condition and make available for inspection at the

Place of the Work by City's Representative at all times. Not less than two (2) weeks prior to application for a Certificate of Substantial Performance, the Contractor shall submit record drawings to City's Representative for review.

Failure to submit satisfactory record drawings will entitle the City's Representative to withhold five thousand dollars (\$5,000.00) from the contract payments, and to retain such monies until satisfactory record drawings are submitted and approved. The City's Representative may also deduct from this sum any costs incurred by the City's Representative or the City in generating satisfactory record drawings.

#### **12.4 Photographs and Publicity**

No photographs of the Place of Work, or of any portion of the Work, will be permitted for publicity or press release without prior approval of the City's Representative.

**END OF SECTION**

## **13. QUALITY CONTROL (01430)**

### **13.1 Inspection and Testing Of Work**

#### Laboratories/Agencies

Inspection/testing agencies may be engaged by the City for the purpose of inspecting and/or testing portions of work. All costs of such services will be borne by the City, except as noted in this section.

All equipment required for carrying out inspection and testing will be provided by the respective agencies.

Employment of inspection/testing agencies in no way relieves the contractor of responsibility to perform work in accordance with the Contract Documents.

#### Access to Work and Plant

The Contractor shall allow the inspection/testing agencies access to all portions of Work at the Place of the Work, and manufacturing and fabrication plants, as may be necessary. The Contractor shall also cooperate to provide reasonable facilities for such access.

#### Procedures for Test

The Contractor shall notify the respective agencies and City's Representative well in advance of the requirements for tests, in order that necessary arrangements can be made. Claims for costs or schedule extensions arising from delays associated with testing requirements will not be entertained.

The Contractor shall submit necessary samples and/or materials required for testing, as specifically requested in specifications. Submit with reasonable promptness and in an orderly sequence, so as to cause no delay in work.

The Contractor shall provide workers and facilities to obtain and handle samples and/or materials at the Place of the Work and provide sufficient space to facilitate the storage and curing of test samples.

If defects are revealed during inspection and/or testing, the inspection/testing agencies may request additional inspection and/or testing to ascertain full degree of defects. The Contractor shall correct defects and irregularities and pay all costs for re-testing and re-inspection. Refer to Section 2.14.2 – Rejected Work.

The Contractor shall notify the City's Representative and authorities in ample time before testing to permit inspection and to allow tests to be witnessed.

The Contractor shall remove or repair defective products or Work that fail to meet specified requirements, as directed by the City's Representative, at the Contractor's expense.

### **13.2 Project Holdpoints**

Project holdpoints may be placed by the City for the purpose of inspecting the Work and ensuring compliance with the project specifications. The Contractor shall notify the City's Representative at least 48 hours prior to each scheduled holdpoint inspection.

The Contractor shall not proceed work beyond any listed holdpoint without written approval from the City's Representative. Such written approval shall be provided by the City's Representative within 24 hours of the inspection. In the case of unsatisfactory work, the City's Representative shall notify the Contractor in writing within 24 hours. The Contractor shall rectify the identified issues and notify the City's Representative for re-inspection prior to proceeding with the work.

Approval of any work at a holdpoint does not relieve the Contractor of its responsibility to comply with all other obligations under this Contract, including but not limited to survey layout, quality control, safety standards, and adherence to the project schedule and specifications.

#### Holdpoints

**Subgrade Inspection:** The Contractor shall notify the City's Representative after excavation to the design subgrade has been completed, prior to the installation of any geotextile, geogrid, or granular materials, to allow for inspection of subgrade quality and to identify areas requiring additional excavation.

**Concrete Flatwork:** The Contractor shall schedule an inspection with the City's Representative and any applicable Subcontractors prior to the commencement of any concrete works, including but not limited to sidewalks, driveways, walkways, stairs, and retaining walls. The Contractor shall also notify the City's Representative prior to the placement of concrete to allow the City's Representative to inspect all formwork and reinforcement. No concrete shall be placed until all formwork and reinforcement have been inspected and approved by the City's Representative.

**Concrete Curb:** The Contractor shall schedule an inspection with the City's Representative and any applicable Subcontractors prior to the commencement of curb installation to confirm curb alignment and the location of driveways and curb drops.

**Asphalt Pavement:** The Contractor shall schedule an inspection with the City's Representative and any applicable Subcontractors after the installation of the granular base has been completed, prior to the installation of any asphalt pavement.

**Topsoil & Sod:** The Contractor shall schedule an inspection with the City's Representative and any applicable Subcontractors prior to the commencement of any boulevard grading, topsoil, and sod installation to determine the limits of work and to identify areas requiring regrading or cleanup prior to topsoil and sod installation.

### **13.3 Tests and Mix Designs**

The Contractor shall furnish to the City's Representative test results and mix designs as requested in the specifications.

### **13.4 Reference Standards**

Within the text of the specifications, reference may be made to the following standards:

AASHTO	American Association of State Highways and Transportation Officials
ACI	American Concrete Institute
AISC	American Institute of Steel Construction
ANSI	American National Standards Institute
API	American Petroleum Institute
ASTM	American Society for Testing Materials

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AWS	American Welding Society
AWWA	American Water Works Association
CAN	National Standards of Canada
CCA	Canadian Construction Association
CEC	Canadian Electrical Code
CGA	Canadian Gas Association
CGSB	Canadian Government Specification Board
CSA	Canadian Standards Association
CSPI	Corrugated Steel Pipe Institute
CWB	Canadian Welding Bureau
FM	Factory Mutual Engineering Corporation
IAO	Insurer's Advisory Organization
ISO	International Organization for Standardization
NBC	National Building Code
RTAC	Roads and Transportation Association of Canada
SSPC	Steel Structures Painting Council
TAC	Transportation Association of Canada
WSIB	Workplace Safety & Insurance Board
ULC	Underwriters Laboratories of Canada
MECP	Ministry of Environment, Conservation and Parks

The Contractor shall conform to such standards, in whole or in part, as specified.

Where dates with specified standards are noted, or where specified standards are not dated, conform to the latest issue of the specified standards, as amended and revised to the Bid closing date.

If there is a question as to whether any product or system is in conformance with applicable standards, the City's Representative reserves the right to have such products or systems tested to prove or disprove conformance. The cost for such testing will be borne by the City, in the event of conformance with Contract Documents, or by the Contractor, in the event of non-conformance.

### **13.5 Abbreviations**

The abbreviations refer to Specifications, Methods and Standards issued by the respective Association, and the abbreviations are used in the specifications.

Alphanumeric designations following the abbreviations denote the specification, method or standard.

The specifications are metric and metric usage is based upon SI units in accordance with CSA Standard CAN/CSA-Z234.1-89 Canadian Metric Practice Guide. In this specification SI units are abbreviated in accordance with the Metric Units and Abbreviations below.

<b>Linear Measure</b>	
Metre	m
Millimetre	mm
Kilometre	km
Micrometre	micro-m
<b>Area</b>	
Square metre	m <sup>2</sup>
Square millimetre	mm <sup>2</sup>
Hectare	ha
<b>Volume</b>	
Cubic metre	m <sup>3</sup>
Litre	l
<b>Mass and Density</b>	
Kilogram	kg
Gram	g
Tonne	t
Kilogram per metre	kg/m
Gram per metre	g/m
Kilogram per square metre	kg/m <sup>2</sup>
Gram per square metre	g/m <sup>2</sup>
Kilogram per cubic metre	kg/m <sup>3</sup>
<b>Temperature</b>	
Degree Celsius	C°
<b>Force, Pressure, Stress</b>	
Newton	N

Kilo newton	kN
Pascal	Pa
Kilopascal	kPa
Mega Pascal	MPa
<b>Velocity, Rate of Flow</b>	
Metre per second	m/s
Metre per hour	m/h
Kilometre per hour	km/h
Litre per second	L/s
Cubic metre per second	m <sup>3</sup> /s
<b>Power, Energy, Heat, Work</b>	
Watt	W
Kilowatt	kW
Kilowatt hour	kWh
Joule	J
<b>Electricity</b>	
Ampere	A
Volt	V
<b>Illumination</b>	
Foot-candle	fc
Lumen	lm
Lux	lx

**END OF SECTION**

## **14. TEMPORARY FACILITIES (01500)**

### **14.1 Field Offices and Sheds**

#### **Contractor's Office**

The Contractor shall have the option of providing and maintaining an onsite office as required or as permitted, in clean condition, during entire progress of work, a suitable office, adequately lighted, heated and ventilated, for own usage.

The Contractor shall locate where directed by the City's Representative.

The Contractor shall provide within the office space adequate for first aid facilities, as recommended by Occupational Health and Safety.

#### **City's Representative's Office**

Resident City's Representative's office will not be required.

#### **Subcontractor's Office**

Subcontractors are to provide themselves with offices as necessary.

The Contractor shall locate where directed by the City's Representative.

#### **Equipment and Tool Storage**

The Contractor shall provide and maintain in clean and orderly condition adequate lockable storage sheds for tools and equipment. Locate where directed by the City's Representative.

#### **Materials Storage**

The Contractor shall provide and maintain in clean and orderly condition suitable weatherproof and lockable sheds for storage and protection of materials which require protection. Locate shed where directed by the City's Representative.

The Contractor shall allocate storage areas at the Place of the Work for materials that do not require weatherproof sheds, maintain areas in clean and orderly condition and limit storage of materials and items to storage areas only.

### **14.2 Utilities**

#### **Sanitary Facilities**

The Contractor shall provide sufficient sanitary facilities for workers, in accordance with local health authorities, maintain such facilities in clean and tidy condition and remove such facilities prior to completion of the Work.

The Contractor shall ensure that any disruption to the residential sanitary sewer system is limited to four (4) hours. Written notice shall be provided to all affected residents and alternate arrangements shall be made if the disruption to service exceeds four hours.



### Water Supply

The Contractor shall provide a continuous supply of water for use during construction, and make necessary arrangements for connection with appropriate utility companies, and remove any such facilities prior to completion of the Work.

The Contractor shall maintain water supply in good condition until permanent supply is installed and ready for use. All temporary water systems shall be cleaned and disinfected prior to use. Use permanent water supply, provided damage does not occur.

Payment for this Work will be made on a lump sum basis as indicated in APPENDIX "ONE" – TENDER FORM AND UNIT PRICE SCHEDULE.

### Dewatering

The Contractor shall provide temporary drainage and pumping facilities as may be necessary to keep excavations and the Place of Work free from water at all times. The Contractor should be prepared to properly handle flowing water in excavations. No consideration will be given to claims arising as a result of a lack of effort on the part of the Contractor in dewatering the work area. Any dewatering required shall be considered incidental to the Contract.

The Contractor shall not discharge drainage water into municipal sewers without written approval from the governing authority.

The Contractor shall not discharge drainage water containing silt in suspension into sewage lines or water bodies.

## **14.3 Services**

### Existing Services

The Contractor shall maintain existing services in operation at all times during the construction, except as stated Section 4.3 – Municipal Water System.

The Contractor shall protect all existing services from damage. Repair services damaged by construction at no additional cost to the City, and to the City's Representative's approval.

If service interruptions are necessary for the work, such interruption shall be made only at times approved by the City and local governing authorities.

### Responsibility to Existing Features

The existence and location of utilities indicated on the plans have been determined from existing records, but are not guaranteed. These shall be investigated and verified in the field by the Contractor. Excavation in the vicinity of existing structures and utilities shall be carefully performed. The Contractor will be held responsible for any damage to, and for maintenance and protection of, existing structures and utilities.

The Contractor shall notify the appropriate individuals of utility companies or departments of their intention to carry out operations in the vicinity of any utility structure, notice as required in advance of commencement of such operations.

The Contractor shall indemnify and save harmless the City of any such mains, lines, conduits, drains, or other structures or utility for any loss or damage which may be suffered by reason of the operations of the Contractor in the performance of this contract.

The Contractor shall be responsible for determining which utilities may require altering. In such cases, the Contractor shall be responsible for making all necessary arrangements to have this work done and shall be responsible for all costs of the work.

#### Access to Property

The Contractor shall provide and maintain reasonable access to all private property and places of business. Prior to removing access to residences or businesses the Contractor shall provide thirty-six (36) hours written notice, as well as a twenty-four (24) hour follow-up notice that residences will be inaccessible to vehicular traffic. The Contractor shall provide for safe walking access for residences at all times.

### **14.4 Barriers**

#### Guard Rails and Barricades

The Contractor shall provide all necessary guard railings, fencing and barricades required around all excavations, open shafts, or other works, to protect workers or the general public from possible injury.

### **14.5 Construction Aids**

#### Temporary Retaining Walls

The Contractor shall provide temporary sheeting, piling or shoring as may be required to protect excavations and trenches from damages caused by rain water, ground water, and other soil and weather conditions. Erect in a manner which will not hinder the performance of the Work.

### **14.6 Roads**

#### Access to Site

The Contractor shall provide and maintain access roads (including existing temporary roads), sidewalk crossings, ramps and construction runways as may be required by workers for access to and on the Place of Work. Conform to requirements of local governing authorities when required, and, when necessary, make arrangements with adjacent property Owners. Locate these traffic facilities where they are least disruptive to normal street traffic.

### **14.7 Traffic Control**

#### Emergency and Transit Services

It is the Contractors responsibility to inform the City representative of scheduled Work as per Section 2.6.2 - Work Schedule.

It is the City Representative's responsibility to inform the Police Department, Fire Department, Ambulance Services, and Transit Companies of the proposed work schedule and changes to the schedule, including times of work and activities required on the various street locations within the Municipality.

## Public Traffic Flow

The Contractor shall provide and maintain flag persons, traffic signals, barricades, and flares/lights/lanterns, as may be required, to direct the flow of equipment used in performance of work and protect public traffic. Make arrangements with local governing authorities when these facilities will disrupt the normal flow of public traffic.

## Traffic Accommodation during Construction:

The Contractor shall make suitable provisions, including the use of detours, to accommodate all vehicular and pedestrian traffic safely and with a minimum of inconvenience through or around the Work.

The Contractor shall provide, install, maintain and protect traffic control devices, such as signs, barriers, fences and lights, at their own expense.

The Contractor shall provide the required number of certified flag persons, during all periods of active equipment operations that may affect normal traffic operations.

The Contractor shall control their operations to ensure emergency vehicle operations and normal school and transit bus operations are not interfered with, and shall ensure that there is uninterrupted access to developments along the Project.

## Parking

Parking will be permitted at the Place of the Work, provided it does not disrupt the performance of Work and if it is practicable. The Contractor shall not allow workers to park on streets and roads if disruptive to public traffic flow or access to the Place of the Work.

## **14.8 Protection of Work and Property**

### Protection for Off-Site and Public Property

The Contractor shall protect adjacent private and public property from damage during the performance of work.

During excavation, the Contractor shall provide sheeting, piling or shoring, as may be required, to protect adjacent building foundations and streets from movement.

The Contractor shall be responsible for all damages incurred due to improper protection.

### Fire Protection

The Contractor shall provide and maintain adequate temporary fire protection equipment during performance of work, as required by insurance companies having jurisdiction.

The Contractor shall provide minimum one fire extinguisher in each equipment and tool shed, temporary office and material storage shed.

Where subjected to low temperatures, extinguishers are to be anti-freeze type. In proximity to gas, oil, grease or paint storage locations, they are to be #10 - carbon dioxide type. Extinguishers for all other locations are to be soda-acid type. All extinguishers are to be minimum eleven litre (11 l) capacity and be ULC labeled.

The Contractor shall handle gasoline and like combustible materials with good, safe practice.

The Contractor shall remove combustible debris from the Place of the Work daily.

#### **14.9 Security**

##### Security Personnel

At the Contractor's discretion, provide and pay for responsible security personnel to guard the Place of the Work and contents after working hours, and on nights, weekends and holidays. Allow security personnel access to sanitary facilities and warm, weatherproof shelter.

##### Site Lighting

The Contractor shall provide and pay for temporary lighting for night time hours if required. Install lamps in suitable locations to obtain unobstructed light over the entire Place of the Work.

The Contractor shall perform daily inspection of such lighting, replace burned out and missing lamps, and promptly relocate any lights that become obstructed by new Work.

#### **14.10 Project Identification**

##### Warning and Traffic Signs

When work is performed within public areas, the Contractor shall provide and erect adequate warning and traffic signs, as necessary to give the public proper warning. Place signs sufficiently in advance to enable the public to respond to directions.

Warning and traffic signs shall be illuminating or reflective type, visible to the public and traffic during night time hours.

**END OF SECTION**

## **15. PRODUCTS/WORKMANSHIP (01600)**

### **15.1 Products**

#### **Quality of Products**

Products, workmanship and testing shall conform to standards specified in this section. All products and workmanship are subject to inspection by the City's Representative.

All materials, equipment and articles incorporated in the work are to be new, not damaged or defective, and of the best quality, compatible with specifications for the purpose intended. If requested, the Contractor shall furnish evidence as to type, source and quality of products required.

Defective materials, equipment and articles, whenever found, may be rejected, regardless of previous inspection. Inspection by the City's Representative, or an inspector, does not relieve the Contractor of their responsibility, but is merely a precaution against oversight or error. Remove and replace defective materials at own expense and be responsible for all delays and expenses caused by rejection.

Should any dispute arise as to the quality or fitness of materials, equipment or articles, the decision rests strictly with the City's Representative, based upon the requirements of the Contract Documents.

Unless otherwise indicated in the specifications, the Contractor shall maintain uniformity of manufacturer for any particular or like item throughout the work.

Permanent labels, trademarks and nameplates on materials, equipment and articles are not acceptable in prominent locations, except where required for operating instructions.

#### **Availability of Products**

Immediately upon contract award, the Contractor shall review product requirements and anticipate foreseeable delivery delays in any items. If delays in deliveries of material, equipment or articles are foreseeable, notify the City's Representative in order that substitutions, or other remedial action, may be authorized in ample time to prevent delay in performance of work.

If such notice is not given, the City's Representative reserves the right to substitute more readily available products in order to prevent delays, at no additional cost to the City.

No substitution of any item will be permitted unless the approved item cannot be delivered to the Place of the Work in time to comply with the Work Schedule.

To receive approval, proposed substitutes must equal or exceed the quality, finish and performance of those specified and/or shown, and must not exceed the space requirements allotted on the drawings.

The use of trade names in these specifications and on drawings shall constitute a basis upon which equals may be established. Substitution will be allowed, but only on written consent and conditions from the City's Representative. Further, wherever a trade name is stated, the Work shall be executed in accordance with the manufacturer's printed instructions. Substituted equipment shall not require redesign of structural, architectural, electrical or mechanical components unless approved by the City's Representative. Any additional provisions or changes required for the equipment shall be the responsibility of the Contractor.



The Contractor shall provide documentary proof of equality, difference in price (if any), and delivery dates in the form of certified quotations from suppliers of both specified items and proposed substitutions.

The Contractor shall include all costs in the difference in price (if any) for any required revisions to other structures and products to accommodate such substitutions.

#### **Storage, Handling and Protection of Products**

The Contractor shall handle and store products in a manner to prevent damage, contamination, deterioration and soiling, and in accordance with manufacturer's recommendations when applicable.

The Contractor shall store packaged or bundled products in original and undamaged condition, with manufacturer's seals and labels intact. Do not remove from packaging or bundling until required in work.

Products subject to damage from weather are to be stored in weatherproof enclosures.

The Contractor shall store cementitious material clear of earth or concrete floors, and away from walls.

The Contractor shall keep sand, when used for grout or mortar materials, clean and dry. Store sand on wooden platforms and cover with waterproof tarpaulins during inclement weather.

The Contractor shall remove and replace damaged products at own expense and to the satisfaction of the City's Representative.

#### **Manufacturer's Directions**

Unless otherwise directed in the specifications, install or erect all products in accordance with manufacturer's recommendations. Do not rely on labels or enclosures provided with products. Obtain instructions directly from manufacturers.

Notify the City's Representative, in writing, of any conflicts between the specifications and manufacturer's instructions, so that the City's Representative may establish the course of action to follow.

Improper installation or erection of products due to failure in complying with these requirements authorizes the City's Representative to require any removal and reinstallation that may be considered necessary, at no increase in contract prices.

#### **Transportation Costs of Products**

The Contractor shall pay all costs of transportation of products required in the performance of work. Be responsible for ensuring Subcontractors include the costs of transporting products that are part of their work.

Transportation costs of products supplied by the City will be paid for by the City. Be responsible for unloading, handling, and storage of such products, unless specified otherwise.

### **15.2 Workmanship**

#### **General Requirements**



Workmanship is to be of the best quality, executed by workers fully experienced and skilled in their respective trades holding current certificate of proficiency issued pursuant to the *Ontario College of Trades and Apprenticeship Act, 2009 (OCTAA)* in respect to the applicable trade, and in accordance with all local relevant codes and regulations. Immediately notify the City's Representative if work is required in such a manner as to make it impracticable to produce required results.

The Contractor shall at all times enforce discipline and good order among workers. Do not employ any unfit person or anyone unskilled in the duties assigned to him. The City's Representative reserves the right to require the removal of workers deemed incompetent, careless, insubordinate or otherwise objectionable.

Decisions as to the quality of, or fitness of, workmanship in cases of any dispute rests solely with the City's Representative, whose decision is final.

#### Coordination

The Contractor shall ensure full cooperation among all trades in laying out work. Maintain efficient and continuous supervision.

The Contractor shall ensure that the work of various subcontractors does not conflict or create interference, thus assuring satisfactory performance of work.

The Contractor shall be responsible for the proper coordination and placement of openings, sleeves and accessories.

#### Existing Surface Features

When tying into, or connecting with, existing roads, lanes, walkways, curbs, or other existing surface features, the Contractor shall carry out work at times as directed by local governing authorities, with a minimum of disturbance to existing features.

The Contractor shall protect and maintain existing surface features as required.

#### Inspection and Testing

Do not cover any work before inspection and testing, unless authorized by City's Representative in writing.

Perform all tests required by the specifications and by authorities having jurisdiction.

**END OF SECTION**



## **16. CONTRACT DRAWINGS, PERMITS AND ATTACHMENTS (02015)**

### **16.1 Contract Drawings**

<b><u>Drawing Number</u></b>	<b><u>Description</u></b>	<b><u>Revision</u></b>
L1	Legend	IFT
TW1	Temporary Water System Plan	IFT
R1	Existing Site Plan & Removals – 9 <sup>th</sup> Street N	IFT
P1	9 <sup>th</sup> Street N Plan & Profile – 10+000 to 10+140	IFT
P2	9 <sup>th</sup> Street N Plan & Profile – 10+140 to 10+280	IFT
P3	Mellick Avenue Plan & Profile – 9+990 to 10+110	IFT
P4	Mellick Avenue Plan & Profile – 10+110 to 10+210	IFT
G1	Typical Sections	IFT
G2	Details & Notes	IFT
G3	Structures Schedules	IFT
E1D	Electrical Street Lighting Demolition Plan	IFT
E1	Electrical Street Lighting Upgrade Plan	IFT
E2	Electrical Project Specific Standards	IFT
E3	Electrical Specifications	IFT

**END OF SECTION**



## **17. SPECIAL PROVISIONS & SUPPLEMENTAL SPECIFICATIONS (02020)**

### **17.1 General**

**Please read this section carefully.**

These general conditions and specifications forming a part of this tender, shall constitute a valid and binding contract between the successful Tenderer and the City of Kenora and it shall ensure to the benefit of, and be binding upon both their successors, executors, administrators and assigns.

### **17.2 Identification Of Local Regulatory Authorities**

The following is provided for information only, to facilitate contact with and notification to regulatory authorities as specified in the Contract Documents:

<b>Regulatory Authority</b>	<b>Notification Requirement</b>
MECP: Spills Action Centre (SAC) 1-800-268-6060	For notification of a spill to the environment under the Environmental Protection Act
Municipality: City of Kenora (807) 467-2000	For notification of a spill to the environment under the Environmental Protection Act
MECP: Kenora District Office (807) 456-3584 1-888-367-7622	For Waste Management Approval under the Environmental Protection Act
MNRF: Kenora Area Office (807) 468-2501	For notification of the release of a deleterious substance to a watercourse under the Fisheries Act
DFO: Environmental Response 1-800-265-0237	For notification of the release of a deleterious substance to a watercourse under the Fisheries Act
Local Police: OPP – Kenora 1-888-310-1122	For notification of a Dangerous Occurrence involving dangerous goods under the Transportation of Dangerous Goods Act

### **17.3 Canada Post**

The Contractor shall be responsible for arranging with Canada Post to ensure uninterrupted service for residents. Any costs associated with ensuring Canada Post's delivery shall be considered to be included in the unit prices for the various items of work and no additional compensation will be considered.

### **17.4 Geotechnical Information**

A geotechnical program has been undertaken for the project with the full geotechnical report provided as additional information to the contract. The report provided is for information only to indicate the anticipated ground conditions, however no reliance shall

be made upon it by the Contractor. The Contractor shall make their own determination and interpretation of the ground conditions across the site and base their bids accordingly.

### **17.5 Excess Soils**

“O.Reg. 406/19, On-Site and Excess Soil Management” is applicable to this project. As reflected on the form of tender, there is a minimum of 3,000m<sup>3</sup> of roadway excavation material, which does not include excavations for sidewalks, boulevards, subdrains and other excavation works.

The Contractor shall be responsible for the management and disposal of all excess excavated materials from the works. Existing granulars shall be removed separate from the native materials. Excess granular materials shall be delivered to the City of Kenora Area Landfill. Unless directed otherwise by a City Representative, suitable native materials shall be stockpiled onsite for reuse as backfill as required, with excess native materials delivered to the City of Kenora Area Landfill located on Jones Road, approximately 12 km north of Highway 17A, and left in a neat and uniform manner. Disposal will be based on a weight basis via the weigh scale and the City of Kenora Transfer Station which is located at 401 Mellick Avenue.

The Contractor must discuss with the City Foreman in advance to identify the locations for disposal at the respective sites, and materials shall be levelled and left in a neat and uniform manner acceptable to the City Foreman. Upon completion of the hauling, or at any time deemed necessary by the Owner or Contract Administrator, the delivered materials shall be piled-up with a front-end loader or equivalent to minimize occupied space. End dumped piles will not be considered as satisfactory permanent stockpiles.

At a minimum, the Contractor will be responsible for tracking all truck loads of material with time, date, stationing and receiving location information, based on truck box measurements. Other tracking measures may be required to ensure compliance with the regulations and will be the responsibility of the Contractor. The Contractor will also be responsible for securing the applicable property release forms in accordance with the regulations and OPSS.MUNI 180.

### **17.6 Construction Staging**

Construction work shall begin on 9<sup>th</sup> Street North between Scramble Avenue and Main Street Rideout. Once the gravel surface has been installed and the section of roadway is reopened to traffic, work may continue on the remainder of the project with the detour route beginning at the intersection of 9<sup>th</sup> Street North and Main Street Rideout to 10<sup>th</sup> Street North.

### **17.7 Night/Evening Work**

Night and weekend work will be permitted during the construction works along 9<sup>th</sup> Street North between Scramble Avenue and Main Street Rideout. All other works to comply with the City of Kenora noise bylaws. No work shall occur between sunset and sunrise for the remaining duration of the Contract, unless otherwise approved by the Owner.

The Contractor shall provide and maintain flag persons, traffic signals, barricades, and flares/lights/lanterns, as may be required, to direct the flow of equipment used in

performance of work and protect public traffic. The Contractor shall make arrangements with local governing authorities when these facilities will disrupt the normal flow of public traffic.

### **17.8 Road Closures**

The Contractor must comply with the requirements of the City of Kenora in regards to Traffic Flow on Municipal Streets. Temporary, short term full road closures between intersecting roads may be permitted for the construction of the works, provided notification to affected residents and alternate access is provided. Pedestrian access must be maintained at all times. Multiple closure areas at the same time will not be permitted.

The Contractor shall prepare a Traffic Plan for review by the Engineer and the City of Kenora in advance of construction based on discussions to be held at the prestart meeting. The Contractor will be responsible for all notification and signage relating to the closures, detours and site conditions.

### **17.9 Migratory Bird Protection - General**

The Contractor shall not destroy active nests (nests with eggs or young birds), or wound or kill birds, of species protected under the Migratory Birds Convention Act, 1994 and/or Regulations under that Act. When active nests are encountered the Owner's Engineer must be contacted.

### **17.10 Sanitary Sewer & Storm Sewer CCTV Inspection & Mandrel Testing**

Sewer flushing and CCTV inspections of the installed sanitary, storm sewer, and subdrain lines shall be completed by the Contractor in accordance with OPSS.MUNI 409. Mandrel Testing shall also be completed for installed sanitary sewer. All CCTV and mandrel testing shall be completed no earlier than 30 days after pipe installation. All costs associated with the flushing and CCTV inspections shall be included in the unit price for the respective item and no additional compensation will be considered.

### **17.11 Existing Signage**

It shall be the Contractor's responsibility to remove and keep in good condition all signs within the limits of the project. If so directed by the Contract Administrator, any existing sign removed by the Contractor to accommodate construction shall be kept operational by placement on a temporary support. Stop signs, road name signs, municipal address signs (911) and address ranges signs (911) **must** be kept operational at all times.

All signs shall be reinstalled by the Contractor in accordance with the OTM after the work operation is complete. Any costs associated with managing existing signage shall be considered to be included in the unit prices for the various items of work and no additional compensation will be considered.

### **17.12 Project Signage**

#### **17.12.1 Scope**



This specification covers the requirements for project signage.

17.12.2 References

Appendix F

17.12.3 Construction

The contractor shall supply project signage as per the following requirements:

There shall be a total of three project signs supplied, one for each end of each location of work, in advance of site activities at that location. The City will require the contractor to relocate the signs on an ongoing basis during the project based on the active location of work. The signs shall be installed 30 days prior to the start of construction and removed no earlier than 30 days after the completion of the project.

The City of Kenora will provide the successful contractor a sign template and a digital version of the City logo for sign creation purposes. Sign size is to be 8 x 4 feet.

A proposed layout is to be submitted for approval prior to manufacture.

The signs shall be constructed, erected and installed to be made portable via a lumber frame and stand structure. The sign shall be adequately secured in place with sand bags or other acceptable weight system to ensure the sign will remain upright and not be affected by wind or any other conditions that would affect the stability of the sign.

17.12.4 Measurement for Payment

No measurement is associated with this scope of work and is considered incidental to the project.

17.12.5 Basis of Payment

No payment is associated with this scope of work and is considered incidental to the project.

## **17.13 Supplementary Specifications**

### **B.1 ITEM 3/B.2 ITEM 3 TRAFFIC CONTROL**

#### **SCOPE**

This item is for the completion of Traffic Control during construction.

#### **REFERENCES**

The requirements outlined in OPSS.MUNI 706 shall apply to this item.

#### **CONSTRUCTION**

The Contractor must comply with the requirements of the City of Kenora in regards to Traffic Flow on Municipal Streets. Temporary, short term full road closures between intersecting roads may be permitted for the construction of the works, provided notification to affected residents and alternate access is provided. Pedestrian access must be maintained at all times. The road must be reopened to local traffic each night, excluding the duration for the work along 9<sup>th</sup> Street North between Scramble Avenue and Main Street Rideout.

The Contractor shall prepare a Traffic Plan for review by the Engineer and City of Kenora in advance of construction.

Traffic Control Signage shall include all work to fulfil requirements of Book 7 – Temporary Conditions of the Ontario Traffic Manual.

The Contractor shall in addition to the requirements outlined in OPSS.MUNI 706 provide “Road Closed – Local Traffic Only” signs and barricades where necessary based on road closure staging. The Contractor shall also provide continuous notification to residents and businesses within the project site outlining the location, time and duration of the closures.

Notification in accordance with section GC7.07 of the General Conditions of the Contract shall be made to all applicable agencies by the Contractor.

#### **MEASUREMENT FOR PAYMENT**

There will be no measurement for payment for traffic control. Payment will be by lump sum. Where payment for work is split over multiple certificates, payment will be prorated over the length of the contract as decided by the Engineer.

#### **BASIS OF PAYMENT**

Payment at the contract price for the above referenced tender item shall be full compensation for all labour, equipment and material to do the work.

## **B.1 ITEM 5/B.2 ITEM 5 SUBSURFACE UTILITY INVESTIGATIONS**

### **SCOPE**

The Contractor shall conduct subsurface utility investigations at approximately 10+160 on 9<sup>th</sup> Street North to determine the depth of the 300mmØ forcemain. This work shall be completed in advance of construction so any impacts can be mitigated as soon as possible.

### **CONSTRUCTION**

Utilization of a Vac-Truck is required to complete investigative excavations. Excavations are to be backfilled with granular materials and asphaltic cold patch materials utilized where investigations are completed in existing paved areas. Excess soils shall be managed in accordance with OPSS.MUNI 180.

### **MEASUREMENT FOR PAYMENT**

Payment shall be made based on Time and Materials to complete the work, based on unit rates negotiated in advance of the work. A cash allowance has been allocated to cover this work, however the amount payable to the contractor will be based on actual work completed. The contractor is not guaranteed the full amount of this allowance.

### **BASIS OF PAYMENT**

Payment at the Contract Price for the above referenced tender items shall be full compensation for all labour, equipment, and materials to do the work.

- B.1 ITEM 6/B.2 ITEM 6 ASPHALT PAVEMENT REMOVAL, FULL DEPTH**
- B.1 ITEM 7/B.2 ITEM 7 ASPHALT PAVEMENT REMOVAL, PARTIAL DEPTH (MILLING)**
- B.1 ITEM 8/B.2 ITEM 8 CONCRETE CURB & GUTTER REMOVAL**
- B.1 ITEM 9/B.2 ITEM 9 CONCRETE SIDEWALK REMOVAL**

### **SCOPE**

These items are for the removal of existing asphalt pavement for roadway and entrances, as well as removal of concrete curb & gutter and concrete sidewalk.

### **REFERENCES**

The requirements outlined in OPSS.MUNI 180 and OPSS.MUNI 510 shall apply to these items.

### **CONSTRUCTION**

All removal limits shall be sawcut. Concrete and asphalt materials shall be removed separately from the underlying granulars resulting in a clean product.

Removed asphalt and concrete shall remain the property of the City and shall be delivered to the City of Kenora Operation Centre Yard and stockpiled where indicated by the City Representative.

The Contractor shall be responsible for the management and disposal of excess material in accordance with OPSS.MUNI 180.

No reliance upon the asphalt depths indicated shall be made by the Contractor in determining associated removal volumes for bid preparation. The Contractor shall estimate for themselves prior to submitting their bids. No compensation will be made based on actual asphalt depths encountered.

#### MEASUREMENT FOR PAYMENT

Measurement for the B.1/B.2 Items 6, 7 & 9 shall be by square metre of each removed and measurement for the B.1/B.2 Item 8 shall be by linear metre removed, including all sawcuts. No separate measurement for sawcutting of asphalt or concrete will be made.

#### BASIS OF PAYMENT

Payment at the Contract Price for the above referenced tender items shall be full compensation for all labour, equipment, and materials to do the work.

### **B.2 ITEM 10 STREET LIGHT AND OVERHEAD WIRE REMOVAL**

#### SCOPE

This item is for the removal of existing street lighting along Mellick Avenue, including associated cables and appurtenances, as shown on RVI drawing E1D issued for Tender on March 25, 2025.

#### REFERENCES

The requirements outlined in OPSS.MUNI 510 shall apply to this item.

#### CONSTRUCTION

The Contractor shall be responsible for all regulatory permitting required to facilitate the removal, as well as the management and disposal of all removed materials. Existing salvageable materials as determined by the Contract Administrator will remain the property of the City and shall be delivered to the City of Kenora Operation Centre Yard and stockpiled where indicated by the City Representative. All non-salvageable materials, including wood poles, shall become the property of the Contractor for disposal in accordance with OPSS.MUNI 180.

#### MEASUREMENT FOR PAYMENT

There will be no measurement for payment. Payment will be by lump sum.



## **BASIS OF PAYMENT**

Payment at the Contract Price shall include full compensation for all requirements to complete the work.

**B.1 ITEM 10/B.2 ITEM 11 WATERMAIN REMOVAL**

**B.1 ITEM 11/B.2 ITEM 12 HYDRANT SET REMOVAL**

**B.1 ITEM 12/B.2 ITEM 13 SANITARY SEWER REMOVAL**

**B.1 ITEM 13/B.2 ITEM 14 SANITARY SEWER STRUCTURE REMOVAL**

**B.1 ITEM 14/B.2 ITEM 15 STORM SEWER REMOVAL**

**B.1 ITEM 15/B.2 ITEM 16 STORM SEWER STRUCTURE REMOVAL**

## **SCOPE**

This item is for the work to remove the existing watermain, sanitary sewer, storm sewer and associated components including but not limited to valves, service saddles, fittings, maintenance holes and catch basins.

## **REFERENCES**

The requirements of OPSS.MUNI 510 shall apply to this item.

## **CONSTRUCTION**

The Contractor is required to remove the existing watermain, sanitary sewer, storm sewer and associated components. Existing salvageable materials as determined by the Contract Administrator, including but not limited to hydrants, valves, frames, grates, and cast/ductile iron pipes will remain the property of the City and shall be delivered to the City of Kenora Operation Centre Yard and stockpiled where indicated by the City Representative. All non-salvageable steel materials shall be delivered to the scrap steel pile at the City of Kenora Operation Centre. All other non-salvageable materials shall become the property of the Contractor for disposal in accordance with OPSS.MUNI 180.

Native soils excavated to facilitate removals shall be salvaged for reuse. Excess soils shall be managed in accordance with SECTION 17.5. Removal areas shall be backfilled with suitable salvaged native materials to subgrade elevation and compacted to minimum 98% standard proctor density.

## **MEASUREMENT FOR PAYMENT**

Measurement for the B.1 Items 10, 12, & 14/B.2 Items 11, 13, & 15 shall be by linear metre removed and shall include the removal of all watermain valves. Measurement for the B.1 Items 11, 13, & 15/ B.2 Items 12, 14, & 16 shall be by each hydrant set, sanitary sewer structure, or storm sewer structure removed. Where payment for work is split over multiple certificates, payment will be prorated over the percentage of removals completed as decided by the Engineer.



## BASIS OF PAYMENT

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

### B.1 ITEM 16 WOOD POST REMOVAL

#### SCOPE

This item is for the work to remove the existing wood posts as shown on the contract drawings.

#### REFERENCES

The requirements of OPSS.MUNI 510 shall apply to this item.

#### CONSTRUCTION

The Contractor is required to remove the existing wood posts and they shall become the property of the Contractor for disposal in accordance with OPSS.MUNI 180.

Native soils excavated to facilitate removals shall be salvaged for reuse. Excess soils shall be managed in accordance with SECTION 17.5. Removal areas shall be backfilled with suitable salvaged native materials to subgrade elevation and compacted to minimum 98% standard proctor density.

#### MEASUREMENT FOR PAYMENT

There will be no measurement for payment for the above referenced tender item. Payment will be by lump sum.

#### BASIS OF PAYMENT

Payment at the contract price for the above referenced tender item shall be full compensation for all labour, equipment and material to do the work.

### B.1 ITEMS 17-20 PRECAST CATCH BASIN, 600mmx600mm

### B.2 ITEMS 17-20 PRECAST CATCH BASIN, 600mmx600mm

#### SCOPE

These items are for the supply and installation of precast catch basin structures including dewatering as may be required.

#### REFERENCES

The requirements outlined in OPSS.MUNI 402, OPSS.MUNI 403, OPSS.MUNI 407, OPSS.MUNI 408, OPSS.MUNI 501, OPSS.MUNI 517, OPSS.MUNI 1351,



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**02020**

OPSS.MUNI 1850, OPSS. 400.020, OPSS 400.030, OPSS. 705.010, and TF-103-4 shall apply to these items.

#### **MATERIALS**

Catch basin structures to be constructed in accordance with OPSS.MUNI 407. Catch basins shall be 600mm x 600mm as per OPSS 705.010 with 600mm sumps. Frames and Grates to be in accordance with OPSS 400.020, OPSS 400.030, or TF-103-4 as listed on the contract drawings.

Structure joints and pipe connections shall be watertight.

Bedding and backfill shall be Granular "A" per OPSS.MUNI 314.

#### **CONSTRUCTION**

The Contractor shall complete the works required to facilitate the catch basin structures to be installed in accordance with OPSS.MUNI 402, OPSS.MUNI 403 and OPSS.MUNI 407. Backfill material shall extend to the underside of the roadway granulars. Precast catch basin structures supplied in two or more pieces shall be installed with frost straps in accordance with OPSS 701.100, at the Contractor's expense.

Excavation required for structure installation shall be to the roadway subgrade limits. Suitable native materials shall be salvaged and reused as backfill to subgrade elevation, compacted to minimum 98% standard proctor density. No stones larger than 25mm shall be placed within 300mm of the structure. The Contractor shall be responsible for the management and disposal of excess material in accordance with OPSS.MUNI 180 and SECTION 17.5.

Filter Fabric to be placed under grates on all storm sewer catch basins to trap sediment. Silt traps are to be cleaned regularly and are not to be removed until all construction activity is complete. Filter fabric for silt control to be Terrafix 270R or approved equivalent.

#### **MEASUREMENT FOR PAYMENT**

There will be no measurement for payment. Payment for the above referenced tender items will be by lump sum. Where payment is split over multiple certificates, 90% will be paid for installation of the structure with 10% paid for setting of the final grade of the grate.

#### **BASIS OF PAYMENT**

Payment at the Contract Price for the above referenced tender items shall be full compensation for all labour, equipment, and materials to do the work including rock excavation to subgrade elevation, installation of structures, frames, and grates.

## **B.1 ITEMS 21-24 PRECAST CATCH BASIN MAINTENANCE HOLE, 900mmØ**

### **SCOPE**

These items are for the installation of 900mmØ storm sewer maintenance hole structures, including dewatering as may be required.

### **REFERENCES**

The requirements outlined in OPSS.MUNI 180, OPSS.MUNI 402, OPSS.MUNI 403, OPSS.MUNI 407, OPSS.MUNI 408, OPSS.MUNI 501, OPSS.MUNI 517, OPSS.MUNI 1351, OPSS.MUNI 1850, OPSD 400.020, OPSD 405.020, OPSD 701.010, OPSD 701.100, OPSD 704.010, TF-103-4 and TF-101-6 shall apply to the items precast maintenance hole catch basin.

### **MATERIALS**

Catch Basin Maintenance Holes shall be constructed according to OPSD 701.010, minimum sump of 300mm and shall have Frames and Grates to be in accordance with OPSD 400.020, TF-103-4 or TF-101-6 as listed on the contract drawings.

Structure joints and pipe connections shall be watertight.

Bedding and backfill shall be Granular "A" per OPSS.MUNI 314.

### **CONSTRUCTION**

Supply and installation of precast maintenance hole structure shall be completed in accordance with OPSS.MUNI 402, OPSS.MUNI 403, OPSS.MUNI 407, OPSS.MUNI 501 and OPSD 701.010. Backfill material shall extend to the underside of the roadway granulars. The Contractor is responsible for the supply and installation of frost straps in accordance with OPSD 701.100, steps in accordance with OPSD 405.020.

Excavation required for structure installation shall be to the roadway subgrade limits. Suitable native materials shall be salvaged and reused as backfill to subgrade elevation, compacted to minimum 98% standard proctor density. No stones larger than 25mm shall be placed within 300mm of the structure. The Contractor shall be responsible for the management and disposal of excess material in accordance with OPSS.MUNI 180 and SECTION 17.5.

Filter Fabric to be placed under grates on all storm sewer catch basins to trap sediment. Silt traps are to be cleaned regularly and are not to be removed until all construction activity is complete. Filter fabric for silt control to be Terrafix 270R or approved equivalent.

### **MEASUREMENT FOR PAYMENT**

There will be no measurement for payment. Payment for the above referenced tender items will be by lump sum. Where payment is split over multiple certificates,

90% will be paid for installation of the structure with 10% paid for setting of the final grade of the grate.

#### **BASIS OF PAYMENT**

Payment for the Items Precast Maintenance Hole shall be full compensation for all labour, equipment and material to do the work including rock excavation to subgrade elevation, installation of structures, frames and grates.

#### **B.1 ITEMS 25-27/B.2 ITEMS 21-22 300mmØ PVC STORM SEWER**

#### **B.1 ITEMS 28-29/B.2 ITEM 23 450mmØ PVC STORM SEWER**

#### **B.1 ITEMS 30-31 525mmØ PVC STORM SEWER**

#### **B.1 ITEMS 32-33 600mmØ PVC STORM SEWER**

#### **SCOPE**

These items are for the supply and installation of PVC storm sewer pipes and associated granulars, connection to structures and existing pipe, as well as dewatering as required. PVC pipes have been specified due to proximity of proposed watermain and need for watermain equivalent seals.

#### **REFERENCES**

The requirements outlined in OPSS.MUNI 180, OPSS.MUNI 314, OPSS.MUNI 410, OPSS.MUNI 501, OPSS.MUNI 510, OPSS.MUNI 517, OPSS.MUNI 1841, and OPSD 802.010 shall apply to these items.

#### **MATERIALS**

Polyvinyl Chloride (PVC) pipes shall be AWWA C900 PVC DR25 Class 165 or equivalent, per OPSS.MUNI 1841.

Alternate storm sewer pipe equivalent will be considered provided it is a true equivalent in terms of stiffness, joint performance and flow rates. Joints and structure connections shall be watertight. The Contractor will be responsible for providing supporting documentation.

The granular material required in OPSS.MUNI 410 for the bedding, embedment, and cover shall be Granular "A" and shall be included in these items.

#### **CONSTRUCTION**

Supply and installation of PVC Pipes shall be completed in accordance with OPSS.MUNI 410 and OPSD 802.010. Backfill material shall extend to the underside of the roadway granulars.

Storm Sewer pipe shall be laid within 10mm ± of the design grade. Excavation for pipe installation shall be to the roadway subgrade limits. Suitable native materials shall be salvaged and reused as backfill to subgrade elevation, compacted to minimum 98% standard proctor density. The Contractor shall be responsible for

the management and disposal of excess excavated materials. Excess material shall be managed in accordance with SECTION 17.5.

The Contractor shall locate and verify the existing inlet pipe elevations, diameters and materials required for connection to proposed storm sewer. Connections to existing piping shall be completed with factory approved fittings.

Light duty silt fence barriers to be installed at the bottom of all fill slopes and down gradient of any stockpiled material when there is the possibility of sediment migrating to adjacent properties.

Filter Fabric to be placed under grates on all storm sewer catch basins to trap sediment. Silt traps are to be cleaned regularly and are not to be removed until all construction activity is complete. Filter fabric for silt control to be Terrafix 270R or approved equivalent.

#### MEASUREMENT FOR PAYMENT

Measurement for payment for the above referenced tender items shall be by length in metres installed. There will be no measurement of payment for the granular bedding, embedment, cover and backfill material required for the installation of the storm sewer.

B.1 Items 26 and 32 shall include connection to the existing storm sewer structures.

#### BASIS OF PAYMENT

Payment at the Contract Price for the above referenced tender items shall be full compensation for all labour, equipment, and materials to do the work, including trenching and supply and placement of granulars for bedding, embedment, cover and placement of suitable native backfill to subgrade elevation.

### **B.1 ITEM 34 ADJUST CATCH BASIN MAINTENANCE HOLE – ST-CBMH-9109**

#### SCOPE

This item is for the adjustment of the frame and grate on existing catch basin maintenance hole, ST-CBMH-9109. A new frame and grate is not required.

#### REFERENCES

The requirements outlined in OPSS.MUNI 408 shall apply for this item.

#### MATERIALS

Adjustment units shall be precast concrete according to OPSS.MUNI 1351.

## CONSTRUCTION

The Contractor shall complete the vertical adjustment of catch basin maintenance hole, ST-CBMH-9109, as outlined in the Contract Drawing, setting the new grate to match sidewalk elevation.

## MEASUREMENT FOR PAYMENT

There will be no Measurement for Payment for the item – Adjust Existing Catch Basin Maintenance Hole - ST-CBMH-9109. Payment will be by lump sum.

## BASIS OF PAYMENT

Payment at the Contract Price for the above tender item shall be full compensation for all labour, equipment and material to do the work, including supply and installation of new frame and cover.

## **B.1 ITEM 36/B.2 ITEM 24 SANITARY SEWER BYPASS SYSTEM**

### SCOPE

This specification covers the requirements related to sewer bypass flow pumping required for the temporary conveyance of sanitary sewage flows. The Work shall include the following: design of a fully operational temporary sewer bypass system; obtaining regulatory approvals for the bypass installation (if required), commissioning, operation and maintenance, monitoring, decommissioning and removal; spill prevention and cleanup; protection of traffic, road, rail, and water body or crossings as required.

The estimated design flow of the sanitary sewer within the pipe replacement area varies due to the connecting streets. The Contractor shall verify sanitary sewer flow rates to ensure their Sewer Bypass System satisfies the requirements.

The City's Water & Sewer System Operator shall be contacted by the Contractor to discuss options for managing flow rates.

### DEFINITIONS

Temporary Sewer Bypass System means temporary piping, plugs, pumping and standby equipment installed and operated for the purpose of intercepting the incoming sewage flow, conveying the flow around the work area, and discharging the flow into the existing sewer system downstream of the work area

### DESIGN AND SUBMISSION REQUIREMENTS

The Contractor shall prepare and submit the following:

- a) Temporary Sewer Bypass Plan ensuring there is capacity and size to handle the existing peak flows and surcharge flow rates at all times during the bypass operation; and,

- b) Spill Response Plan. The Contractor shall not procure or install temporary bypass system until the Temporary Sewer Bypass Plan and the Spill Response Plan are approved by the Contract Administrator.

The Temporary Sewer Bypass Plan and Spill Response Plan shall be submitted four weeks prior to the start of construction to the Contract Administrator.

The Temporary Sewer Bypass Plan shall include all of the following:

- Flow rates and other hydraulic considerations,
- Size of the sewer to be bypassed,
- Bypass connection proposed,
- Site and equipment monitoring,
- Staging areas for pumps,
- Duration of each phase of the work,
- Sewer plugging method, type and size of plugs,
- Location of maintenance holes or access points for suction and discharge piping, including a suitable site map,
- Size, material, location and method of installation of suction and discharge piping,
- Characteristics of bypass pump such as size, capacity and power requirements,
- Calculations of static lift, friction losses and flow velocity,
- Pump curves showing pump operating range, Characteristics of standby pump(s) such as size, capacity and power requirements,
- Standby power generator(s) size and location, and refueling requirements and restrictions,
- Method of protecting discharge maintenance holes or structures from erosion and damage,
- Method of noise control for each pump and generator,
- Details of bypass pipe crossings, for example, driveways and sidewalks,
- Any plans and procedures to mitigate issues related to night work, e.g. light, noise, odour and protection of environmental features specific to work,
- Schedules for installation and demobilization, and
- All provisions and precautions that will be taken during the bypass operations to prevent sewage backups, overflows and spills.

The site-specific Spill Response Plan shall include the following:

- Procedures for notification to the City of Kenora and the Ministry of the Environment, Conservation and Parks (MECP) Spill Action Centre,
- Mandatory regulatory reporting requirements,
- Plan for investigating the cause of the spill,
- Plan for containing the spill and addressing the source of the spill,
- Determine if any service connections, storm drains, watercourses or other infrastructure that could be negatively affected by a spill,
- Plan for preventing public exposure to the spill, including procedures for redirecting pedestrians and traffic away from the impacted area,



- Measures to be taken to avoid or mitigate the adverse effects of the spill on the environment, and
- Name of responsible person and their responsibilities to document and liaise with all agencies during a spill.

#### Acceptance of the Plans

The Temporary Sewer Bypass Plan and Spill Response Plan should allow the Contract Administrator to understand the manner in which construction on the sewer is to take place, the flow rates accommodated by the bypass and evacuation and contingency plans in case of a spill including cleanup. The plans shall be submitted in PDF format.

The construction shall start only after the Contract Administrator reviews and accepts the Temporary Sewer Bypass Plan and Spill Response Plan. The Contract Administrator will then issue the acceptance letter to the Contractor.

Both plans shall be posted at the site office or site trailer during the sewer bypass operations.

#### **EQUIPMENT**

##### Pumps

Provide electric or diesel powered fully automatic self-priming low noise pumps and low noise generators. The pumps shall be equipped with all necessary stop and start controls.

##### Temporary Sewer Bypass Piping

The temporary sewer bypass piping shall be able to withstand pressures that are greater than the peak bypass pressure and the traffic load at road crossing ramps. Under no circumstances shall aluminum irrigation type piping or glued PVC pipe be used. The Contract Administrator shall approve discharge hose material type.

#### **CONSTRUCTION**

The Contractor shall cease bypass pumping operations when no longer required and return flows to the new or existing sewer or both. During bypassing, no wastewater shall be leaked, dumped, or spilled in or onto any area outside the existing wastewater system.

The Contractor shall immediately put the Spill Response Plan into action and notify the supervisor and the Contract Administrator, should a sanitary sewer overflow occur and take the necessary action to clean up and disinfect the spillage to the satisfaction of the Contract Administrator and the MECP and other governmental agencies. If sewage is spilled onto public or private property, the Contractor shall wash down, clean up, and disinfect the spillage to the satisfaction of the property owner at no extra cost to the City of Kenora.



Sufficient power supply and hoses must be on site in order to allow the pump to discharge into the downstream sewer section. The standby bypass pump and power supply shall be of an equal or better capability than the primary bypass pump and power supply. No bypass pumps or related equipment shall be disconnected or removed from the sewer or job site until after all service connections have been reinstated and the Contractor has recorded the post-installation video.

Protect the environment, public, and private property from any damage during the construction and operation of the bypass system.

Minimize the interruption of existing services to the public, residents, and all facilities connected to the bypassed sewer.

The temporary sewer bypass system shall be monitored at all times by the Contractor. The Contractor's employees must have the knowledge, experience and skill to maintain and operate all equipment and to switch to standby equipment if the need arises. The bypass system shall not be in operation unless it is monitored constantly by the Contractor's employee(s).

The Contractor's must request approval for any changes to the bypass system after the initial set up such as adding a pump to the bypass system due to spike in flows, removal of a pump, changing discharge point and so on. Changes are to be witnessed by the Contract Administrator.

#### Bypass Equipment and Piping

Place pumps in temporary containments/berms to contain any fuel or sewage that may spill during the bypass operations.

Prior to pumping, flush and clean the sewer section, or maintenance hole, where the suction pumping is located.

When requested by the Contract Administrator, submit the pump maintenance records, pump operation records and fuel monitoring records for review.

Provide and connect standby equipment which can be operational for immediate use in the event of emergency or equipment breakdown.

Perform leakage tests of the bypass system using clean water prior to the actual operation. The sewer bypass pumping system shall be tested prior to installation using clean water. Provide Contract Administrator with 48 hours' notice.

#### Noise from Operations

Minimize the emission of sound by using low noise pumps and generators and implement additional sound attenuation measures, such as soundproof canopy, acoustic foam insulation and anti-vibration devices in the sound sensitive areas.

All bypass pumps and related equipment must be silenced equipment or contained within an acceptable sound reduction structure below 65 dB(A) at 7 m. The site inspector shall ask the Contractor to operate one pump at a time and measure noise at 7 m radius for each pump. If the noise does not meet the requirement, the Contractor shall have to install additional noise control barrier or replace the pump at no cost to the City of Kenora.

#### Plugging

Select sewer plugs based on the flow characteristics, size of the sewer and the location of the flow diversion point. Always provide a secondary plug, in the event the primary plug fails. Plug a sewer system by means and methods that will not cause any damage or blockage to the sewer pipes and maintenance holes.

Inspect all plugs for defects prior to every use.

When a plug is no longer needed, remove it gradually to allow flow to return gradually to the normal flow condition.

#### Crossings

At all times keep the bypass piping within the limits of the Working Area and away from paved roadways and sidewalks.

When the bypass piping is crossing roadways, either construct traffic ramps or place the bypass pipelines in trenches and temporarily restore utility cuts.

#### Removal, Cleanup and Restoration

Ensure all sewage from the bypass pipes, pumps and fittings is discharged to the specified sanitary. Flush the bypass system with potable water before removal.

Restore bypass pump areas to pre-bypass condition including any cleanup measures necessary due to fuel, oil or sewage leaks. All cleanup measures taken shall be documented.

The disposal or discharge shall be according to MOE Regulations.

#### **MEASUREMENT FOR PAYMENT**

Measurement shall be by lump sum and payment shall be when the Work is completed:

- 1) Temporary Sewer Bypass Plan and Spill Response Plan upon approval of these plans – 5%
- 2) Installation of the temporary bypass upon successful testing – 50%
- 3) Operation and maintenance of temporary bypass system – 40%
- 4) Successful disassembly and removal of the temporary bypass system – 5%

## **BASIS OF PAYMENT**

Payment at the Contract Price shall be full compensation for all labour, Equipment and Material to do the Work.

### **B.1 ITEMS 37-39/B.2 ITEMS 25-26 PRECAST MAINTENANCE HOLE, 1200mmØ**

#### **SCOPE**

This item is for the installation of 1200mmØ sanitary sewer maintenance hole structures, including dewatering as may be required.

#### **REFERENCES**

The requirements outlined in OPSS.MUNI 180, OPSS.MUNI 402, OPSS.MUNI 403, OPSS.MUNI 407, OPSS.MUNI 501, OPSS.MUNI 517, OPSS.MUNI 1351, OPSS.MUNI 1850, Titan TF-101-6, OPSD 405.020, OPSD 701.030, 701.0.31, 701.032, OPSD 701.100 and OPSD 704.010 shall apply to the items precast maintenance hole catch basin.

#### **MATERIALS**

Maintenance holes shall be constructed according to OPSD 701.030 and shall have a Titan TF-101-6 frame and solid cover with concrete adjustment rings in accordance with OPSS.MUNI 408. The City of Kenora also requires a minimum of 150mm of adjustment rings.

Structure joints and pipe connections shall be watertight with appropriate seals, gaskets or boots. Structure seals shall be a minimum of 300mm wide.

Bedding and backfill shall be Granular A per OPSS.MUNI 314.

#### **CONSTRUCTION**

Supply and installation of precast maintenance hole structure shall be completed in accordance with OPSS.MUNI 402, OPSS.MUNI 407, OPSS.MUNI 501, and OPSD 701.010, with benching in accordance with OPSD 701.021. Backfill material shall extend to the underside of the roadway granulars. The Contractor is responsible for the supply and installation of frost straps in accordance with OPSD 701.100, steps in accordance with OPSD 405.020 and frames and grates in accordance with OPSD 401.010.

Excavation required for structure installation shall be to the roadway subgrade limits. Suitable native materials shall be salvaged and reused as backfill to subgrade elevation, compacted to minimum 98% standard proctor density. No stones larger than 25mm shall be placed within 300mm of the structure. The Contractor shall be responsible for the management and disposal of excess material in accordance with OPSS.MUNI 180 and SECTION 17.5.

#### **MEASUREMENT FOR PAYMENT**

There will be no measurement for payment. Payment for the above referenced tender items will be by lump sum. Where payment is split over multiple certificates, 90% will be paid for installation of the structure with 10% paid for setting of the final grade of the grate.

#### **BASIS OF PAYMENT**

Payment for the Items Precast Maintenance Hole shall be full compensation for all labour, equipment and material to do the work including installation of structures, frames and grates.

**B.1 ITEM 40 250mmØ PVC CAP**

**B.1 ITEM 41 300mmØ PVC CAP**

**0B.1 ITEMS 42-43 300mmØ PVC DR35 SANITARY SEWER**

**B.1 ITEMS 44-46/B.2 ITEMS 27-28 375mmØ PVC DR35 SANITARY SEWER**

**B.2 ITEM 29 100mmØ PVC DR35 SANITARY SERVICES**

**B.1 ITEM 47 150mmØ PVC DR35 SANITARY SERVICES**

**B.1 ITEM 48/B.2 ITEM 30 SANITARY SERVICE CONNECTION & APPURTENANCES**

#### **SCOPE**

The item is for the installation of PVC Sanitary Sewer Pipe and Service Laterals, including removal of existing laterals and dewatering as may be required. The existing sanitary sewer shall be camera inspected in advance of construction to determine the lateral locations. Lateral locations identified on the contract drawings are approximate and may be incomplete.

#### **REFERENCES**

The requirements outlined in OPSS.MUNI 180, OPSS.MUNI 401, OPSS.MUNI 409, OPSS.MUNI 410, OPSS.MUNI 501, OPSS.MUNI 510, OPSS.MUNI 805, OPSS.MUNI 1841, OPSD 802.010 and OPSD 1006.010 shall apply to these items.

#### **MATERIALS**

Sanitary sewer pipe and fittings shall be PVC DR35 pipe material in accordance with OPSS.MUNI 1841. Sanitary services shall be 100mmØ for residential locations and 150mmØ for commercial locations to property line, unless otherwise noted on the contract drawings. Joints and structure connections shall be watertight with appropriate seals, gaskets or boots. The Contractor will be responsible for providing supporting documentation.

The granular material required in OPSS.MUNI 410 for the bedding, embedment, and cover shall be Granular "A" and shall be included in these items.

Connections to existing sanitary sewer lines shall be made with factory approved fittings.

## CONSTRUCTION

The Contractor must maintain sanitary sewer services to all buildings at all times for the duration of construction. The Contractor will prepare a Sewage Bypass Plan to ensure the mainline sewer is in operation at all times during construction. The Contractor must provide appropriate notice to the City and the Engineer in advance of any scheduled connections or any potential service disruptions.

Sanitary sewer pipes shall be installed at the elevations and grades as shown on the Contract Drawings, which shall be no higher than existing elevations, such that service laterals do not become any flatter than existing. Service laterals shall be 150mmØ installed per OPSD 1006.010 with factory approved tees, extending from the main sewer to the property line, and connected to the existing service material. The installation of the service laterals also includes the removal of any existing service laterals. Crossing of watermain shall be complete with maximum separation available and one full pipe length centred over the watermain.

The installation of the 150mmØ service lateral at 10+117 shall be completed with a PVC cap at the property line and an adequately braced red marker, extending 600mm above finished grade.

The installation of the 150mmØ service lateral into SANMH4 shall be completed with a PVC cap and an adequately braced red marker, extending 600mm above finished grade at the approximate location shown on P2 of the contract drawings.

The Contractor shall connect the existing 200mm sanitary sewer on Mellick Avenue to the new SANMH 1 as shown on the contract drawings. The new sanitary sewer will be capped on 9<sup>th</sup> Street North, approximately 36m east of SANMH4 as shown on the contract drawings.

Excavation for pipe installation shall be to the roadway subgrade limits. Suitable native materials shall be salvaged and reused as backfill to subgrade elevation, compacted to minimum 98% standard proctor density. Sanitary sewer installation shall include restoration of street to existing elevation prior to winter shutdown. Existing road base granulars shall be salvaged for reuse and compacted to 98% standard proctor density.

The Contractor shall be responsible for the management and disposal of excess excavated materials. Excess material shall be managed in accordance with SECTION 17.5.

The Contractor shall locate existing sewer pipes on intersecting streets prior to connection to the nearest maintenance hole. The Contractor shall determine elevations and materials of the existing sewer and connect to the new sewer lines ensuring positive flows. Adjustment of proposed connecting sewer line elevations may be required.

## MEASUREMENT FOR PAYMENT

Measurement for Item B.1 Items 40 and 41 shall be by each cap installed.

Measurement for B.1 Items 42-47/B.2 Items 27-29, shall be by length by linear metre of pipe installed. The measurement of payment for the installation of sanitary service lines shall also include the cost of removal of the existing service line.

Measurement for B.1 Item 48/B.2 Item 30 shall be by each sanitary service connection and appurtenance installed.

## BASIS OF PAYMENT

Payment at the Contract Price for the above referenced tender item shall be full compensation for all labour, equipment, and materials to do the work, including CCTV inspection (pre and post), earth trenching, removal of existing service pipes, bedding, embedment, cover and backfill to roadway subgrade elevation or finished grade elevation outside the roadway.

## **B.1 ITEM 50/B.2 ITEM 31 TEMPORARY POTABLE WATER SUPPLY SERVICES**

### SCOPE

The item is for the supply and installation of the temporary water supply and services. The contractor shall follow the temporary water plans prepared by the City of Kenora as shown on the TW1 Issued for Tender drawing.

### REFERENCES

The requirements of OPSS.MUNI 493 shall apply to this item.

### MATERIALS

Backflow preventing spigots shall be equivalent to the existing materials encountered.

Service connections shall be equal size to existing.

### CONSTRUCTION

The Contractor shall design, supply and install temporary watermain to be in use for the duration of the project. No two consecutive fire hydrants may be taken out of service.

In advance of submitting the plan to the Contract Administrator, the Contractor shall meet with the City's Representative, Director of Fire Services and Water System Operator to discuss the proposed temporary water supply services plan. The plan shall address how the works will progress and minimize the length of temporary mains required at any given time.

As part of the temporary system costs, the Contractor will be required to supply and install a backflow preventing flushing valve and associated piping at the downstream end of the temporary system. This flushing valve shall be operated by the Contractor to provide a continual flow within the temporary system to eliminate “hot spots” or excessive chlorine residual loss within the temporary system. The flow shall be discharged to an acceptable location within the rear yard of the downstream residence or other approved location.

The Contractor shall, as necessary, replace backflow preventing spigots to allow proper functioning of the temporary water system. Upon removal of the temporary system, the Contractor shall reinstall the existing backflow preventing spigots if requested by the homeowner.

The City’s Water System Operator must be onsite for any work on the City’s water system including commissioning of the temporary system. They must also be notified immediately should there be any breaks or changes required in the temporary system. Repairs to the temporary system shall not be completed by unqualified persons.

#### MEASUREMENT FOR PAYMENT

There will be no measurement for payment for the above referenced tender item. Payment will be by lump sum. Payment of 60% will be made upon commissioning of the temporary system, 35% split over the duration of operation and 5% upon removal of the system.

#### BASIS OF PAYMENT

Payment at the Contract Price for the above referenced tender item shall be full compensation for all labour, equipment, and materials to do the work including design, supply and installation, locating, isolating and connection to the existing watermain, as well as decommissioning of connections and removal of the temporary system.



- B.1 ITEM 51/B.2 ITEM 32 CONNECTION TO CITY WATERMAIN SYSTEM**
- B.1 ITEM 52/B.2 ITEM 33 150mmØ PVC DR18 WATERMAIN**
- B.1 ITEM 53/B.2 ITEM 34 200mmØ PVC DR18 WATERMAIN**
- B.1 ITEM 54 250mmØ PVC DR18 WATERMAIN**
- B.1 ITEM 55 150mm x 250mm REDUCER**
- B.1 ITEM 56 250mm x 250mm x 200mmØ PVC TEE**
- B.2 ITEM 35 200mm x 200mm x 100mmØ PVC TEE**
- B.2 ITEM 36 200mm x 200mm x 150mmØ PVC TEE**
- B.1 ITEM 57 150mmØ COUPLER**
- B.1 ITEM 58 150mmØ CAP**
- B.1 ITEM 59 200mmØ COUPLER**
- B.1 ITEM 60 200mmØ CAP**
- B.2 ITEM 37 100mmØ GATE VALVE**
- B.1 ITEM 61 150mmØ GATE VALVE**
- B.1 ITEM 62/B.2 ITEM 38 200mmØ GATE VALVE**
- B.1 ITEM 63 250mmØ GATE VALVE**
- B.2 ITEM 39 200mmØ PVC ELBOW - 11 ¼°**
- B.1 ITEM 64/B.2 ITEM 40 FIRE HYDRANT & VALVE INSTALLATION**
- B.1 ITEM 65/B.2 ITEM 41 19mmØ RESIDENTIAL WATER SERVICE WITH THAW CABLE**
- B.1 ITEM 66/B.2 ITEM 42 19mmØ RESIDENTIAL WATER SERVICE CONNECTION & APPURTENANCES**
- B.1 ITEM 67/B.2 ITEM 43 25mmØ COMMERCIAL WATER SERVICE WITH THAW CABLE**
- B.1 ITEM 68/B.2 ITEM 44 25mmØ COMMERCIAL WATER SERVICE CONNECTION & APPURTENANCES**
- B.1 ITEM 69 150mmØ PVC DR18 WATER SERVICE**
- B.1 ITEM 70 150mmØ PVC DR18 WATER SERVICE CONNECTION & APPURTENANCES**
- B.1 ITEM 71 250mm x 150mm x 250mm x 150 Ø PVC CROSS**
- B.1 ITEM 72 250mm x 200mm x 250mm x 200 Ø PVC CROSS**
- B.2 ITEM 45 200mm x 200mm x 200mm x 200 Ø PVC CROSS**

#### SCOPE

The item is for the supply and installation of PVC DR18 watermain pipe, fittings, valves, services, fire hydrants, connections to the City watermain, and dewatering as may be required.

#### REFERENCES

The requirements of OPSS.MUNI 180, OPSS.MUNI 314, OPSS.MUNI 401, OPSS.MUNI 441, OPSS.MUNI 442, OPSS.MUNI 501, OPSS.MUNI 517, OPSS.MUNI 1842, OPSD 802.010, 802.013, OPSD 1101.020, OPSD 1104.010, OPSD 1104.020, OPSD 1105.010, OPSD 1109.011, OPSD 1109.025 and OPSD 1109.030 shall apply to this item.

#### MATERIALS

Watermain pipes shall be AWWA C900 PVC DR18 Class 235 and be certified to CSA 137.3, or equivalent. Watermain fittings shall be PVC conforming to AWWA C907.



Tracer wire shall be Solid Copper 12GA - 7 strand Type RWU90 600V XLPE Copper, with white color jacket.

All fittings and joints to be mechanically restrained utilizing Starpipe manufacturer restraints or others as approved by the City of Kenora and the Engineer.

Coupler manufacturer shall be Alpha Romac brand couplers.

Valves shall be Mueller Resilient Wedge Gate Valve for PVC with Valve Boxes and Operators. Valve boxes shall be PVC with stone plate.

Main stops and curb stops shall be Mueller or Cambridge Brass.

Hydrant shall be new, Mueller Super Centurion with Hymax Grip Restraint Coupling, or M67 McAcity Brigadier, complete with Resilient Wedge Gate Valve. Fire hydrants shall be capable of receiving Storz couplers for fire hoses.

Anodes shall be Z-24-48 for fire hydrants and cast-iron pipes.

Anodes shall be Z-12-24 for new watermain components, service lines and tracer wires.

Service lines shall be 19mmØ or 25mmØ Type K Copper, and 150mmØ PVC DR18 complete with main stop and curb stop as shown on the contract drawings. Type K Copper service lines shall also be complete with green jacketed AWG 4/0 gauge thaw cable.

The Contractor shall provide the Engineer with a copy of all NSF/ANSI 61, NSF 372 and AWWA certificates and/or reports to prove material compliance with the corresponding regulations.

## CONSTRUCTION

The Contractor shall ensure that "F-6-1 Procedures to Govern Separation of Sewers and Watermains, Ministry of Environment, Conservation and Parks", is accommodated during installation of the watermain. Where site conditions require major adjustments from the tendered plans to maintain the required separation, such adjustments shall be accounted for under the contingency amount based on the conditions within the specification relating to the item being adjusted.

Watermain shall be laid with a minimum cover depth 1.8m and insulated where a depth of 2.1m is not achieved.

All watermains, appurtenances and tracer wire shall be installed with cathodic protection per OPSS 442. Water services shall be installed with horizontal goosenecks.

Anode spacing for cathodic protection shall be as specified in Tables 4 and 5 of OPSS.MUNI 442.

Excavation for watermain installation including services shall be to the roadway subgrade limits or finished grade beyond the roadway. Suitable native materials shall be salvaged and reused as backfill to subgrade elevation or finished grade beyond roadway, compacted to minimum 98% standard proctor density. Installation shall include all materials required, including but not limited to valves, tees, couplers, reducers and elbows as well as associated joint restraints and cathodic protection.

Connection to the City's Watermain System shall be completed with PVC couplers and joint restraints. The Contractor shall locate the existing watermain identified for connection and determine the appropriate coupler required to make the connection. The City's operator must be onsite when there is work on a commissioned watermain. All operation of City valves and curb stops must be carried out by the City's operator and will require a minimum 48hrs advanced notice to the City to do so.

The installation of the 150mmØ PVC DR18 service lines at approximately 10+119 and 10+194 shall be completed with 50mm insulation between the service line and storm sewer pipe, tracer wire, 250mmx250mmx150mm tee at the watermain, 150mm Gate Valve with plug at property line, and a blue marker post extending 600mm above finished grade.

All main line tracer wires must be interconnected in intersections, tees, and crosses. At tees, the three wires shall be joined using a single 3-way lockable connector. At crosses, the four wires shall be joined using a 4-way connector. Use of two 3-way connectors with a short jumper wire between them is an acceptable alternative.

Direct bury wire connectors shall include 3-way lockable connectors and main line to lateral lug connectors specifically manufactured for use in underground tracer wire installation. Connectors shall be dielectric silicon filled to seal out moisture and corrosion and shall be installed in a manner as to prevent any uninsulated wire exposure.

Non-locking friction fit, twist on, or tapered connectors are prohibited.

Tracer wire shall be returned to the surface up the outside of valve boxes, secured with electrical tape, and brought into the valve box through a hole drilled in the valve box 0.15m below the termination point of the bottom of the water valve cover. From that point, the tracer wire shall be returned to the surface inside the valve box. One metre of tracer wire, measured from finished grade, shall be provided to allow for connections to be made at the surface. Excess tracer wire is to be neatly coiled, secured with electrical tape, and left in the valve box, to be accessible through the lid of the water valve cover.

Where required, tracer wire shall be returned to the surface on the back side of the hydrant to finished grade. A loop shall be provided, and the terminal end of the trace wire shall be embedded in the ground.

All main line tracer wires must be installed, to ensure full tracing/locating capabilities from a single connection point. Tracer wire must lay continuously, by-passing around the outside of valves and fittings on the north or east side.

The following products and methods shall not be allowed or acceptable:

- Uninsulated tracer wire
- Tracer wire insulations other than HDPE
- Non locking, friction fit, twist on or taped connectors
- Brass or copper ground rods
- Wire connections utilizing taping or spray-on waterproofing
- Looped wire or continuous wire installations, that has multiple wires laid side-by-side or in close proximity to one another
- Tracer wire wrapped around the corresponding utility
- Brass fittings with tracer wire connection lugs
- Wire terminations within the roadway, i.e. in valve boxes, cleanouts, manholes, etc.
- Connecting tracer wire to existing conductive utilities

All new tracer wire installations shall be located using typical low frequency (512Hz) line tracing equipment, witnessed by the contractor, engineer and facility owner as applicable, prior to acceptance of ownership. This verification shall be performed upon completion of rough grading and again prior to final acceptance of the project. Continuity testing in lieu of actual line tracing shall not be accepted.

Thaw cables for water services shall be clamped securely to the body of the main stop with appropriately sized City approved copper alloy ground connectors. Connectors to be CG-2625 or equivalent ground connectors; all connectors deemed incidental to thaw cable installation. Thaw cables shall be routed alongside the water service, returned to the surface, and secured to the curb stop. The Contractor shall contain the curb stop and thaw cable within a water valve box at the property line where appropriate. The Contractor shall verify the electrical continuity between curb stops and thaw cables at each location.

Construction shall proceed in such a manner as to isolate areas of work to minimize the amount of disruption within the project site as well as minimize the number of residents requiring temporary water supply at any given time.

The contractor shall locate each existing service line and new service lines shall be installed up to the lot line, to the existing curb stop if beyond the lot line, or the limits identified on the plans. New curb stops shall be installed at the property line, or limits identified.

Hydrants shall be installed per OPSD 1105.010 with final elevation 100mm to 150mm above finished grade. All joints between watermain and hydrants to be mechanically restrained.

## MEASUREMENT FOR PAYMENT

Measurement for payment for the Items "Connection to City's Watermain System" shall be for each connection completed.

Measurement for payment for items "Reducer", "Tee", "Gate Valve", "Elbow", "Hydrant", "Cross", "Coupler", and "Cap" shall be by each item installed. Hydrant valves are included in the hydrant item and will not be measured as a valve item.

Measurement for payment for items "Watermain" and "Services" shall be by length by linear metre of pipe installed.

Measurement for payment for items "Service Connections & Appurtenances" shall be for each connection completed and will include a main stop, curb stop, and valve box with stone plate.

There will be no measurement for payment of tracer wire, thaw cable, joint restraints and cathodic protection. Payment for tracer wire, thaw cable, joint restraints and cathodic protection shall be included in the bid item for the corresponding item requiring tracer wire, thaw cable, restraints and/or cathodic protection.

## BASIS OF PAYMENT

Payment for the Items "Connection to City's Watermain System" and "Couplers" and shall be full compensation for all labour, equipment and material to make the connection as well as excavation, bedding, cover and backfill to subgrade elevation within the roadway or to finished grade beyond the roadway, as well as the supply and installation all associated joint restraints and cathodic protection.

Payment for items "Watermain", "Reducer", "Gate Valve", "Tee", "Cross", "Elbow", "Cap", "Hydrant", "Services", and "Service Connection & Appurtenances" shall be by each item installed and shall be full compensation for all labour, equipment and material to do the work, including excavation, installation, bedding, embedment, cover and backfill to subgrade elevation within the roadway or to finished grade beyond the roadway, as well as the supply and installation all associated joint restraints and cathodic protection.

## **B.1 ITEM 35, 49 & 73/B.2 ITEM 46 EXTRUDED EXPANDED POLYSTYRENE INSULATION**

### SCOPE

This specification is applicable to the installation of insulation for watermain or water service protection, in areas with less than 2.2m of cover, or in areas where water services cross sewers or sewer laterals.

### REFERENCES

The requirements of OPSS.MUNI 316 and OPSD 1109 shall apply to this item.

## CONSTRUCTION

Insulation shall be placed horizontally spanning the line being protected, or alternatively in a trench configuration in accordance with OPSS 1109.030. Insulation shall be placed between crossing of sewers and watermain or water services.

## MEASUREMENT FOR PAYMENT

Measurement for payment shall be by square metres of actual insulation placed, per 25mm thickness. There will be no compensation for quantity over runs and under runs for this item. The tender quantity is an estimated value used to establish unit rate regardless of quantity required to construct the works.

## BASIS OF PAYMENT

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

## **B.1 ITEM 74/B.2 ITEM 47 EARTH EXCAVATION – GRADING, ROADWAY**

### SCOPE

This item is for the completion of earth excavation related to road construction.

### REFERENCES

The requirements outlined in OPSS.MUNI 180 and OPSS.MUNI 206 shall apply to the Item Earth Excavation – Grading, Roadway.

Excess material shall be managed in accordance with OPSS.MUNI 180 and SECTION 17.5. "O.Reg. 406/19, On-Site and Excess Soil Management" is applicable to this project.

### CONSTRUCTION

Earth Excavation shall be completed in accordance with OPSS.MUNI 206. The Contractor shall be responsible for the management and disposal of all excess excavated materials from the works. Existing granulars shall be removed separate from the native materials. Excess granular materials shall be delivered to the City of Kenora Operation Centre Yard. Unless directed otherwise by a City Representative, suitable native materials shall be stockpiled onsite for reuse as backfill as required, with excess native materials delivered to the City of Kenora Municipal Landfill located on Jones Road, approximately 12 km north of Highway 17A, and left in a neat and uniform manner. Disposal will be based on a weight basis via the weigh scale and the City of Kenora Transfer Station which is located at 401 Mellick Avenue.

The Contractor shall be responsible for the management and disposal of all excess excavated materials from grading works in accordance with SECTION 17.5. The Contractor must discuss with the City Representative in advance to identify the locations

for disposal, and materials shall be leveled and left in a neat and uniform manner acceptable to the City Representative.

#### MEASUREMENT FOR PAYMENT

Measurement for payment for the Items Earth Excavation – Grading, shall be plan quantity in cubic metres by in-place method as calculated from the topographic survey completed preconstruction, and the design subgrade surface for the roadway extending to limit of grading, approximately at right-of-way. Payment will be based on earth excavation to subgrade for road construction. There will be no compensation for quantity over runs and under runs for this item. The tender quantity is an estimated value used to establish unit rate regardless of quantity required to construct the works.

#### BASIS OF PAYMENT

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

### **B.1 ITEM 75/B.2 ITEM 48 PIPE SUBDRAIN – 150mmØ**

#### SCOPE

The item Pipe Subdrain – 150mmØ is for the supply and placement of the socked pipe subdrain with associated geotextile and clearstone trench.

#### REFERENCES

The requirements outlined in OPSS.MUNI 180 and OPSS.MUNI 405, OPSS.MUNI 1004, OPSS.MUNI 1860, and OPSD 216.021 shall apply to these items.

#### MATERIALS

Subdrain pipe shall be 150mm diameter perforated corrugated polyethylene pipe with minimum stiffness of 320kPa and wrapped with knitted polyester sock.

Geotextile shall be Titan non-woven TE-4 or equivalent.

Clearstone shall be 19mmØ according to OPSS.MUNI 1004.

#### CONSTRUCTION

The Contractor shall supply and install 150mmØ socked subdrain pipe in accordance with OPSS.MUNI 405 and the Contract Drawings. The subdrain trench shall be excavated and wrapped in geotextile, resting on subgrade covered with clearstone, 150mm thickness on top and sides. The Contractor shall complete subdrain connection to catch basin as per OPSD 216.021.

## MEASUREMENT FOR PAYMENT

Measurement for payment for the Item Pipe Subdrain will be by actual length measured in metres, including trench excavation, geotextile, granulars, socked subdrain pipe, and connection to structures.

## BASIS OF PAYMENT

Payment at the contract price for the above referenced tender item shall be full compensation for all labour, equipment, and material to do the work.

### **B.1 ITEM 76/B.2 ITEM 49 GEOTEXTILE B.1 ITEM 77/B.2 ITEM 50 GEOGRID**

## SCOPE

These items are for the supply and placement of Geotextile and Geogrid, identified as face of curb to face of curb. Geotextile and geogrid placed below the curbs and sidewalks shall be accounted for in the respective tender item.

## REFERENCES

The requirements outlined in OPSS.MUNI 206 and OPSS.MUNI 1860 shall apply to the items – Geotextile and Geogrid.

## MATERIALS

Geotextile shall be Titan non-woven TE-4 or equivalent, with grab tensile strength not less than 445N and AOS no larger than 0.3mm.

Geogrid shall be Titan Earth Grid 24, or equivalent.

## CONSTRUCTION

Geogrid and geotextile shall be placed in areas as specified on the Contract Drawings. The Titan Earth Grid 24 geogrid shall be placed directly on top of the Geotextile, spanning the subdrain trenches. Adjacent sections of geogrid and geotextile shall be overlapped a minimum of 1.0 metre. At structure and valve locations the geogrid shall be cut-out circular or square to suit the structure size. Square ending of materials against the structures will not be permitted.

Should the geogrid or geotextile become damaged it shall be repaired by placing a piece of geogrid large enough to cover the damaged section with a minimum 1.0 metre overlap.

## MEASUREMENT FOR PAYMENT

Measurement for payment shall be by area from back to sidewalk to back of sidewalk, in place based on plan quantity, in square metres with no allowance for overlaps.



### BASIS OF PAYMENT

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

**B.1 ITEM 78/B.2 ITEM 51 GRANULAR “B”, ROADWAY (IN-PLACE)**

**B.1 ITEM 79/B.2 ITEM 52 GRANULAR “A”, ROADWAY (IN-PLACE)**

### SCOPE

The item is for the supply and placement of granulars for road construction, identified as the proposed face of curb to face of curb. Granulars placed below the curbs, sidewalks, boulevards and entrances shall be accounted for in the respective tender item.

### REFERENCES

The requirements outlined in OPSS.MUNI 314, OPSS.MUNI 501, and OPSS.MUNI 1010 shall apply to these items – Granular “B” and Granular “A”.

### MATERIALS

Granular “A” shall be Type I according to OPSS.MUNI 1010. Granular “B” shall be according to OPSS.MUNI 1010.

### CONSTRUCTION

Supply and placement of Granular “A” and Granular “B” shall be completed in accordance with OPSS.MUNI 314 and OPSS.MUNI 501.

### MEASUREMENT FOR PAYMENT

Measurement for payment for the Items Granular “A” and Granular “B” will be by volume “in-place” in cubic metres. The volume will be calculated by the Engineer by utilizing design cross sections and the method of average end areas for an “in-place” compacted volume, per OPSS.MUNI 314.09.01.01.02(aii).

### BASIS OF PAYMENT

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

**B.1 ITEM 80/B.2 ITEM 53 HL8 HOT MIX ASPHALT – BASE COURSE**

**B.1 ITEM 81/B.2 ITEM 54 HL3 HOT MIX ASPHALT – SURFACE COURSE**

**B.1 ITEM 82/B.2 ITEM 55 HL3 HOT MIX ASPHALT – DRIVEWAY & BOULEVARDS**

**B.1 ITEM 83/B.2 ITEM 56 TACK COAT**

### SCOPE

The item is for the supply and placement of HL8 asphalt, HL3 asphalt and tack coat between binder and surface courses.



## REFERENCES

The requirements outlined in OPSS.MUNI 308, OPSS.MUNI 310, OPSS.MUNI 311, OPSS.MUNI 710, OPSS.MUNI 1103, and OPSS.MUNI 1150 shall apply to these items.

## SUBMISSION AND DESIGN REQUIREMENTS

The Mix Design shall be Contractor Mix Design as specified in OPSS.MUNI 1150.04.01.02.

## MATERIALS

Asphalt Cement shall be PGAC 52-34.

Granular "A" shall be Type I according to OPSS.MUNI 1010. Granular "B" shall be according to OPSS.MUNI 1010.

Geotextile shall be Titan non-woven TE-4 or equivalent, with grab tensile strength not less than 445N and AOS no larger than 0.3mm.

Geogrid shall be Titan Earth Grid 24, or equivalent.

## CONSTRUCTION

Supply and placement of HL8 Asphalt and HL3 Asphalt shall be completed in accordance with OPSS.MUNI 310 including tack coating of joints and all concrete surfaces. Tack coat shall be applied between binder and surface courses.

Included under the Item HL3 Asphalt – Driveway & Boulevards is the preparation of the subgrade per OPSS.MUNI 206 and OPSS.MUNI 180, as well as supply and placement of geotextile, geogrid, Granular "B" as needed and 150mm Granular "A" base material, per OPSS 1010. Subgrade and base materials shall be compacted in accordance with OPSS.MUNI 501. Excess soils shall be managed in accordance with SECTION 17.5.

## MEASUREMENT FOR PAYMENT

Measurement for payment for the items "HL8 Base Course" and "HL3 Surface Course" shall be by mass in Tonnes as detailed in OPSS.MUNI 310.09.01.01.01. The Contractor will be required to supply tickets in duplicate that will be signed by the Owner's representative on delivery.

Measurement for payment for the Item "HL3 Asphalt – Driveway & Boulevards" shall be by square metres of asphalt placed. For 100mm entrances, measurement for payment will be per each 50mm lift placed. There will be no measurement for excavation, geotextile, geogrid and granulars associated with B.1 ITEM 76/B.2 ITEM 55.

Measurement for payment for the Item Tack Coat shall be by as detailed in OPSS.MUNI 308.09.01.01.

#### **BASIS OF PAYMENT**

Payment at the Contract Price for the above tender items shall be full compensation for all labour, equipment, and materials to do the work, including the excavation, geotextile, geogrid and base granulars for B.1 ITEM 76/B.2 ITEM 55. In addition, Appendix 310-B is invoked for adjustment on B.1 ITEM 74 & 75/B.2 ITEM 53 & 54, based on changes to the MTO's PGAC Price Index, only when the AC Prices are Rising or Falling by more than \$15/tonne.

### **B.1 ITEM 84/B.2 ITEM 57 CONCRETE CURB & GUTTER**

#### **SCOPE**

This item is for the installation of concrete curbs and gutters, including excavation, geotextile, geogrid and granulars beneath the curb and gutter.

#### **REFERENCES**

The requirements outlined in OPSS.MUNI 180, OPSS.MUNI 206, OPSS.MUNI 353, OPSS.MUNI 501, OPSS.MUNI 919, OPSS.MUNI 1010, OPSS.MUNI 1350, OPSD 600.040 and OPSD 608.010 shall apply to this item.

#### **MATERIALS**

Concrete shall be according to OPSS.MUNI 1350, with a minimum specified 28-day compressive strength of 32 MPa, Class C-2 Exposure.

Granular "A" shall be Type I according to OPSS.MUNI 1010. Granular "B" shall be according to OPSS.MUNI 1010.

Geotextile shall be Titan non-woven TE-4 or equivalent, with grab tensile strength not less than 445N and AOS no larger than 0.3mm.

Geogrid shall be Titan Earth Grid 24, or equivalent.

#### **CONSTRUCTION**

Contractor shall construct concrete curb and gutter with a curb machine, in accordance with OPSS.MUNI 353, OPSD 600.040 and OPSD 608.010. Hand placing of curbs will only be permitted in transition areas. Excess material shall be managed in accordance with OPSS.MUNI 180 and SECTION 17.5.

Included under the Item Concrete Curb & Gutter is the preparation of the subgrade per OPSS.MUNI 206 as well as supply and placement of the required geotextile, geogrid, granular base material and supporting material, specifically the granulars between the top of subgrade or subdrains to the bottom of gutter, as well as

granulars along the back of curb, per OPSS.MUNI 1010. Subgrade and base materials shall be compacted in accordance with OPSS.MUNI 501.

Formwork shall be according to OPSS.MUNI 919 and shall be set true to the lines and grades specified in the Contract Documents and in direct contact with the subgrade or granular course.

The Contractor shall be responsible for the management and disposal of excess excavated materials. Excess material shall be managed in accordance with OPSS.MUNI 180 and SECTION 17.5.

#### MEASUREMENT FOR PAYMENT

Measurement for payment for the above referenced tender items shall be linear metre of curb and gutter installed.

#### BASIS OF PAYMENT

Payment at the Contract Price for the above referenced tender items shall be full compensation for all labour, equipment, and materials to do the work, including subgrade excavation, geotextile, geogrid and granulars.

### **B.1 ITEM 85/B.2 ITEM 58 REINFORCED CONCRETE CURB & GUTTER**

#### SCOPE

This item is for the installation of reinforced concrete curb and gutters at commercial entrances, including excavation, geotextile, geogrid and granulars beneath the curb and gutter.

#### REFERENCES

The requirements outlined in Item 104 and OPSS.MUNI 1440 shall apply to this item.

#### MATERIALS

Reinforcing steel shall conform to OPSS.MUNI 1440.05, No. 20M.

#### CONSTRUCTION

Where indicated, concrete curb and gutter shall be constructed in accordance with item 105 and additionally the contractor shall install a single 20M reinforcing steel bar in the curb section from 50mm inside the expansion joint on either side of the entrance, as shown on the Contract Drawings or determined in the field by the Contract Administrator.

## MEASUREMENT FOR PAYMENT

Measurement for payment for the above referenced tender items shall be linear metre of reinforced curb installed.

## BASIS OF PAYMENT

Payment at the Contract Price for the above referenced tender items shall be full compensation for all labour, equipment, and materials to do the work, including subgrade excavation, geotextile, geogrid, granulars and reinforcing steel.

### **B.1 ITEM 86/B.2 ITEM 59 CONCRETE SIDEWALK**

### **B.1 ITEM 87/B.2 ITEM 60 REINFORCED CONCRETE SIDEWALK (200mm Thickness)**

## SCOPE

This item is for the construction of concrete sidewalks.

## REFERENCES

The requirements outlined in OPSS.MUNI 180, OPSS.MUNI 206, OPSS.MUNI 314, OPSS.MUNI 351, OPSS.MUNI 501, OPSS.MUNI 919, OPSS.MUNI 1308, OPSS.MUNI 1350, OPSS.MUNI 1440, and OPSD 310.010 shall apply to this item.

## MATERIALS

Concrete shall be according to OPSS.MUNI 1350, with a minimum specified 28-day compressive strength of 32 MPa, Class C-2 Exposure. Coarse aggregate for the concrete shall have a nominal maximum size of 19 mm.

Expansion joint filler material shall be asphalt impregnated fibreboard having a minimum of 12mm thickness and shall be according to OPSS.MUNI 1308, Type A.

Granular "A" shall be Type I according to OPSS.MUNI 1010. Granular "B" shall be according to OPSS.MUNI 1010.

Geotextile shall be Titan non-woven TE-4 or equivalent, with grab tensile strength not less than 445N and AOS no larger than 0.3mm.

Geogrid shall be Titan Earth Grid 24, or equivalent.

Reinforcing steel shall conform to OPSS.MUNI 1440, welded wire mesh MW9.1 x MW9 x 152.

## CONSTRUCTION

The Contractor shall construct concrete sidewalks at the locations, widths and thicknesses specified in the Contract Documents in accordance with OPSS.MUNI 351 and OPSD 310.010, including drop curbs for pedestrian crossings. The

Contractor shall excavate as necessary per OPSS.MUNI 206 to install geotextile, geogrid and the supporting Granular "A" & "B" base material. Excess material shall be managed in accordance with OPSS.MUNI 180 and SECTION 17.5.

Formwork shall be according to OPSS.MUNI 919 and shall be set true to the lines and grades specified in the Contract Documents and in direct contact with the subgrade or granular course.

Sections of concrete sidewalk at the commercial entrances shall have a thickness of 200mm as identified per OPSD 310.010. Reinforcing shall be included in concrete sidewalks constructed at commercial entrances as indicated on the contract drawings. Reinforcing shall be welded mesh MW9.1 x MW9 x 152.

Concrete sidewalk placed abutting concrete curb and gutter or existing concrete sidewalk shall be separated utilizing an expansion joint of bituminous impregnated softboard, 12mm thick.

Included under the Item Concrete Sidewalk (200mm Thickness) is the preparation of the subgrade per OPSS.MUNI 206 as well as supply and placement of geotextile and geogrid below the sidewalk, supply and placement of the required granular base material and supporting material, specifically the granulars between the top of subgrade or to the bottom of sidewalk per OPSS.MUNI 1010. Subgrade and base materials shall be compacted in accordance with OPSS.MUNI 501.

The Contractor will be required to supply computer generated tickets of the concrete loads, in duplicate that will be signed by the Owner's representative on delivery.

#### **MEASUREMENT FOR PAYMENT**

Measurement for payment for the above referenced tender items shall be by area in square metre of concrete sidewalk installed. There will be no measurement for excavation, geotextile, geogrid, granulars or reinforcing mesh.

#### **BASIS OF PAYMENT**

Payment at the Contract Price for the above referenced tender items shall be full compensation for all labour, equipment, and materials to do the work, including excavation, geotextile, geogrid, base granulars, and supply and installation of sidewalk reinforcing.

### **B.1 ITEM 88 TACTILE INDICATORS**

#### **SCOPE**

This item is for the supply and installation of tactile walking surface indicators at all pedestrian crossing locations. The Contract Administrator shall review the locations with the Contractor prior to installation.

## REFERENCES

The requirements outlined in OPSS.MUNI 351 and the City of Kenora Drawing No. CK-2016-TWSI shall apply to this item.

## MATERIALS

Tactile walking surface indicators shall be installed using Barkman Concrete – Holland Half Granite Ebony Pavers, supplied by the City of Kenora.

## CONSTRUCTION

Tactile walking surface indicators shall be a minimum of 1.22m in length and be centred within the sidewalk width, constructed in accordance with OPSS.MUNI 351 and the City of Kenora Drawing No. CK-2016-TWSI.

Tolerances shall be set in accordance with the Accessibility for Ontarians with Disabilities Act (AODA).

## MEASUREMENT FOR PAYMENT

Measurement for payment shall be made for each full width tactile walking surface indicator plate installed.

## BASIS OF PAYMENT

Payment at the Contract Price for the above referenced tender items shall be full compensation for all labour, equipment, and materials to do the work, excluding the cost of the paving stones which shall be supplied by the City of Kenora.

# **B.1 ITEM 89 CONDUIT FOR FUTURE PEDESTRIAN STREET CROSSING LIGHTS**

## SCOPE

This item is for the supply and installation of electrical conduit for a Future Pedestrian Crossover System. The Contractor shall submit a proposed layout based on the specified conduit routing for review during the shop drawing phase.

## REFERENCES

The requirements outlined on pages E1 and E3 of the Electrical Street Lighting Specification Plans from RVI Group and applicable OPSS.MUNI specifications shall apply.

## CONSTRUCTION

The Contractor shall supply and install the electrical conduit for the Pedestrian Crossover System as shown on pages E1 and E3 of the Electrical Street Lighting Specification Plans from RVI Group.

#### MEASUREMENT FOR PAYMENT

There will be no measurement for payment. Payment will be by lump sum.

#### BASIS OF PAYMENT

Payment at the Contract Price for the above referenced tender item shall be full compensation for all labour, equipment, and materials to do the work.

### **B.2 ITEM 61 PAVEMENT MARKINGS**

#### SCOPE

These items are for the installation of pavement markings.

#### REFERENCES

The requirements outlined in OPSS.MUNI 710 and MTO Book 15 shall apply to this item.

#### MATERIALS

Pavement markings and symbols shall be applied with Traffic Paint with Glass beads in accordance with OPSS 1750.

#### CONSTRUCTION

Permanent pavement markings for Pedestrian Crossing shall be placed to restore pre-construction conditions at the intersection of Mellick Avenue and 9<sup>th</sup> Street North. Pavement markings shall include a 10cm wide solid yellow centre line, 60cm wide solid white stop block, and 2 - 25cm wide solid white lines for the pedestrian crossing.

#### MEASUREMENT FOR PAYMENT

Measurement for Payment for the above reference tender item shall be lump sum, for marking of the pedestrian crosswalk and stop block.

#### BASIS OF PAYMENT

Payment at the Contract Price for the above referenced tender item shall be full compensation for all labour, equipment, and materials to do the work.

### **B.1 ITEM 90/B.2 ITEM 62 RESTORE RETAINING WALLS, WALKWAYS, & GARDENS**

#### SCOPE

This item is for the salvage and restoration of existing retaining walls, walkways, and landscaping gardens to preconstruction or better conditions.

## CONSTRUCTION

Existing retaining walls and garden materials shall be salvaged for reinstallation once construction of the associated works is completed, including pressure testing of watermain where impacted.

Retaining walls, walkways, and gardens shall be reinstalled at the original locations to a minimum preconstruction condition and satisfactory to the Engineer, City and Resident. Any damage to existing materials will be the Contractor's responsibility to replace at their cost.

## MEASUREMENT FOR PAYMENT

There will be no measurement for payment. Payment will be by lump sum upon completion of the reinstallation works.

## BASIS OF PAYMENT

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

### **B.1 ITEM 91/B.2 ITEM 63 TOPSOIL AND SOD**

## SCOPE

This item is for the installation of imported topsoil and sod.

## REFERENCES

The requirements outlined in OPSS.MUNI 802 and OPSS.MUNI 803 shall apply to this item.

## MATERIALS

Topsoil shall be imported.

## CONSTRUCTION

Topsoil shall be placed to a compacted uniform depth of 100mm on areas specified in the Contract Drawings and as directed by the Engineer. The Contractor shall excavate or fill to grades and elevations required for placement of the topsoil and sod to final elevations.

Sodding shall not commence until the surface preparation has been approved in writing by the Contract Administrator.

## MEASUREMENT FOR PAYMENT

Measurement for payment for the above referenced tender items shall be by the square metre coverage of topsoil and sod placed to a minimum 100mm depth.



## **BASIS OF PAYMENT**

Payment at the Contract Price for the above referenced tender items shall be full compensation for all labour, equipment, and materials to do the work.

### **B.1 ITEM 92/B.2 ITEM 64 STREET LIGHTING**

#### **SCOPE**

This item is for the installation of street lighting and conduits, including associated cables and appurtenances, as shown on RVI drawings E1, E2, and E3 issued for Tender on March 25, 2025.

#### **CONSTRUCTION**

The Contractor shall be responsible for all regulatory permitting required to facilitate the installations.

The contractor shall complete the installations in accordance with all specifications provided on the RVI electrical drawing set.

#### **MEASUREMENT FOR PAYMENT**

There will be no measurement for payment. Payment will be by lump sum.

#### **BASIS OF PAYMENT**

Payment at the Contract Price shall include full compensation for all requirements to complete the work.

### **B.1 ITEM 93 INSTALLATION OF FORCEMAIN INTO SANMH5**

### **B.1 ITEM 93 REMOVAL OF EXISTING FORCEMAIN FROM SANMH4 TO SANMH3**

#### **SCOPE**

This item is for the installation of sanitary forcemain pipe into SANMH5 and the removal of forcemain pipe from Main Street Rideout to SANMH3.

#### **REFERENCES**

The requirements outlined in OPSS.MUNI 180, OPSS.MUNI 410, OPSS.MUNI 412, and OPSS.MUNI 510 shall apply to this item.

#### **CONSTRUCTION**

The Contractor is required to install the existing forcemain at Main Street Rideout into SANMH5, if adequate grade is found in the field. To facilitate the installation, the Contractor is responsible for having a **minimum of 2** pump trucks at the pumping station. SANMH5 will include a pre-cored hole and rubber boot to facilitate

the installation. If the grade is found to be inadequate, the forcemain will be installed into SANMH3 to match the existing layout. The pre-cored hole in SANMH5 must then be sealed during the installation.

The Contractor is required to remove the existing sanitary forcemain and associated components from Main Street Rideout to SANMH3. Existing salvageable materials as determined by the Contract Administrator will remain the property of the City and shall be delivered to the City of Kenora Operation Centre Yard and stockpiled where indicated by the City Representative. All other non-salvageable materials shall become the property of the Contractor for disposal in accordance with OPSS.MUNI 180.

Native soils excavated to facilitate removals shall be salvaged for reuse. Excess soils shall be managed in accordance with SECTION 17.5. Removal areas shall be backfilled with suitable salvaged native materials to subgrade elevation and compacted to minimum 98% standard proctor density.

#### MEASUREMENT FOR PAYMENT

There will be no measurement for payment for the above referenced tender items. Payment will be by lump sum. Where payment for work is split over multiple certificates, payment will be prorated over the percentage of removals completed as decided by the Engineer.

#### BASIS OF PAYMENT

Payment at the contract price for the above referenced tender items shall be full compensation for all labour and equipment to do the work.

### PROVISIONAL SPECIFICATION ITEMS

#### PROV. ITEM 3 SOILS INVESTIGATIONS & REMEDIATION

##### SCOPE

Prior to any construction activities, the Contractor shall conduct soils investigations and remediation for the any areas identified in the Excess Soil Quality Testing Report. A copy of the final report will be provided to the contractor.

##### CONSTRUCTION

The contractor shall coordinate the investigations with the Contract Administrator, who will attend site and oversee the remediation works. The contractor, at the direction of the Contract Administrator, shall sawcut and remove the existing asphalt, and subsequently remove the impacted soils to the limits determined by the Contract Administrator during investigations. Excavations are to be backfilled with granular materials and asphaltic cold patch materials utilized where investigations are completed in existing paved areas. Excavated soils shall be delivered to the City's Landfill and disposed of in accordance with SECTION 17.5.

## MEASUREMENT FOR PAYMENT

Payment shall be made based on a Time and Materials basis to complete the work, based on unit rates provided in the form of tender for corresponding items, ie. asphalt removal, excavation, granulars. A cash allowance has been allocated to cover this work, however the amount payable to the contractor will be based on actual work completed. The contractor is not guaranteed the full amount of this allowance.

## BASIS OF PAYMENT

Payment at the Contract Price for the above referenced tender items shall be full compensation for all labour, equipment, and materials to do the work.

### 17.14 Specifications

This work shall utilize Ontario Provincial Standard Specifications (OPSS)

The following Ontario Provincial Standard Specifications, and any related specifications contained or referenced therein as per the listing below, form part of, but are not bound with, the contract documents. The list below is a sampling of applicable specifications that may not be fully complete in regard to the works identified in this tender. The source of the below listed specifications can be found in the "Ontario Provincial Standard Specifications" manuals available via the web at:

<https://www.library.mto.gov.on.ca/SydneyPLUS/TechPubs/Portal/tp/opsViews.aspx>

<b><u>OPSS</u></b>	<b><u>VOLUME</u></b>	<b><u>ABBREVIATED TITLES</u></b>	<b><u>DATE</u></b>
100	7	General Conditions of Contract	NOV 2024
102	7	Weighing of Materials	NOV 2018
106	7	Electrical Work	NOV 2023
127	5	Rental Rates for Construction	APR 2024
180	7	Management and Disposal of Excess Material	NOV 2021
206	7	Grading	APR 2019
308	5	Tack Coating & Joint Painting	JUL 2023
310	7	Hot Mix Asphalt	NOV 2017
311	7	Asphalt Boulevard	NOV 2018
314	7	Granulars	NOV 2023
316	7	Extruded Expanded Polystyrene (EPS), Frost Heave Treatment	NOV 2018
351	7	Concrete Sidewalk	NOV 2021
353	7	Concrete Curb & Gutter Systems	NOV 2021
355	7	Interlocking Concrete Pavers	NOV 2020



**CITY OF KENORA**  
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**SUPPLEMENTARY SPECIFICATIONS**

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**02020**

401	7	Trenching, Backfilling and Compacting	NOV 2024
402	7	Excavating, Backfilling, and Compacting for MH's & CB's	NOV 2024
403	7	Rock Excavation - Pipelines, Utilities & Structures, Open Cut	NOV 2023
405	7	Pipe Subdrains	NOV 2017
407	7	Maintenance Hole and Catch Basin Installation	NOV 2021
408	7	Adjusting or Rebuilding MH's, CB's, DI's and VC's	NOV 2021
409	7	CCTV Inspection of Pipelines	NOV 2023
410	7	Pipe Sewer Installation in Open Cut	NOV 2018
412	7	Forcemain Installation in Open Cut	NOV 2018
441	7	Watermain Installation in Open Cut	NOV 2021
442	7	Corrosion Protection of Watermains	NOV 2020
490	7	Site Preparation for Pipelines	NOV 2020
491	7	Preservation & Protection of Existing Facilities	NOV 2017
492	7	Site Restoration	NOV 2020
493	7	Temporary Potable Water Supply Services	NOV 2019
501	7	Compacting	NOV 2017
506	7	Dust Suppressants	NOV 2017
510	7	Removals	NOV 2018
517	7	Dewatering	NOV 2021
539	7	Temporary Protection Systems	NOV 2021
602	7	Installation of Electrical Chambers	NOV 2017
603	7	Installation of Ducts	NOV 2024
604	7	Installation of Cable	NOV 2017
609	7	Grounding	NOV 2019
610	7	Removal of Electrical Equipment and Materials	APR 2017
614	7	Installation of Power Supply Equipment	NOV 2019
615	7	Installation of Poles	NOV 2022
616		Footings and Pads for Electrical Equipment	APR 2018
703	7	Permanent Small Signs and Support Systems	APR 2019
706	7	Temporary Traffic Control Devices	APR 2018



**CITY OF KENORA**  
**2025 Sewer and Water Reconstruction**  
**SUPPLEMENTARY SPECIFICATIONS**

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**02020**

710	7	Pavement Marking	NOV 2021
802	7	Topsoil	NOV 2019
803	7	Sodding	APR 2018
805	7	Temporary Erosion & Sediment Control Measures	NOV 2021
919	7	Formwork	NOV 2021
1001	8	Aggregates - General	NOV 2021
1002	8	Aggregates - Concrete	NOV 2013
1003	8	Aggregates - Hot Mix Asphalt	NOV 2013
1004	8	Aggregates - Miscellaneous	NOV 2021
1010	8	Aggregates - Granular A, B, M & Select Subgrade	NOV 2013
1101	8	Performance Graded Asphalt Cement (PGAC)	NOV 2016
1103	8	Emulsified Asphalt	NOV 2019
1150	8	Hot Mix Asphalt	NOV 2020
1301	8	Cementing Materials	NOV 2018
1302	8	Water	NOV 2019
1308	8	Joint Filler in Concrete	NOV 2019
1350	8	Concrete – Materials and Production	NOV 2023
1351	8	Precast Concrete Components	NOV 2024
1440	8	Steel Reinforcement for Concrete	NOV 2016
1605	8	Extruded Expanded Polystyrene Insulation	NOV 2018
1716	8	Water-Borne Traffic Paint	NOV 2021
1750	8	Traffic Paint Reflectorizing Glass Beads	NOV 2021
1841	8	Non-Pressure Polyvinyl Chloride (PVC) Pipe Products	NOV 2019
1842	8	Pressure Polyethylene Pipe Products	NOV 2020
1850	8	Frame, Grates, Covers and Gratings	NOV 2020
1860	8	Geotextiles	NOV 2018

**END OF SECTION**



**CITY OF KENORA**  
**2025 Sewer and Water Reconstruction**  
APPENDIX A

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**18. APPENDIX A**

**18.1 City Of Kenora Health and Safety Policy and Contractor Safety Program**



## The Corporation of the City of Kenora Occupational Health and Safety Policy

The Corporation of the City of Kenora is committed to preventing occupational illness and injury in the workplace.

We recognize that an effective health and safety program, as indicated by following acceptable industry practices and compliance with legislative requirements, and communication of that program to all workers, will contribute to a reduced risk of injury or illness to workers.

We further recognize that health and safety is the shared commitment and responsibility of us all. Our program is based on the concepts of the Internal Responsibility System wherein responsibilities and authority for health and safety are delegated from the top down and accountability for performance is required from the bottom up.

The Senior Leadership Team is responsible for establishing health and safety policy and ensuring the development of a health and safety system.

Division Managers are responsible for the development and implementation of health and safety programs in their divisions and for ensuring that their Division Leads are performing their required health and safety responsibilities.

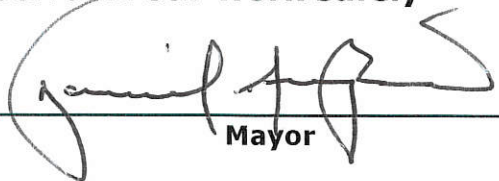
Division Leads and all supervisory personnel are responsible to enforce health and safety rules and regulations and to ensure that their workers have the appropriate training, skills, and qualifications to perform their tasks safely.

Workers are responsible to follow employer and regulatory procedures, use their initiative to reduce risk, and to report unresolved issues to their supervisor.

It is the intention of this policy that:

**"No job is so important and no service is so urgent  
that we cannot take the time to perform our work safely"**

  
\_\_\_\_\_  
Chief Administrative Officer

  
\_\_\_\_\_  
Mayor

Approved by Municipal Council on March 16, 2021

## Health and Safety Responsibilities - Contractors

<b>Section</b> Health and Safety Policies	<b>Date</b> March 19, 2012	<b>Approved by</b> <b>By-law Number:</b> 27-2012	<b>Page</b> 1	<b>Of</b> 4
<b>Subsection</b> Responsibilities and Accountabilities	<b>Supersedes By-law Number:</b> 105-2011		<b>Policy Number:</b> HS-05	

### **PURPOSE**

It is the policy of the City of Kenora to require that the provisions of the Occupational Health and Safety Act (Act) and applicable Regulations are complied with:

- where the City of Kenora contracts the performance of work or services (non-construction); and
- where the City of Kenora contracts a “constructor” (as defined in section 1 of the Act) to undertake a project (construction).

The purpose of these requirements is to ensure that all reasonable precautions are taken:

- for the protection of workers; and
- so that the City of Kenora is duly diligent in their duties and responsibilities under the Act.

### **RESPONSIBILITY**

#### **Contract Personnel**

Contract personnel are responsible to:

- comply with the requirements of this policy and guideline;
- use their training, knowledge and experience to protect the health and safety of themselves and others;
- report to their supervisor the absence of, or defect in any protective equipment or device; and
- report to their supervisor, any circumstances or conditions that may limit their ability to comply with the requirements of this policy and guideline.

#### **Contractors**

Contractors are responsible to:

- enforce and comply with the requirements of this policy and guideline; and
- ensure that their workers are aware of this policy and guideline.

#### **Supervisors (Both City of Kenora and Contract Personnel)**

Supervisors are responsible to ensure that:

- contract personnel (non-construction) work in compliance with the requirements of this policy and guideline;



## Health and Safety Responsibilities - Contractors

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- contract personnel (non-construction) are aware of the requirements of this policy and guideline;
- protective equipment and devices required to carry out the requirements of this policy and guideline are provided; and
- protective equipment and devices that are provided are maintained in good condition.

### **Management**

Managers are responsible for ensuring all City of Kenora operations are in compliance with applicable legislation and the requirements of this policy and guideline.

### **PROCEDURE**

#### **General**

All contractors are required where applicable, to provide to the City of Kenora upon request the following:

- WSIB certificate of clearance;
- third party liability insurance (minimum \$2 million);
- where applicable, federal, provincial and municipal licensing, certification, notification, inspection and approvals;
- occupational health and safety policy and program;
- applicable training documentation for supervisors and workers as specified by The City of Kenora;
- hazardous materials and designated substance inventories; and
- records of health and safety violations and convictions under the Act.

#### **Service Contractors (Non-construction)**

In addition to the duties and responsibilities imposed on contractors under the Act, service contractors will ensure:

- the applicable requirements of the City of Kenora's health and safety program are communicated to, understood by and complied with by the workers of the contractor;
- the measures and procedures required by the Act and Regulations (applicable to the work) are carried out;
- appropriate documentation of instruction and communication are maintained and available for review by the City of Kenora; and
- any and all other precautions deemed necessary by the City of Kenora for safeguarding workers, equipment and property are carried out.

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The City of Kenora will gauge contractor compliance with these requirements, and reserves the right to terminate services' contracts for any and all violations.

Contractors (and their workers) are required to attend any and all safety related meetings as deemed appropriate by the City of Kenora.

### **Project Contractors (Construction Projects)**

In addition to the duties and responsibilities imposed on contractors (who undertake a construction project for the City of Kenora) under the Act, contractors will ensure:

- the City of Kenora's health and safety requirements for contractors (construction) are incorporated into the project health and safety program;
- a project hazard assessment review is conducted, prepared and submitted to the City of Kenora which includes;
  - analysis and evaluation of hazards;
  - application of controls;
  - instruction and information provided to supervisors and workers regarding hazards;
  - hazardous materials inventory;
  - operational, maintenance and emergency procedures specific to the project assessment; and
  - training in the necessary procedures;
- a written health and safety policy is available, posted and communicated to all workers on the project;
- a project safety program is developed and implemented that details how the contractor will ensure compliance with subsections 23(1), 25(1) and 25(2) of the Act;
- a designated safety representative coordinates health and safety on the project; and
- the designated safety representative attends a project pre-meeting with representatives of the City of Kenora.

### **Equipment**

The contractor is responsible to provide, maintain and ensure that all equipment necessary, including personal protective equipment, is properly used or worn for the duration of the work.

All equipment used by the contractor shall conform to the manufacturer's specifications and comply with all applicable legislation. The City of Kenora reserves the right to prohibit the use of any equipment, methods or practices that do not conform to acceptable standards. Equipment shall be removed from the City of Kenora's premises immediately upon completion of the work.

## Health and Safety Responsibilities - Contractors

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### **TRAINING**

All City of Kenora personnel involved with contracting of work will be made aware of the contents of this policy. All training will be documented.

### **REFERENCES**

Occupational Health and Safety Act (Ontario) – Section 23

Wrokwel Core Health and Safety Audit – Element 2.1 (i) and (j)



City of Kenora  
Contractor Safety Program



## City of Kenora Contractor Safety Program

### Introduction

The City of Kenora is committed to the health and safety of all of our employees, and expects the same commitment from each contractor to their own employees.

The City of Kenora has developed this program for use by all contractors who perform work or provide services on City of Kenora premises. Contractors include all on-site service providers, construction contractors and all sub-contractors. Outside carriers, delivery, or pick-up personnel are generally not required to complete the Contractor Safety Program requirements unless the scope of the service that they provide will go beyond the routine delivery or pick-up of commodities at approved points within the City of Kenora. Outside Trainers or Consultants generally are not required to complete the Contractor Safety Program requirements unless the scope of the service that they provide will include health and safety hazards.

This program does not cover all of the site-specific or even project-specific health and safety issues that may arise. This program is by no means meant to be all inclusive of the requirements of the *Occupational Health and Safety Act* (hereinafter referred to as the *Act*) or any other applicable legislation.

### The Contractor Safety Program consists of three elements:

#### 1. The General Workplace Safety Requirements for Contractors

This section is a compilation of the specific information that Contractors need to know before and be aware of during the performance of work for the City of Kenora in order to ensure compliance with the program. Not all information in this section applies to all contractors. It is up to individual contractors to review this section and understand the applicable sections based on the work or service that they will be providing to the City of Kenora.

#### 2. Contractor Declaration and Documentation Requirements Checklist

Prior to performing work for the City of Kenora, all new contractors must complete the Contractor Declaration and submit the documentation required as outlined on the form to the City Representative. The declaration must be signed by a representative of the Contractor who has the authority to commit the Contractor to comply with the General Workplace Safety Requirements for Contractors.

#### 3. City of Kenora Contractor Orientation Checklist

It is the Contractor's responsibility to review the General Workplace Safety Requirements for Contractors document with their employees.

Prior to work commencing, the City Representative must complete the orientation checklist with the Contractor. This session will outline the site specific hazards, and emergency and reporting procedures.



## City of Kenora Contractor Safety Program

### City of Kenora

#### General Workplace Safety Requirements for Contractors

1. Unless explicitly referenced elsewhere in contract documentation, the Contractor will be designated as the Constructor, as defined by the *Act*, for the purposes of construction project work. As Constructor the Contractor will assume all of the responsibilities as set out in the *Act* and its regulations and shall enforce strict compliance therewith.
2. The Contractor must have an Occupational Health and Safety Policy and a program to implement that policy.
3. The Contractor shall ensure that work is conducted in a safe manner consistent with the intent of the *Act*, and any other Act, regulation, or by-law. Violations of any such legislation may result in the Contractor being removed from the project.
4. The Contractor shall appoint a person to supervise the work and that person shall be a *competent person*, as defined by the *Act*. The Contractor shall provide documentation to the City's Representative as evidence of the individual's competence. This could include training records or other such documentation as may be appropriate.
5. During the execution of the work, the Contractor shall ensure that:
  - a) worker safety is given first priority in planning, pricing, and performing the work;
  - b) its officers and supervisory employees have a working knowledge of the duties of a constructor and employer as defined by the *Act* and the provisions of the regulations applicable to the work, and a personal commitment to comply with them;
  - c) a copy of the most current printing of the *Act* and applicable regulations are available at the Contractor's office within the working area or, in the absence of an office, in the possession of the supervisor responsible for the performance of the work;
  - d) workers employed to carry out the work must possess the knowledge, skills, and protective devices required by law or recommended by a recognized industry association to allow them to work safely;
  - e) its supervisory employees are competent person as defined by the *Act* and they carry out their duties in a diligent and responsible manner with due consideration for the health and safety of the workers;
  - f) all subcontractors and their employees are properly protected from injury and illness while they are at the workplace.
6. Where required by the *Act* and its regulations, the Contractor shall register the project with the Ministry of Labour's Construction Health and Safety Branch prior to starting work on the site. The Contractor shall pay all registration fees. A copy of the registration must be posted in a visible location at the site, and submitted to the City's Representative before starting work on site.
7. The Contractor shall have a written emergency plan, which includes a process for addressing critical injuries, accidents, and incidents as required by sections 51, 52, and 53 of the *Act*. The plan must be readily available. If work is on a project, the emergency plan shall be posted on site prior to any work commencement.
8. Where required, the contractor shall provide a telephone, appropriate first aid facilities, eye wash stations and any other measures required for emergency use as identified in the emergency plan.



## **City of Kenora Contractor Safety Program**

9. The contractor shall conduct regular workplace inspections in accordance with the Act. The contractor must immediately address any preventive or corrective measures required to maintain site safety.
10. The contractor shall, throughout the course of the work, make the City's representative aware of all accidents/incidents that occur involving the contractor or the contractor's employees.
11. The City's representative will stop the work immediately for any violation of the Act or regulations that they become aware of. The contractor shall not resume the work until any such violation has been rectified.
12. The contractor shall be responsible for any delay in the progress of the work due to a violation of legislated requirements or City health and safety requirements of which the contractor has been advised, and shall take the necessary steps to avoid delay in the final completion of the work without additional cost to the City.



## City of Kenora Contractor Safety Program

### Declaration

I have received and read the "City of Kenora Contractor Safety Program". As the owner or authorized representative of the contracted services, I understand that I am fully responsible for ensuring that all of our employees, subcontractors, and visitors comply with all necessary rules and regulations outlined therein and with all applicable regulations made under the Occupational Health and Safety Act.

Name: \_\_\_\_\_

Signature: \_\_\_\_\_

Company Name: \_\_\_\_\_

Witness: \_\_\_\_\_





## City of Kenora Contractor Safety Program

### Contractor Document Requirements

The documentation required from the contractor will be dependent on the scope of the work to be performed. Prior to commencement of work the contractor will be advised as to which of the following documentation will need to be provided to the City of Kenora Representative for review. This list is not intended to be all inclusive and additional documentation may be requested at the discretion of the City of Kenora Representative.

- ☐ Contractor Safety Policy
- ☐ Certificate of Liability Insurance
- ☐ Valid WSIB Clearance Certificate
- ☐ Certificate of Personal Disability Coverage
- ☐ Supervisor's Name and Phone Number
- ☐ Contractor's List of First Aiders
- ☐ Contractor's Emergency Contact Numbers
- ☐ Training Records Supporting Competency of Supervisor
- ☐ Approved Registration Form (As per Section 5 of O. Reg. 213/91)
- ☐ Notice of Project Form if Required (As per Section 6 of O. Reg. 213/91)
- ☐ Generator Registration Number (if removing hazardous waste)

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City Representative Name

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Owner of the Contracted Services

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Signature of City Representative

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Signature of Owner



## City of Kenora Contractor Safety Program

### Contractor Initial Orientation

Prior to any “work” being done by the contractor, an initial orientation must be held. The City Representative shall conduct this orientation. Work must never begin before the orientation has taken place and information is conveyed to all contractor employees. If all contractor employees are not present for the orientation, it is the responsibility of the Contractor Representative to convey this information to the contractor employees.

Where there is an established scope of work, location, conditions, hazards, and they will not change during a twelve-month period, then a yearly orientation can be held.

The City’s Representative is to review and check off the following items with the contractor:

- ☐ Inform the contractor of the Health and Safety hazards or requirements of the area in which they will be working. The contractor site supervisor (or appropriate designate) is responsible to convey this information to all contract personnel working on the project or job.
- ☐ The City of Kenora emergency procedures and evacuation procedures as they apply to the work being performed.

\_\_\_\_\_  
City Representative Name

\_\_\_\_\_  
Contractor Name

\_\_\_\_\_  
City Representative Signature

\_\_\_\_\_  
Contractor Signature

\_\_\_\_\_  
Date



## **City of Kenora Contractor Safety Program**

### **Appendix**

Internal Procedures for Hiring Contractors



## City of Kenora Contractor Safety Program

The City of Kenora is committed to the health and safety of all our employees and expects the same commitment from each contractor to their own employees.

A City representative is the point of contact for the contractor while performing work for the City of Kenora.

### **Definitions (from the Occupational Health and Safety Act)**

Competent person means a person who:

- (a) is qualified because of knowledge, training and experience to organize the work and its performance,
- (b) is familiar with this Act and the regulations that apply to the work, and
- (c) has knowledge of any potential or actual danger to health or safety in the workplace.

Construction includes erection, alteration, repair, dismantling, demolition, structural maintenance, painting, land clearing, earth moving, grading, excavating, trenching, digging, boring, drilling, blasting, or concreting, the installation of any machinery or plant, and any work or undertaking in connection with a project but does not include any work or undertaking underground in a mine.

Maintenance vs. Construction – According to the Ministry of Labour’s Construction vs. Maintenance Policy, contract work is considered construction if the contract activities are mentioned in the definition of construction and are performed on objects mentioned in the definition of project. Those construction activities not performed on objects mentioned in the definition of project would be considered maintenance and would be covered by the industrial regulations. For example, an alteration, repair, or dismantling performed on a building, bridge, or structure, is construction, whereas the same activities carried out on machinery or equipment would be maintenance. Similarly, structural maintenance and installations are considered to be construction, whereas routine plant maintenance is considered to be maintenance.

Constructor means a person who undertakes a project for an owner and includes an owner who undertakes all or part of a project by himself or by more than one employer.

Employer means a person who employs one or more workers or contracts for the services of one or more workers and includes a contractor or subcontractor who undertakes with an owner, constructor, contractor, or subcontractor to perform work or supply services.

Owner includes a trustee, receiver, mortgagee in possession, tenant, lessee, or occupier of any lands or premises used or to be used as a workplace, and a person who acts for or on behalf of an owner as an agent or delegate.

Project means a construction project, whether public or private, including;

- (a) the construction of a building, bridge, structure, industrial establishment, mining plant, shaft, tunnel, caisson, trench, excavation, highway, railway, street, runway, parking lot, coffer dam, conduit, sewer, water-main, service connection, telegraph, telephone or electrical cable, pipe line, duct or well, or any combination thereof,



## City of Kenora Contractor Safety Program

- (b) the moving of a building or a structure, and
- (c) any work or undertaking, or any lands or appurtenances used in connection with construction.

Supervisor means a person who has charge of a workplace or authority over a worker.

Worker means a person who performs work or supplies services for monetary compensation but does not include an inmate of a correctional institution or like institution or facility who participates inside the institution or facility in a work project or rehabilitation program.

Workplace means any land, premises, location or thing at, upon, in or near which a worker works.

### Procedure

For all contracts for services:

- Determine the nature of the work
- Determine the health and safety hazards, and
- Classify the contract work.

a) A construction project that has significant health and safety hazards. Examples would include but are not limited to construction of a community centre, renovations, replacement of a boiler and other major equipment.

b) Maintenance with significant health and safety hazards. Examples would include but are not limited to window washing, annual inspection of roof top anchors, replacement of heating coils, or electrical repairs.

c) No significant health and safety hazards. Examples would include but are not limited to photocopier maintenance and using external training consultants.

For tender contracts it will be the responsibility of the department issuing the tender to obtain the required information from the contractors. For contracts that are not tendered, the City Representative will be responsible for obtaining this information.

For the contracts classified with health and safety hazards, those contractors must be given a copy of the City of Kenora Contractor Safety Program. The contractor must complete the Contractor declaration portion of this document and provide the City's Representative with the required documentation prior to the work commencing.

At the beginning of the work the City's Representative will be responsible to provide the contractor with the appropriate orientation which will include;

- Identification of all known hazards
- A walk through of the work area, and
- Locations of all emergency exits and the procedure for evacuation. (If applicable to the work being performed.)

If at any time a contractor is observed performing work unsafely or contrary to the Act or regulations this must be addressed immediately. The contractor must be made to stop what they are doing and the contractor will not resume the work until such contraventions have been rectified.



**CITY OF KENORA**  
**2025 Sewer and Water Reconstruction**  
APPENDIX B

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## **19. APPENDIX B**

### **19.1 City Of Kenora Standard Detail Drawings**

City of Kenora Standard Detail 3.7 TYPICAL HYDRANT AND VALVE DETAIL

City of Kenora Standard Detail 3.12 TYPICAL HYDRANT PROTECTION PLACEMENT

City of Kenora Standard Detail SIDEWALK DETAIL - TYPICAL CROSS SECTIONS CURBED-FACED & BOULEVARD TYPES.

City of Kenora Standard Detail CK-2016-tactile walking surface indicator TACTILE WALKING SURFACE INDICATOR

City of Kenora Standard Detail CK-2009-01 PEDESTRIAN BARRICADE INSTALLATION

City of Kenora Concrete Pole Base Footings

City of Kenora – Galvanized Octagonal 30'0" Pole Assembly Details 9005-40-Kenora

City of Kenora – Valmont 8" x 48" x 3.5" FS SGI MS UNIV CHNL-SPEC.

### **19.2 OPSD Standard Detail Drawings**

The Ontario Provincial Standard Drawings (OPSD) listed below and those referred therein form part of the Contract Drawings. Drawings listed following can be downloaded at:

<https://www.library.mto.gov.on.ca/SydneyPLUS/TechPubs/Portal/tp/opsViews.aspx>

<b><u>OPSD No.</u></b>	<b><u>ABBREVIATED TITLES</u></b>	<b><u>REVISION</u></b>
216.010	Boulevard Treatments – Urban Section	3
216.020	Asphalt on Granular Base – Urban Section	3
216.021	Subdrain Pipe – Urban Section	3
219.110	Light-Duty Silt Fence Barrier	3
310.010	Concrete Sidewalk	3
310.020	Concrete Sidewalk Adjacent to Curb with Gutter	3
310.039	Tactile Walking Surface Indicators	1
310.050	Concrete Sidewalk – Entrance Details	3
350.010	Urban Entrances	2
351.010	Urban Residential Entrances	2
400.020	Cast Iron, Square Frame, Square Flat Grate for CB's & MH's	3
400.030	Cast Iron, Square Frame, Square V Grate for CB's & MH's	3



**CITY OF KENORA**  
**2025 Sewer and Water Reconstruction**  
APPENDIX B

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401.010	Cast Iron, Square Frame, Circular Closed Cover for MH's	4
405.020	Maintenance Hole Steps, Solid	4
561.010	Interlocking Concrete Pavers	2
600.040	Concrete Barrier Curb with Standard Gutter	2
604.010	90° Concrete Outlet – For Concrete Curb with Gutter	2
605.040	Asphalt Spillways	2
608.010	Termination of Concrete Curb with Gutter	2
701.010	Precast MH, 1200mm Diameter	5
701.021	Maintenance Hole Benching	4
701.030	MH Components, 1200mm Diameter Tapered Top & Flat Cap	4
701.031	MH Components, 1200mm Diameter Riser & Base	2
701.032	MH Components, 1200mm Diameter Base Slab	2
701.100	Frost Strap Installations	4
704.010	Precast Concrete Adjustment Units for MH & CB's	3
705.010	Precast Concrete Catch Basin, 600 x 600 mm	4
802.010	Flexible Pipe Embedment and Backfill, Earth Excavation	3
802.013	Flexible Pipe Embedment and Backfill, Rock Excavation	3
1006.010	Sewer Service Connections for Main Pipe Service	4
1101.020	Valve Operator	4
1104.010	Water Service Connection Detail – 19 & 25mm Dia. Sizes	4
1104.020	Water Service Connection Detail – 32, 38 & 50mm Dia. Sizes	3
1105.010	Hydrant Installation	3
1109.011	Cathodic Protection for PVC Watermain	3
1109.025	Waterproofing of Splices	1
1109.030	Insulation for Sewers & Watermains in Shallow Trench	1
2112.020	Electrical Handhole, Precast Concrete with Cover, 460mm Dia.	0

**19.3 City Of Thunder Bay Standard Detail Drawings**

S-107 CATCH BASIN (PRECAST BARREL TYPE)



**CITY OF KENORA**  
**2025 Sewer and Water Reconstruction**  
APPENDIX B

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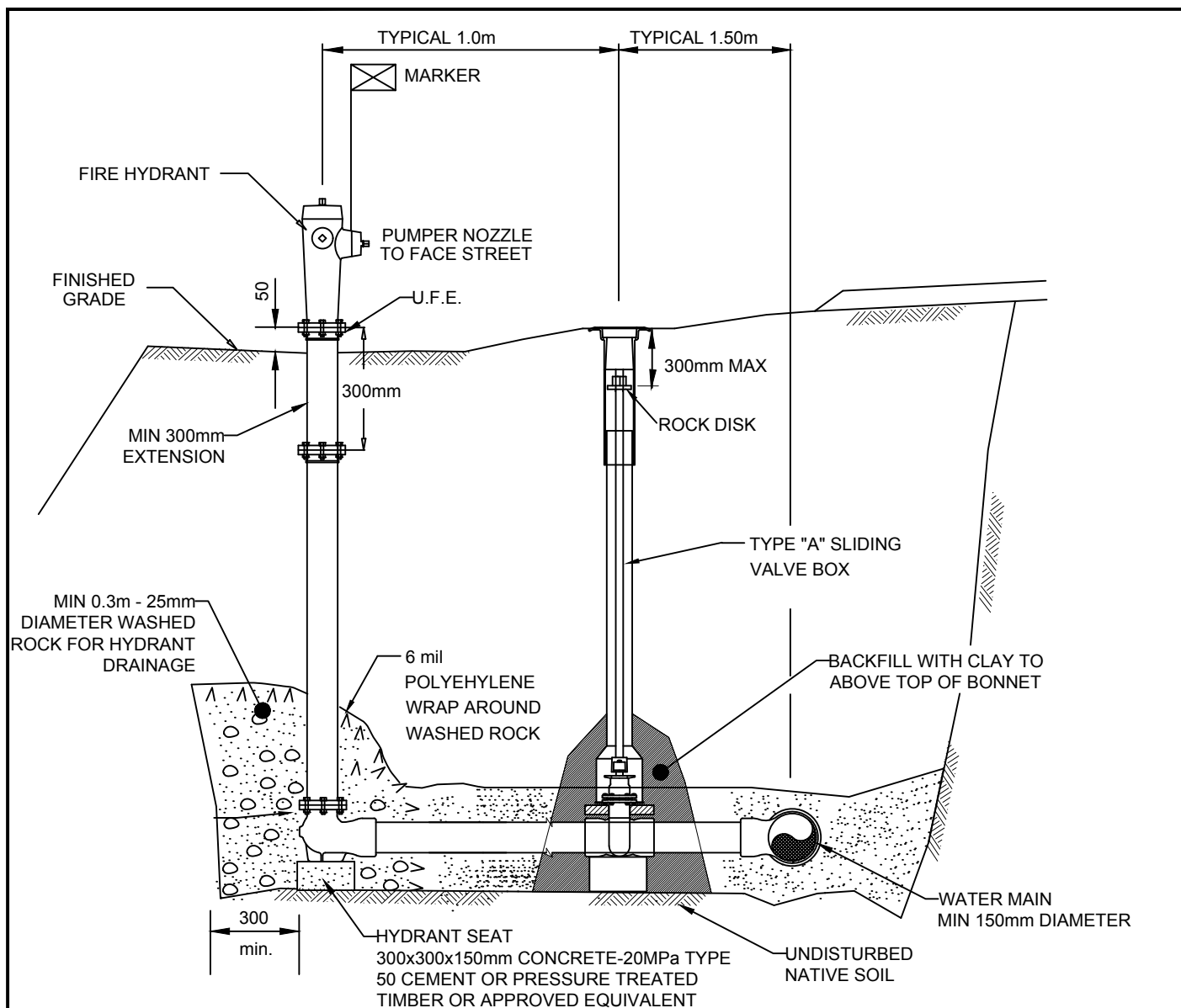
**19.4 Construction Drawings**

L1	Legend	IFT
TW1	Temporary Water System Plan	IFT
R1	Existing Site Plan & Removals – 9 <sup>th</sup> Street N	IFT
P1	9 <sup>th</sup> Street N Plan & Profile – 10+000 to 10+140	IFT
P2	9 <sup>th</sup> Street N Plan & Profile – 10+140 to 10+280	IFT
P3	Mellick Avenue Plan & Profile – 9+990 to 10+110	IFT
P4	Mellick Avenue Plan & Profile – 10+110 to 10+210	IFT
G1	Typical Sections	IFT
G2	Details & Notes	IFT
G3	Structures Schedules	IFT

**19.5 Street Lighting Drawings**

E1D	Electrical Street Lighting Demolition Plan	IFT
E1	Electrical Street Lighting Upgrade Plan	IFT
E2	Electrical Project Specific Standards	IFT
E3	Electrical Specifications	IFT





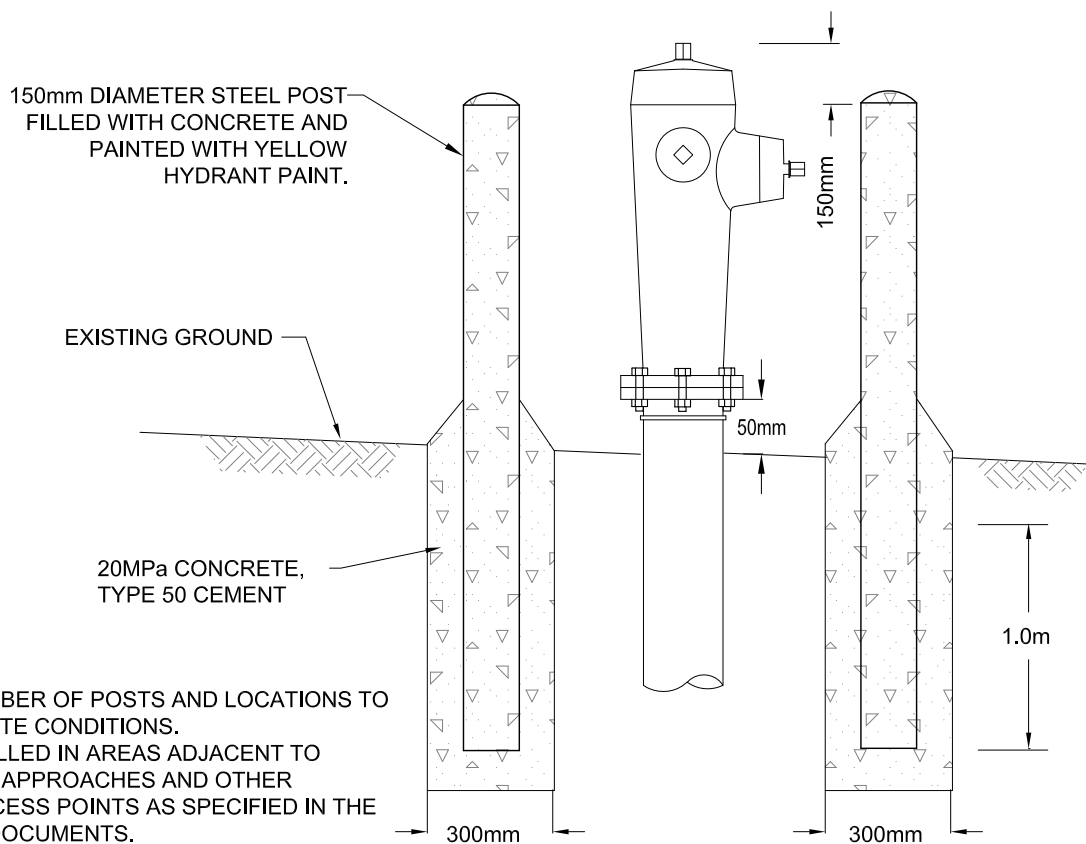
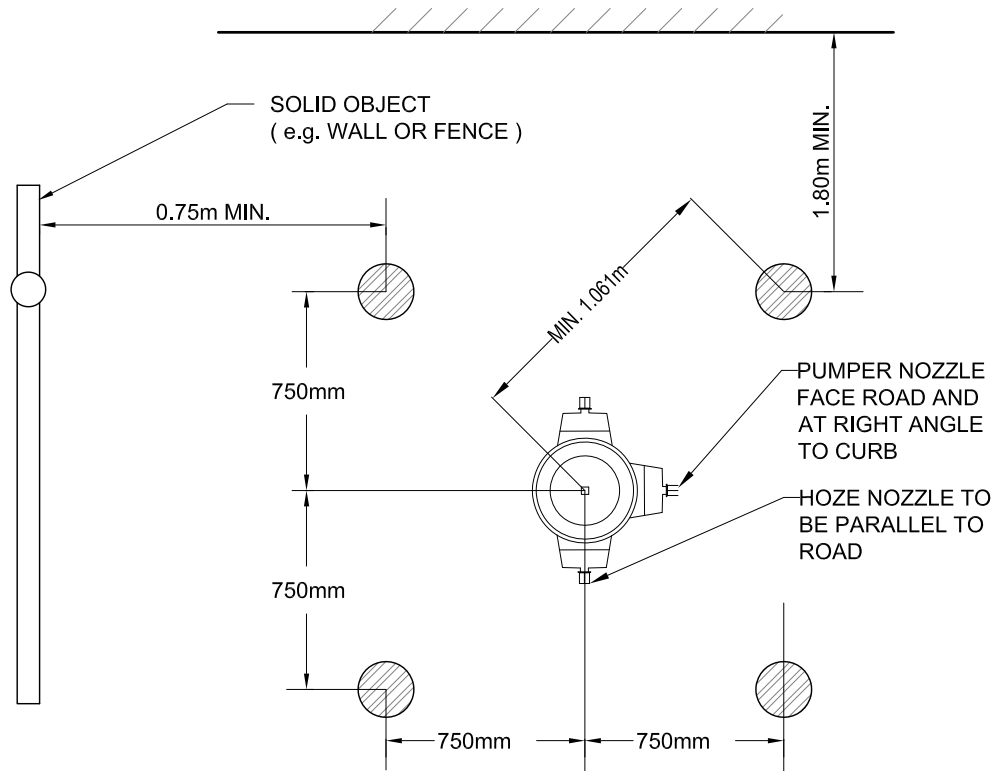
#### NOTES:

1. HYDRANTS ARE TO BE MUELLER CANADA VALVE OR CLOW M67 BRIGADIER WITH THE FOLLOWING CONNECTIONS:
  - a. HOSE CONNECTIONS:
    - #1 PATTERN STYLE
    - 3.124" MAJOR DIAMETER
    - 2.995" PITCH DIAMETER
    - 5 THREADS PER INCH
    - 0.146 THREAD DEPTH
    - CSA TAPERED THREAD
    - MUELLER CANADA VALVE CODE 12B
  - b. PUMPER CONNECTIONS:
    - 5.745" MAJOR DIAMETER
    - 5.580" PITCH DIAMETER
    - 4 THREADS PER INCH
    - 0.186 THREAD DEPTH
    - CSA TAPERED THREAD
    - MUELLER CANADA VALVE CODE 33B
2. HYDRANTS TO BE PAINTED WITH APPROVED YELLOW COLOUR USING EXTERIOR ENAMEL PAINT.
3. HYDRANT DRAIN HOLES TO BE PLUGGED IN AREAS OF HIGH GROUND WATER.
4. HYDRANT ASSEMBLIES FROM UNDER FLANGE ELEVATION (U.F.E.) TO TOP OF HYDRANT LEAD TO BE TYPICAL 2.65m.
5. ALL BOLTS TO BE STAINLESS STEEL WRAPPED WITH DENSO MASTIC AND DENSO TAPE.
6. GATE VALVES TO BE 150 DIAMETER MUELLER VALVES.
7. MECHANICAL RESTRAINTS TO BE INSTALLED ON ALL HYDRANT FITTINGS.



## TYPICAL HYDRANT AND VALVE DETAIL

			DATE DRAWN JULY 2018
			SCALE N.T.S.
			DRAWN BY M.G.
			DRAWING NUMBER 3.7
01	NOTE CHANGE	MAR 2019	
REV #	DESCRIPTION	DATE	



**NOTE:**

1. ADJUST NUMBER OF POSTS AND LOCATIONS TO SUITE THE SITE CONDITIONS.
2. TO BE INSTALLED IN AREAS ADJACENT TO DRIVEWAYS, APPROACHES AND OTHER VEHICLE ACCESS POINTS AS SPECIFIED IN THE CONTRACT DOCUMENTS.

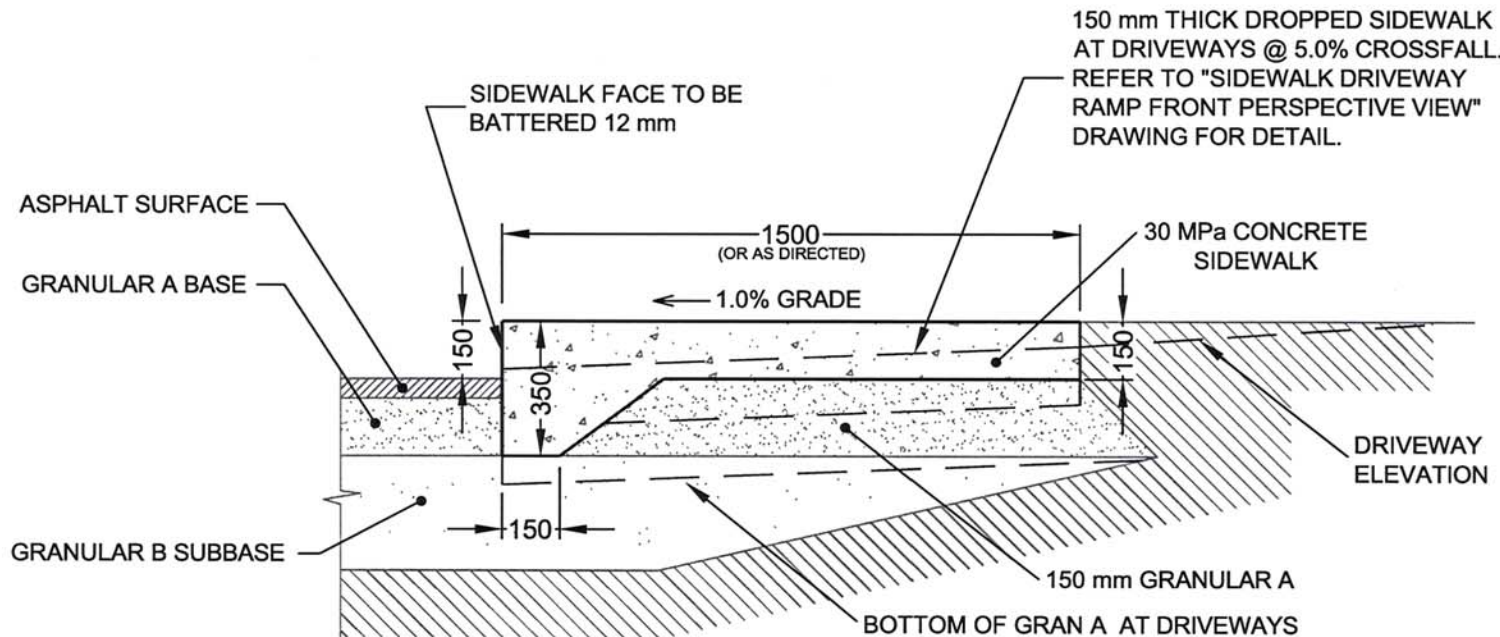


## TYPICAL HYDRANT PROTECTION PLACEMENT

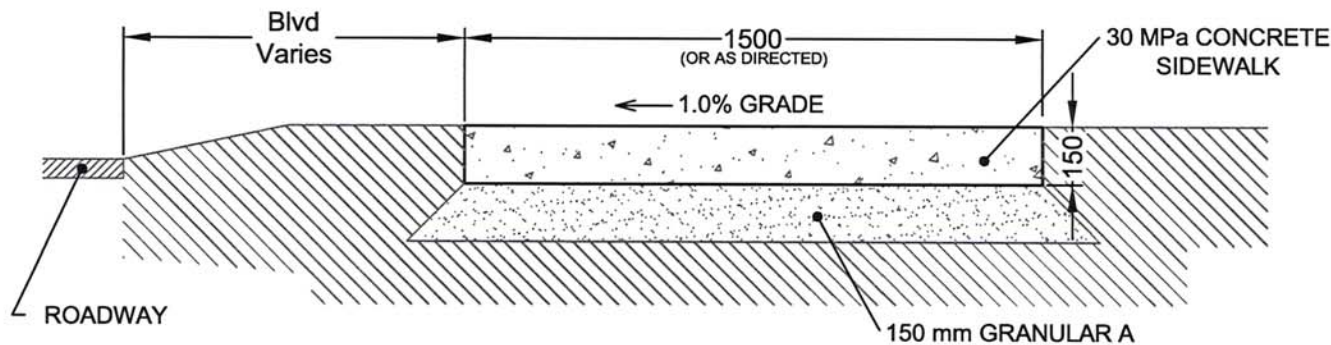
			DATE DRAWN JULY 2018
			SCALE N.T.S.
			DRAWN BY M.G.
			DRAWING NUMBER 3.12
REV #	DESCRIPTION	DATE	

## NOTES:

1. CONSTRUCTION JOINTS TO BE AT 1500mm INTERVALS
2. EXPANSION JOINTS TO BE 13 mm PREMOULDED BITUMINOUS MATERIAL PLACED AT 6000mm INTERVALS
3. SIDEWALK SURFACES TO BE WOOD FLOAT FINISHED AND LIGHTLY BROOMED TO PROVIDE A TEXTURED NON-SLIP SURFACE.
4. THE SIDEWALK SHALL BE EDGED WITH A 5mm RADIUS EDGING TOOL.
5. CONCRETE SHALL BE A CITY APPROVED 30 MPa MIX DESIGN WITH  $7\% \pm 1.5\%$  AIR ENTRAINMENT.



**CURBED-FACED SIDEWALK DETAIL**



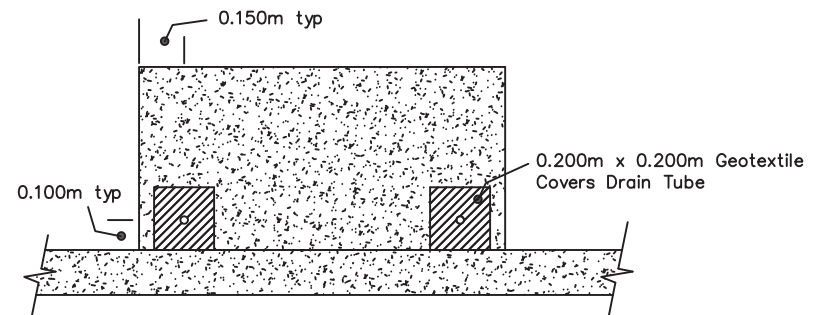
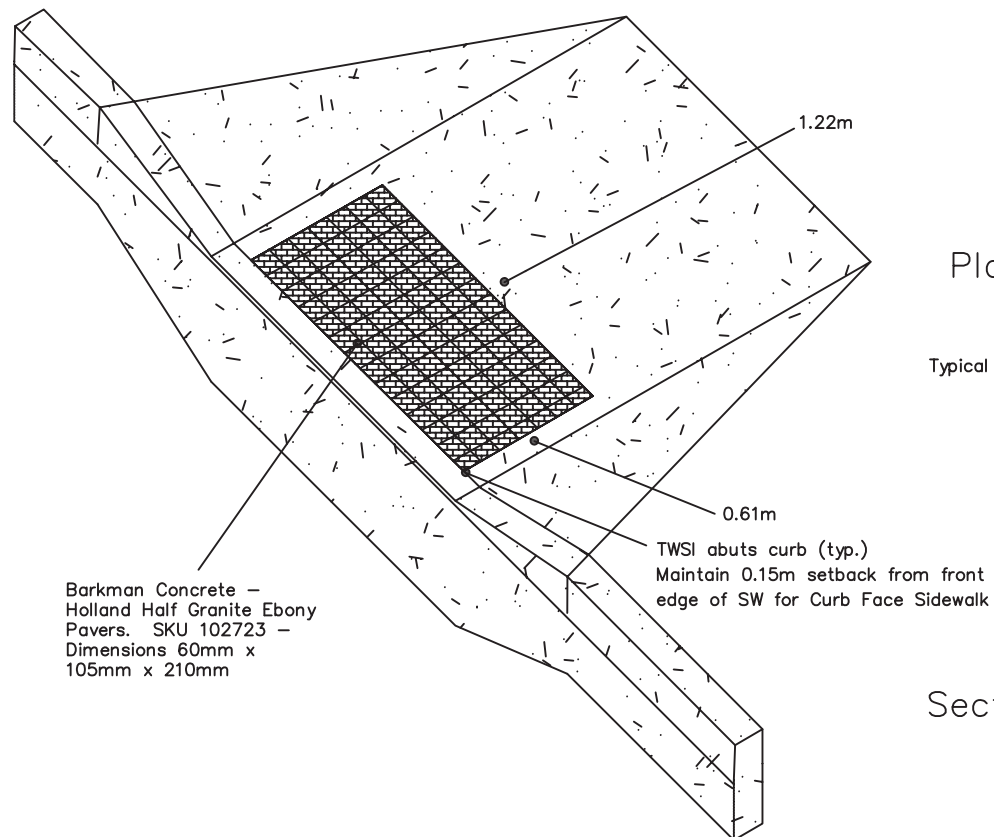
**TYPICAL BOULEVARD SIDEWALK DETAIL**

REV 6	CONCRETE SPEC CHANGED	MAR 2008
REV 5	BATTER CHANGED	JUN 2001
REV 4	DR WAY RAMP CHANGED	JUN 2001
REV 3	SLOPE CHANGED	MAY 1999
REV 2	AIR ENTRAINMENT	MAR 1997
REV 1	SIDE BACKFILL CHANGED	MAR 1998

CITY OF KENORA  
SIDEWALK DETAILS

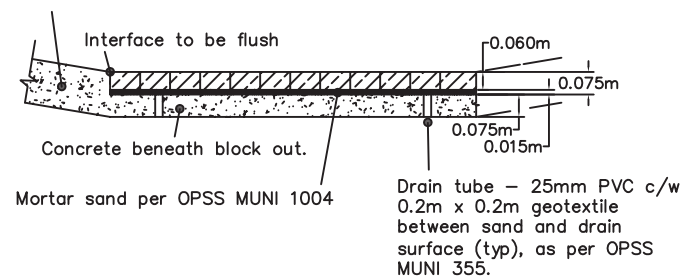
TYPICAL CROSS SECTIONS  
CURBED-FACED & BOULEVARD TYPES

DIMENSIONS SHOWN IN MILLIMETRES  
DRWN BY: JS SCALE: NTS MAY 1999



Plan View Showing Typical Drain Tube Layout

Typical Dropped Front of Boulevard Sidewalk



Section Through Front of Dropped Sidewalk

Notes:

0	Issued for Sidewalk RFQ	APR 2016	BF	
No.	Revision	Date	Initial	

Approved

Kenora Sidewalk Works

CITY OF KENORA  
RECONSTRUCTION

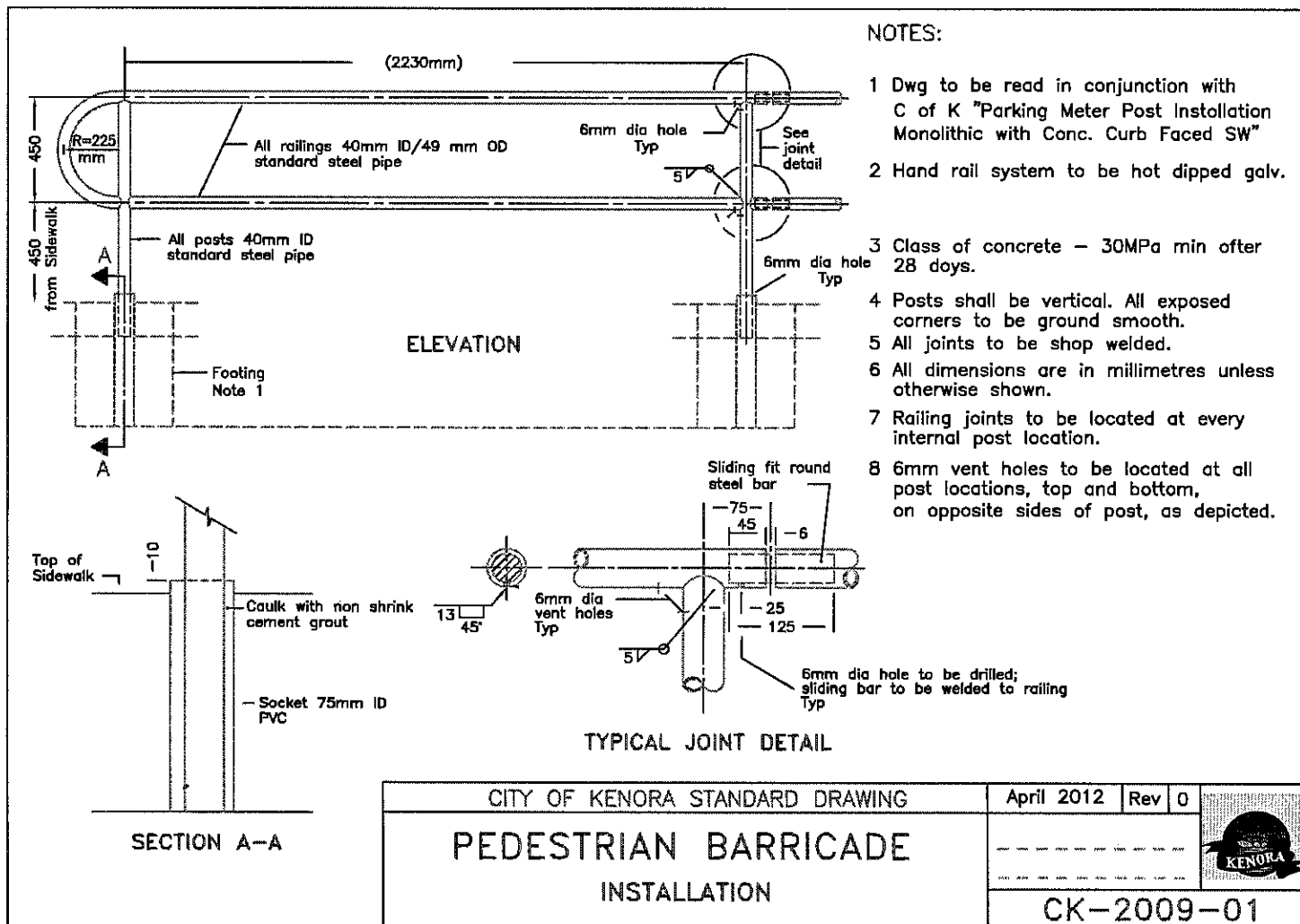
Tactile Walking Surface Indicator



City of Kenora  
Engineering  
60 Fourteenth St N  
Kenora ON P9N 4M9

Scale  
NTS

Drawn By	BF	Date	April 2016
Dep. No.	CK-2016-TWSI	Rev.	0



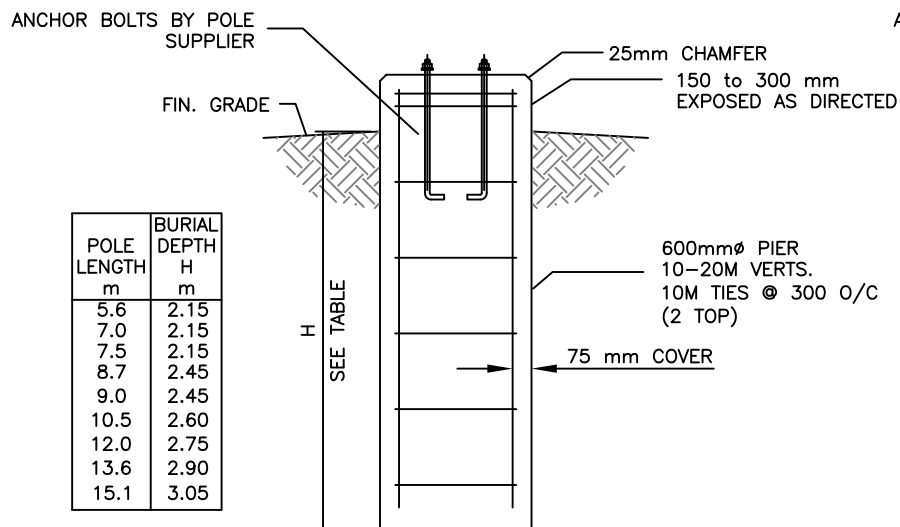
CITY OF KENORA STANDARD DRAWING

April 2012 Rev 0

# PEDESTRIAN BARRICADE INSTALLATION

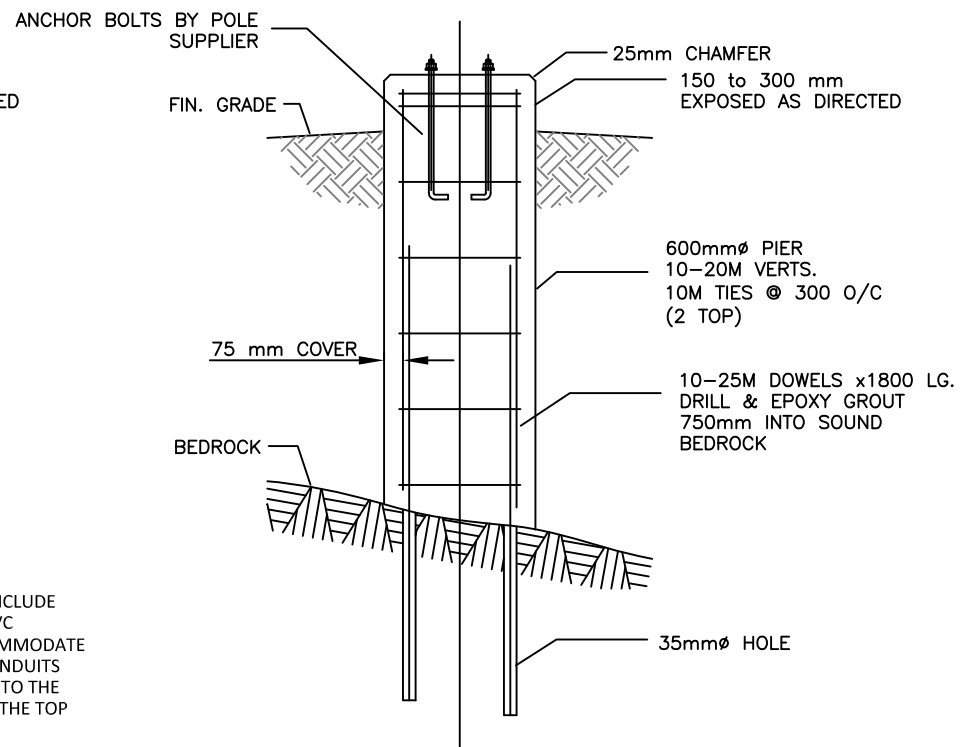


CK-2009-01



## BURIAL INTO SOIL

NTS



## ANCHOR TO ROCK

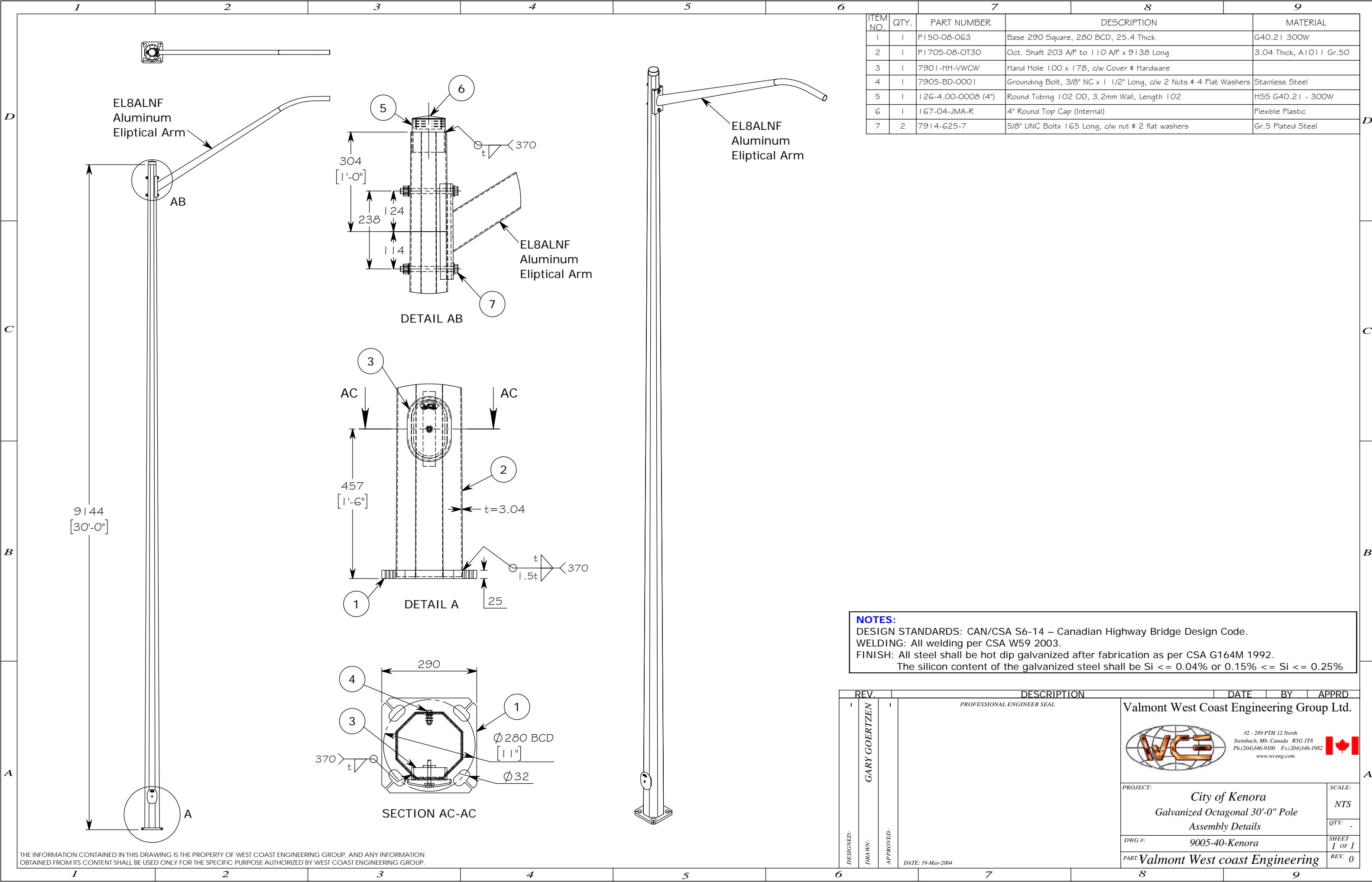
NTS

CONCRETE PROPERTIES

28 DAY COMP. STRENGTH	35 MPa
CEMENT	TYPE 10
W/C RATIO	0.45
AGGREGATE SIZE (MAX.)	20mm
ENTRAINED AIR	5%-7%
SLUMP (MAX.)	90mm (±15mm)

**CITY OF KENORA**  
**CONCRETE POLE BASE**  
**FOOTINGS**

MAY 2011



ITEM NO.	QTY.	PART NUMBER	DESCRIPTION	MATERIAL
1	1	P150-08-063	Base 290 Square, 280 BCD, 25.4 Thick	G40.21 300W
2	1	P1705-08-0T30	Oct. Shaft 203 A/F to 110 A/F x 9138 Long	3.04 Thick, A1011 Gr.50
3	1	7901-HH-VWCW	Hand Hole 100 x 178, c/w Cover & Hardware	
4	1	7905-BD-0001	Grounding Bolt, 3/8" NC x 1 1/2" Long, c/w 2 Nuts & 4 Flat Washers	Stainless Steel
5	1	126-4.00-0008 (4")	Round Tubing 102 OD, 3.2mm Wall, Length 102	HSS G40.21 - 300W
6	1	167-04-JMA-R	4" Round Top Cap (Internal)	Flexible Plastic
7	2	7914-625-7	5/8" UNC Bolt x 165 Long, c/w nut & 2 flat washers	Gr.5 Plated Steel

**NOTES:**  
DESIGN STANDARDS: CAN/CSA S6-14 – Canadian Highway Bridge Design Code.  
WELDING: All welding per CSA W59 2003.  
FINISH: All steel shall be hot dip galvanized after fabrication as per CSA G164M 1992.  
The silicon content of the galvanized steel shall be Si <= 0.04% or 0.15% <= Si <= 0.25%

REV.	DESCRIPTION	DATE	BY	APPRD
1	DESIGNED: GARY GOERTZEN			
2	DRAWN: GARY GOERTZEN			
3	APPROVED: GARY GOERTZEN			
4	DATE: 19-Mar-2004			
5				
6				
7				
8				
9				

**Valmont West Coast Engineering Group Ltd.**

#2 - 289 PTH 12 North  
Steinbach, Mb. Canada R5G 1T8  
Ph.(204)346-9100 Fx.(204)346-1982  
www.wceng.com

**PROJECT:** City of Kenora  
Galvanized Octagonal 30'-0" Pole  
Assembly Details

**SCALE:** NTS

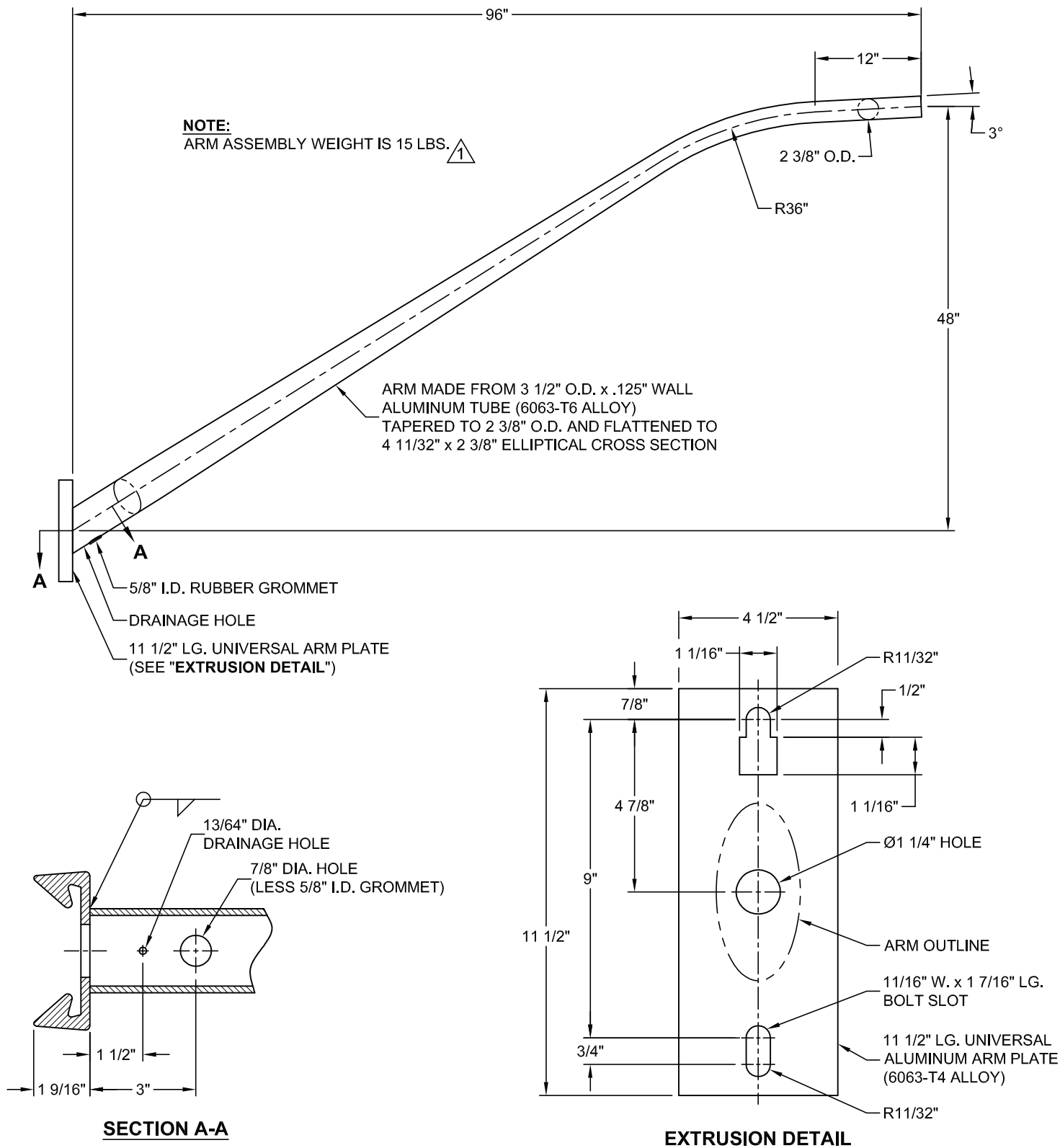
**DWG #:** 9005-40-Kenora

**SHEET** 1 OF 1

**PART:** Valmont West coast Engineering

**REV.** 0





DO NOT SCALE



Valmont Industries, Inc. Structures Division  
20805 Eaton Ave Farmington, Minnesota 55024-7932  
Phone: (651) 463-8990 (800) 899-7577  
Fax: (651) 463-3349

**\*\*CONFIDENTIAL\*\***

The information contained in this drawing is privileged and confidential, and may be protected from disclosure. Please be aware that any use or dissemination of this drawing may be subject to legal restriction or sanction.

TITLE: S 8' x 48" x 3.5" FS SGL MS UNIV CHNL - SPEC.  
MODEL NO.:  
MATERIAL: ALUMINUM ALLOY  
FINISH: SATIN FINISH  
PROJECT:  
SOLD TO: VALMONT WEST COAST ENGINEERING  
SHIP TO:  
P.O. NO: P1111542B  
REP:

	02-17-17	ADDED ARM WEIGHT	PTP
REV	DATE	REVISION DESCRIPTION	BY

QTY: 100

DWN BY: PTP

CHK'D BY:

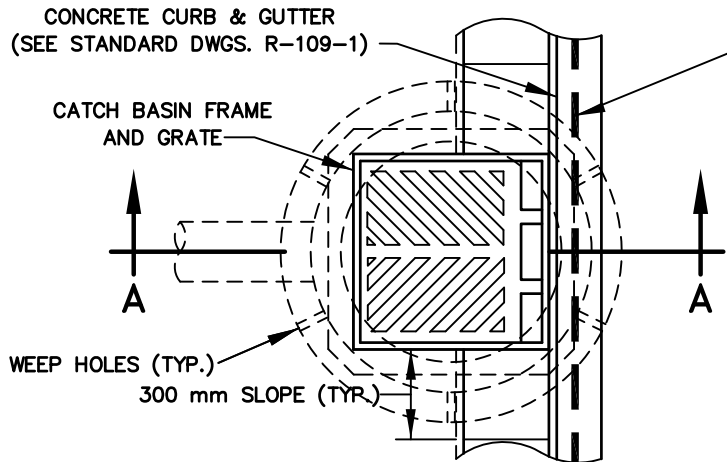
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DATE: 02-07-17

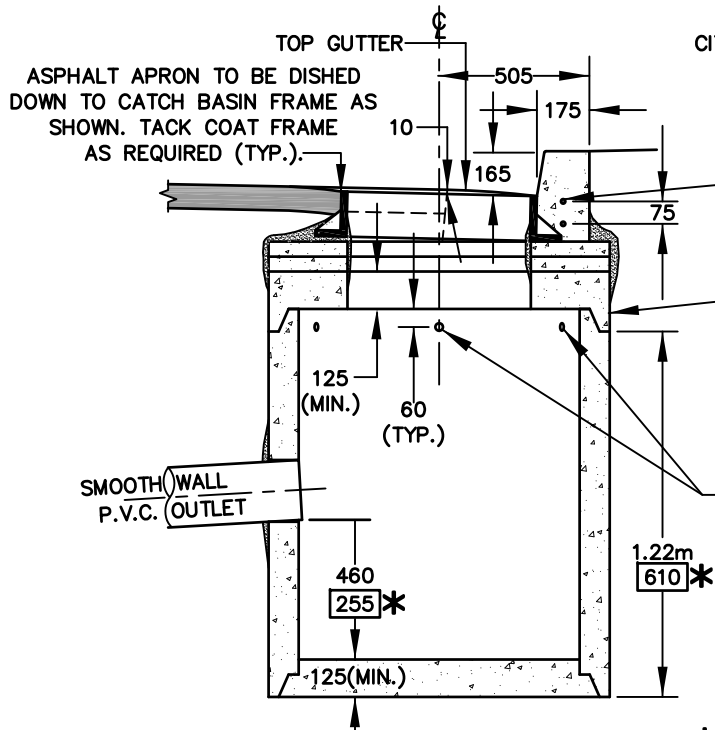
DWG NO: DR6625

PAGE: 2 / 6





**DETAIL 'A'**



**SECTION A-A**

**CATCH BASIN INSTALLED IN CONCRETE GUTTER**  
 NOTE: WHEN INSTALLING MID BLOCK ON FOUR LANE ARTERIAL ROAD  
 USE TYPICAL CONSTRUCTION OF CURB AND GUTTER AROUND A  
 CATCH BASIN, CITY OF THUNDER BAY STANDARD DWG. R-115

2 - 15M BARS, 6 m LONG,  
 PLACED AS SHOWN (CENTERED  
 ON CATCH BASIN)

**NOTES:**

- ALL CATCH BASINS ARE TO BE BACK FILLED WITH GRANULAR 'B', 300 mm (MIN.) FROM BARREL.
- PLACE PRECAST ADJUSTMENT UNITS ON BED OF MORTAR AND APPLY MASTIC AS PER MANUFACTURER'S SPECIFICATIONS.
- SLOPE GRATE WITH HINGE ON LOW SIDE TO PREVENT BLOCKAGE. MIN SLOPE 50 mm. DOES NOT APPLY TO BIRDCAVE GRATE (STND FRAME AND GRATE ONLY).

CATCH BASIN FRAME AND GRATE AS SHOWN ON  
 CITY OF THUNDER BAY DWG. NO. 13-0569 B (TYP.).

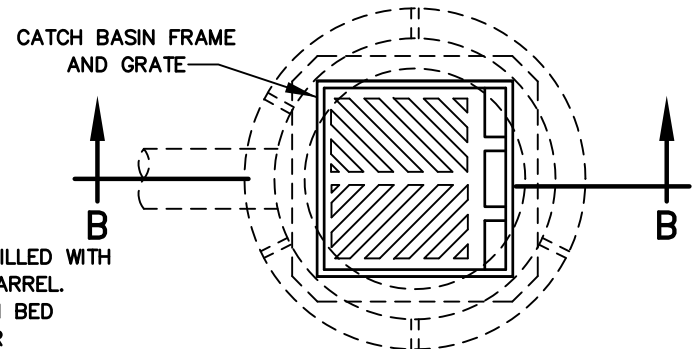
PRECAST ADJUSTMENT UNITS (100  
 mm MIN. TO A MAX. OF 300 mm).  
 MORTAR AROUND & BETWEEN  
 ADJUSTMENT UNITS AS REQUIRED.

2 - 15M BARS, 6 m LONG, PLACED AS SHOWN  
 (CENTERED ON CATCH BASIN)

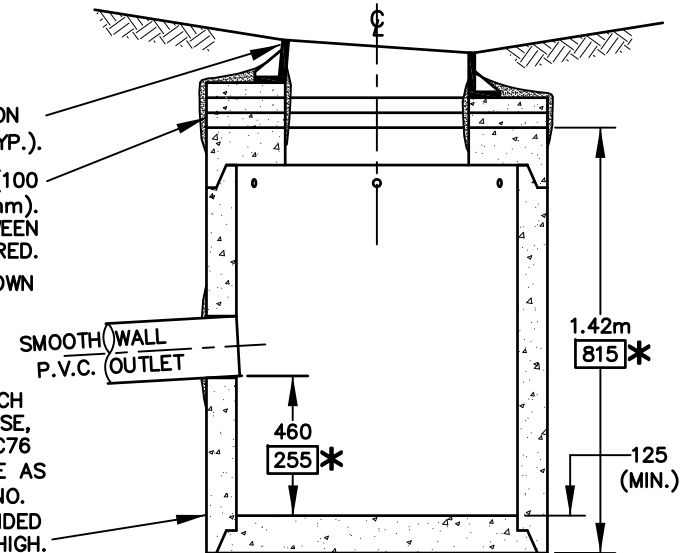
900 mm I.D. x 1.22 m HIGH PRECAST CATCH  
 BASIN BARREL COMPLETE WITH PRECAST BASE,  
 MANUFACTURED TO LATEST A.S.T.M. SPEC. C76  
 (CLASS II, WALL B). OUTLET PIPE HOLE TO BE AS  
 SHOWN (SEE CITY OF THUNDER BAY DWG. NO.  
 73-6992 B). INLET PIPE HOLES TO BE PROVIDED  
 IN THE FIELD. SHALLOW BARREL IS 610 mm HIGH.

6-25 mm  $\phi$  WEEP HOLES EQUALLY  
 SPACED AROUND BARREL COVERED WITH  
 LAYER OF NON WOVEN GEOTEXTILE (TYP.)  
 IF THE INVERT OF THE CATCH BASIN LEAD  
 IS AT OR ABOVE THE ELEVATION OF THE  
 WEEP HOLES, THE WEEP HOLES SHALL BE  
 MORTARED(PLUGGED) AND NO GEOTEXTILE  
 IS REQUIRED

**\* SHALLOW TYPE CATCH BASIN**




**DETAIL 'B'**



**SECTION B-B**

CATCH BASIN INSTALLED IN DITCH  
 ALL DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE STATED

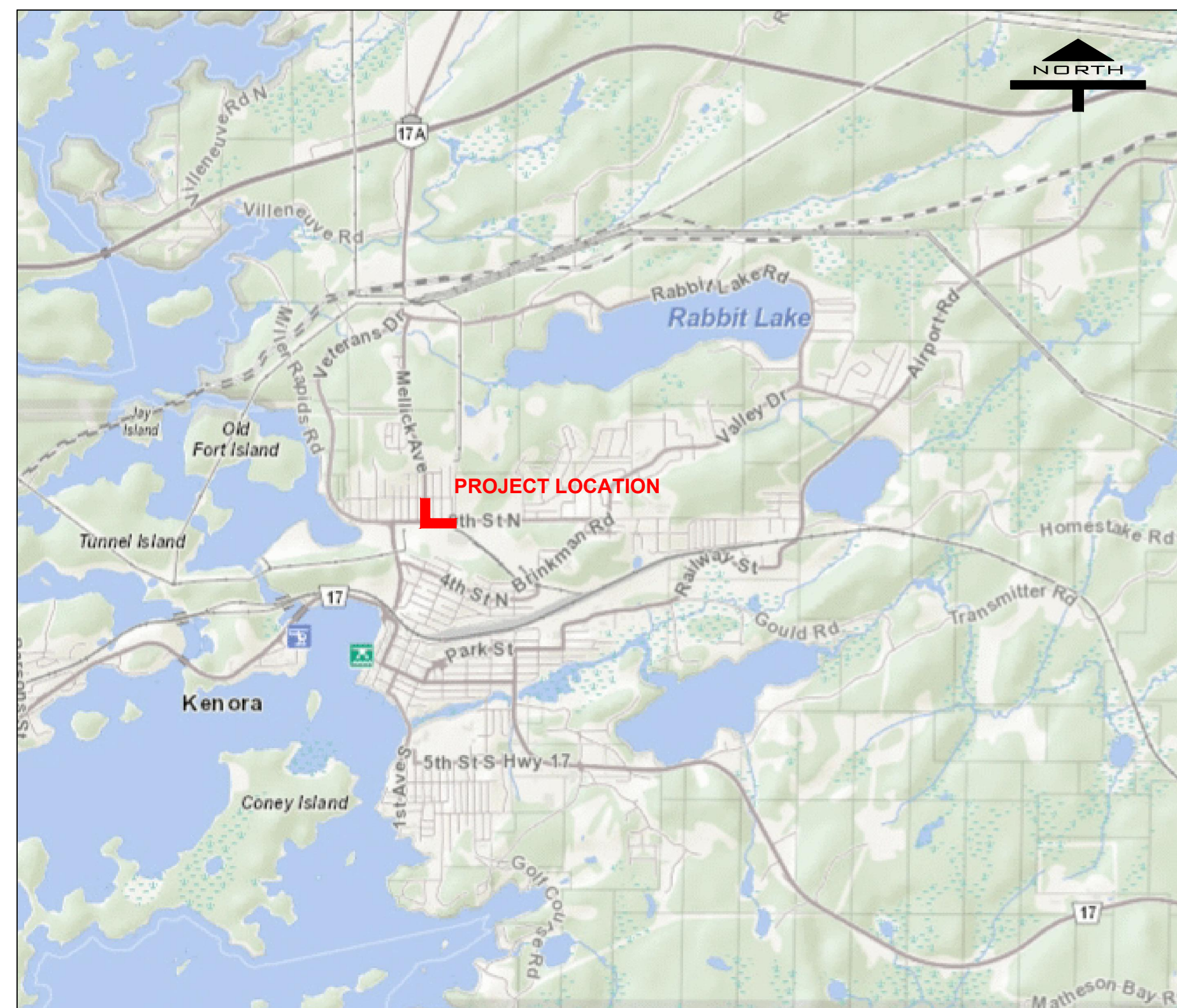
CITY OF <b>Thunder Bay</b> <i>Superior by Nature</i>		<b>ENGINEERING STANDARDS</b>	
TITLE <b>CATCH BASIN (PRECAST BARREL TYPE)</b>			
DWN. M.D.	DATE OCT./73	 MANAGER, ENGINEERING DIVISION	
REVISED: <b>JAN. 2015</b>			
SCALE N. T. S.		DWG. NO. <b>S-107</b>	
Z:\ENG\Standard Drawings\Std Dwgs\S-107.dwg			

THE CITY OF KENORA

**9th STREET N & MELICK AVENUE**

**RECONSTRUCTION**

KENORA, ONTARIO



KEY PLAN

LIST OF DRAWINGS		
No.	Rev.	DRAWING DESCRIPTION
L1	0	LEGEND
TW1	0	TEMPORARY WATER SYSTEM PLAN
R1	0	EXISTING SITE PLANS & REMOVALS — 9TH STREET N
R2	0	EXISTING SITE PLANS & REMOVALS — MELLICK AVENUE
P1	0	9TH STREET N PLAN & PROFILE 10+000 TO 10+140
P2	0	9TH STREET N PLAN & PROFILE 10+140 TO 10+280
P3	0	MELLICK AVENUE PLAN & PROFILE 10+000 TO 10+110
P4	0	MELLICK AVENUE PLAN & PROFILE 10+110 TO 10+210
G1	0	TYPICAL SECTIONS
G2	0	DETAILS & NOTES
G3	0	STRUCTURE SCHEDULES























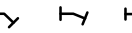






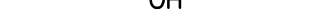







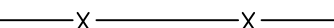





PROJECT No. 24-1403



EXISTING

DESCRIPTION	APPEARANCE
<b>LEGAL</b>	
PROPERTY LINE	
PROPERTY LINE (SUBJECT PROP.)	
LOT LINES	
IRON BAR (IB)	
STANDARD IRON BAR (SIB)	
ROUND IRON BAR (RIB)	
<b>ROADWAY</b>	
EXISTING EDGE OF PAVEMENT	
EXISTING CURB	
EXISTING SIDEWALK	
EXISTING GRAVEL	
<b>SANITARY</b>	
EXISTING SANITARY SEWER	
EXISTING SANITARY LATERAL	
EXISTING SANITARY MANHOLE	
EXISTING SANITARY CLEANOUT	
<b>STORM</b>	
EXISTING STORM SEWER	
EXISTING STORM LATERAL	
EXISTING STORM MANHOLE	
EXISTING CATCHBASIN	
<b>WATER</b>	
EXISTING WATERMAIN	
EXISTING WATER SERVICE	
EXISTING WATERMAIN VALVE	
EXISTING CURB STOP	
EXISTING HYDRANT	
EXISTING WATERMAIN CAP	
EXISTING WATERMAIN 45° BEND	
EXISTING WATERMAIN 22.5° BEND	
EXISTING WATERMAIN CROSS	
EXISTING WATERMAIN TEE	
<b>UTILITIES</b>	
EXISTING GAS	
EXISTING OVERHEAD WIRES	
EXISTING UNDERGROUND WIRES	
EXISTING HYDRO	
EXISTING TRANSFORMER	
EXISTING HYDRO POLE	
EXISTING GUY WIRE	
EXISTING TRAFFIC LIGHT	
EXISTING LIGHT STANDARD	
<b>MISCELLANEOUS</b>	
EXISTING BUILDING	
EXISTING FENCE	
EXISTING CONCRETE	
EXISTING BOLLARD	
EXISTING SIGN	
RETAINING WALL	
TREE WITH DRIFLINE	

PROPOSED

DESCRIPTION	APPEARANCE
<b>ROADWAY</b>	
EDGE OF PAVEMENT	
CURB / DEPRESSED CURB	
SIDEWALK	
GRAVEL	
<b>SANITARY</b>	
SANITARY SEWER	
SANITARY LATERAL	
SANITARY MANHOLE	
SANITARY CLEANOUT	
<b>STORM</b>	
STORM SEWER	
STORM LATERAL	
STORM MANHOLE	
CURB INLET CATCHBASIN	
DOUBLE CURB INLET CATCHBASIN	 DCICB
DITCH INLET CATCHBASIN	 DICB
<b>WATER</b>	
WATERMAIN	
WATER SERVICE	
WATERMAIN VALVE	
CURB STOP	
HYDRANT	
WATERMAIN CAP	
WATERMAIN 45° / 22.5° / 11.25°	
WATERMAIN TEE	
WATERMAIN REDUCER	
WATERMAIN VERTICAL BEND	 hVB
WATERMAIN THRUST BLOCK	 TB
<b>UTILITIES</b>	
GAS	
OVERHEAD WIRES	
UNDERGROUND WIRES	
HYDRO	
TRANSFORMER	
HYDRO POLE	
GUY WIRE	
TRAFFIC LIGHT	
LIGHT STANDARD	
<b>MISCELLANEOUS</b>	
BUILDING	
FENCE	
CONCRETE	
BOLLARD	
SIGN	
RETAINING WALL	
SWALE	

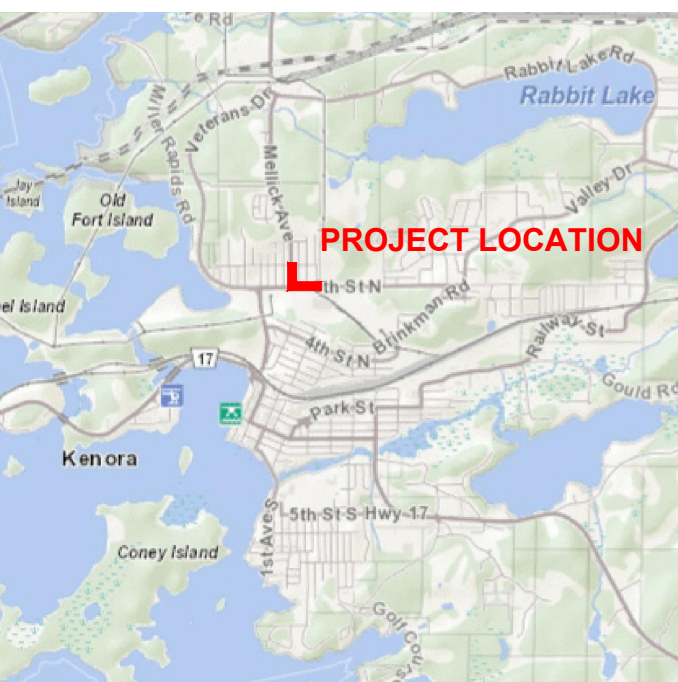
## REMOVALS

DESCRIPTION	APPEARANCE
<b>ROADWAY</b>	
EDGE OF PAVEMENT	
CURB	
SIDEWALK	
GRAVEL	
<b>SANITARY</b>	
SANITARY SEWER	
SANITARY LATERAL	
SANITARY MANHOLE	
SANITARY CLEANOUT	
<b>STORM</b>	
STORM SEWER	
STORM LATERAL	
STORM MANHOLE	
CATCHBASIN	
<b>WATER</b>	
WATERMAIN	
WATER SERVICE	
WATERMAIN VALVE	
CURB STOP	
HYDRANT	
<b>UTILITIES</b>	
GAS	
OVERHEAD WIRES	
UNDERGROUND WIRES	
HYDRO	
TRANSFORMER	
HYDRO POLE	
LIGHT STANDARD	
<b>MISCELLANEOUS</b>	
BUILDING	
FENCE	
CONCRETE	
SIGN	
RETAINING WALL	
REMOVE TREE	

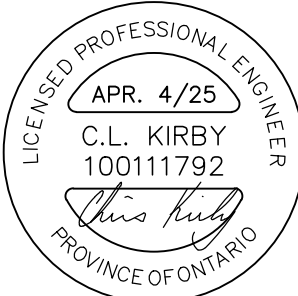
## ABBREVIATIONS

ABUTMENT	ABUT.	INDUSTRIAL	IND.
ACRES	AC.	1.D	INSTR.
ALLOWANCE	ALLICE	INSIDE DIAMETER	INS.
AMERICAN SOCIETY FOR TESTING AND MATERIALS	A.S.T.M.	INSTRUMENT	I.S.
APARTMENT	APT.	INSULATED	INV.
APPROVED	APP'D	INTERMEDIATE SIGHT	I.B.
ASBESTOS	ASB.	INVERT	I.P.
ASBESTOS CEMENT	A.C.	IRON BAR	
ASBESTOS CEMENT PIPE	A.C.P.	IRON PIPE	
ASBESTOS CEMENT PRESSURE PIPE	A.C.P.P.		
ASPHALT	ASPH.	KILOMETRES PER HOUR	KPH
AVENUE	AVE.	KILOPASCALS	KPa
AVERAGE	AV.		
AVERAGE ANNUAL DAILY TRAFFIC	A.A.D.T.	LEFT	LT
AZIMUTH	AZ.	LENGTH	LEN.
		LENGTH OF VERTICAL CURVE	L.V.C.
BACKFILL	BFILL	LIGHT STANDARD	L.S.
BACK SIGHT OR BUS STOP	B.S.	LITRES PER SECOND	L.P.S.
BASEMENT	BSMT.	LINEAL METRE	L.M.
BEDDING	BED.	LOW POINT	L.P.
BEGINNING OF CURVE	B.C.	LOW WATER LEVEL	L.W.L.
BEGINNING OF VERTICAL CURVE	B.V.C.		
BELL TELEPHONE	B.	MAIL BOX	M.B.
BENCH MARK	B.M.	MAN HOLE	M.H.
BOREHOLE	BH	MAXIMUM	MAX.
BOULEVARD	BLVD.	METRE	m
BRICK	BR.	METRES BELOW GROUND	mbg
BUILDING	BLDG.	MINISTRY OF TRANSPORTATION OF ONTARIO	M.T.O.
BUILDING LINE	BL	MINIMUM	MIN.
		MUNICIPAL	MUN.
CANADIAN NATIONAL RAILWAY	C.N.R.		
CANADIAN PACIFIC RAILWAY	C.P.R.	NO PARKING	NP
CANADIAN STANDARD ASSOCIATION	C.S.A.	NORTH	N
CAST IRON PIPE	C.I.P.	NOT TO SCALE	N.T.S.
CATCH BASIN	C.B.	NUMBER	N <sup>o</sup> .
CENTRE TO CENTRE	C.C.		
CENTRE LINE	C. or C.L.	OBVERT	OBV.
CHAINAGE EQUATION	CH. EQ.	ORIGINAL GROUND	O.G.
CHAIN LINK FENCE	C.L.F.	OUTSIDE DIAMETER	O.D.
CHECKED	CHKD		
CHORD	CH.	PARKWAY	PKWY.
CLASS OR CLAY	CL.	PART OR POINT	PT
CLAY PIPE	CL. P.	PAVEMENT	PAYT
CLEAN OUT	C.O.	PERSONS PER HECTARE	P.P.H.
COMMERCIAL	COMM.	PIPE	P.
CONCESSION	CON.	POINT OF COMPOUND CURVE	P.C.C.
CONCRETE	CONC.	POINT OF CURVE	P.C.
CONCRETE MONUMENT	C.M.	POINT OF INTERSECTION	P.I.
CONCRETE PIPE	C.P.	POUNDS PER SQUARE INCH	P.S.I.
CONSTRUCTION	CONST.	PROPERTY OR PROPOSED	PROP.
CORNER	COR.	PROPERTY LINE	£ or P/L
CORRUGATED STEEL PIPE	C.S.P.	PUMPING STATION	P.S.
COURT	CT.		
CREEK	CR.	QUANTITY	Q.T.Y.
CRESCENT	CRES.		
CROSS SECTION	X-SECT	RADIUS	R. or RAD.
CUBIC	CU	RAILWAY	RWY.
CUBIC METRE PER SECOND	C.M.S.	REGISTERED PLAN	R.P.
CULVERT	CULV.	REINFORCED	REINF.
CURB AND GUTTER	C. & G.	RESIDENTIAL	RES.
CURVE TO SPIRAL	C.S.	RETAINING WALL	RET. W.
		REVISION	REV.
DEGREE OF CURVE	D.	RIGHT	RT
DEPARTMENT	DEPT.	RIGHT OF WAY	R.O.W.
DIAMETER	DIA.	ROAD	RD.
DISTANCE	DIST.	ROUND IRON BAR	R.I.B.
DITCH INLET	D.I.		
DIVISION	DIV.	SAFE PASSING SIGHT DISTANCE	S.P.S.D.
DRAWING	DWG.	SAFE STOPPING SIGHT DISTANCE	S.S.S.D.
DRIVE	DR.	SAND	SA
DRIVEWAY	DWY.	SANITARY	SAN.
DUCTILE IRON PIP	D.I.P.	SECTION	SECT.
		SEWAGE TREATMENT PLANT	S.T.P.
EACH	EA.	SEWER	SEW.
EARTH CUT OR END OF CURVE	E.C.	SHEET	SH.
EARTH FILL	E.F.	SIDEWALK	SHW
EAST OR EXTERNAL	E.	SIGNAL	SIG.
EDGE OF PAVEMENT	E.P.	SOUTH OR SUPERELEVATION	S.
ELECTRIC	ELEC.	SPECIFICATION	SPEC.
ELEVATION	EL.	SPIRAL TO CURVE	S.C.
END OF VERTICAL CURVE	E.V.C.	SPIRAL TO TANGENT	S.T.
ENGINEER	ENG.	SQUARE	SQ.
ENTRANCE	ENT.	STANDARD	STD.
ESTIMATE	EST.	STANDARD IRON BAR	S.I.B.
EXISTING	EXIST.	STANDARD STRENGTH	S.S.
EXPRESSWAY	EXPY.	STATION	STA.
EXTRA STRENGTH	E.S.	STOP OR STREET	ST
		STOPPING SIGHT DISTANCE	S.S.D.
FINAL MEASUREMENT	F.M.	STORM	STM.
FLOOR	FLR.	STORY	STY.
FOOTING	FTG.	STRUCTURE	STR.
FORE SIGHT	F.S.	STUCCO	STUC.
FOUNDATION	FDN.	SUBDIVISION	SUBD.
FRAME	FR.		
FREEWAY	FRWY.	TACTILE WARNING PLATE	TAC
		TANGENT	TAN.
GALVANIZED	GALV.	TANGENT TO SPIRAL	T.S.
GARAGE	GAR.	TECHNICAL	TECH.
GAS	G.	TELEGRAPH	T.
GAUGE	GA.	TERRACE	TER.
GEODETIC BENCH MARK	G.B.M.	TOWNSHIP	TWP.
GRADE OR GRAVEL	GR.	TRAFFIC LIGHT	T.L.
GRANULAR	GRAN.	TRANSFORMER	TRANS.
GUIDE RAIL	G.R.	TURNING POINT	T.P.
		TYPICAL	TYP.
HEADWALL	HD.W.		
HIGH POINT	H.P.	VALVE	V.
HIGH WATER LEVEL	H.W.L.	VELOCITY	VEL.
HIGHWAY	HWY.	VERTICAL	VERT.
HORIZONTAL	HOR.	VERTICAL POINT OF INTERSECTION	V.P.I.
HOT LAID	H.L.	VISIBILITY CURVE	V.C.
HOT MIX	H.M.	VITRIFIED PIPE	VT.P.
HOUSE	HSE.	VOLUME	VOL.
HYDRANT	HYD.		
HYDRD	H.	WALKWAY	WW
		WATER LEVEL	W.L.
		WATER OR WEST	W
		WATER VALVE	W.V.
		WATER SERVICE VALVE	C.S.
		YARD	YD.

## KEY PLAN



ENGINEER'S SEAL:



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DATE (YYYYMM)	REV.	REVISION	BY	APP'D

CLIENT:



CONSULTANT:



PROJECT TITLE:

# 9th STREET N & MELLICK AVENUE RECONSTRUCTION

DRAWING TITLE:

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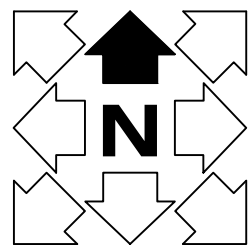
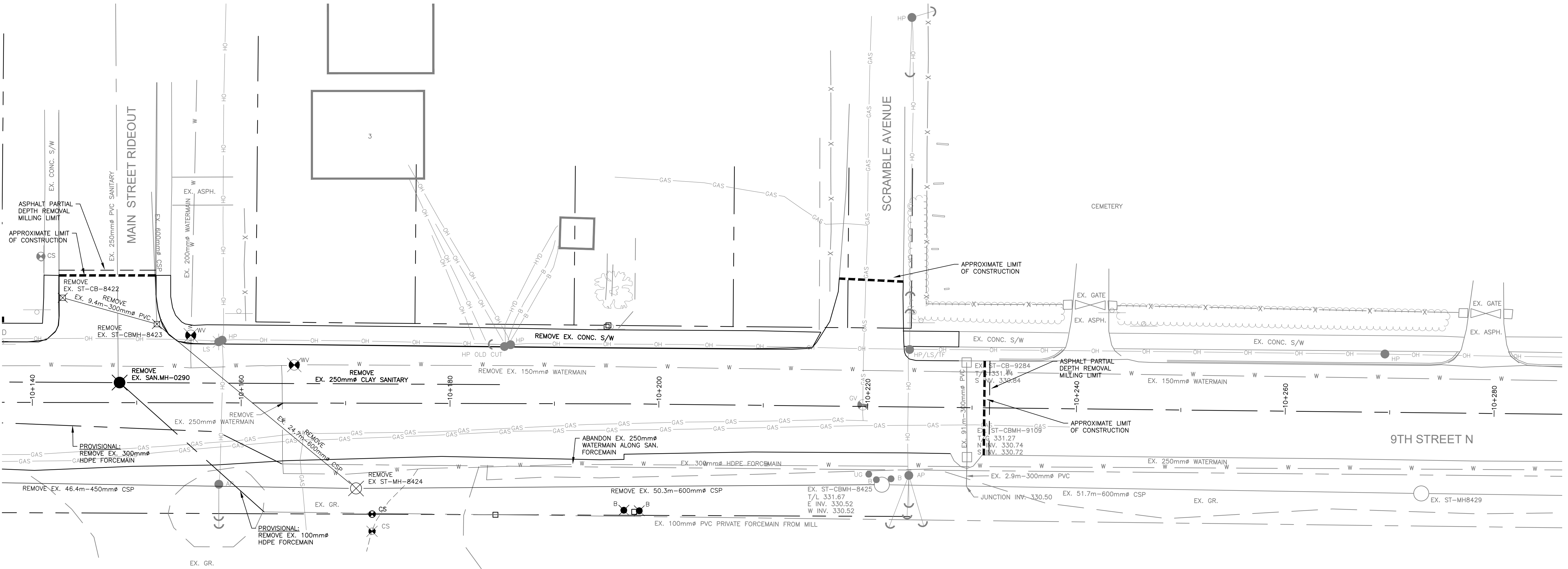
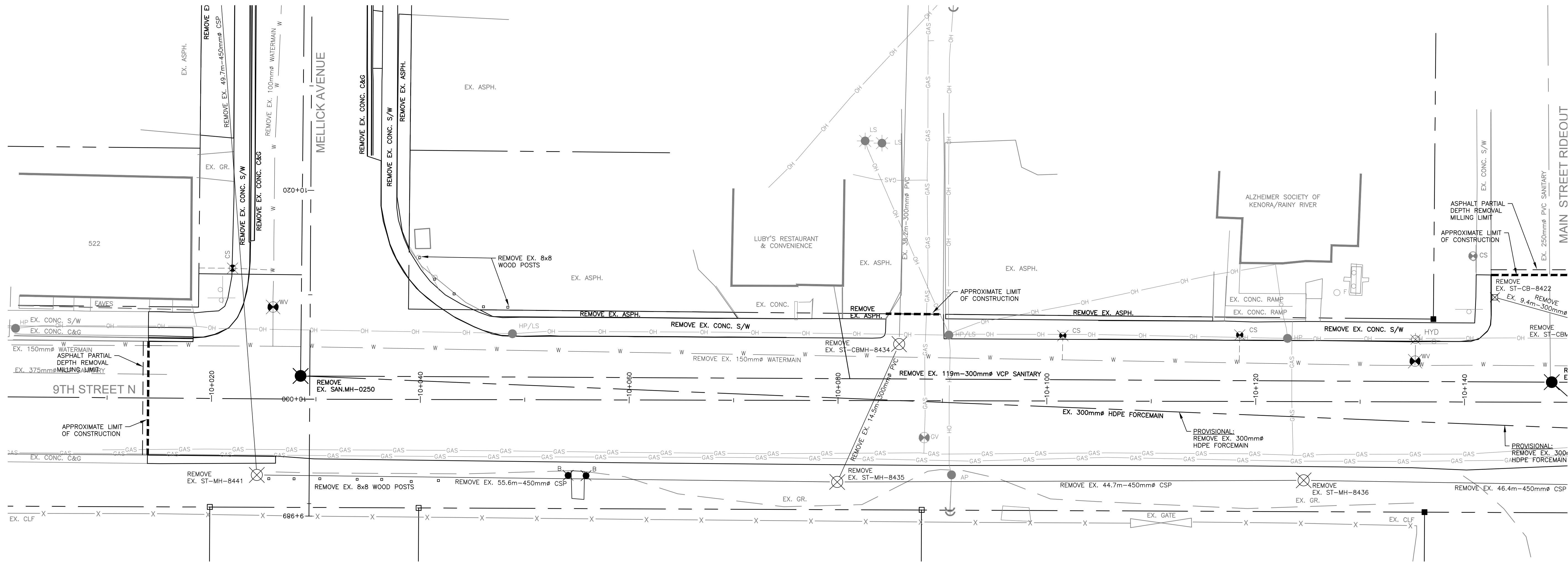
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PROJECT No.	REVISION	DRAWING	



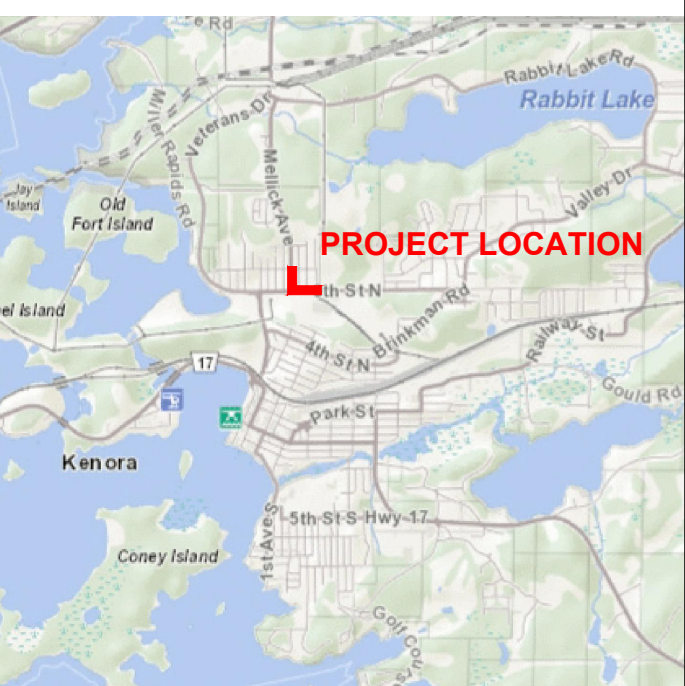




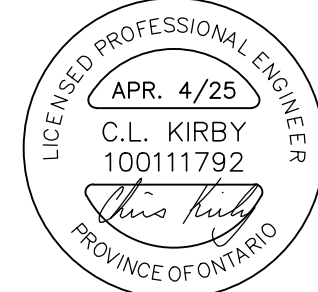
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KEY PLAN



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DATE (Y/M/D)	REV.	REVISION	BY	APP'D

CLIENT:



CONSULTANT:



PROJECT TITLE:

**9th STREET N & MELLICK AVENUE RECONSTRUCTION**

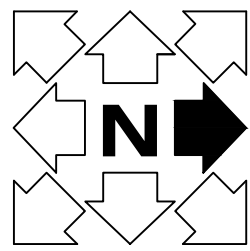
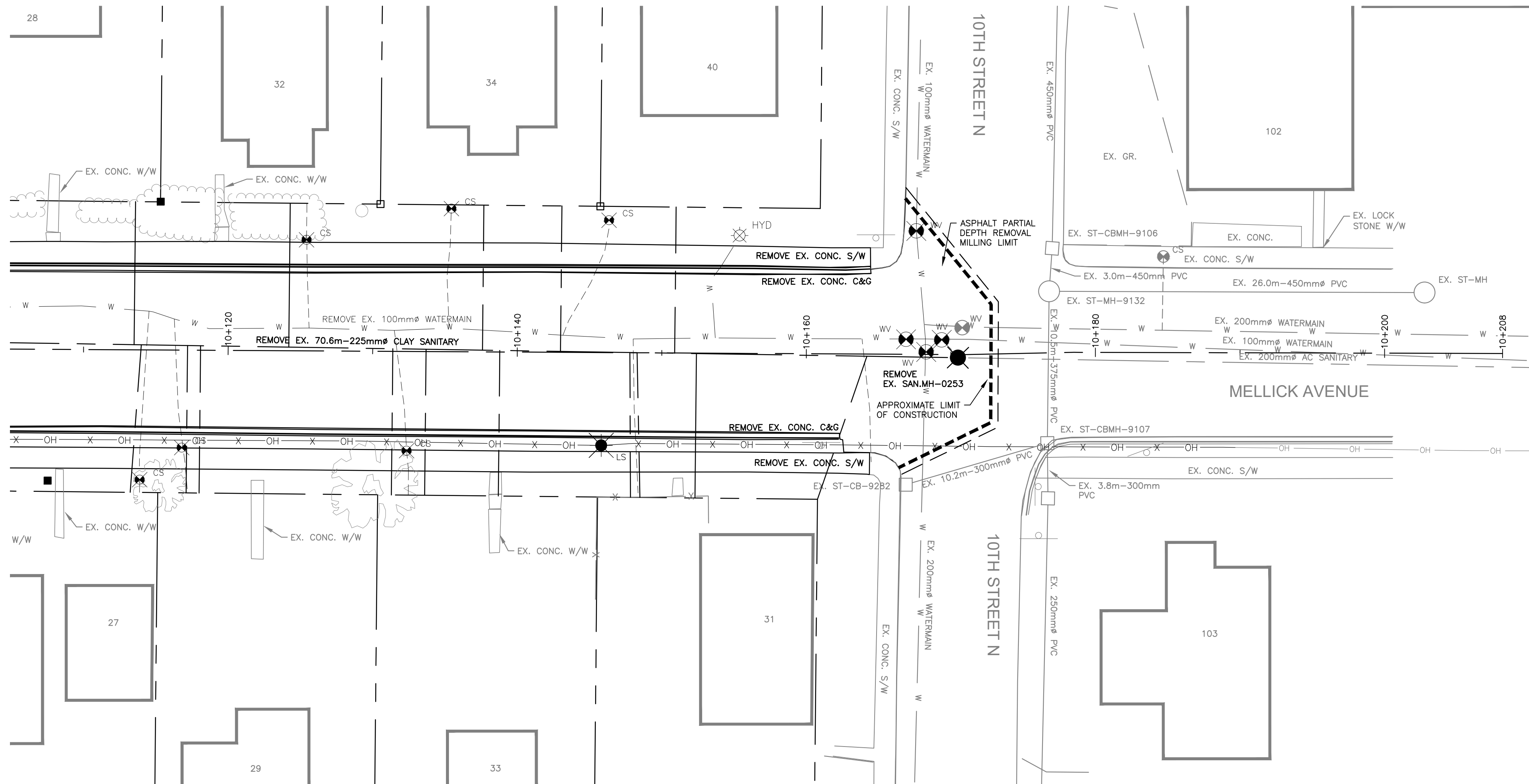
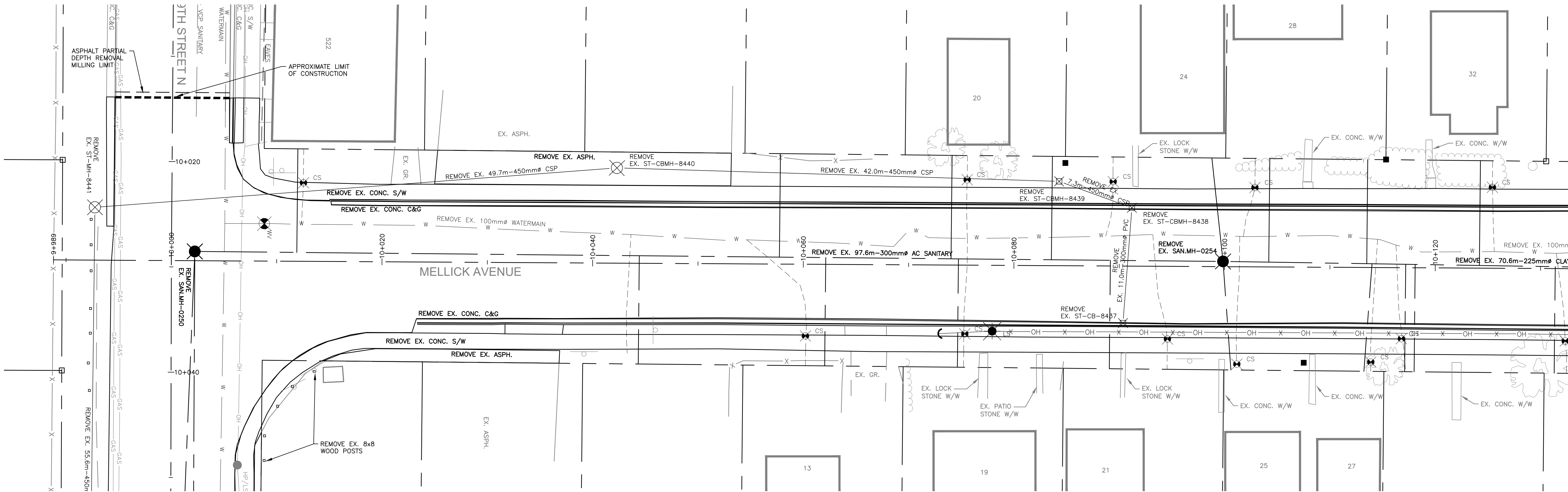
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**EXISTING SITE PLAN & REMOVALS 9TH STREET N**

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1:200		APR. 4, 2025	
SCALE		DATE	
24-1403	0	R1	
PROJECT No.	REVISION	DRAWING	



P:\2024\241403 City of Kenora 2024 Paving, Water, Wastewater & Stormwater Upgrades\Civil\04 Drawings\24-1403 City of Kenora - Mellick Ave and Ninth St N.dwg



KEY PLAN



ENGINEER'S SEAL:



25/04/04	0	ISSUED FOR TENDER	JTS	CLK
DATE (Y/M/D)	REV.	REVISION	BY	APP'D

CLIENT:



CONSULTANT:



PROJECT TITLE:

**9th STREET N & MELICK AVENUE  
RECONSTRUCTION**

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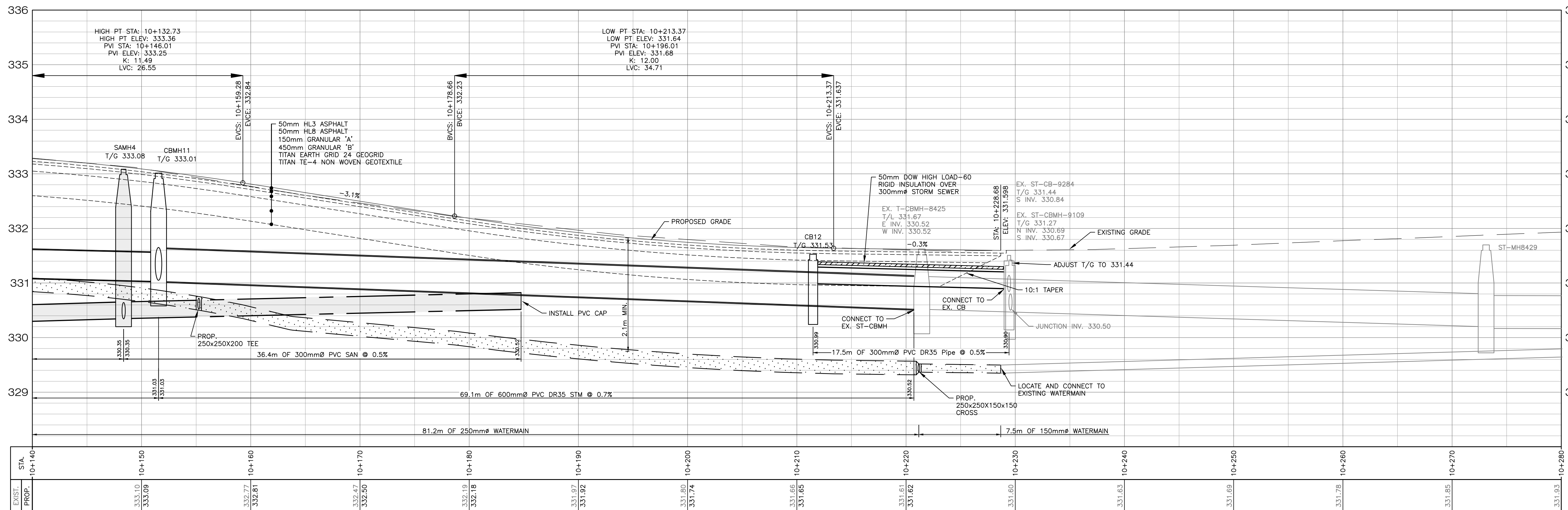
**EXISTING SITE PLAN &  
REMOVALS  
MELICK AVENUE**

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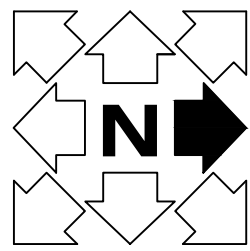
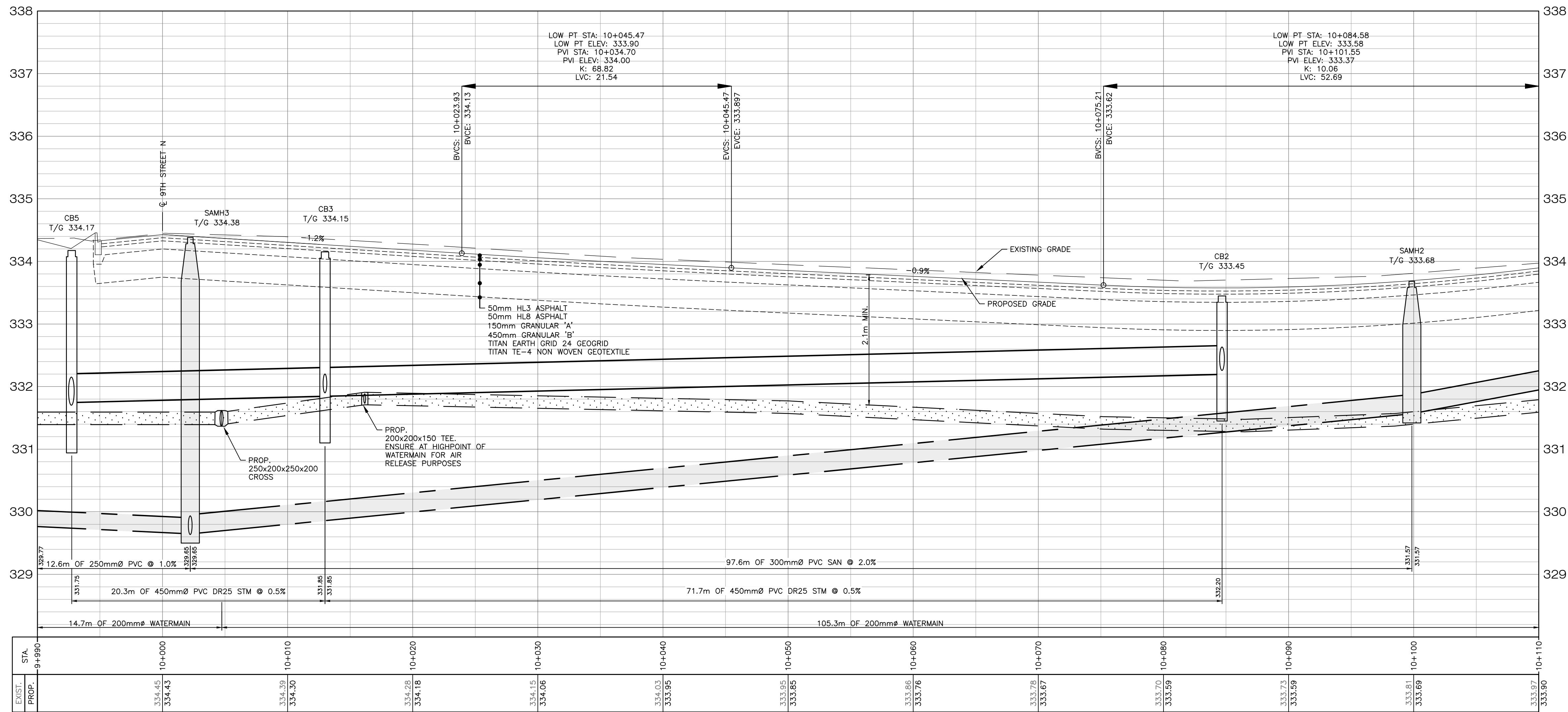
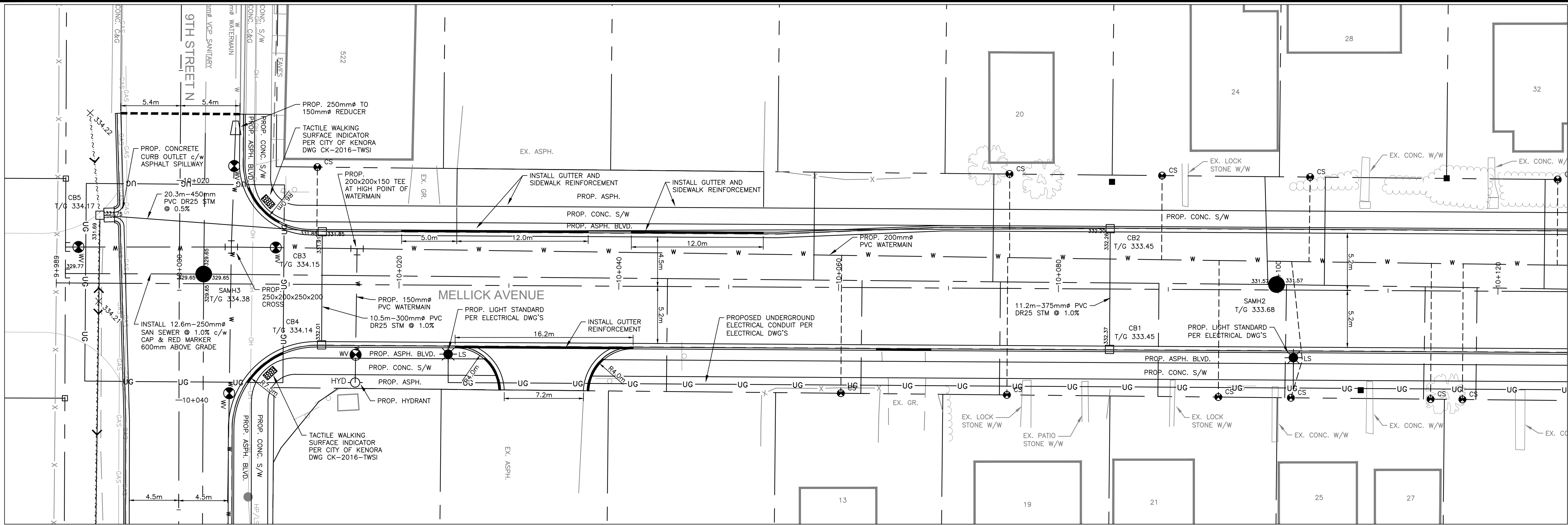




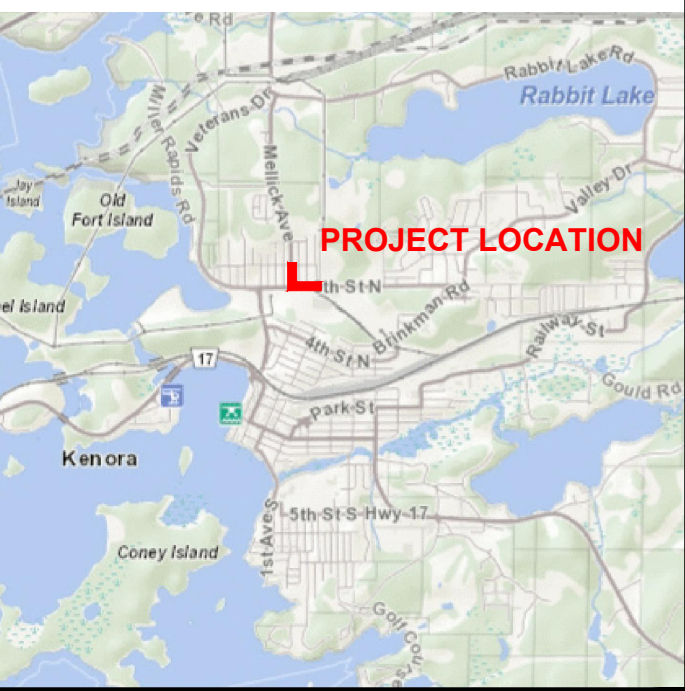




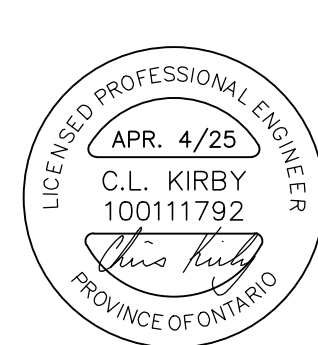




KEY PLAN



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CLIENT:



CONSULTANT:



PROJECT TITLE:

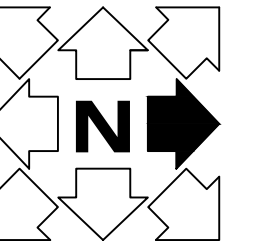
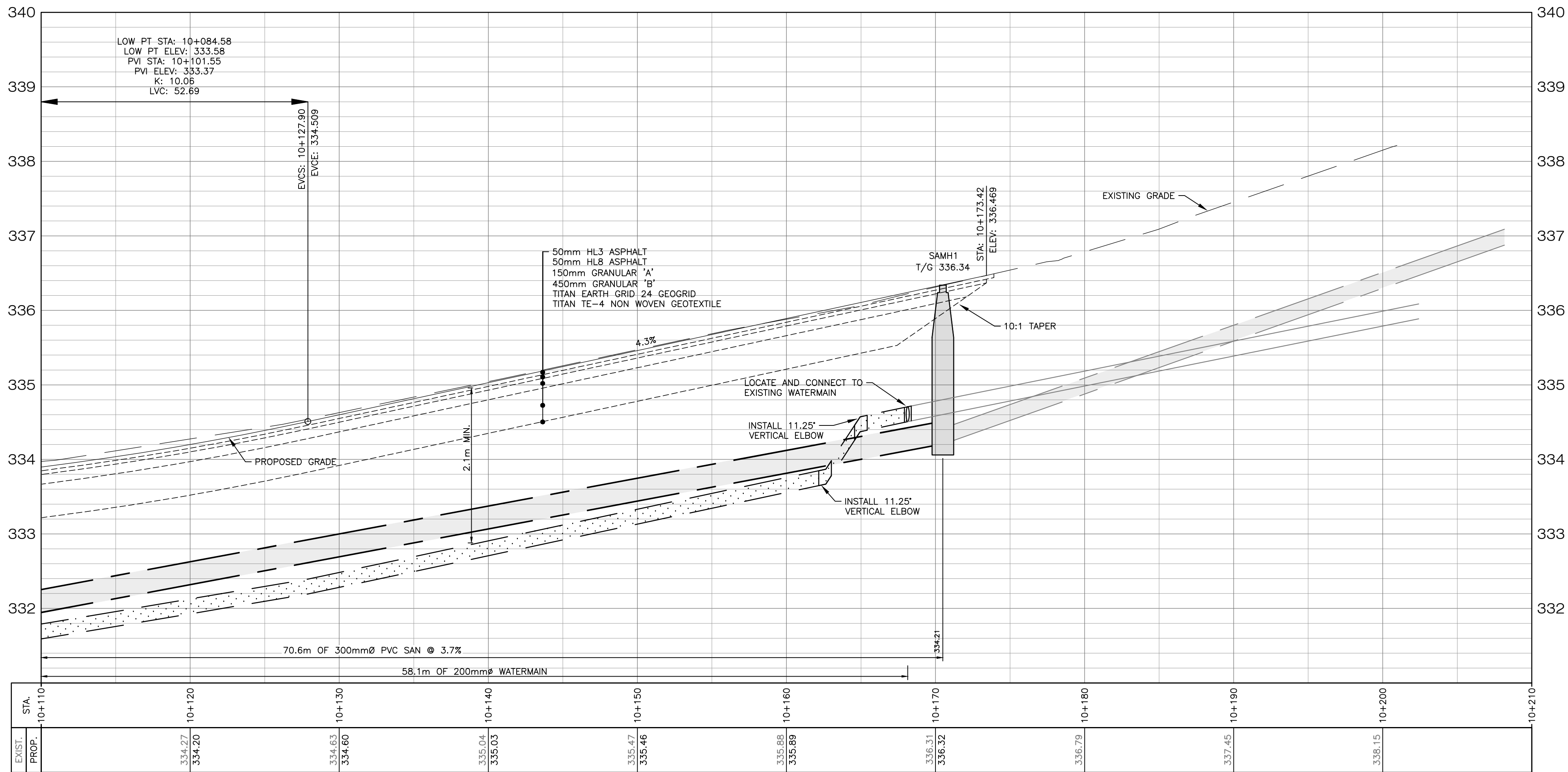
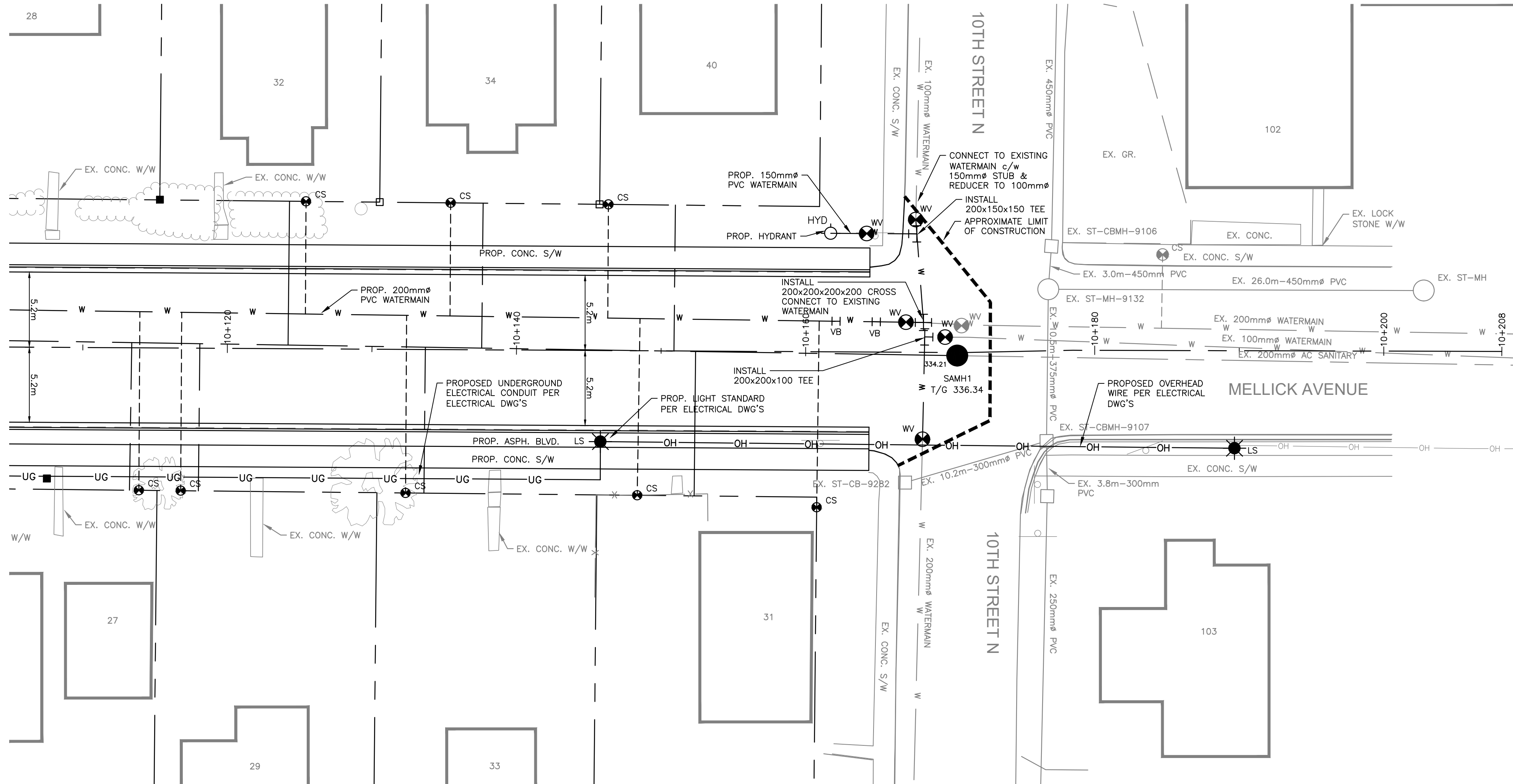
**9th STREET N & MELICK AVENUE RECONSTRUCTION**

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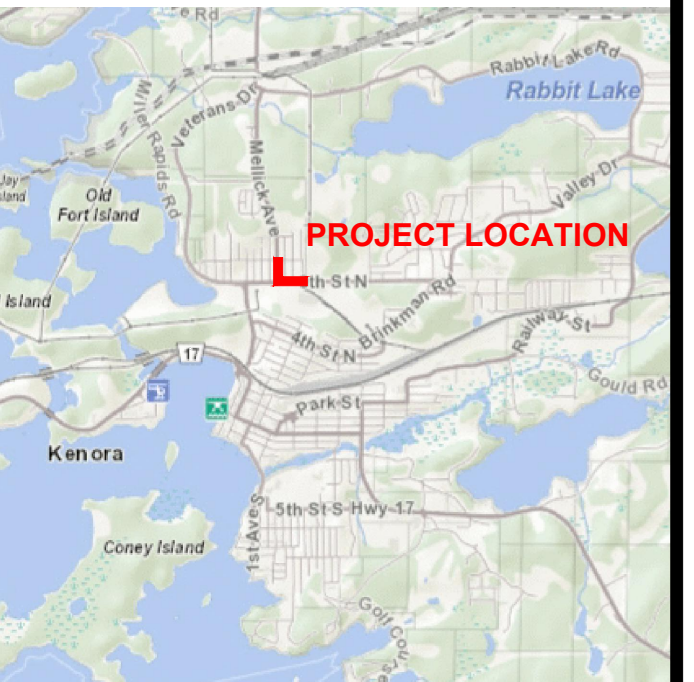
**MELICK AVENUE PLAN & PROFILE 9+990 TO 10+110**

JTS	JTS	CLK	CLK
DRAWN	DESIGNED	CHECKED	APPROVED
1:200 H & 1:40 V		APR. 4, 2025	
SCALE		DATE	
24-1403	0	P3	
PROJECT No.	REVISION	DRAWING	





KEY PLAN



ENGINEER'S SEAL:



25/04/04	0	ISSUED FOR TENDER	JTS	CLK
DATE (YR/MO/DAY)	REV.	REVISION	BY	APP'D

CLIENT:



CONSULTANT:



PROJECT TITLE:

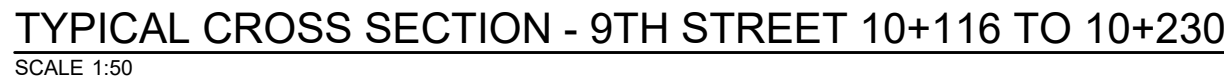
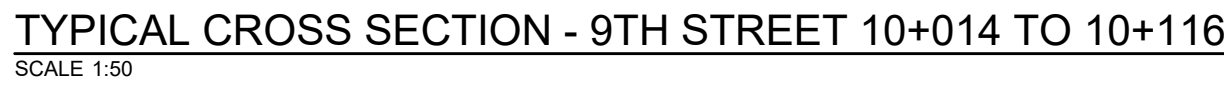
**9th STREET N & MELLICK AVENUE RECONSTRUCTION**

DRAWING TITLE:

**MELLICK AVENUE PLAN & PROFILE 10+110 TO 10+210**

JTS	JTS	CLK	CLK
DRAWN	DESIGNED	CHECKED	APPROVED
1:200 H & 1:40 V	APR. 4, 2025	SCALE	DATE
24-1403	0	P4	
PROJECT No.	REVISION	DRAWING	





A map of the Kenora area in Ontario, Canada. The map shows the intersection of Veterans Dr and Main St. A red L-shaped marker is placed at this intersection, with the text "PROJECT LOCATION" in red capital letters next to it. Other features on the map include Rabbit Lake to the northeast, Old Fort Island to the northwest, and Kenora to the southwest. Roads shown include Veterans Dr, Main St, Highway 17, and Highway 47. The map also shows various other streets and geographical features like Rabbit Lake and Coney Island.

CLIENT:



DRAWING TITLE:

<b>JTS</b>	<b>JTS</b>	<b>CLK</b>	<b>CLK</b>
DRAWN	DESIGNED	CHECKED	APPROVED
<b>AS NOTED</b>		<b>APR. 4, 2025</b>	
SCALE		DATE	
<b>24-1403</b>	<b>0</b>	<b>G1</b>	
PROJECT No.	REVISION	DRAWING	



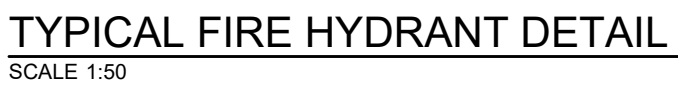
1. ONTARIO PROVINCIAL STANDARD SPECIFICATIONS AND ONTARIO PROVINCIAL STANDARD DRAWINGS TO APPLY UNLESS OTHERWISE NOTED.
2. ALL EROSION AND SEDIMENT CONTROLS SHALL FOLLOW AND BE IN ACCORDANCE WITH GENERAL BEST MANAGEMENT PRACTICES PRIOR TO UNDERTAKING WORKS.
3. NOTIFY ALL UTILITY DEPARTMENTS 72 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION. UTILITY PERSONNEL TO BE ON SITE WHEN EXCAVATING ADJACENT TO UNDERGROUND UTILITIES.
4. SUPPORT UTILITIES IN ACCORDANCE WITH THE DIRECTIONS AND GUIDELINES OF THE IMPACTED UTILITY.
5. COMPLETE ALL TRENCHING IN ACCORDANCE WITH THE OCCUPATIONAL HEALTH & SAFETY ACT.
6. THE LOCATION OF UTILITIES SHOWN ON DRAWINGS IS APPROXIMATE AND MAY BE INCOMPLETE. DETERMINE EXACT LOCATION OF UTILITIES WITH MINISTRY, CITY OR UTILITIES. THE CONTRACTOR IS RESPONSIBLE TO CONFIRM LOCATIONS OF UTILITIES PRIOR TO CONSTRUCTION AND WILL BE RESPONSIBLE FOR PROTECTING AGAINST DAMAGE. THE CONTRACTOR ASSUMES ALL LIABILITY FOR DAMAGE TO UTILITY AND ROAD WORKS.
7. COMPLY WITH THE REQUIREMENTS OF THE CITY OF KENORA IN REGARDS TO TRAFFIC FLOW ON MUNICIPAL STREETS. MAINTAIN PEDESTRIAN ACCESS AT ALL TIMES. SHORT TERM FULL CLOSURE PERMITTED TO FACILITATE WORKS.
8. PROVIDE NOTICE TO RESIDENTS WHEN VEHICLE ACCESS WILL BE IMPACTED.
9. ALL INSTALLATIONS ARE TO BE COMPLETED TO THE SATISFACTION OF THE ENGINEER AND THE CITY OF KENORA IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.

1. ALL REQUIRED SILTATION AND EROSION CONTROL MEASURES TO BE IN PLACE PRIOR TO CONSTRUCTION TO PREVENT EROSION AND THE MIGRATION OF SEDIMENT DURING CONSTRUCTION. ALL SILTATION AND EROSION CONTROL MEASURES SHALL BE MAINTAINED UNTIL GROUND COVER IS RE-ESTABLISHED TO THE ORIGINAL CONDITION OR BETTER AS DETERMINED BY THE ENGINEER OR THE ENGINEER'S REPRESENTATIVE.
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR IDENTIFYING AND INSTALLING ALL REQUIRED EROSION & SEDIMENT CONTROL MEASURES BASED ON THEIR CONSTRUCTION ACTIVITIES. THE MEASURES LISTED ON THESE DRAWINGS ARE THE MINIMUM REQUIRED, HOWEVER ADDITIONAL MEASURES MAY BE NECESSARY.
3. ALL SEDIMENT CONTROL MEASURES ARE TO BE INSPECTED WEEKLY AND AFTER EACH SIGNIFICATION PRECIPITATION EVENT AND MAINTAINED, REPAIRED OR REPLACED AS NECESSARY. THE CONTRACTOR OR CONTRACTOR'S REPRESENTATIVE SHALL MAINTAIN A WEEKLY REPORT ON SEDIMENT CONTROL MEASURES INCLUDING ALL CORRECTIVE ACTION TAKEN DURING THE REPORTING PERIOD TO ENSURE CONTROL MEASURES ARE WORKING EFFECTIVELY. IF THE SEDIMENT AND EROSION CONTROL MEASURES ARE NOT FUNCTIONING PROPERLY, THE CONTRACTOR WILL SUSPEND CONSTRUCTION UNTIL THE ISSUES ARE ADDRESSED.
4. WHEN POSSIBLE, THE CONTRACTOR SHALL MINIMIZE EARTHWORKS DURING WET WEATHER CONDITIONS.
5. SILT FENCING TO BE INSTALLED AT THE BOTTOM OF ALL FILL SLOPES AND DOWN GRADIENT OF ANY STOCKPILED MATERIAL WHEN THERE IS THE POSSIBILITY OF SEDIMENT MIGRATING TO ADJACENT PROPERTIES.
6. SOILS PRONE TO EROSION WILL BE RESTORED AS SOON AS POSSIBLE BY SEEDING AND IF NECESSARY SEEDING AND MULCHING OR INSTALLING A GRASS BANK.
7. WHEN WORK IS COMPLETED AND AREAS ARE STABILIZED AS DEEMED ACCEPTABLE BY THE CONTRACT ADMINISTRATOR, TEMPORARY EROSION CONTROL MEASURES ARE TO BE REMOVED FROM THE WORK SITE.
8. LIGHT DUTY SILT FENCE BARRIER TO BE INSTALLED IN ACCORDANCE WITH OPSS/MUNI 805 AND OPSD 219:110.
9. THE CONTRACTOR SHALL BE KEPT DUST TO A MINIMUM BY USE OF DUST SUPPRESSANT AS PER OPSS/MUNI 506.
10. FILTER FABRIC TO BE PLACED UNDER GRATES ON ALL CATCH BASINS TO TRAP SEDIMENT. SILT TRAPS ARE TO BE INSTALLED REGULARLY AND MAINTAINED UNTIL THE DRAINAGE AND MAINTENANCE ACTIVITY IS COMPLETE. FILTER FABRIC FOR SILT CONTROL TO BE TITAN TE-4 OR APPROVED EQUIVALENT.
11. STREET SWEEPING, CATCHBASIN CLEANING AND DUST CONTROL ARE THE RESPONSIBILITY OF THE CONTRACTOR AND MUST BE KEPT UNDER CONTROL OF ALL ROADWAYS TO THE SATISFACTION OF THE ENGINEER AND THE CITY OF KENORA.

1. INSTALL EROSION AND SEDIMENT CONTROL MEASURES AS SPECIFIED. LIGHT DUTY SILT FENCE, OPSD 219.10. ADDITIONAL MEASURES MAY BE REQUIRED DURING CONSTRUCTION BASED ON SITE CONDITIONS.
2. ALL REMOVALS TO BE COMPLETED IN ACCORDANCE WITH OPSS.MUNI# 510. LIMITS TO BE SAWCUT.
3. ROADWAY ASPHALT AND SIDEWALK SURFACES TO BE REMOVED SEPARATELY FROM UNDERLYING GRANULARS.
4. EXCAVATION TO BE COMPLETED IN ACCORDANCE WITH OPSS.MUNI 206. EXCAVATIONS TO ALLOW FOR RECONSTRUCTION OF STREET TO DESIGN GRADES AND ELEVATIONS. EXCAVATION TO BE AT 10:1 FOR SUBGRADE TAPER AT INTERSECTING STREETS. ENSURE POSITIVE DRAINAGE ACROSS THE SUBGRADE.



Plug End or Valve		
Main Line Diameter (mm)	Depth of Bury (m)	Restrained Length (m)
200	2.7	8.5

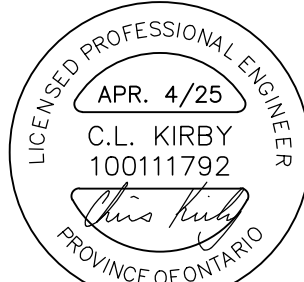


1. STORM SEWERS SHALL BE CONSTRUCTED TO OPSS.MUNI 410 AND WHERE SEPARATION PER MECP PROCEDURE F-6-1 CANNOT BE MAINTAINED, STORM SEWER SHALL BE PVC DR25 WITH WATERMAIN STANDARDS FOR MATERIALS AND JOINTS.
2. STORM SEWER PIPE AND FITTINGS SHALL BE AWWA C900 PVC DR25 OR DR35 CLASS 165 STANDARD SEWER PIPE, OR EQUIVALENT - OPSS.MUNI 1841.
3. EMBEDMENT AND COVER OF STORM SEWER - OPSS.MUNI 410 & OPSD 802.010. GRANULAR "A" OR 19mm CLEARSTONE TO SPRING LINE OF PIPE. COVER MATERIAL TO BE GRANULAR "A" OR 19mmØ CLEAR STONE. BACKFILL TO SUBGRADE WITH SUITABLE NATIVE MATERIAL. EMBEDMENT AND BACKFILL TO BE COMPACTED TO MINIMUM 98% STANDARD PROCTOR DENSITY.
4. STORM SEWER STRUCTURES TO BE CONSTRUCTED TO OPSS.MUNI 407
5. CATCH BASINS SHALL BE 600mm X 600mm - OPSD 705.010, FRAMES & GRATES TO BE IN ACCORDANCE WITH OPSD 404.020, OPSD 404.030, OR TF-103-4 AS LISTED ON THE STRUCTURE SCHEDULE. MINIMUM SUMP OF 600mm. FLOST STRAPS PER OPSD 701.100 FOR MULTIPLE STRUCTURES.
6. MAINTENANCE HOLE CATCH BASIN SHALL BE 900mmØ - S-107, FRAMES & GRATES TO BE IN ACCORDANCE WITH OPSD 404.020, TF-101-6, OR TF-103-4 AS LISTED ON THE STRUCTURE SCHEDULE. MINIMUM SUMP OF 300mm, FLOST STRAPS PER OPSD 701.100, STEPS PER OPSD 405.020.
7. STORM SEWER JOINTS AND STORM SEWER STRUCTURE CONNECTIONS SHALL BE WATERTIGHT WITH APPROPRIATE SEALS, GASKETS OR BOOTS, OR OTHER APPROVED METHODS.

1. WATERMAIN SHALL BE INSTALLED ACCORDING TO OPSS.MUNI 441.
2. THE CONTRACTOR SHALL LOCATE THE EXISTING WATERMAIN AND SUPPLY ROMAC ALPHA MANUFACTURER APPROVED COUPLERS TO MAKE THE CONNECTIONS. THE CONTRACTOR SHALL EXPOSE AND VERIFY EXISTING MATERIALS.
3. WATERMAIN SHALL BE INSTALLED WITH A MINIMUM OF 2.1m OF COVER.
4. PROVIDE INSULATION PROTECTION IN AREAS <2.1m COVER. AT THE DIRECTION OF THE CONTRACT ADMINISTRATOR INSTALL 25mm THICK POLYURETHANE FOAM BOARD ABOVE WATERMAIN OR SEWER SEPARATION FOR EACH 300mm OF COVER REQUIRED (OR PART THEREOF) TO ACHIEVE MINIMUM 2.1m EQUIVALENT COVER.
5. MAINTAIN MINIMUM CLEAR SEPARATION OF 2.5m HORIZONTAL BETWEEN SEWERS AND WATERMAIN, WHERE WATERMAIN SEPARATION TO SANITARY SEWER IS LESS THAN 2.5m HORIZONTALLY, INVERT OF WATERMAIN SHALL BE LOCATED A MINIMUM OF 0.5m ABOVE THE CROWN OF THE SANITARY SEWER. SUCH SEPARATION SHALL BE IN-SITU MATERIAL OR COMPACTED BACKFILL.
  - WHERE VERTICAL SEPARATION CANNOT BE OBTAINED, THE SEWER SHALL BE CONSTRUCTED OF MATERIALS AND JOINTS THAT ARE EQUIVALENT WATERMAIN STANDARDS OF CONSTRUCTION WITH THE LENGTH OF WATER PIPE TO BE CENTERED ON THE CROSSING.

1. SANITARY SEWERS SHALL BE INSTALLED IN ACCORDANCE WITH OPSS.MUNI 401, OPSS.MUNI 402 AND OPSS.MUNI 410.
2. SANITARY SEWER PIPE SHALL BE DR35 PIPE MATERIAL IN ACCORDANCE WITH OPSS.MUNI 1841.
3. EMBEDMENT AND COVER OF SEWER – OPSS.MUNI 410 & OPSD 802.010. GRANULAR "A" OR 19mm CLEARSTONE TO SPRING LINE OF PIPE. COVER MATERIAL TO BE GRANULAR "A" OR 19mmØ CLEAR STONE. BACKFILL TO SUBGRADE WITH SUITABLE NATIVE MATERIAL. EMBEDMENT AND BACKFILL TO BE COMPACTED TO MINIMUM 98% STANDARD PROCTOR DENSITY.
4. MAINTENANCE HOLES SHALL BE 1200mmØ – OPSD 701.030.
5. ALL MAINTENANCE HOLES SHALL HAVE A SOLID COVER – (TF-101-6). MAINTENANCE HOLE STEPS (OPSD 405.020) AND FROST STRAPS (OPSD 701.100).
6. THE CONTRACTOR MUST MAINTAIN SANITARY SEWER SERVICES TO ALL BUILDINGS AT ALL TIMES FOR THE DURATION OF CONSTRUCTION.
7. MAINTAIN MINIMUM CLEAR SEPARATION OF 2.5m HORIZONTAL AND 0.5m VERTICAL BETWEEN SANITARY SEWER AND WATERMAIN UNLESS OTHERWISE NOTED ON THE DRAWINGS.
8. SANITARY SEWER JOINTS AND MAINTENANCE HOLE CONNECTIONS SHALL BE WATERTIGHT WITH APPROPRIATE SEALS, GASKETS OR BOOTS.
9. SEWER SERVICE SHALL BE MINIMUM 100mmØ DR35 PVC PIPE MATERIAL, INSTALL IN ACCORDANCE WITH OPSD 1006.010.
10. THE CONTRACTOR SHALL LOCATE THE EXISTING SANITARY SEWERS AND SUPPLY NECESSARY MANUFACTURER APPROVED COUPLERS TO MAKE THE CONNECTIONS.

## SCALE: 1:30



25/04/04	0	ISSUED FOR TENDER	JTS	CLK
DATE (YR./MTH./DAY)	REV.	REVISION	BY	APP'D



# 9th STREET N & MELLICK AVENUE RECONSTRUCTION

## DETAILS & NOTES

<b>JTS</b>	<b>JTS</b>	<b>CLK</b>	<b>CLK</b>
DRAWN	DESIGNED	CHECKED	APPROVED
<b>AS NOTED</b>		<b>APR. 4, 2025</b>	
SCALE		DATE	
<b>24-1403</b>	<b>0</b>	<b>G2</b>	
PROJECT No.	REVISION	DRAWING	



MH NO.	DIAMETER (mm)	OPSD	STATION	OFFSET	PIPE SIZE (mm)							INVERT ELEVATION (m)							GRATE ELEVATION (m)	DEPTHS (mm)		SAFETY PLATFORM	FROST STRAP	FRAME & GRATE		
					NORTH	NORTHEAST	EAST	SOUTHEAST	SOUTH	SOUTHWEST	WEST	NORTHWEST	NORTH	NORTHEAST	EAST	SOUTHEAST	SOUTH	SOUTHWEST		WEST	NORTHWEST				SUMP	MHCB
SAMH1	1200	701.010	10+170.5	0.2 RT	200	-	-	-	300	-	-	-	334.21	-	-	-	334.21	-	-	-	336.34	0	2130	NO	YES	TF-101-6
SAMH2	1200	701.010	10+099.9	0.5 LT	300	-	-	-	300	-	-	-	331.57	-	-	-	331.57	-	-	-	333.68	0	2110	NO	YES	TF-101-6
SAMH3	1200	701.010	10+028.5	2.2 LT	300	-	300	300	250	-	375	-	329.65	-	329.65	330.05	329.65	-	329.65	-	334.38	0	4730	NO	YES	TF-101-6
SAMH4	1200	701.010	10+148.4	1.9 LT	250	-	300	250	-	300	-	330.35	-	330.35	330.35	330.35	-	-	330.35	-	333.08	0	2730	NO	YES	TF-101-6
SAMH5	1200	701.010	10+155.5	9.5 RT	-	300	100	-	-	-	250	-	330.60	330.70	-	-	-	-	330.49	332.87	0	2380	NO	YES	TF-101-6	

CB NO.	SIZE (mm)	OPSD	STATION	OFFSET	PIPE SIZE (mm)								INVERT ELEVATION (m)								GRATE ELEVATION (m)	DEPTHS (mm)		FRAME & GRATE
					NORTH	NORTHEAST	EAST	SOUTHEAST	SOUTH	SOUTHWEST	WEST	NORTHWEST	NORTH	NORTHEAST	EAST	SOUTHEAST	SOUTH	SOUTHWEST	WEST	NORTHWEST		SUMP	CB	OPSD
CB1	600x600	705.010	10+084.7	5.5 RT	-	-	-	-	-	-	300	-	-	-	-	-	-	-	332.37	-	333.45	600	1680	TF-103-4
CB2	600x600	705.010	10+084.7	5.5 LT	-	-	300	-	450	-	-	-	-	-	332.26	-	332.20	-	-	333.45	600	1850	TF-103-4	
CB3	600x600	705.010	10+013.0	4.8 LT	450	-	-	-	450	-	300	-	331.85	-	-	-	331.85	-	331.91	-	334.15	600	2900	TF-103-4
CB4	600x600	705.010	10+013.0	5.5 RT	-	-	-	-	-	-	300	-	-	-	-	-	-	-	332.01	-	334.14	600	2730	TF-103-4
CB5	600x600	705.010	10+023.2	7.3 RT	450	-	450	-	-	-	-	-	331.75	-	331.69	-	-	-	-	334.17	600	3080	400.020	
CB6	600x600	705.010	10+085.8	4.8 LT	300	-	-	-	300	-	-	-	331.96	-	-	-	331.96	-	-	-	333.76	600	2400	400.030
CB9	600x600	705.010	10+142.9	9.8 LT	-	-	300	-	-	-	-	-	-	-	331.36	-	-	-	-	-	332.95	600	2190	TF-103-4
CB12	600x600	705.010	10+211.49	4.8 LT	-	-	300	-	-	-	-	-	-	-	330.99	-	-	-	-	-	331.53	600	1140	TF-103-4

MH NO.	DIAMETER (mm)	Thunder Bay DWG	STATION	OFFSET	PIPE SIZE (mm)								INVERT ELEVATION (m)								GRATE ELEVATION (m)	DEPTHS (mm)		SAFETY PLATFORM	FROST STRAP	FRAME & GRATE
					NORTH	NORTHEAST	EAST	SOUTHEAST	SOUTH	SOUTHWEST	WEST	NORTHWEST	NORTH	NORTHEAST	EAST	SOUTHEAST	SOUTH	SOUTHWEST	WEST	NORTHWEST		SUMP	MHCB			
CBMH7	900	S-107	10+085.90	7.9 RT	300	-	525	-	-	-	450	-	331.82	-	331.36	-	-	-	333.73	300	2670	NO	YES	400.020		
CBMH8	900	S-107	10+115.53	7.8 RT	-	-	525	-	-	-	525	-	-	-	331.21	-	-	331.21	-	333.48	300	2570	NO	YES	400.020	
CBMH10	900	S-107	10+151.47	9.8 LT	-	-	-	-	600	-	300	-	-	-	-	-	331.24	-	332.94	300	2000	NO	YES	TF-103-4		
CBMH11	900	S-107	10+151.56	8.4 RT	600	-	600	-	-	525	-	331.06	-	331.03	-	-	-	331.03	-	333.04	300	2310	NO	YES	TF-101-6	

HYDRANT NO.	STREET	PROPOSED STATION	PROPOSED OFFSET	OPSD
1	9TH	10+158.78	11.1 LT	1105.010
2	MELLIICK	10+016.07	8.9 RT	1105.010
3	MELLIICK	10+155.33	8.2 LT	1105.010

25/04/04	0	ISSUED FOR TENDER	JTS	CLK
DATE (R-APP'D)	REV.	REVISION	BY	APP'D



**TULLOCH**

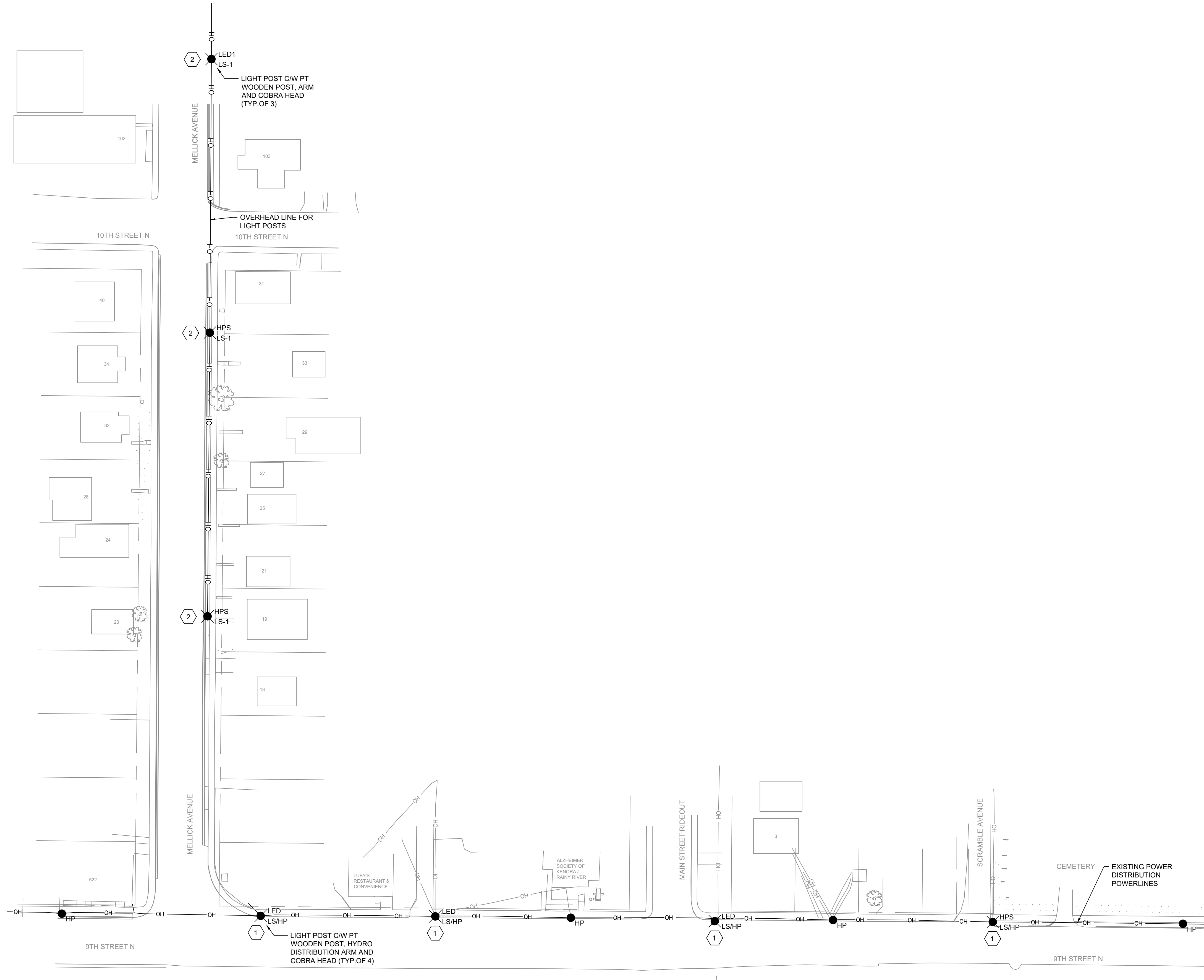
**9th STREET N & MELLICK  
AVENUE  
RECONSTRUCTION**

## STRUCTURE SCHEDULES

<b>JTS</b>	<b>JTS</b>	<b>CLK</b>	<b>CLK</b>
DRAWN	DESIGNED	CHECKED	APPROVED
<b>AS NOTED</b>		<b>APR. 4, 2025</b>	
SCALE		DATE	
<b>24-1403</b>	<b>0</b>	<b>G3</b>	
PROJECT No.	REVISION	DRAWING	

PLOT DATE: 3/26/2025 11:10 AM

DRAWING SIZE ARCH D



STREET LIGHTING DEMOLITION PLAN  
1:500

EXISTING EQUIPMENT & LIGHTING SCHEDULE:  
\* CONFIRM ALL EXISTING SPECIFICATIONS PRIOR TO EXECUTION OF WORK

LS-1	WOODEN POLE LIGHTING ONLY
	POLE HEIGHT - 20'
	FIXTURE HEIGHT - 23'
LS/HP	WOODEN POLE HYDRO DISTRIBUTION & LIGHTING
	POLE HEIGHT - 40'
	FIXTURE HEIGHT - 30'
HP	WOODEN POLE HYDRO DISTRIBUTION
	POLE HEIGHT - 40'
LED	LED LIGHT FIXTURE 12,000 LUMENS, 101W, CREE XSPMD-D-HT-2LG-12L-40K7-UL-SV-N-Q9
LED1	LED LIGHT FIXTURE 5,000 LUMENS, 43W, CREE XSPSM-D-HT-2ME-5L-40K7-UL-SV-N-Q9
HPS	HIGH PRESSURE SODIUM LIGHT FIXTURE 250W

EXISTING CONDUCTORS LEGEND:

O/H OVERHEAD STREET LIGHTING CIRCUIT

DEMOLITION NOTES

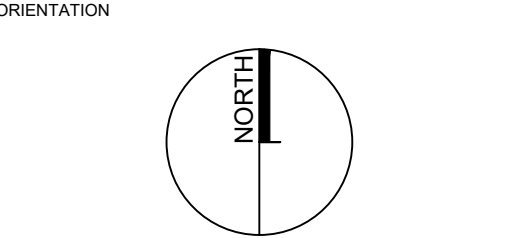
- REMOVE & DISPOSE OF EXISTING STREET LIGHT FIXTURES ALONG WITH MOUNTING ARMS. CONDUCTORS TO REMAIN FOR REUSE. CONTRACTOR TO COORDINATE WITH SYNERGY NORTH.
- REMOVE AND DISPOSE OF EXISTING STREET LIGHT FIXTURES ALONG WITH MOUNTING ARM, POLE AND CONDUCTORS. CONTRACTOR TO COORDINATE WITH SYNERGY NORTH AND THE TOWNSHIP OF KENORA.

RVT

Group Ltd.

THUNDER BAY, ON | (807) 625-5430 | info@rvtgroup.ca

- GENERAL NOTES
- DO NOT SCALE DRAWINGS.
  - FLOOR PLANS ARE USED AS A REFERENCE ONLY, AND RVT GROUP LTD. ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF ANY ITEMS DEPICTED IN THE REFERENCE PLANS.
  - THE PLANS CREATED BY RVT GROUP LTD. ARE SOLELY INTENDED FOR USE AT THE PROPOSED LOCATION, REFERENCED ON THESE DRAWINGS, AND REMAIN THE PROPERTY OF RVT GROUP LTD. DRAWINGS ARE NOT PERMITTED TO BE DUPLICATED WITHOUT THE WRITTEN CONSENT OF RVT GROUP LTD.
  - PERFORM ALL WORK IN ACCORDANCE WITH APPLICABLE PROVINCIAL AND LOCAL ORDINANCES AND REGULATIONS, THE RULES AND REGULATIONS OF OBC, CSA, ANSI, ASTM, IFC, NFPA, UL, EISA, NEC, ASHRAE, SMACNA, ETC., WHICHEVER IS MORE STRINGENT.
  - ONLY FIRST-CLASS WORKMANSHIP AND GOOD INSTALLATION PRACTICES WILL BE ACCEPTED. USE LICENSED TRADESMEN FOR ALL TYPES OF WORK.



PROJECT NAME  
KENORA STREET LIGHTING UPGRADE

PROJECT ADDRESS  
MELLUCK AVE & 9TH STREET  
KENORA, ONTARIO



0	ISSUED FOR TENDER	2025-03-25
NO.	DESCRIPTION	DATE

DRAWING NAME  
ELECTRICAL  
STREET LIGHTING  
DEMOLITION PLAN

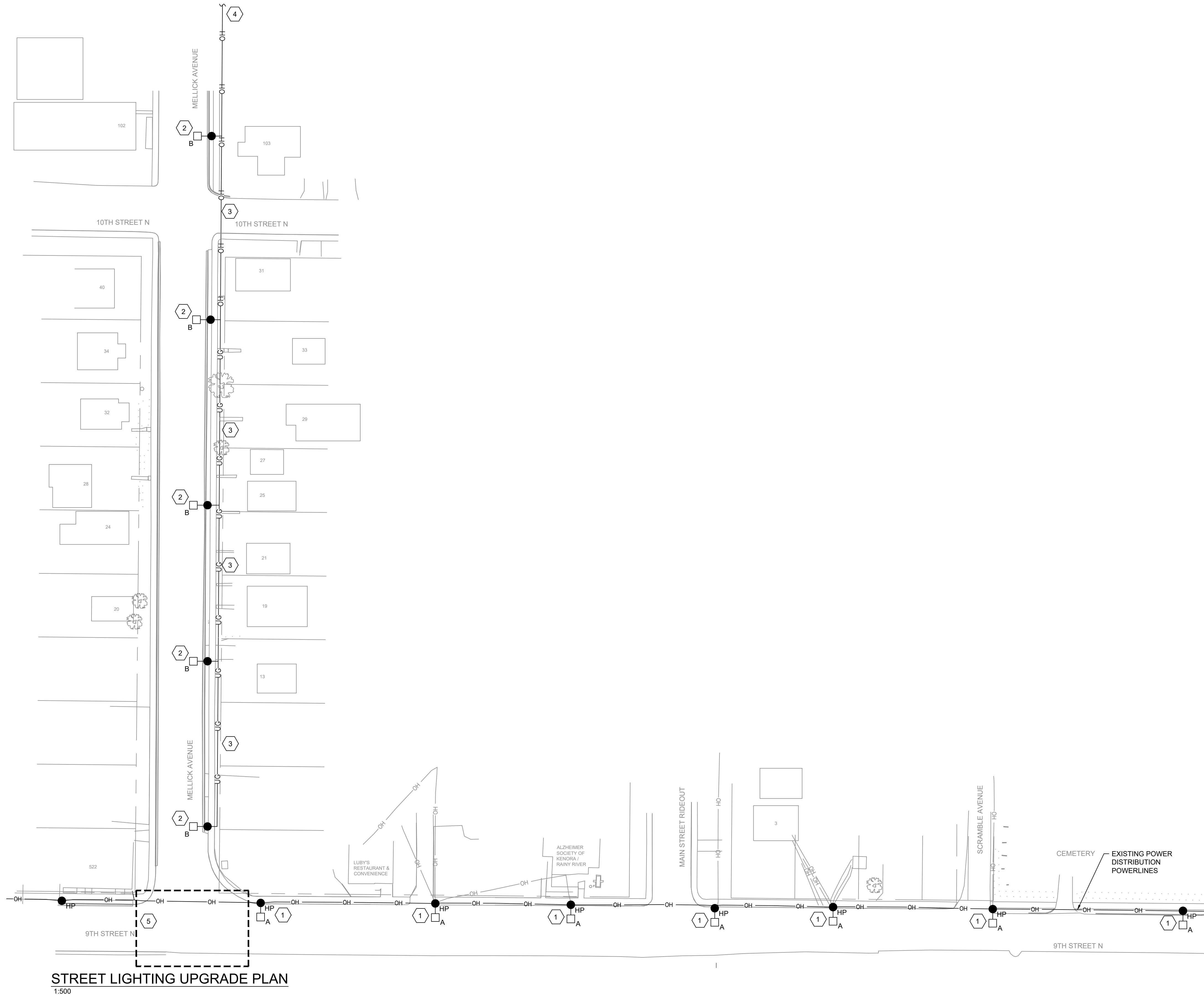
DRAWING NUMBER  
E1D

DRAWN BY	KB	SCALE	AS INDICATED
CHECKED BY	KW	SHEET NUMBER	1 OF 1
PROJECT NUMBER	RVA-25011		



PLOT DATE: 3/26/2025 11:10 AM

DRAWING SIZE ARCH D



STREET LIGHTING UPGRADE PLAN  
1:500

EXISTING EQUIPMENT SCHEDULE:

- HP EXISTINGWOODEN POLE HYDRO DISTRIBUTION & LIGHTING  
POLE HEIGHT - 40'

NEW EQUIPMENT & LIGHTING SCHEDULE:

- NEW LIGHTING ARM & HEAD  
ALUMINUM ELLIPTICAL ARM, VALMONT, 10' X 48". ROADWAY LIGHTING HEAD  
CREE LIGHTING, MODEL #GWYS-A-8L-40K7-2M, 8000 LUMEN, 4000K, 70CRI.
- NEW LIGHTING ARM, HEAD & POLE  
ROAD LIGHTING POLE, GALVANIZED STEEL, OCTAGON SHAFT, SQUARE  
BASE, 30' TALL. ALUMINUM ELLIPTICAL ARM, VALMONT, 8' X 48". ROADWAY  
LIGHTING HEAD, CREE LIGHTING, MODEL #GWYS-A-8L-40K7-2M, 8000 LUMEN,  
4000K, 70CRI.

PROPOSED NEW CONDUCTORS LEGEND:

- O/H OVERHEAD STREET LIGHTING CIRCUIT
- U/G UNDERGROUND STREET LIGHTING CIRCUIT

SHEET NOTES

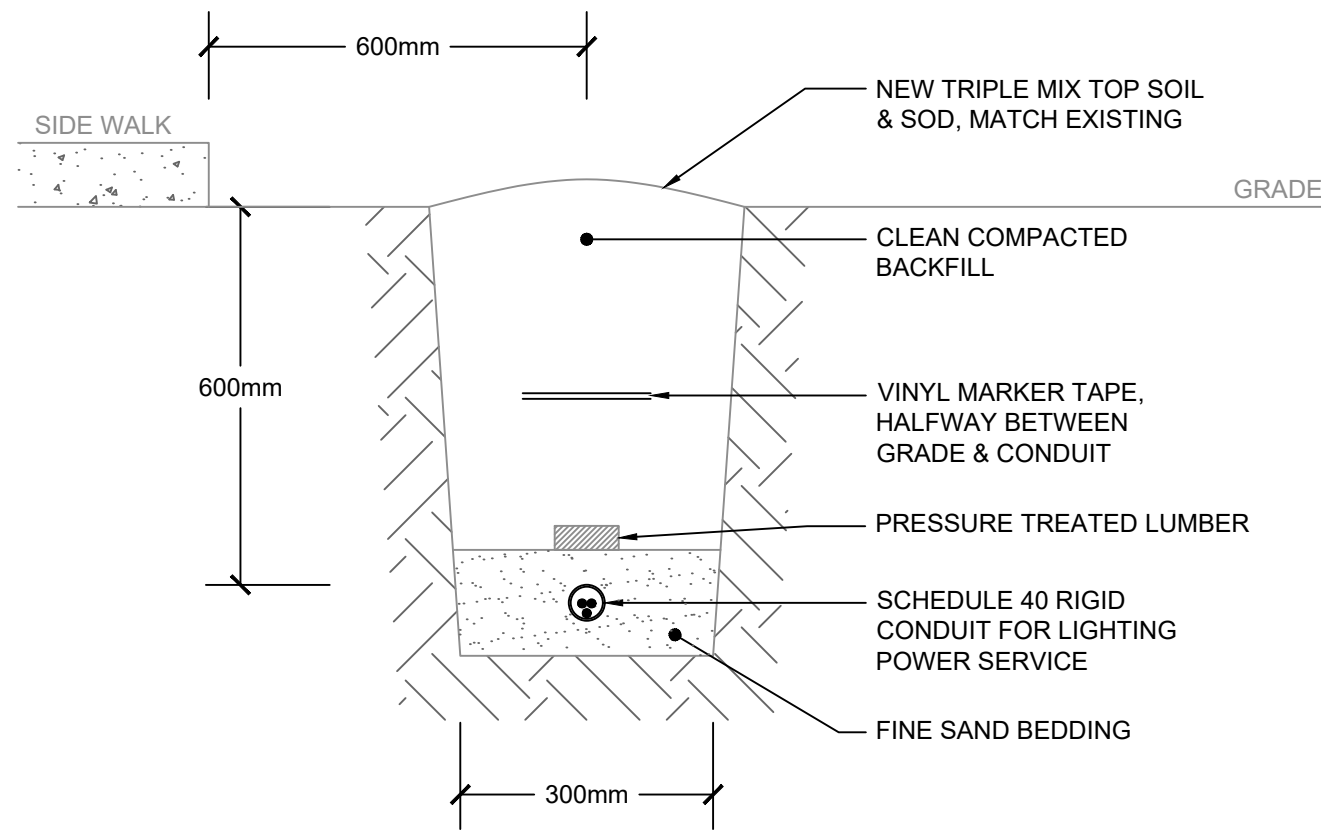
- INSTALL NEW LIGHT FIXTURE AND ARM ON EXISTING POLE. CONTRACTOR TO REUSE EXISTING CONDUCTORS AND COORDINATE WITH SYNERGY NORTH.
- INSTALL NEW POLE ALONG WITH LIGHT FIXTURE AND ARM. C/W NEW CONDUCTORS AS PER DETAILS ON DRAWING E2.
- INSTALL NEW OVERHEAD OR UNDERGROUND CONDUCTORS AND CONDUIT AS PER PLAN. REFER TO TRENCH DETAILS FOR FURTHER INFORMATION.
- AT THE NEAREST EXISTING POLE NORTH OF NEW LIGHTING, CONTRACTOR TO EXTEND EXISTING OVERHEAD LINE TO NEW LIGHT POST SHOWN AT WHICH POINT IT WILL TRANSITION TO UNDERGROUND IN BETWEEN THE NEW LIGHTING POSTS ON MELLICK STREET, SOUTH OF 10TH STREET NORTH.
- PROVIDE ROUGH-IN CONDUITS FOR FUTURE TRAFFIC SIGNALS AND PEDESTRIAN CROSSINGS. EXTENDING EACH CONDUIT A MINIMUM OF 1 METER PAST THE ROADWAY AND SEALING ALL ENDS WITH MANUFACTURED END CAPS. SUBMIT A PROPOSED LAYOUT BASED ON THE SPECIFIED CONDUIT ROUTING FOR REVIEW DURING THE SHOP DRAWING PHASE. ENSURE ALL WORK COMPLIES WITH MTO STANDARDS FOR PUBLIC TRAFFIC LIGHTING AND PEDESTRIAN CROSSINGS IN NORTHWESTERN ONTARIO.

9TH STREET CROSSING CONDUITS:

- 4" CONDUITS - QTY. 2
- 2" CONDUITS - QTY. 2

MELLICK AVENUE CROSSING CONDUITS:

- 4" CONDUITS - QTY. 2
- 2" CONDUITS - QTY. 2



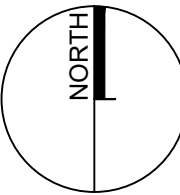
TRENCH DETAIL - STREET LIGHTING CONDUITS  
N.T.S.



GENERAL NOTES

- DO NOT SCALE DRAWINGS.
- FLOOR PLANS ARE USED AS A REFERENCE ONLY, AND RVT GROUP LTD. ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF ANY ITEMS DEPICTED IN THE REFERENCE PLANS.
- THE PLANS CREATED BY RVT GROUP LTD. ARE SOLELY INTENDED FOR USE AT THE PROPOSED LOCATION, REFERENCED ON THESE DRAWINGS, AND REMAIN THE PROPERTY OF RVT GROUP LTD. DRAWINGS ARE NOT PERMITTED TO BE DUPLICATED WITHOUT THE WRITTEN CONSENT OF RVT GROUP LTD.
- PERFORM ALL WORK IN ACCORDANCE WITH APPLICABLE PROVINCIAL AND LOCAL ORDINANCES AND REGULATIONS, THE RULES AND REGULATIONS OF OBC, CSA, ANSI, ASTM, IFC, NFPA, UL, EISA, NEC, ASHRAE, SMACNA, ETC., WHICHEVER IS MORE STRINGENT.
- ONLY FIRST-CLASS WORKMANSHIP AND GOOD INSTALLATION PRACTICES WILL BE ACCEPTED. USE LICENSED TRADESMEN FOR ALL TYPES OF WORK.

ORIENTATION

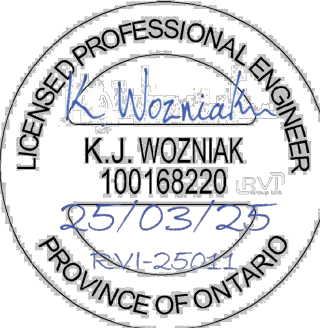


PROJECT NAME

KENORA STREET LIGHTING  
UPGRADE

PROJECT ADDRESS

MELLICK AVE & 9TH STREET  
KENORA, ONTARIO



0	ISSUED FOR TENDER	2025-03-25
NO.	DESCRIPTION	DATE

DRAWING NAME

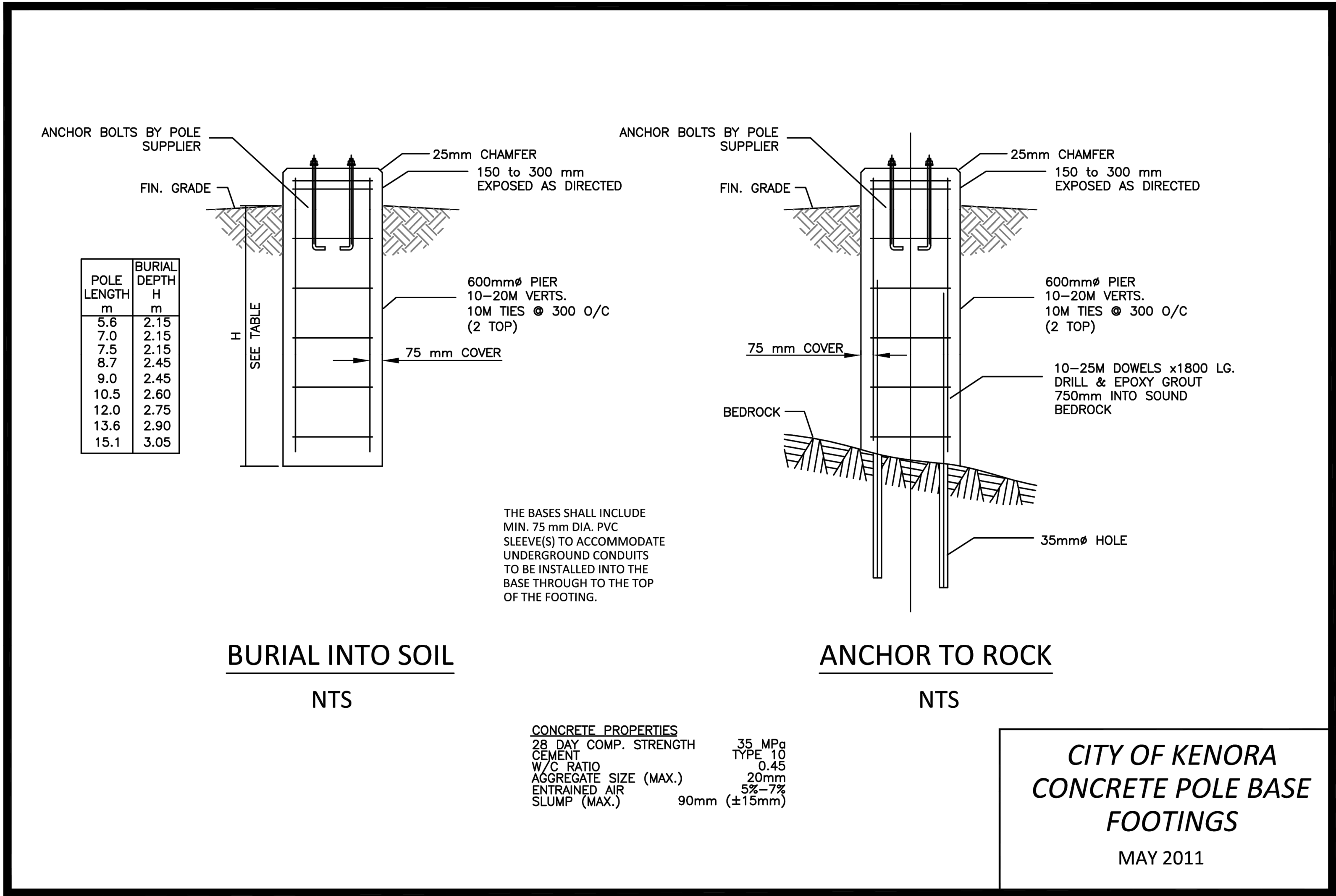
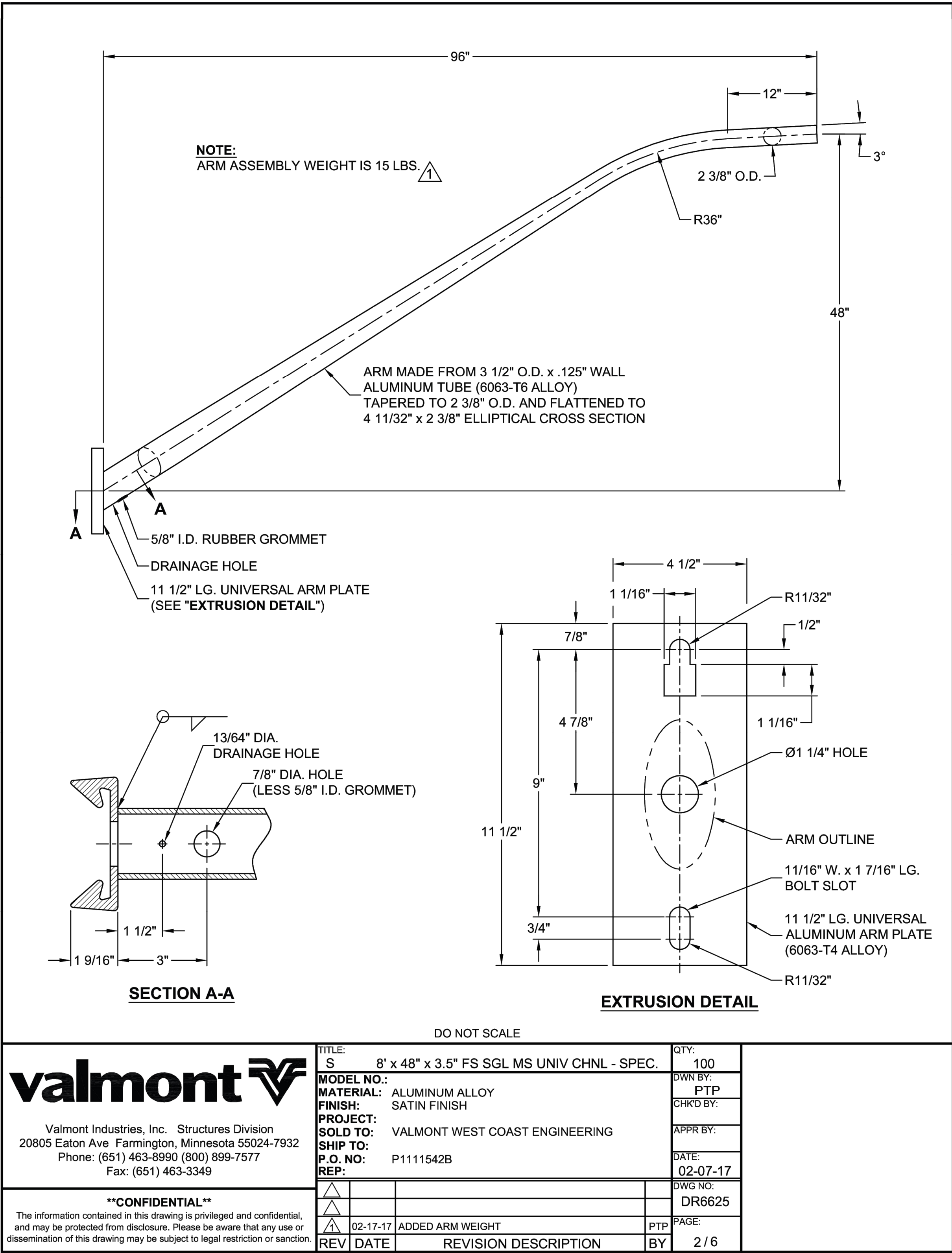
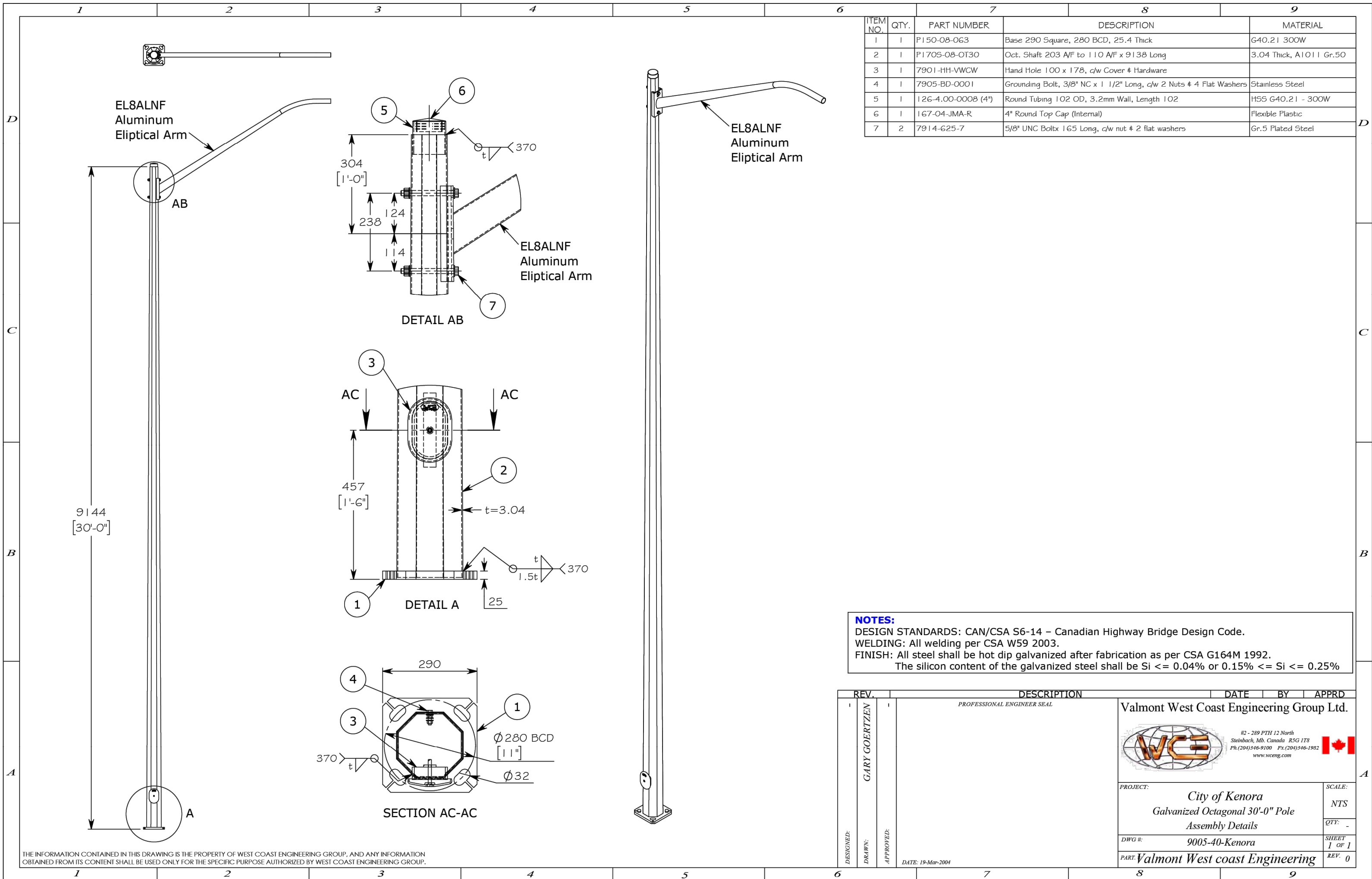
ELECTRICAL  
STREET LIGHTING  
UPGRADE PLAN

DRAWING NUMBER

E1

DRAWN BY	KB	SCALE	AS INDICATED
CHECKED BY	KW	SHEET NUMBER	1 OF 1
PROJECT NUMBER	RVA-25011		





**RVT Group Ltd.**  
THUNDER BAY, ON | (807) 625-5430 | info@rvtgroup.ca

**GENERAL NOTES**

- DO NOT SCALE DRAWINGS.
- FLOOR PLANS ARE USED AS A REFERENCE ONLY, AND RVT GROUP LTD. ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF ANY ITEMS DEPICTED IN THE REFERENCE PLANS.
- THE PLANS CREATED BY RVT GROUP LTD. ARE SOLELY INTENDED FOR USE AT THE PROPOSED LOCATION, REFERENCED ON THESE DRAWINGS, AND REMAIN THE PROPERTY OF RVT GROUP LTD. DRAWINGS ARE NOT PERMITTED TO BE DUPLICATED WITHOUT THE WRITTEN CONSENT OF RVT GROUP LTD.
- PERFORM ALL WORK IN ACCORDANCE WITH APPLICABLE PROVINCIAL AND LOCAL ORDINANCES AND REGULATIONS, THE RULES AND REGULATIONS OF OBC, CSA, ANSI, ASTM, OTC, NFPA, UL, ESR, NEC, ASHRAE, SMACNA, ETC., WHICHEVER IS MORE STRINGENT.
- ONLY FIRST-CLASS WORKMANSHIP AND GOOD INSTALLATION PRACTICES WILL BE ACCEPTED. USE LICENSED TRADESMEN FOR ALL TYPES OF WORK.

**Kenora**  
**TULLOCH**

**PROJECT NAME:** KENORA STREET LIGHTING UPGRADE

**PROJECT ADDRESS:** MELICK AVE & 9TH STREET KENORA, ONTARIO

**PROFESSIONAL ENGINEER**  
K.J. WOZNIAK  
100168220  
05/03/25  
PROVINCE OF ONTARIO

NO.	DESCRIPTION	DATE
0	ISSUED FOR TENDER	2025-03-25

**DRAWING NAME:** ELECTRICAL PROJECT SPECIFIC STANDARDS

**DRAWING NUMBER:** E2

DRAWN BY	KB	SCALE	AS INDICATED
CHECKED BY	KW	SHEET NUMBER	1 OF 1

**PROJECT NUMBER:** RVA-25011



GENERAL CONDITION

RVI GROUP LTD. THE INFORMATION CONTAINED IN THIS PACKAGE HAS BEEN PREPARED BASED ON INFORMATION PROVIDED BY THE CLIENT AND STAKEHOLDERS IN CONJUNCTION WITH DATA COLLECTED DURING THE SITE VISIT(S). RVI GROUP LTD. IT IS PRESUMED THAT THE INFORMATION PROVIDED AND GATHERED IS ACCURATE, CORRECT AND UP TO DATE, INCLUDING ALL INFORMATION RELATED TO EXISTING AND NEW ELECTRICAL EQUIPMENT, COMPONENTS, AND INFRASTRUCTURE.

IT IS THE RESPONSIBILITY OF THE CLIENT, ELECTRICAL CONTRACTOR, OR STAKEHOLDERS TO ENSURE THAT ALL WORK IS PERFORMED IN CONFORMANCE WITH THE ONTARIO ELECTRICAL SAFETY CODE, ONTARIO BUILDING CODE, AND ALL OTHER APPLICABLE CODES, STANDARDS, REGULATIONS, AND BYLAWS.

ELECTRICAL SPECIFICATIONS - DIVISION 26

1. GENERAL REQUIREMENTS

- a. REFER TO THE FRONT-END DOCUMENTS FOR ADDITIONAL REQUIREMENTS. THE FRONT-END SPECIFICATION SUPPLEMENTS THE REQUIREMENTS LISTED BELOW.
- b. THE WORK COVERED UNDER THIS SPECIFICATION INCLUDES THE SUPPLY, DELIVERY, INSTALLATION, AND TESTING OF LIGHT POSTS, LUMINAIRES, AND ASSOCIATED COMPONENTS FOR ROADWAY LIGHTING. THE CONTRACTOR WILL PROVIDE ALL NECESSARY LABOUR, EQUIPMENT, AND MATERIALS TO COMPLETE THE INSTALLATION IN ACCORDANCE WITH THE CONTRACT DRAWINGS, SPECIFICATIONS, AND APPLICABLE CODES AND STANDARDS.
- c. THE CONTRACTOR WILL ENSURE THAT ALL MATERIALS, EQUIPMENT, AND DEVICES ARE PROCURED, PLACED, INSTALLED, COMMISSIONED, AND OPERATIONAL IN FULL COMPLIANCE WITH ALL APPLICABLE BYLAWS, CODES, STANDARDS, AND REGULATIONS IN CONJUNCTION WITH THE MANUFACTURER'S INSTALLATION MANUALS. SPECIFICATIONS WILL TAKE PRECEDENCE OVER DRAWINGS IN FORMING THE CONTRACT DOCUMENTS, AND THE CONTRACT DOCUMENTS WILL TAKE PRECEDENCE WHERE THEY EXCEED CODES, STANDARDS, AND REGULATIONS.
- d. ALL WORK WILL COMPLY WITH THE LATEST EDITIONS OF THE FOLLOWING STANDARDS AND REGULATIONS: ONTARIO PROVINCIAL STANDARDS (OPS), ONTARIO TRAFFIC MANUAL (OTM), ELECTRICAL SAFETY AUTHORITY (ESA) REQUIREMENTS, CANADIAN ELECTRICAL CODE (PART 1), AND THE ONTARIO ELECTRICAL SAFETY CODE (OESC). ADDITIONALLY, THE INSTALLATION MUST MEET THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA) STANDARDS, CSA C22.2 NO. 250.0-18 FOR LED LIGHTING SAFETY, CAN/CSA-015-05 WOOD UTILITY POLES AND REINFORCING STUBS, CSA C22.2 NO.206 - LIGHTING POLES, CAN/CSA-080 SERIES-08 CONSOLIDATED WOOD PRESERVATION, THE AASHTO ROADWAY LIGHTING DESIGN GUIDE, AND THE MINISTRY OF TRANSPORTATION ONTARIO (MTO) SPECIFICATIONS.
- e. THE DRAWINGS, PLANS, AND DETAILS ARE DIAGRAMMATIC AND SYMBOLIC, INTENDED TO SHOW THE APPROXIMATE LOCATION OF ALL EQUIPMENT, DEVICES, AND COMPONENTS. UNLESS NOTED OTHERWISE, THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL EXACT LOCATIONS, MOUNTING HEIGHTS, AND ORIENTATIONS WITH STAKEHOLDERS, AS WELL AS ENSURING COMPLIANCE WITH RELEVANT CODES, STANDARDS, AND REGULATIONS PRIOR TO INSTALLATION.
- f. VERIFY THE DRAWING DIMENSIONS AGAINST ONSITE CONDITIONS AND SUPPLEMENTARY DRAWINGS. REPORT ANY DISCREPANCIES IN THE PROJECT DOCUMENTS BEFORE PROCEEDING WITH THE WORK. ANY MODIFICATIONS, ALTERATIONS OR SUBSTITUTIONS MUST BE SUBMITTED FOR REVIEW AND APPROVED IN WRITING.

2. TENDER REQUIREMENTS

- a. REFER TO THE FRONT-END DOCUMENTS FOR ADDITIONAL REQUIREMENTS. THE FRONT-END SPECIFICATION SUPPLEMENTS THE REQUIREMENTS LISTED BELOW.
- b. BIDDERS WILL REVIEW ALL SITE CONDITIONS, INCLUDING UTILITIES, SYSTEMS, AND ON-SITE CONDITIONS, PRIOR TO SUBMITTING A BID. OBTAIN CLARIFICATION WHERE NECESSARY PRIOR TO SUBMITTING THE TENDER.
- c. ENSURE THAT ALL CONTRACT DRAWINGS, FRONT-END AND TECHNICAL SPECIFICATIONS, AND ALL ASSOCIATED TENDER DOCUMENTS ARE REVIEWED AND ACCOUNTED FOR IN THE TENDER AND CONSTRUCTION OF THE WORK.

3. CONSTRUCTION ADMINISTRATION REQUIREMENTS

- a. REFER TO THE FRONT-END DOCUMENTS FOR ADDITIONAL REQUIREMENTS. THE FRONT-END SPECIFICATION SUPPLEMENTS THE REQUIREMENTS LISTED BELOW. THE CONTRACTOR IS TO REVIEW THE INFORMATION BELOW AND VERIFY ALL CONSTRUCTION ADMINISTRATION REQUIREMENTS WITH THE STAKEHOLDERS. ENSURE THAT ALL CONTRACT DRAWINGS, FRONT-END AND TECHNICAL SPECIFICATIONS, AND ALL ASSOCIATED CONSTRUCTION ADMINISTRATION DOCUMENTS ARE REVIEWED AND ACCOUNTED FOR DURING THE CONSTRUCTION OF THE WORK.
- b. PRIOR TO INSTALLATION, THE CONTRACTOR WILL SUBMIT THE FOLLOWING FOR APPROVAL: PRODUCT DATA SHEETS AND SPECIFICATIONS FOR ALL LUMINAIRES, POLES, AND MOUNTING HARDWARE; SHOP DRAWINGS INDICATING POLE FOUNDATION DETAILS, CONDUIT ROUTING, LIGHT POSTS, HARDWARE, MOUNTING HARDWARE, EQUIPMENT, LIGHTING FIXTURES AND MOUNTING ARRANGEMENTS; PHOTOMETRIC CALCULATIONS DEMONSTRATING COMPLIANCE WITH DESIGN LIGHTING LEVELS; ESA INSPECTION AND APPROVAL DOCUMENTATION; AND WARRANTY INFORMATION.
- c. THE CONTRACTOR WILL SUBMIT THE OPERATION AND MAINTENANCE MANUAL FOR REVIEW, COMMENT, AND APPROVAL. ONCE ALL STAKEHOLDERS ARE SATISFIED, THREE (3) COPIES WILL BE SUBMITTED.
- d. UPON COMPLETION OF THE WORK, THE CONTRACTOR WILL SUBMIT ONE COMPLETE SET OF "AS-BUILT" FULL-SIZE DRAWINGS, SPECIFICATIONS, AND RELATED DOCUMENTS FOR REVIEW, COMMENT, AND ACCEPTANCE, INCLUDING ANY NECESSARY CHANGES, REVISIONS, AND REDLINES. THE "AS-BUILT" PROJECT DOCUMENTS WILL CAPTURE ALL DEVIATIONS FROM THE ORIGINAL PROJECT DOCUMENTS, INCLUDING CHANGE ORDERS, FIELD CHANGES, AND SITE CONDITIONS, IN A CLEAR, LEGIBLE, AND IDENTIFIABLE MANNER. UTILIZE A RED FINE-TIP PEN FOR ALL MARKUPS. AS-BUILT MARKUPS ARE TO INCLUDE ALL JUNCTION BOXES, PULL BOXES, AND ROUTING OF CABLING AND CONDUITS, COMPLETE WITH DIMENSIONS AND ANY DEVIATION FROM THE CONTRACT DOCUMENTS.
- e. THE CONTRACTOR WILL PROVIDE A MINIMUM 5-YEAR WARRANTY FOR ALL LUMINAIRES AND ELECTRICAL COMPONENTS AS WELL AS A 1-YEAR WARRANTY FOR WORKMANSHIP. THE WARRANTY WILL INCLUDE ALL WORKMANSHIP, EQUIPMENT, DEVICES, AND COMPONENTS IN THEIR ENTIRETY.

4. HEALTH AND SAFETY REQUIREMENTS

- a. REFER TO THE FRONT-END DOCUMENTS FOR ADDITIONAL REQUIREMENTS. THE FRONT-END SPECIFICATION SUPPLEMENTS THE REQUIREMENTS LISTED BELOW.
- b. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ENSURING THE SAFETY OF THE CONSTRUCTION SITE AND FOR COMPLYING WITH ALL RULES, REGULATIONS, AND PRACTICES REQUIRED BY THE APPLICABLE CONSTRUCTION SAFETY LEGISLATION AND OTHER RELEVANT AUTHORITIES WITH JURISDICTION. THE CONTRACTOR WILL FOLLOW AND ABIDE BY ALL CSA-2462 WORKPLACE ELECTRICAL SAFETY AND OCCUPATIONAL HEALTH AND SAFETY REQUIREMENTS, AS WELL AS ALL APPLICABLE STANDARDS, CODES, AND REGULATIONS RELATED TO THE HEALTH AND SAFETY OF WORKERS, STAKEHOLDERS, AND THE PUBLIC.
- c. THE CONTRACTOR WILL ENSURE THAT ALL ON-SITE PERSONNEL, STAKEHOLDERS, AND THE PUBLIC ARE AWARE OF ON-SITE HAZARDS, REQUIRED SAFETY TRAINING, AND ORIENTATION AND THAT ALL RELEVANT HEALTH AND SAFETY TRAINING IS COMPLETED PRIOR TO ACCESSING THE WORK SITE, INCLUDING WHMIS TRAINING.
- d. THE CONTRACTORS WILL COORDINATE ALL WORK TO AVOID ANY ADVERSE EFFECTS ON DAY-TO-DAY OPERATIONS AND ENSURE THAT ALL SAFETY BARRIERS, PROTECTION, HEALTH, AND SAFETY PROTOCOLS ARE ALWAYS IN PLACE. THE WORKSPACE WILL BE KEPT ORDERLY AND FREE FROM THE ACCUMULATION OF MATERIALS, EQUIPMENT, TOOLS, AND DEBRIS.

5. DEMOLITION REQUIREMENTS

- a. THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THE DEMOLITION AREA IS SAFE AND THAT ALL SAFETY PROCEDURES ARE FOLLOWED. DEMOLITION MUST BE COMPLETED IN A CONTROLLED MANNER TO ALLOW FUTURE CONSTRUCTION, WITH ALL DEBRIS REMOVED AND DISPOSED OF DAILY.
- b. TO PROTECT PUBLICLY OCCUPIED AREAS, THE CONTRACTOR WILL INSTALL SAFETY AND DUST-PROOF BARRIERS, ADJACENT AREAS, FURNITURE, AND EQUIPMENT MUST BE PROTECTED FROM DAMAGE, AND ALL NECESSARY PRECAUTIONS MUST BE TAKEN TO PREVENT DISRUPTION.
- c. MATERIALS REMOVED DURING DEMOLITION REMAIN THE PROPERTY OF THE OWNER, WITH THE OWNER HAVING THE FIRST RIGHT TO CLAIM THEM. ANY UNCLAIMED ITEMS MUST BE REMOVED AND DISPOSED OF BY THE CONTRACTOR IN ACCORDANCE WITH REGULATIONS.

- d. THE CONTRACTOR WILL REFER TO FRONT-END DOCUMENTS FOR ADDITIONAL REQUIREMENTS AND VERIFY ALL DEMOLITION DETAILS WITH STAKEHOLDERS BEFORE PROCEEDING. NO WORK WILL BEGIN WITHOUT A COMPLETE UNDERSTANDING OF THE SCOPE AND APPROACH.
- e. OBSOLETE OR UNNECESSARY EQUIPMENT, COMPONENTS, FIXTURES, CABLING, AND WIRING MUST BE DECOMMISSIONED, REMOVED, AND DISPOSED OF.
- 6. CONSTRUCTION REQUIREMENTS
  - a. REFER TO FRONT-END DOCUMENTS FOR ADDITIONAL REQUIREMENTS. THE FRONT-END SPECIFICATION SUPPLEMENTS THE REQUIREMENTS LISTED BELOW. THE CONTRACTOR IS TO REVIEW THE INFORMATION BELOW AND VERIFY ALL CONSTRUCTION REQUIREMENTS WITH THE STAKEHOLDERS.
  - b. THE CONTRACTOR WILL OBTAIN THE MINISTRY OF LABOUR PERMIT (WHERE APPLICABLE), A NOTICE OF PROJECT (WHERE APPLICABLE), POWER UTILITY CONTRACTS (WHERE APPLICABLE) AND AN ELECTRICAL SAFETY AUTHORITY PERMIT AND PAY FOR ALL ASSOCIATED SERVICES, COMMISSIONING, VERIFICATION, PERMITS AND FEES BEFORE EXECUTION OF WORK, COORDINATE ALL REQUIRED INSPECTIONS AND SUBMIT ALL DOCUMENTATION, INCLUDING ESA'S ROUGH-IN, FINAL & CERTIFICATE OF ACCEPTANCE AT THE COMPLETION OF THE WORK AND PRIOR TO FINAL PAYMENT.
  - c. THE CONTRACTOR WILL COORDINATE ALL WORK WITH ALL OTHER CONTRACTORS, SUB-TRADES, AND STAKEHOLDERS TO AVOID ADVERSE OUTCOMES, INCLUDING INTERFERENCES, RE-WORK, AND DELAYS. ITEMS OF CONCERN WILL BE IDENTIFIED AND RESOLVED PRIOR TO COMMENCING WORK. OBSERVE AND COMPLY WITH ALL REQUIREMENTS FOR FIRE PREVENTION, SECURITY, SAFETY, AND SCHEDULING IN THE EXECUTION OF THE WORK.
  - d. THE CONTRACTOR WILL PROCURE, SUPPLY, PROVIDE, AND ACCOUNT FOR ALL LABOUR, EQUIPMENT, MATERIALS, DEVICES, HARDWARE, COMPONENTS, ACCESSORIES, AND MISCELLANEOUS ITEMS, TOOLS, TEMPORARY POWER, AND LIGHTING REQUIRED TO EXECUTE THE WORK AND PROVIDE A FULLY CONSTRUCTED, COMPLETED, INSTALLED, TESTED, COMMISSIONED, ADJUSTED, AND OPERATIONAL SYSTEM, EQUIPMENT, OR DEVICE FULLY FINISHED AND READY FOR USE. ALL WORK IS TO BE COMPLETED WITH FIRST-CLASS WORKMANSHIP AND IN A NEAT AND ORGANIZED MANNER, ADHERING TO ALL CONTRACT DOCUMENTS.
  - e. DURING AND UPON COMPLETION OF THE WORK, ALL WASTE MATERIAL WILL BE REMOVED FROM THE SITE, AND ALL EQUIPMENT, DEVICES, AND AREAS WILL BE CLEARED TO THE OWNER'S SOLE SATISFACTION, RETURNING THEM TO NEW CONDITIONS.
- 7. GENERAL EXECUTION REQUIREMENTS
  - a. REFER TO FRONT-END DOCUMENTS FOR ADDITIONAL REQUIREMENTS. THE FRONT-END SPECIFICATION SUPPLEMENTS THE REQUIREMENTS LISTED BELOW.
  - b. ALL WORK SPECIFIED IS TO BE COMPLETED BY AN ELECTRICAL CONTRACTOR AND ASSOCIATED ELECTRICIANS LICENSED TO PERFORM ELECTRICAL WORK IN THE PROVINCE OF ONTARIO, AS PER THE REQUIREMENTS OUTLINED BY THE ELECTRICAL SAFETY AUTHORITY.
  - c. ALL MATERIALS AND WORKMANSHIP WILL BE OF THE HIGHEST QUALITY AND FREE FROM DEFECTS. THE CONTRACTOR EMPLOYS ONLY QUALIFIED AND LICENSED ELECTRICIANS FOR THE INSTALLATION. TESTING AND COMMISSIONING WILL BE PERFORMED TO VERIFY COMPLIANCE WITH SPECIFICATIONS.
  - d. COMPLETE ALL PUBLIC AND PRIVATE LOCATES AS REQUIRED BY THE SCOPE OF WORK, APPLICABLE STANDARDS, REGULATIONS, AND AUTHORITIES HAVING JURISDICTION PRIOR TO THE COMMENCEMENT OF WORK.
  - e. THE CONTRACTOR WILL ENSURE THAT ALL EQUIPMENT, SYSTEMS, DEVICES, AND COMPONENTS ARE FULLY INSTALLED, ENERGIZED, TESTED, SET UP, AND COMMISSIONED ACCORDING TO THE DRAWINGS' INTENT AND THE MANUFACTURER'S INSTRUCTIONS AND TO THE SATISFACTION OF STAKEHOLDERS.
  - f. WITHOUT ADDITIONAL COST, ALLOW FOR THE RELOCATION OF ANY FIXTURE, DEVICE, OR COMPONENT UP TO 5 METERS PRIOR TO INSTALLATION AND DOCUMENT IT ON THE AS-BUILT RECORD DRAWINGS. ENSURE ALL EQUIPMENT IS INSTALLED TO MINIMIZE INTERFERENCE WITH ALL ACCESS AND WORKING CLEARANCES AROUND EXISTING, MODIFIED, RELOCATED AND NEW EQUIPMENT.
  - g. BEFORE COMMENCING THE INSTALLATION, THE CONTRACTOR WILL VERIFY ALL EXISTING UNDERGROUND UTILITIES AND PERFORM TRENCHING AND BACKFILLING IN ACCORDANCE WITH OPS STANDARDS. PROPER COMPACTION OF BACKFILLED MATERIAL WILL BE ENSURED TO PREVENT FUTURE SETTLEMENT. TEMPORARY TRAFFIC CONTROL AND SIGNAGE WILL BE PROVIDED IN COMPLIANCE WITH THE ONTARIO TRAFFIC MANUAL (OTM).
- 8. GENERAL PRODUCT REQUIREMENT
  - a. REFER TO FRONT-END DOCUMENTS FOR ADDITIONAL REQUIREMENTS. THE FRONT-END SPECIFICATION SUPPLEMENTS THE REQUIREMENTS LISTED BELOW.
  - b. ALL MATERIALS, EQUIPMENT, AND DEVICES FOR THIS PROJECT WILL BE NEW, WITHOUT DEFECTS, AND OF A MINIMUM COMMERCIAL GRADE, CERTIFIED TO CSA, UL, OR EQUIVALENT STANDARDS.
  - c. DELIVER, STORE AND HANDLE MATERIALS IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
  - d. ALL LINE-VOLTAGE CABLES AND CONDUCTORS WILL BE COPPER UNLESS SPECIFIED OTHERWISE. ALL CABLING WILL BE TECK90 FOR EXTERIOR SPACES, WITH NMD90 CABLING PROHIBITED FROM USE WITHIN INTERIOR OR EXTERIOR SPACES.
  - e. OUTDOOR CONDUCTORS IN CONDUIT WILL BE RW90, TW90, AND ALL UNDERGROUND CONDUCTORS WILL BE RWU90, TWU90-ALL CONDUCTORS AND CABLING TO BE RATED FOR 600V FOR 120/208/240V SYSTEMS AND 1000V FOR 600V SYSTEMS.
  - f. ALL EXTERIOR CONDUITS WILL BE RIGID OR FLEXIBLE PVC CONDUITS. ALL CONDUITS WILL BE INSTALLED ENTIRELY WITH AN INSULATED GREEN BONDING CONDUCTOR.
  - g. ALL CONDUCTORS ARE TO BE SIZED IN ACCORDANCE WITH OVERCURRENT PROTECTION AND CONFORMANCE WITH THE OESC. INCREASE CONDUCTOR SIZE AS REQUIRED TO ENSURE THAT VOLTAGE DROP UNDER FULL OPERATING VOLTAGE IS MAINTAINED BELOW 3% AT THE FURTHEST DEVICE, LIGHTING FIXTURE, RECEPTACLE, DEVICE, OR EQUIPMENT.
  - h. THE OWNER WILL REVIEW, APPROVE, COORDINATE, AND ACCEPT THE MATERIAL TYPES, COLOURS, AND FINISHES OF ALL FIXTURES, EQUIPMENT, AND SIMILAR DEVICES WHERE REQUIRED OR APPLICABLE.
- 9. LABELLING REQUIREMENTS
  - a. ALL EQUIPMENT AND DEVICES WILL BE LABELLED WITH EQUIPMENT TAGS, DESIGNATIONS, AND INFORMATION IN CONJUNCTION WITH ALL WARNING LABELS, INCLUDING ELECTROCUTION, ARC FLASH, AND PROXIMITY WARNINGS.
- 10. ROADWAY LIGHTING
  - a. THE CONTRACTOR WILL VERIFY ALL EXISTING LIGHTING FIXTURES AND CONTROLS, WHERE APPLICABLE, TO ENSURE OPERATING SPECIFICATIONS, INCLUDING BUT NOT LIMITED TO OPERATING VOLTAGE, DIMMABLE CAPACITIES, AND INSTALLATION PARAMETERS, PRIOR TO THE REMOVAL OF THE EXISTING FIXTURES AND THE PROCUREMENT AND INSTALLATION OF NEW ONES. ALL EXISTING DEVICES ARE TO BE REMOVED ONLY ONCE THE NEW DEVICES HAVE ARRIVED ONSITE, HAVE BEEN INSPECTED FOR DAMAGE, AND HAVE BEEN CONFIRMED TO BE COMPATIBLE WITH THE REPLACEMENT OF THE EXISTING DEVICES.
  - b. THE WORK COVERED UNDER THIS SPECIFICATION INCLUDES THE SUPPLY, DELIVERY, INSTALLATION, AND TESTING OF LIGHT POSTS, LUMINAIRES, AND ASSOCIATED COMPONENTS FOR ROADWAY LIGHTING. THE CONTRACTOR WILL PROVIDE ALL NECESSARY LABOUR, EQUIPMENT, AND MATERIALS TO COMPLETE THE INSTALLATION IN ACCORDANCE WITH THE CONTRACT DRAWINGS, SPECIFICATIONS, AND APPLICABLE CODES AND STANDARDS.
  - c. ALL WORK WILL COMPLY WITH THE LATEST EDITIONS OF THE FOLLOWING STANDARDS AND REGULATIONS: ONTARIO PROVINCIAL STANDARDS (OPS), ONTARIO TRAFFIC MANUAL (OTM), ELECTRICAL SAFETY AUTHORITY (ESA) REQUIREMENTS, CANADIAN ELECTRICAL CODE (PART 1), AND THE ONTARIO ELECTRICAL SAFETY CODE (OESC). ADDITIONALLY, THE INSTALLATION MUST MEET THE ILLUMINATING ENGINEERING SOCIETY OF NORTH AMERICA (IESNA) STANDARDS, CSA C22.2 NO. 250.0-18 FOR LED LIGHTING SAFETY, CAN/CSA-015-05 WOOD UTILITY POLES AND REINFORCING STUBS, CSA C22.2 NO.206 - LIGHTING POLES, CAN/CSA-080 SERIES-08 CONSOLIDATED WOOD PRESERVATION, THE AASHTO ROADWAY LIGHTING DESIGN GUIDE, AND THE MINISTRY OF TRANSPORTATION ONTARIO (MTO) SPECIFICATIONS.
  - d. INSTALL NEW LIGHTING FIXTURES AS SHOWN ONCE ALL SITE CONDITIONS ARE VERIFIED. ADJUST, MODIFY, OR REMOVE ALL EXISTING CABLING, CONDUIT, CONDUCTORS, DEVICE BOXES, AND OTHER RELATED COMPONENTS. TO FACILITATE THE REMOVAL AND RELOCATION OF EXISTING FIXTURES AND THE INSTALLATION OF NEW FIXTURES. INSTALL LUMINAIRE MOUNTING BRACKET AS REQUIRED.

- e. THE CONTRACTOR WILL ADJUST ALL LIGHTING FIXTURES, FIELD ADJUSTABLE SETTINGS, AND ASSOCIATED LIGHTING CONTROLS TO THE SOLE SATISFACTION OF THE STAKEHOLDERS.
- f. THE LIGHT POSTS WILL BE CONSTRUCTED AS SPECIFIED FROM HOT-DIP GALVANIZED STEEL OR ALUMINUM, WITH HEIGHTS SPECIFIED IN THE DRAWINGS, TYPICALLY RANGING FROM 8M TO 12M FOR ROADWAY APPLICATIONS. THE POLES WILL HAVE A FINISH SPECIFIED ON THE DRAWINGS, A FLANGED BASE WITH BOLT COVERS, AND BE RATED TO WITHSTAND WIND LOADS IN ACCORDANCE WITH THE MTO AND CSA STANDARDS FOR ONTARIO WEATHER CONDITIONS. EACH POLE WILL BE EQUIPPED WITH WEATHERPROOF HANDHOLES WITH COVERS LOCATED AT AN ACCESSIBLE HEIGHT FOR MAINTENANCE. COMPLETE WITH A GROUNDING LUG.
- g. THE LUMINAIRES WILL BE LED ROADWAY FIXTURES WITH TYPE II, III, OR IV DISTRIBUTION, AS SPECIFIED IN THE DRAWINGS. THEY WILL HAVE A POWER RATING BETWEEN 100W AND 300W, AS SPECIFIED, DEPENDING ON THE ROADWAY CLASSIFICATION AND LIGHTING DESIGN. A CORRELATED COLOUR TEMPERATURE (CCT) OF 4000 K ± 300 K. THE LUMINAIRES WILL HAVE A MINIMUM LUMINOUS EFFICACY OF 130 LM/W, WITH 0-10V DIMMABLE DRIVERS, AND BE RATED FOR IP66 INGRESS PROTECTION AND IK08 IMPACT RESISTANCE. THE ELECTRICAL REQUIREMENTS WILL INCLUDE OPERATION AT 120-277V AC OR 347-600V AC WITH A POWER FACTOR GREATER THAN 0.90. EACH LUMINAIRE WILL FEATURE 10KV SURGE PROTECTION, A FAST-BLOW FUSE ON BOTH CONDUCTORS AND A NEMA TWIST-LOCK 7-PIN PHOTO CONTROL RECEPTACLE COMPLIANT WITH ANSI C136.41.
- h. THE POLE FOUNDATIONS WILL BE CONSTRUCTED OF CONCRETE WITH A MINIMUM STRENGTH OF 35 MPA AT 28 DAYS. THE REINFORCEMENT WILL COMPLY WITH THE DRAWINGS, INCLUDING APPROPRIATE REBAR SIZE AND SPACING. ANCHOR BOLTS WILL BE GALVANIZED AND CONFORM TO ASTM F1554 GRADE 55 OR EQUIVALENT, WITH EMBEDDED LENGTHS AS SPECIFIED. THE DEPTH AND DIAMETER OF THE FOUNDATIONS WILL ADHERE TO MTO STANDARDS, ACCOUNTING FOR POLE HEIGHT AND SOIL CONDITIONS.
- i. CONDUITS WILL BE RIGID PVC (RPVC) OR RIGID GALVANIZED STEEL (RGS), AS SPECIFIED IN THE DRAWINGS. THE MINIMUM CONDUIT SIZE WILL BE 50 MM FOR POLE BASES AND 75 MM FOR ROAD CROSSINGS. ALL WIRING WILL USE COPPER CONDUCTORS, EITHER RW90 OR TECK90, SIZED ACCORDING TO THE ELECTRICAL LOAD REQUIREMENTS, WITH A MINIMUM WIRE SIZE OF #8 AWG FOR LIGHTING CIRCUITS. GROUNDING WILL BE ACHIEVED USING 19MM DIAMETER, 3M-LONG COPPER-BONDED GROUND RODS AND #6 AWG BARE COPPER GROUND WIRES AT EACH NEW LIGHTING POST.
- j. LIGHT POSTS WILL BE INSTALLED AT THE LOCATIONS SPECIFIED IN THE DRAWINGS. THE CONTRACTOR WILL ENSURE THAT THE POSTS ARE PLUMB AND LEVEL, USING SHIMS, AS NECESSARY. ANCHOR BOLTS WILL BE TORQUED TO THE MANUFACTURER'S SPECIFICATIONS, AND WEATHERPROOF HANDHOLE COVERS WILL BE INSTALLED SECURELY IN PLACE.
- k. LUMINAIRES WILL BE MOUNTED SECURELY TO THE POLEARMS IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. THE CONTRACTOR WILL VERIFY THE ALIGNMENT AND AIMING ANGLES IN ACCORDANCE WITH THE PHOTOMETRIC PLANS. PHOTOCELLS, IF APPLICABLE, WILL BE INSTALLED AND TESTED FOR PROPER FUNCTIONALITY. ALL WIRING CONNECTIONS WILL BE TESTED FOR CONTINUITY AND CORRECT POLARITY.
- l. ELECTRICAL CONNECTIONS WILL BE APPROPRIATELY TERMINATED USING SUITABLE LUGS AND CONNECTORS, WITH ALL CONDUCTORS LABELLED AS SPECIFIED IN THE DRAWINGS. GROUNDING AND BONDING CONTINUITY WILL BE VERIFIED. THE CONTRACTOR WILL PERFORM MEGGER TESTING ON ALL CIRCUITS BEFORE ENERGIZING THEM.
- m. TESTING AND COMMISSIONING WILL INCLUDE VERIFYING THE PROPER OPERATION OF ALL LUMINAIRES AND CONTROLS. THE CONTRACTOR WILL MEASURE AND RECORD ILLUMINATION LEVELS TO CONFIRM COMPLIANCE WITH THE DESIGN CRITERIA. FUNCTIONAL TESTING OF PHOTOCELLS AND DIMMING CONTROLS WILL BE CONDUCTED, AND ALL TEST REPORTS AND AS-BUILT DRAWINGS WILL BE SUBMITTED FOR APPROVAL.
- n. UPON COMPLETION, THE CONTRACTOR WILL RESTORE ALL DISTURBED AREAS TO THEIR ORIGINAL CONDITION. THIS INCLUDES REMOVING DEBRIS, EXCESS MATERIALS, AND TEMPORARY SIGNAGE. ROADWAYS AND SIDEWALKS WILL BE CLEANED AND MADE SAFE FOR PUBLIC USE.

TRAFFIC SIGNAL AND PEDESTRIAN CROSSING IN-GRADE CONDUIT SPECIFICATION - FUTURE

1. GENERAL REQUIREMENTS

- a. ALL IN-GRADE CONDUIT INSTALLATIONS FOR TRAFFIC SIGNALS AND PEDESTRIAN CROSSINGS IN THE PROVINCE OF ONTARIO SHALL CONFORM TO THE MINISTRY OF TRANSPORTATION OF ONTARIO (MTO) STANDARDS, THE ONTARIO PROVINCIAL STANDARDS SPECIFICATIONS (OPSS), AND ALL APPLICABLE CODES AND REGULATIONS ENFORCED BY THE AUTHORITIES HAVING JURISDICTION.
- b. THE INSTALLATION SHALL COMPLY WITH THE LATEST EDITIONS OF THE ONTARIO ELECTRICAL SAFETY CODE (OESC) AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS PUBLISHED BY THE MTO. ALL WORK SHALL BE PERFORMED NEATLY AND PROFESSIONALLY, ENSURING THE CONDUITS ARE PROPERLY ALIGNED, PROTECTED, AND ACCESSIBLE FOR FUTURE MAINTENANCE AND EXPANSION.

2. CONDUIT MATERIALS

- a. CONDUITS USED FOR TRAFFIC SIGNALS AND PEDESTRIAN CROSSINGS SHALL BE CONSTRUCTED OF DURABLE, CORROSION-RESISTANT MATERIALS SUITABLE FOR DIRECT BURIAL APPLICATIONS. THE PRIMARY CONDUIT TYPE SHALL BE RIGID POLYVINYL CHLORIDE (RPVC), WHICH CONFORMS TO CSA STANDARD C22.2 NO. 211.1. RPVC IS THE PREFERRED MATERIAL DUE TO ITS RESISTANCE TO CORROSION, EASE OF HANDLING, AND LONG-TERM DURABILITY IN UNDERGROUND ENVIRONMENTS.
- b. IN AREAS PRONE TO PHYSICAL DAMAGE OR WHERE ADDITIONAL MECHANICAL PROTECTION IS REQUIRED, RIGID GALVANIZED STEEL CONDUIT (RGSC) MAY BE USED. RGSC SHALL CONFORM TO CSA C22.2 NO. 45 AND IS TYPICALLY SPECIFIED FOR SECTIONS CROSSING ROADWAYS OR OTHER HIGH-IMPACT ZONES. ALL CONDUIT JOINTS AND FITTINGS SHALL BE WATERTIGHT. RPVC JOINTS SHALL BE SECURED WITH MANUFACTURER-APPROVED SOLVENT CEMENT, WHILE RGSC JOINTS SHALL USE THREADED COUPLINGS TO ENSURE A SECURE CONNECTION.

3. CONDUIT SIZES AND USAGE

- a. THE CONDUIT SIZES USED FOR TRAFFIC SIGNALS AND PEDESTRIAN CROSSINGS SHALL BE SELECTED BASED ON THE APPLICATION AND ANTICIPATED CABLE VOLUME. FOR MAIN SIGNAL CABLE RUNS AND ROAD CROSSINGS, 100 MM (4") RPVC SHALL BE USED. THIS LARGER DIAMETER PROVIDES SUFFICIENT CAPACITY FOR MULTIPLE CONDUCTORS AND ALLOWS FOR FUTURE EXPANSION, MAKING IT THE STANDARD CHOICE FOR MAJOR INTERSECTIONS AND PRIMARY TRUNK LINES.
- b. FOR MEDIUM-CAPACITY CABLE RUNS, 75 MM (3 IN.) RPVC IS SUITABLE. THIS SIZE IS COMMONLY USED FOR SECONDARY CROSSINGS OR INSTALLATIONS WITH FEWER CABLES. IN LESS COMPLEX SIGNAL INSTALLATIONS, SUCH AS PEDESTRIAN CROSSINGS OR HANDHOLES, 50 MM (2") RPVC IS ACCEPTABLE. THIS SMALLER CONDUIT SIZE IS SUFFICIENT FOR AUXILIARY SIGNAL HEADS AND STANDALONE PEDESTRIAN CROSSING SIGNALS.
- c. WHEN CONDUITS TRANSITION BETWEEN UNDERGROUND AND ABOVE-GROUND SECTIONS OR CONNECT TO POLE BASES, APPROPRIATE FITTINGS AND CONNECTORS SHALL BE USED TO MAINTAIN WEATHERPROOFING AND MECHANICAL INTEGRITY.

4. DEPTH AND INSTALLATION REQUIREMENTS

- a. ALL CONDUITS SHALL BE INSTALLED AT SPECIFIED MINIMUM DEPTHS TO ENSURE PROTECTION FROM SURFACE LOADS AND ENVIRONMENTAL FACTORS. IN STANDARD INSTALLATIONS, INCLUDING SIDEWALKS, BOULEVARDS, AND NON-VEHICULAR AREAS, CONDUITS SHALL BE BURIED AT A MINIMUM DEPTH OF 0.75 M (750 MM) BELOW GRADE. IN AREAS SUBJECT TO VEHICULAR TRAFFIC, SUCH AS ROADWAYS AND DRIVEWAYS, THE MINIMUM BURIAL DEPTH SHALL BE 1.0 M (1000 MM).
- b. WHERE CONDUITS CROSS ROADWAYS OR DRIVEWAYS, THEY SHALL BE ENCASED IN CONCRETE TO PROVIDE ADDITIONAL PROTECTION AGAINST HEAVY LOADS. THE CONCRETE ENCASEMENT SHALL CONSIST OF 75 MM (3 INCHES) OF CONCRETE ON ALL SIDES OF THE CONDUIT UNLESS OTHERWISE SPECIFIED BY THE MTO OR THE AUTHORITY HAVING JURISDICTION.
- c. TRENCHES FOR CONDUIT INSTALLATION SHALL BE EXCAVATED TO THE REQUIRED DEPTH AND WIDTH, ALLOWING FOR THE PROPER PLACEMENT AND ALIGNMENT OF CONDUITS. THE BACKFILL MATERIAL SHALL BE FREE OF ROCKS, DEBRIS, OR OTHER SHARP OBJECTS THAT COULD DAMAGE THE CONDUIT. BACKFILL SHALL BE PLACED IN LAYERS NOT EXCEEDING 150 MM (6 INCHES) AND COMPACTED TO PREVENT SETTLEMENT.

5. MARKING AND IDENTIFICATION

- a. TO FACILITATE FUTURE MAINTENANCE AND CABLE PULLS, ALL CONDUITS SHALL BE EQUIPPED WITH IDENTIFICATION AND LOCATING MEASURES. EACH CONDUIT SHALL CONTAIN A POLYPROPYLENE PULL ROPE OR FISH TAPE WITH A MINIMUM TENSILE STRENGTH OF 890 N (200 LBS.). THIS WILL ALLOW FOR EASY INSTALLATION OF FUTURE CABLES.
- b. IN ADDITION, A BRIGHTLY COLOURED WARNING TAPE MARKED "CAUTION - ELECTRICAL CABLE BELOW" SHALL BE INSTALLED APPROXIMATELY 300 MM ABOVE THE CONDUIT. THE TAPE SHALL BE NON-DEGRADABLE, CHEMICAL-RESISTANT, AND DETECTABLE BY STANDARD LOCATING EQUIPMENT TO HELP PREVENT ACCIDENTAL EXCAVATION DAMAGE.
- c. JUNCTION BOXES, HANDHOLES, AND PULL BOXES ASSOCIATED WITH THE CONDUIT SYSTEM SHALL BE CLEARLY LABELLED WITH WEATHER-RESISTANT TAGS. THESE TAGS SHALL INDICATE THE CONDUIT PATH AND IDENTIFY THE ASSOCIATED TRAFFIC CONTROL EQUIPMENT.

6. BENDS AND FITTINGS

- a. CONDUIT BENDS SHALL BE INSTALLED IN ACCORDANCE WITH OESC AND MTO STANDARDS TO PREVENT DAMAGE TO CABLES DURING INSTALLATION AND FUTURE PULLING OPERATIONS. BENDS SHALL MAINTAIN A MINIMUM RADIUS APPROPRIATE FOR THE CONDUIT SIZE, PREVENTING KINKS OR EXCESSIVE STRESS ON THE CABLES.
- b. WHERE POSSIBLE, FACTORY-MANUFACTURED BENDS SHALL BE USED TO ENSURE CONSISTENCY AND PROPER DIMENSIONS. WHEN FIELD-MADE BENDS ARE NECESSARY, THEY SHALL BE PERFORMED USING MANUFACTURER-RECOMMENDED BENDING EQUIPMENT. THIS PROCESS PREVENTS THE DEFORMATION OF THE CONDUIT, GUARANTEEING THE INTERNAL DIAMETER REMAINS UNOBSTRUCTED.
- c. EXPANSION JOINTS SHALL BE INSTALLED WHERE CONDUITS CROSS STRUCTURAL EXPANSION JOINTS, SUCH AS IN PAVEMENT OR BRIDGE STRUCTURES. THESE EXPANSION JOINTS WILL ACCOMMODATE THERMAL MOVEMENT AND PREVENT DAMAGE TO THE CONDUIT DUE TO EXPANSION OR CONTRACTION FORCES.

7. TESTING AND INSPECTION

- a. UPON COMPLETION OF THE CONDUIT INSTALLATION, THE SYSTEM SHALL UNDERGO TESTING AND INSPECTION TO VERIFY COMPLIANCE WITH THE SPECIFICATIONS AND ENSURE THAT THE CONDUITS ARE FREE OF OBSTRUCTIONS AND DEFECTS. EACH CONDUIT RUN SHALL BE TESTED USING A MANDREL OR PROVING BALL TO CONFIRM THERE ARE NO BLOCKAGES OR DEFORMITIES. THE MANDREL DIAMETER SHALL BE 80% OF THE INSIDE DIAMETER OF THE CONDUIT, ENSURING ADEQUATE CLEARANCE FOR FUTURE CABLE PULLS.
- b. ALL CONDUITS SHALL BE CHECKED TO VERIFY THAT PULL ROPES OR FISH TAPE ARE IN PLACE AND THAT THE CONDUITS ARE FREE OF WATER INTRUSION OR VISIBLE DAMAGE. ADDITIONALLY, THE DEPTH OF THE CONDUITS SHALL BE MEASURED AND RECORDED TO CONFIRM THEY MEET THE SPECIFIED MINIMUM BURIAL DEPTHS.

8. REFERENCES AND COMPLIANCE

- a. ALL WORK RELATED TO TRAFFIC SIGNAL AND PEDESTRIAN CROSSING CONDUIT INSTALLATIONS SHALL CONFORM TO THE LATEST EDITIONS OF THE FOLLOWING STANDARDS AND SPECIFICATIONS:
- b. THE INSTALLATION SHALL ADHERE TO THE ONTARIO PROVINCIAL STANDARD DRAWINGS (OPSD), INCLUDING OPSD 2210.011 FOR CONDUIT INSTALLATIONS RELATED TO TRAFFIC SIGNALS AND OPSD 2210.010 FOR JUNCTION AND PULL BOX INSTALLATION. IT SHALL ALSO COMPLY WITH THE ONTARIO PROVINCIAL STANDARD SPECIFICATIONS (OPSS), SPECIFICALLY OPSS 604 FOR ELECTRICAL WORK AND OPSS 609 FOR THE INSTALLATION OF ELECTRICAL HANDHOLES AND DUCTS.
- c. THE INSTALLATION SHALL ALSO CONFORM TO THE MTO MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) FOR ONTARIO AND COMPLY WITH THE CSA STANDARD C22.2 NO. 211.1 FOR RPVC CONDUITS. ALL WORK SHALL BE CARRIED OUT IN ACCORDANCE WITH THE ONTARIO ELECTRICAL SAFETY CODE (OESC) AND LOCAL JURISDICTIONAL REQUIREMENTS.

9. EXECUTION AND QUALITY ASSURANCE

- a. THROUGHOUT THE INSTALLATION PROCESS, ALL CONDUITS SHALL BE INSTALLED IN STRAIGHT, CONTINUOUS RUNS, MAINTAINING PROPER ALIGNMENT AND SPACING. THIS PRACTICE WILL PREVENT INTERFERENCE OR CROWDING IN HANDHOLES, PULL BOXES, OR JUNCTION BOXES.
- b. ALL DEVIATIONS FROM THE SPECIFIED CONDUIT SIZES, DEPTHS, OR MATERIALS MUST BE REVIEWED AND APPROVED BY THE AUTHORITY HAVING JURISDICTION PRIOR TO INSTALLATION. THE CONTRACTOR SHALL PROVIDE DETAILED AS-BUILT DRAWINGS DOCUMENTING THE LOCATION, DEPTH, AND PATH OF ALL CONDUITS, AS WELL AS THE LOCATIONS OF HANDHOLES, JUNCTION BOXES, AND PULL POINTS.
- c. ALL CONDUIT WORK SHALL BE PERFORMED BY QUALIFIED ELECTRICAL CONTRACTORS EXPERIENCED IN THE INSTALLATION OF TRAFFIC SIGNALS AND PEDESTRIAN CROSSINGS. THE WORK SHALL BE INSPECTED AND APPROVED BY THE AUTHORITY HAVING JURISDICTION BEFORE COMMISSIONING.



GENERAL NOTES

- DO NOT SCALE DRAWINGS.
- FLOOR PLANS ARE USED AS A REFERENCE ONLY, AND RVI GROUP LTD. ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF ANY ITEMS DEPICTED IN THE REFERENCE PLANS.
- THE PLANS CREATED BY RVI GROUP LTD. ARE SOLELY INTENDED FOR USE AT THE PROPOSED LOCATION, REFERENCED ON THESE DRAWINGS, AND REMAIN THE PROPERTY OF RVI GROUP LTD. DRAWINGS ARE NOT PERMITTED TO BE DUPLICATED WITHOUT THE WRITTEN CONSENT OF RVI GROUP LTD.
- PERFORM ALL WORK IN ACCORDANCE WITH APPLICABLE PROVINCIAL AND LOCAL ORDINANCES AND REGULATIONS, THE RULES AND REGULATIONS OF OBC, CSA, ANSI, ASTM, ORC, NFPA, UL, ESA, NEC, ASHRAE, SMACNA, ETC., WHICHEVER IS MORE STRINGENT.
- ONLY FIRST-CLASS WORKMANSHIP AND GOOD INSTALLATION PRACTICES WILL BE ACCEPTED. USE LICENSED TRADESMEN FOR ALL TYPES OF WORK.



PROJECT NAME

KENORA STREET LIGHTING UPGRADE

PROJECT ADDRESS

MELLICK AVE & 9TH STREET  
KENORA, ONTARIO




0	ISSUED FOR TENDER	2025-03-25
NO.	DESCRIPTION	DATE

DRAWING NAME

ELECTRICAL  
SPECIFICATIONS

DRAWING NUMBER

E3

DRAWN BY	KB	SCALE	AS INDICATED
CHECKED BY	KW	SHEET NUMBER	1 OF 1
PROJECT NUMBER	RVA-25011		





## **20. APPENDIX C**

### **20.1 Substantial Completion Certificate – Form 9**

**FORM 9**  
**CERTIFICATE OF SUBSTANTIAL PERFORMANCE OF THE**  
**CONTRACT UNDER SECTION 32 OF THE ACT**

*Construction Act*

\_\_\_\_\_  
(County/District/Regional Municipality/Town/City in which premises are situated)

\_\_\_\_\_  
(street address and city, town, etc., or, if there is no street address, the location of the premises)

This is to certify that the contract for the following improvement:

\_\_\_\_\_  
(short description of the improvement)

to the above premises was substantially performed on \_\_\_\_\_ .  
(date substantially performed)

Date certificate signed: \_\_\_\_\_

\_\_\_\_\_  
(payment certifier where there is one)

\_\_\_\_\_  
(owner and contractor, where there is no payment certifier)

Name of owner: \_\_\_\_\_

Address for service: \_\_\_\_\_

Name of contractor: \_\_\_\_\_

Address for service: \_\_\_\_\_

Name of payment certifier (where applicable): \_\_\_\_\_

Address: \_\_\_\_\_

(Use A or B, whichever is appropriate)

☐ A. Identification of premises for preservation of liens:

\_\_\_\_\_  
(if a lien attaches to the premises, a legal description of the premises,  
including all property identifier numbers and addresses for the premises)

☐ B. Office to which claim for lien must be given to preserve lien:

\_\_\_\_\_  
(if the lien does not attach to the premises, a concise description of the premises, including addresses,  
and the name and address of the person or body to whom the claim for lien must be given)



## **21. APPENDIX D**

### **21.1 Supplemental Information**

URECON U.I.P SYSTEM SPECIFICATION

ROMAC ALPHA END CAP 4-12 INCH – CAD-045804

ROMAC ALPHA COUPLING 4-12 INCH – CAD-045667

Old Castle 1730 Hand Hold

City of Kenora Unit Rates

## DETAILED SPECIFICATION

### Standard U.I.P.<sup>®</sup> system for below grade piping

#### 1. GENERAL

The pipe shall be insulated using the unique U.I.P.<sup>®</sup> factory insulation process, as supplied by GF Urecon Ltd., complete with integral conduit(s) for electric heat trace cable (if required) and 1.27 mm (50 mils) to 2.54 mm (100 mils) black polyethylene jacket with UV inhibitor. The jacket thickness is dependent on the insulated pipe diameter and its intended function. The insulation of associated joints, fittings and accessories shall be as per GF Urecon's recommendations. The product shall be manufactured in accordance to ISO 9001 Standards, or approved equal.

#### 2. PIPE PREPARATION

Pipe shall be cleaned of surface dust or dirt to ensure adhesion of the foam to the pipe.

#### 3. HEAT TRACING CONDUIT

Heat tracing conduit(s) shall consist of an extruded molding and shall be applied to the pipe prior to application of the insulation. The conduit(s) will be securely fastened to the pipe to prevent the ingress of foam therein during the insulation process. All conduit(s) shall be checked after insulating to ensure they are not blocked. The ends shall be sealed prior to shipping to prevent any foreign material from entering the conduit while in transit or during installation.

#### 4. INSULATION

- a) Material: Rigid polyurethane foam, factory applied.
- b) Thickness: 50.8 mm (2 in) or as required.
- c) Density: (ASTM D1622) 35 to 48 kg/m<sup>3</sup> (2.2 to 3.0 lbs/ft<sup>3</sup>).
- d) Closed cell content: (ASTM D6226) 90%, minimum.
- e) Water absorption: (ASTM D2842) maximum 4.0% by volume.
- f) Thermal conductivity: (ASTM C518) 0.020 to 0.025 W/m°C (0.14 to 0.17 Btu • in/ft<sup>2</sup> • hr • °F).
- g) Temperature range: Cryogenic to 93.3 °C (200 °F).

#### 5. SYSTEM PROPERTIES

- a) System compressive strength: (modified ASTM D1621 with 1.27 mm (50 mils) jacket) approximately 414 to 552 kPa (60-80 lbs/in<sup>2</sup>), varies with pipe diameter.
- b) Service temperature range: the overall factory insulated system limitations are dependent on the core pipe type, insulation and application.
- c) Temperature limitations: minimum ambient installation temperature -34 °C (-29 °F).

#### 6. OUTER JACKET ON PIPE INSULATION (WITH ENHANCED COLD CLIMATE HANDLING PROPERTIES)

The outer protective jacket shall consist of either:

**i.) Tape wrap system:** (available from both manufacturing facilities)

- a) Jacket material: Scapa #366 polyethylene, UV inhibited, formulated for superior cold environment properties.
- b) Sealant: Butyl rubber and resin, applied hot in 0.63 mm (25 mils) multiple layers providing a shrink tightened waterproof bond throughout its entire length.
- c) Minimum elongation: (ASTM D1000) 300%, 6 month test.
- d) Tensile strength: (ASTM D1000) 6.83 kg/cm wide (38 lbs/in wide).

**ii.) Extruded system:** (available from Calmar, AB only)

- a) Jacket material: Extruded black high density polyethylene copolymer, UV inhibited and factory applied.
- b) Minimum cell classification 435560A for PE as per ASTM D3350.
- c) Minimum 2% carbon black, well dispersed.
- d) Density 0.953 g/cm<sup>3</sup> (59.5 lbs/ft<sup>3</sup>) ASTM D4883.
- e) Tensile Strength at yield (50.8 mm (2 in) /min) 26 MPa (3700 psi), ASTM D638.

### Recommended PE Jacket thicknesses\* for below grade applications-

Jacket OD ≤ 406.4 mm (16 in)	@ 1.27 mm (50 mils)
Jacket OD > 406.4 mm (16 in) to 609.6 mm (24 in)	@ 1.90 mm (75 mils)
Jacket OD ≥ 609.6 mm (24 in)	@ 2.54 mm (100 mils)

\*other jacket thicknesses are available upon request

## 7. INSULATED PIPE JOINTS

### a) Butt-fused and welded joints

Insulated pipe joints shall be completed using pre-fabricated rigid polyisocyanurate or polyurethane foam half shells and sealed with the application of suitable wrap around adhesive lined heat shrink sleeves as supplied by GF Urecon. The heat shrink sleeves shall overlap the insulation jacket by a minimum of 75.2 mm (3 in) on either side of the joint. The insulation shall be pre-grooved on the inside or slightly oversized to accommodate heat trace cable(s) if applicable.

### b) Bell x spigot joints

Insulated pipe joints shall be sealed with a 152.4 mm (6 in) wide heat shrink sleeve or butyl mastic tape if the system is not electrically heat traced, 304.8 mm (12 in) to 609.6 mm (24 in) wide if traced, depending on pipe size.

## 8. INSULATION KITS FOR FITTINGS

Insulation kits for fittings shall consist of rigid polyisocyanurate or polyurethane foam half shells with a fully bonded polymer protective coating on all exterior and interior surfaces, including ends. All insulation kits shall be supplied complete with silicone caulking for seams, stainless steel bands and gear clamps.

### a) Rigid polyisocyanurate or polyurethane foam

1. Density: (ASTM D1622) 32 kg/m<sup>3</sup> (2.0 lbs/ft<sup>3</sup>).
2. Compressive strength: (ASTM D1621) 124 to 186 kPa (18 to 27 lbs/in<sup>2</sup>).
3. Closed cell content: (ASTM D2856) 90%, minimum.
4. Water absorption: (ASTM C272) 2.0% by volume.
5. K factor: (ASTM C518) 0.027 W/m°C (0.19 Btu • in/ft<sup>2</sup> • hr • °F).
6. Thickness: 50.8 mm (2 in), other thicknesses upon request, shall match pipe insulation thickness.

### b) Polymer coating, GF Urecon BL-70-20EP

1. Two component high density polyurethane coating, black in color.
2. Density: 1170 kg/m<sup>3</sup> (73 lbs/ft<sup>3</sup>).
3. Durometer D scale 60.
4. Tensile strength: 11.10 MPa (1610 lbs/in<sup>2</sup>).
5. Tear strength: 26.5 N/mm (151 lbs/in).
6. Thickness: 1.78 mm (70 mils) outside surfaces, 0.51 mm (20 mils) inside surfaces.

## 9. ELECTRIC TRACING SYSTEM

The electric tracing system and associated controls shall be as per the manufacturer's recommendations with particular attention being paid to the watt densities applied through conduits on plastic pipes. All tracing cables and related accessories to be CSA approved and comply with CSA heat tracing standard C22.2 No. 130-03. Standard of acceptance is GF Urecon's Thermocable or approved equal. Please contact your GF Urecon representative for further details and design assistance.

*Note: Physical characteristics are nominal and may vary depending on pipe type and diameter.*

### CANADA

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5010 – 43<sup>rd</sup> Avenue  
Calmar (Alberta) T0C 0V0  
Tel: (780) 985-3636 Fax: (780) 985-2466  
E-mail: [urecon.can@georgfischer.com](mailto:urecon.can@georgfischer.com)

WEB SITE: [www.urecon.com](http://www.urecon.com)

ISO 9001 Registered Company

### UNITED STATES

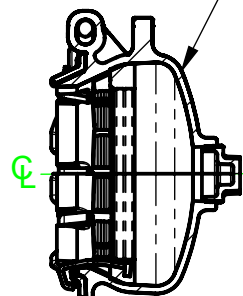
Tel: (321) 638-2364  
E-mail: [urecon.usa@georgfischer.com](mailto:urecon.usa@georgfischer.com)

WEB SITE: [www.urecon.com](http://www.urecon.com)

SIZE	PIPE OD RANGE	BODY OD	LENGTH	HEIGHT	MAX PRESSURE [PSI]	MAX DEFLECTION [DEGREES]	APPX. WEIGHT [LBS]
		A	B	C			
4	4.50-4.90	8.13	6.44	9.77	350	4	21
6	6.60-7.00	10.35	6.91	11.96	350	4	30
8	8.60-9.10	13.39	8.68	15.06	350	4	52
10	10.75-11.20	15.47	8.95	17.12	350	4	63
12	12.75-13.30	17.53	9.27	19.18	350	4	78

REVISIONS			
REV.	A	DESCRIPTION	EDITOR
R1	A	CHANGED NOTE 5 TO REFER TO INSTALLATION INSTRUCTIONS	TJM
		DATE	
		9/25/2020	

BODY, NSF 61  
FUSION BONDED  
EPOXY

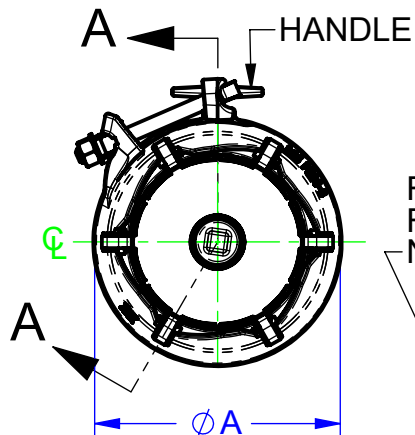


## SECTION A-A

### NOTES:

1. ALL MATERIALS ASTM A536 GRADE 65-45-12 DUCTILE IRON UNLESS OTHERWISE SPECIFIED
2. GASKET MATERIAL: NSF 61 SBR PER ASTM D2000 OR NSF 61 NBR AVAILABLE UPON REQUEST
3. FASTENER MATERIAL: HSLA, R-BLUE COATED NUT AND BOLT. WASHER IS 304 SS
4. BOLT GUIDE COMES STANDARD WITH BLACK XYLAN 1212. BLACK E-COAT AVAILABLE UPON REQUEST.

**A** 5. MINIMUM INSERTION PER INSTALLATION INSTRUCTIONS



RAMP RUNNER,  
REINFORCED  
NYLON 66

GRIPPERS,  
(XYLAN 1424)

DRAW HOOK,  
304L SS

GASKET

DETAIL B  
SCALE 1 : 3

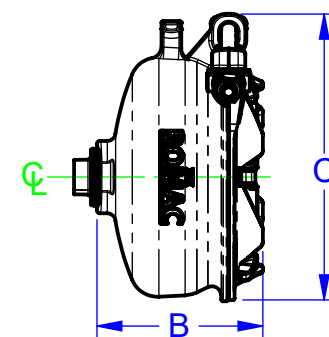
3  
WASHER  
304 SS

4  
BOLT GUIDE,  
(XYLAN 1212)

3  
T-BOLT,  
5/8-11  
HSLA (R-  
BLUE)

2 INCH, IP  
PLUG,  
MALLEABLE  
IRON

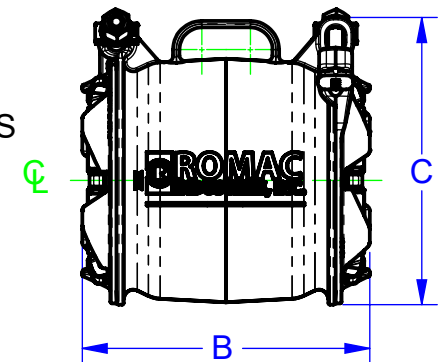
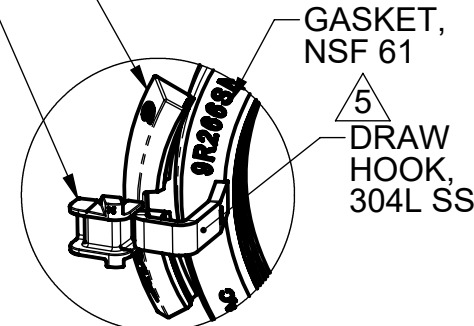
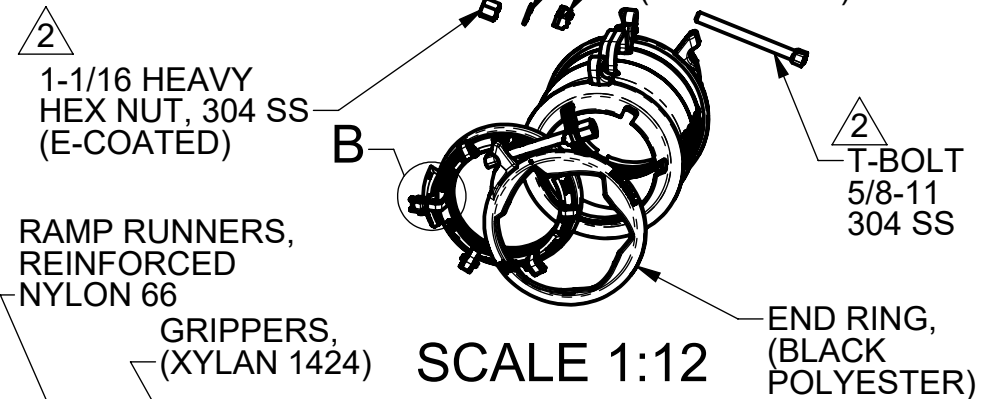
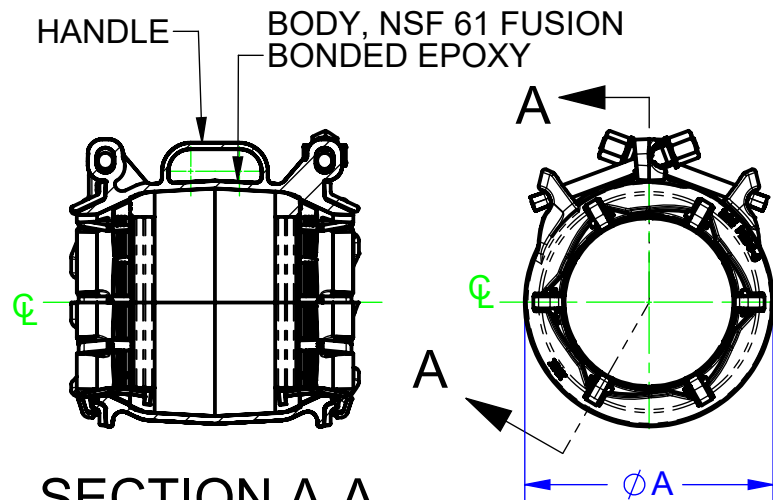
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PROPRIETARY NOTICE		UNLESS OTHERWISE SPECIFIED		SIGNATURES		DATE		ROMAC INDUSTRIES INC.								
THIS DRAWING CONTAINS CONFIDENTIAL PROPRIETARY INFORMATION AND IS THE PROPERTY OF ROMAC IND., INC. IT IS TO BE USED ONLY FOR THE PURPOSE FOR WHICH IT WAS SUBMITTED AND SHALL NOT HAVE ITS INFORMATION DISCLOSED OR REPRODUCED IN WHOLE OR IN PART FOR ANY PURPOSE WITHOUT PRIOR WRITTEN PERMISSION OF ROMAC IND., INC.		<ul style="list-style-type: none"><li>DIMENSIONS ARE IN INCHES</li><li>DRAWING NOT PERFECTLLY TO SCALE</li></ul>		DRAWN  Tyler Matthews		9/25/2020		<div></div>		TITLE  ALPHA END CAP, 4-12 INCH, STANDARD						
				APPROVED  Kevin Tam		9/25/2020				DWG. NO. CAD-045804		SIZE A	REV. NO. R1	SCALE 1:8	SHEET 1 OF 1	
MODEL NAME: ALPHA, END CAP, ASSEMBLY, 6 INCH MODEL CAD #: CAD-045543				CONFIGURATION NAME: EXPLODED VIEW		THIRD ANGLE PROJECTION		<div></div>		LEGACY DRAWING #: DRAWING FILE NAME: ALPHA, END CAP, ASSEMBLY, 4-12 INCH, STD					AUTHOR: Tyler Matthews	

SIZE	PIPE OD RANGE	BODY OD	LENGTH	HEIGHT	MAX PRESSURE [PSI]	MAX DEFLECTION PER SIDE [DEGREES]	APPX. WEIGHT [LBS]
		Ø A	B	C			
4	4.50-4.90	8.15	11.80	9.76	350	4	40
6	6.60-7.00	10.35	11.98	11.98	350	4	50
8	8.60-9.10	13.47	13.23	15.10	350	4	75
10	10.75-11.20	15.56	13.25	17.18	350	4	95
12	12.75-13.30	17.58	13.30	19.21	350	4	100

REVISIONS			
REV.	A	DESCRIPTION	EDITOR
R1	A	NOTE 5 TO REFERENCE INSTALL INSTRUCTIONS	TJM



PROPRIETARY NOTICE		UNLESS OTHERWISE SPECIFIED		SIGNATURES		DATE		ROMAC INDUSTRIES INC.						
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				APPROVED  Kevin Tam		10/12/2020								
MODEL NAME: ALPHA, COUPLING, ASSEMBLY, 4 INCH MODEL CAD #: CAD-045814		CONFIGURATION NAME: Default		THIRD ANGLE PROJECTION				DWG. NO. CAD-045677		SIZE A	REV. NO. R1	SCALE 1:8	SHEET 1 OF 1	
								LEGACY DRAWING #: DRAWING FILE NAME: ALPHA, COUPLING, 4-12 INCH, STANDARD					AUTHOR: Tyler Matthews	



# **The Corporation of the City of Kenora**

## **By-Law Number 123 - 2024**

### **A By-law to establish a General Tariff of Fees and Charges for the City of Kenora**

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Whereas the Municipal Act, 2001, as amended, authorizes a municipality to impose fees or charges on persons for services or activities provided or done by or on behalf of it; for costs payable by it for services or activities provided or done by or on behalf of any other municipality or any local board; and

Whereas various other statutes that govern municipalities also provide similar authority; and

Whereas the Corporation, acting under these authorities, charges fees for various activities, services, property use and other matters under its control; and

Whereas these fees may be adjusted from time to time in accordance with the annual budget process, the introduction of new or different services and the evolution of existing process and services; and

Whereas the Corporation considers that the consolidation of all or most of its fees and charges into one by-law is beneficial for users of services for which fees and charges are levied;

Now Therefore, the Council of the Corporation of the City of Kenora enacts as follows:-

1. That the following Schedules attached hereto and forming part of this By-law setting out the various departmental fees and charges are hereby approved:-

**“A” – Corporate Services & Finance**

**“B” – Community Services**

**“C” – Emergency Services**

**“D” – Engineering & Infrastructure**

**“E” – Development Services**

2. That the fees and charges set out on the attached Schedules are exclusive of any applicable government taxes and such applicable taxes will be added to these fees, unless otherwise noted.
3. That this By-Law shall come into force and take effect upon third and final reading thereof.
4. That By-Law Number 10-2024 is hereby repealed.

**By-Law Read a First and Second Time this 17<sup>th</sup> day of September, 2024**

**By-Law Read a Third and Final Time this 17<sup>th</sup> day of September, 2024**

**The Corporation of the City of Kenora:-**

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**Andrew Poirier, Mayor**

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**Heather L. Pihulak, City Clerk**

## Schedule 'A' – Corporate Services & Finance

### To By-Law Number 123-2024

DEPARTMENTAL SECTION	FEE DESCRIPTION	FEE
1. Tax Office	Tax Certificate	\$ 60.00
2. Tax Office	Duplicate Receipt of Taxes	\$ 10.00
3. General	Photocopy/Print Out – B & W	\$0.50 Per page
4. General	Photocopy/Print Out - Colour	\$1.00 Per page
5. Clerk's Office	Freedom of Information Request	\$ 5.00 (no tax) as per O.Reg.
6. Clerk's Office	Commissioner of Oath Services	\$25.00 for up to two signatures \$5.00 for every other signature to the same document
7. General	NSF Cheque	\$ 40.00
8. Customer Service	Burial Permits	\$ 20.00 each
9. Customer Service	Marriage License Fee After-hours surcharge to issue additional Marriage Licence	\$ 160.00 \$ 200.00 Plus cost of additional licence
10. Customer Service	Lottery Fees	3% of total price value for all lottery types
11. Clerk's Office	Civil Marriage Solemnization Fees (per ceremony)  Providing Witnesses (City Hall)	\$ 300.00 Monday - Friday \$ 350.00 Saturday & Sunday \$ 450.00 - Unincorporated Area surrounding the City of Kenora, including on a vessel for this purpose. \$ 300.00 Renewal of Vows \$25.00 per staff person
12. Clerk's Office	Use of Council Chambers	\$ 75.00 per Marriage ceremony Monday–Friday only
13. Customer Service	Credit Search – Personal Credit Search – Commercial	\$ 25.00 \$ 60.00
14. Customer Service	Re-printing of Utility Bills	\$10.00 per bill
15. Clerk's Office	Request Special Council Meeting	\$ 350.00
16. Customer Service	Refund processing To cover the cost of refunding credits to customers when credits are not the result of an error by the City	\$ 25.00
17. Customer Service	Water / POA to tax account transfer Administration Fee  This fee is charged when we are transferring an outstanding balance from a water/wastewater account or a Provincial Offences charge that we are permitted to place on the tax roll for collection purposes.	\$ 50.00
18. Customer Service	Replacement parking pass	\$25.00 per pass
19. Customer Service	Additional Parking Pass (reserved lots only)	\$25.00 per pass

20. Customer Service	Account Payment Transfers If you have moved or you have more than one water utility account, you must ensure all your water utility accounts have been set up for internet/telephone banking or when making a payment at your financial institution. This fee is charged when a payment has to be transferred from one account to another	\$25.00
21. Customer Service	Collections Fees This collections fee is added to accounts when the outstanding account is transferred to a collection agency to collect on behalf of the municipality. The customer then would owe the balance of the account plus the additional 30% charged by the collection agency which is charged to the municipality for collection efforts	30%
22. Bylaw Enforcement	Reserved Parking Stall	\$30.00/ stall/day *No Fee for the purpose of the establishment of outdoor commercial patios to a maximum of four spots, and subject to staff application approval
23. Bylaw Enforcement	Property Standards Clean Up Administrative Fee	15% of total invoice for property cleaning (exclusive of HST)
24. Bylaw Enforcement	Illegal Sign Retrieval	\$20.00 per sign

25. Tax Sales Act – Cost I	<b>Preliminary work, registration of Tax Arrears Certificates to the expiry of the redemption Period comprising of:</b>	
	Preliminary Work/title searches	\$ 650.00
	Registration of tax certificate	\$ 150.00
	Notification of Interested Parties	\$ 175.00
	Statutory Declaration Registration	\$ 100.00
	Final Notification	\$ 175.00
	Calculation of cancellation price	\$ 100.00
	Registration Cancellation Certificate	\$ 150.00
	<b>TOTAL:</b>	<b>\$ 1,500.00</b>
26. Tax Sales Act – Cost II	Preparation of extension agreement:	\$ 250.00
27. Tax Sales Act – Cost III	Sale by tender/auction comprising of:	
	Advertising locally-4 wks @ \$250	\$1,000.00
	Advertising once, Ont. Gazette	\$ 350.00
	Tender Admin/Auctioneer Fee	\$ 300.00
	Property Appraisal	\$ 250.00
	Registration Tax Deed	\$ 200.00
	Statutory Declaration	\$ 200.00
	Legal Cost-Payment Dist. Court	\$ 200.00
	<b>TOTAL:</b>	<b>\$ 2,500.00</b>
	Survey (if required)	Actual Costs

## SCHEDULE 'B'- COMMUNITY SERVICES

To By-Law Number 123-2024

### Kenora Recreation Centre Membership Rates

Admission Rates (+ applicable taxes)							
	<b>Infants &amp; Tots</b> 0 - 3 yrs.	<b>Child</b> 4 - 13 yrs.	<b>Youth</b> 14 - 17 yrs.	<b>Adult</b> 18 yrs. & over	<b>Post Secondary Student</b>	<b>Senior</b> 60 +	<b>Family</b> See * below
<b>Visit</b>	FREE	\$3.55	\$4.21	\$6.66	\$5.43	\$4.21	\$17.52
<b>10 Visits</b>	FREE	\$25.20	\$32.88	\$55.24	\$44.02	\$32.88	\$166.49
<b>25 Visits</b>	FREE	\$52.35	\$68.49	\$116.46	\$92.39	\$68.49	\$350.00
<b>1 month</b>	FREE	\$35.49	\$42.15	\$66.55	\$54.35	\$42.15	\$175.25
<b>3 months</b>	FREE	\$96.80	\$114.95	\$181.50	\$148.23	\$114.95	\$477.95
<b>6 months</b>	FREE	\$176.00	\$209.00	\$330.00	\$269.50	\$209.00	\$869.00
<b>Annual Membership</b>	FREE	\$320.00	\$380.00	\$600.00	\$490.00	\$380.00	\$1580.00
<b>Student- Post Secondary</b>					\$140.00 Summer Rate		

\* **Family:** Includes 2 adult parents/guardians & unmarried children under 18 years and/or seniors living in the same household (up to 5 members).

\* **Business:** \$1,200.00 Annual Business Membership Fee-in addition to regular full Complex Membership

### Corporate Membership Plan

1. All contracts shall be reviewed annually.
2. All contracts must be signed by a person of authority representing the business and the Recreation Coordinator before it can be offered to employees.
3. Corporations must have five (5) participating members to qualify.
4. Contributions from the City of Kenora will be contingent on a contribution by the employer and will be limited as follows:  i) Matching subsidy by the City of Kenora up to a maximum of 20% off any annual membership.

### City Of Kenora Employee Membership Rate

An Annual Kenora Recreation Centre Membership purchased by a full-time City of Kenora employee shall be reduced by 30%, upon proof of their being an existing, full-time employee with the Corporation.

## Pool Rental Rates Per hour

Minor Resident	
1-30 People	\$113.86
31-100 people	\$136.24
101-180 people	\$166.54
Adult Resident	
1-30 People	\$125.82
31-100 people	\$156.91
101-180 people	\$186.61
Non-Resident	
1-30 People	\$177.63
31-100 people	\$206.00
101-180 people	\$235.52
Private Pool rental	\$318.30

Kenora Swimming Sharks (KSS) Pool Rental Rates	
Minor ½ pool rate	\$ 55.25
Adult ½ pool rate	\$ 65.23
Minor Rate	\$ 85.49
Adult rate	\$105.46
Shared Adult and Minor rate	\$ 95.47

**\*Special Kenora Swimming Sharks Pool Rental Rate:** The local competitive swim team rents the pool space during prime time. The coaches for the swim team received their National Lifesaving Service certificate allowing them the ability to guard/coach their swimmers during their session. This designation decreases their cost by the City not having to provide the rental with lifeguards. The Kenora Swim Sharks provide both youth and adult programs.

## Fitness Classes and Private Swim Lessons

Fitness Instructional Rate	
Drop – in	\$ 9.26
10 classes	\$ 83.34
25 classes	\$173.63
Private Swim Lessons 14 and under	\$23.15
Private Swim Lessons 15 and over	\$26.15

Ice Rental Per hour (+ applicable taxes) Ice Season			
<b>Resident:</b>			
<b>2024</b>		<b>2025</b>	<b>2026</b>
Minor Recreation Prime (17 yrs. & under)	\$104.85	\$112.92	\$120.98
Minor Recreation Non- Prime	\$83.88	\$90.34	\$96.78
Minor Game/Tournament/Special Event (17 yrs. & under)	\$112.45	\$122.60	\$132.90
Minor Game/Tournament/Special Event Non-Prime	\$89.96	\$98.08	\$106.32
Adult Recreation (18 yrs. & over)	\$137.45	\$157.09	\$176.72
Adult Non-Prime	\$109.96	\$125.67	\$141.38
Adult Game/Tournament/Special Event (18 yrs. & over)	\$145.60	\$166.40	\$187.20
Adult Game/Tournament/Special Event Non-Prime	\$116.48	\$133.12	\$149.76
<b>Non-Resident:</b>			
Recreation	\$182.08	\$187.95	\$193.83
Game/Tournament/Special Event	\$193.56	\$199.80	\$206.05
<b>Summer Ice (May-August)</b>	\$185.53	\$194.36	\$203.20

### Room Rental (+taxes)

	Per hour	4 hours	Full day	Weekend
Party Room/Lobby /Lounge/Meeting Room/Board Room (BEKMA)	\$25.00	\$75.00	\$125.00	\$250.00
Multi-Purpose Room/Rotary Room/Community Hall (BEKMA)	\$35.00	\$105.00	\$175.00	\$325.00
Aerobics Room (MCSC)	\$40.00	\$120.00	\$200.00	\$350.00
Storage Rental Fees (MCSC)	\$0.66 per square foot			

### Programming Fees

Programming fees (ie. Swim lessons, day camps etc) not included in the Tariffs and Fees will take into consideration all operating costs incurred to deliver the program and will be established by the General Manager of Recreation & Culture and approved by the CAO, or designate.

## Kenora Recreation Centre and Keewatin Memorial Arena Dry Pad

Description	Rate	
Minor – Per Hour	\$25.00/hour	
Adult – Per Hour	\$40.00/hour	
Description	Rates	
	Resident	Non-Resident
Special Event – Day with Liquor	\$824.00	\$954.00
Special Event – Day without Liquor	\$566.50	\$689.00
Special Event Set-up/Tear-down -Day	\$300.00	\$325.00
Description		
Description	Rate	
Locker Fees – Keewatin Memorial Arena	\$525 (plus HST) annually	

### Additional Charges (Kenora Recreation Centre)

Member Card Replacement	\$5.00 Per card
Cancellation Fee	\$25.00 Per program
N.S.F. Cheque Fee	\$25.00 Per cheque
Portable P.A. System	\$25.00 Per day
Overhead Projector	\$10.00 Per day
TV/VCR/DVD	\$10.00 Per day
Office Supplies	
- Flip Chart/markers/paper	\$10.00 Per day
- Easel, white board/with markers	\$7.00 Per day
- Copies Per page	\$0.25
- Fax- (send or receive)	\$1.00 Per sheet

### Kenora Recreation Centre Overnight Parking Fees:

FEE DESCRIPTION	FEE
Overnight Parking	\$ 7.00
Weekly – 7 Days	35.00
Monthly – 30 Days	130.00
Seasonal	390.00

# Advertising Rates Kenora Recreation Centre And Keewatin Memorial Arena

## Rink Boards/ Ice Surface Doors

	2024	2025	2026
Boards	\$ 450.00	\$ 500.00	\$ 550.00
Man doors	\$ 200.00	\$ 200.00	\$ 200.00

## Wall Advertising

2024	2025	2026
\$ 215.00	\$230.00	\$ 245.00

## Zamboni per side

2024	2025	2026
\$ 525.00	\$ 550.00	\$ 575.00

## Zamboni Door

2024	2025	2026
\$ 630.00	\$ 660.00	\$ 690.00

## Press Booth-Front & Both Sides

Year 1	Year 2	Year 3	Renewal
\$ 1000.00	\$ 1000.00	\$ 1000.00	\$ 1000.00

## Ice Surface Corporate Advertising

Size	2024	2025	2026
Small	\$ 725.00	\$ 750.00	\$ 775.00
Large	\$ 1550.00	\$ 1600.00	\$ 1650.00

## Ice Surface Non-Profit/Minor Groups Advertising

Yearly
\$ 200.00

## Banners

10% of amount invoiced by groups to advertisers

## TV/Video Advertising

Monthly	Season
\$ 30.00	\$ 150.00

## Bundles

**Add TV/VIDEO to any other  
advertising in arena for only  
\$100.00 per year**

## Facility Rental Rates

Stage	➤ \$75.00 set up and take down
Power Hook-up	➤ Minor power user (Kinsmen-Flea Market-Craft Shows) \$50.00 ➤ Medium power user (Dog Show) \$125.00 ➤ Major Power User (Trade Shows, Midway, Circus, Pow Wows etc.) \$200.00
Vendor Permit	\$500 for events over one day
Vendor Permit	\$250 for events one calendar day or shorter



**Municipal Ball Fields**  
(Season – April 30 to September 30 – 20 weeks)

Resident	2024		2025		2026	
Field	Hourly Youth Fee	Hourly Adult Fee	Hourly Youth Fee	Hourly Adult Fee	Hourly Youth Fee	Hourly Adult Fee
JM Millennium Park (A&W) Central Portage Bay	\$7.08/hr	\$19.83/hr	\$9.16/hr	\$125.66/hr	\$11.25/hr	\$31.50/hr
Kenora Recreation Centre (lighting)	\$7.83/hr	\$21.25/hr	\$10.66/hr	\$27.50/hr	\$13.50/hr	\$33.75/hr
Tournament / Special Event (drag/line after every 4 hrs, 8:00 a.m-11:00 p.m.)	Youth	Adult	Youth	Adult	Youth	Adult
JM Millennium Park (A&W) Central Portage Bay	\$42.50 per field/day	\$137.50 per field/day	\$55.00 per field/day	\$165.00 per field/day	\$67.50 per field/day	\$192.50 per field/day
Kenora Recreation Centre (lighting)	\$56.67 per field/day	\$156.25 per field/day	\$73.34 per field/day	\$187.50 per field/day	\$90.00 per field/day	\$218.75 per field/day
Non Resident						

<b>Non-Resident Recreation</b> (lights and no lights)	\$40.00
<b>Non-Resident Tournament/Event</b> (Drag/Line after every 4 Hours, 8:00AM – 11:00PM)	\$250.00
Additional Drag Additional Line	\$10.00 \$10.00

**Senior Baseball Field Rates**

Field	Senior Fee Hourly
Co-op- JM Central A & W-Millennium Portage Bay- Keewatin	\$5.00/hr
KRC(Lighting)	\$6.00/hr
Tournament Rates	Senior Rates
Co-op- JM Central A & W- Millennium Portage	\$40.00 per field per day
KRC	\$50.00 per field per day

**Concession** - \$50.00 per day (Extra charges will apply for extra hours, see rates above)

**Outdoor Grounds** - \$150.00 per day, not including power

## Park Rental Permit Rates (excluding Beaches)

This table applies to Appendix "A"  
Of the General Terms and conditions of the Park Rental Permit  
(May Long Weekend to September Long Weekend)

Fee Description	Fee
Youth Groups	\$ 50.00 per day (includes Schools & Youth Organizations)
Private Gatherings	\$100.00 per day (fewer than 50 people)
Special Events	\$200.00 per day (groups over 50 people)
Community Events	No Charge (must be free admission)
Municipal Events	No Charge

## Ice Candle Fees

Fee Description	Fee
Pick-up Candle	\$8.00 per ice candle
Place and light Candle	\$10.00 per ice candle
Wax Candle Only	\$3.00 per candle

## Bench Installation

Fee Description	Fee
Bench Installation Charge	\$ 300.00 per day (covers site preparation, concrete base and placement on site)

Whitecap Pavilion Rentals	Private Rentals
Half Day	\$420.00
Full Day	\$1,050.00
Weekend	\$2,625.00
Wedding	\$3,000.00

Whitecap Pavilion Rentals	Public Events
Special events which are open to the community at large and of municipal significance – subject to City staff approval	\$0.00

Lake of the Woods Discovery Centre	Rental Rates
During Business Hours (Amphitheatre) Flat Rate	\$175.00
Hourly Rate (Amphitheatre)	\$ 50.00
After Business Hours (5 pm – 8 pm)	\$250.00
After Business Hours (5 pm – 10 pm)	\$350.00
After Business Hours (5 pm – 1 am)	\$750.00

## SCHEDULE 'C' – EMERGENCY SERVICES

### To By-Law Number 123-2024

Departmental	Fee Description	Fee
1. Inspections Licensing	LCBO License Renewal or Site Inspection/Compliance Letter	\$ 75.00 Charitable Fund Raisers Exempt
2. Inspection	Day Care/Group Home License Site Inspection/copy/Release of Fire Inspection Report (includes follow-up inspection)	\$ 100.00
3. Real Estate Requests	Single Family Dwelling site Inspection/Copy/Release of Fire Inspection Report (includes follow-up inspection)	\$ 150.00
	Assembly Occupancies Site Inspection Copy/Release of Fire Inspection Report (includes follow-up inspection)	\$ 150.00
	Boarding, Lodging and Rooming Houses Site Inspection/Copy/Release of Fire Inspection Report (includes follow-up inspection)	\$ 150.00
	Buildings up to and including six storeys in building height with residential occupancies Site Inspection/Copy/Release of Fire Inspection Report (includes follow-up inspection)	\$ 300.00
	Two-unit Residential Occupancies Site Inspection/copy/Release of Fire Inspection Report (includes follow-up inspection)	\$ 150.00
	Business/Personal Service/Mercantile and Industrial Occupancies Site Inspection/Copy	\$ 250.00
4. Other Administrative Requests	Fire inspection reports or investigation reports (e.g. Insurance adjustors' requests, company/other requests)	\$ 50.00
	Fire Inspection Service outside of City boundaries	Full Cost Recovery
	Open Air Burning Permit	\$ 15.00
	Site Inspection of Open Air Burning Permit	\$ 75.00
	Fireworks Site Inspection/Copy/Release of Inspection Report	\$ 75.00
	Portable Fire Extinguisher Inspections	\$ 75.00
5. Avoidable False Alarms	Avoidable False Alarms – in excess of two (2) incidents per calendar year	Fees are as per current rates set by Ministry of Transportation
6. Training	Portable Fire Extinguisher Training	\$ 20.00/student to a maximum cost of \$200.00 per two (2) hour training session
7. Training	Requested Training and Lectures inside City boundaries	\$ 20.00/student to a maximum cost of \$200.00 or as per Chiefs discretion
8. Training	Training and Lectures outside City boundaries	Full Cost recovery

9. Training	Firefighter Training	\$150.00 per day per student or as per cost determined
10. Training	Training Room Rental	\$ 150.00 per full day \$ 75.00 per half day
11. Fire Prevention Sign Rental	Event per 10 day sign rental	\$ 50.00 Partners are free of charge
12. Fire Watch as Required	Fire Watch e.g. fire alarm system failures	Full Cost Recovery
13. Emergency Response to Motor Vehicle Incidents of Hwy 17 involving non-City Residents	Emergency response to Motor Vehicle Collisions on numbered Provincial Highways as per Ministry of Transportation agreements	Fees are as per current rates set by Ministry of Transportation half hour or part thereof
14. Emergency Services	→	Full Cost Recovery
15. Hazardous Materials	→	Full Cost Recovery
16. Fire Response Fees Indemnification Technology	Recovered from insured perils for Fire Department emergency services	Fees are as per current rates set by Ministry of Transportation Should the insurer pay the coverage to the property owner, the property owner is liable to remit these funds to the municipality or its representative.
17. Air Bottles	Filling of air bottles for area Fire and Emergency Services	\$ 15.00/bottle
18. Air Bottles	Filling of air bottles for Industry	\$ 20.00/bottle
19. Air Bottles	Filling of air bottles – other, i.e. Dive Teams, Private or Provincial	\$ 20.00/bottle
20. Hose	Cleaning and Drying	\$ 5.00/length
21. Hose	Rental	\$ 5.00/length/day
22. Hose	Coupling Repair	\$ 25.00/coupling
23. Laundering of Protective Clothing	→	\$20.00/set of turnout gear
24. Parking	Monthly Rate per parking stall	\$50.00

# SCHEDULE 'D'- ENGINEERING & INFRASTRUCTURE DEPARTMENT

## To By-Law Number 123-2024

DEPARTMENTAL SECTION	FEE DESCRIPTION	FEE
1. Roads	Encroachment Permit	\$ 150.00 Daytime rate
2. Roads	Entrance Permit	\$ 235.00
3. Roads Chipping:		\$ 190.00 per hour 2 hour minimum
4. Roads	Culvert Installation	\$ 70.00/linear metre
5. Roads	Steaming/Culvert Thawing  - After hours	\$ 115.00/hour \$ 270.00/hr, 2 hr min (after hrs) \$ 135.00/hr, after first 2 hrs (after hrs)
6. Roads	Road Re-instatement Inspection	\$ 300.00
7. Roads – Various Roadwork	Loader with operator Tandem truck with driver Box Blade with operator 1 person crew (Only available when paired with equipment above) 2 person crew w/truck (no equipment) 3 person crew w/truck (no equipment) 4 person crew w/truck (no equipment) 5 person crew w/truck (no equipment) Asphalt recycler+hot box + truck w/driver Tack tank + truck w/ driver	\$ 110.00/hour \$ 115.00/hour \$ 120.00/hour \$ 75.00/hour  \$135.00/hour \$195.00/hour \$255.00/hour \$315.00/hour \$135.00/hour \$140.00/hour
	Roads Materials	Billed at Cost
	<b>SOLID WASTE</b>	
8. Solid Waste	Sale of Garbage Bag Tags	\$ 2.50 per tag \$ 2.60 per tag (effective Jan 1, 2025)
9. Solid Waste	Sale of Garbage Bag Tags to Retailers (for resale purposes)	\$2.40 per tag \$2.50 per tag (effective Jan 1, 2025)
10. Solid Waste	Blue Box Replacements	\$ 15.00
11. Solid Waste	ICI Roll out containers (Per bin) Bags received at Transfer Station	\$140.00 \$156.50 (effective Jan 1, 2024) \$162.95 (effective Jan 1, 2025)
12. Solid Waste	Per bag not exceeding 11.36 kg (1 – 7 bags)	\$ 2.50 per bag \$ 2.60 per bag (effective Jan 1, 2025)
13. Solid Waste	All approved materials up to 250 kg	\$20.00 minimum fee \$22.35 (effective Jan 1, 2024) \$23.15 (effective Jan 1, 2025)
14. Solid Waste	All approved materials over 250 kg	\$120.00 per tonne \$134.15 (effective Jan 1, 2024) \$138.85 (effective Jan 1, 2025)
15. Solid Waste	Approved materials re-directed to Kenora Area Landfill	\$85.00 per tonne \$95.00 (effective Jan 1, 2024) \$98.35 (effective Jan 1, 2025)
16. Solid Waste	Approved materials re-directed to Reuse Area	\$45.00 Per tonne \$50.30 (effective Jan 1, 2024) \$52.05 (effective Jan 1, 2025)
17. Solid Waste	ICI Cooking Oil	\$2.50 up to 20 litres \$2.80 (effective Jan 1, 2024) \$2.90 (effective Jan 1, 2025)

18. Solid Waste	Approve recycle materials	No Charge
19. Solid Waste	Brush, Tree & Yard Waste	<b>up to 250kg</b> \$20.00 minimum fee \$22.35 (effective Jan 1, 2024) \$23.15 (effective Jan 1, 2025)  <b>Over 250 Kg</b> \$120.00/tonne \$134.15 (effective Jan 1, 2024) \$138.85 (effective Jan 1, 2025)
	Bagged Leaf & Grass Clippings	Free
20. Solid Waste	Approved Contaminated Materials based on a consecutive haul from a single project location	<b>0-50 tonnes</b> \$85.00 /tonne \$95.00 (effective Jan 1, 2024) \$98.35 (effective Jan 1, 2025)  <b>51-100 tonnes</b> \$70.00 / tonne \$78.25 (effective Jan 1, 2024) \$81.00 (effective Jan 1, 2025)  <b>101-500 tonnes</b> \$60.00 / tonne \$67.05 (effective Jan 1, 2024) \$69.40 (effective Jan 1, 2025)  <b>501 tonnes &amp; over</b> \$55.00 / tonne \$61.50 (effective Jan 1, 2024) \$63.65 (effective Jan 1, 2025)
21. Solid Waste	Weigh Scales Out of Service:	
	* Per Bag	\$2.50 per bag
	* Not to exceed 46 litres filled to a gross rate not more than 11.36 kg (25lbs)	\$2.60 (effective Jan 1, 2025)
	Per car trunk full/utility load	\$24.00 \$26.80 (effective Jan 1, 2024) \$27.75 (effective Jan 1, 2025)
	Per pick-up (1/2 ton) full load	\$24.00 \$26.80 (effective Jan 1, 2024) \$27.75 (effective Jan 1, 2025)
	Per 1 tonne stake truck (6 yards) full load	\$42.00 \$46.95 (effective Jan 1, 2024) \$48.60 (effective Jan 1, 2025)
	Per 3 tonne stake truck	\$102.00 \$114.00 (effective Jan 1, 2024) \$118.00 (effective Jan 1, 2025)
	Per tandem truck (14 yards)	\$300.00 \$335.35 (effective Jan 1, 2024) \$347.10 (effective Jan 1, 2025)
	Per packer (25 yards)	\$408.00 \$456.05 (effective Jan 1, 2024) \$472.00 (effective Jan 1, 2025)
	Per packer (40 yards)	\$480.00 \$536.55 (effective Jan 1, 2024) \$555.30 (effective Jan 1, 2025)

	* Bag not to exceed 46 litres filled to a gross rate of not more	
	<u>NOTE:</u> * Transfer Facility Attendant shall have the authority to pro- rate part loads or intermediate size vehicles	
22. Solid Waste	Schedule of Fees for ICI Recycling Services- tipping Fee at Kenora Area Transfer Facility: See Below	
	<ul style="list-style-type: none"> <li>- Bulk Corrugated Cardboard (OCC) and Paper.</li> <li>- Solid Waste Commercial Drop-off Charge:</li> </ul>	\$6.00 minimum up to 200kg \$65.00/tonne (pro-rated) over 200kg  \$95.00/tonne (pro-rates) over 200kg  Roll Out Containers (95gal) \$3.00/container/pick up delivered to Transfer Station
23. Solid Waste	Commercial Collection of Blue Box Recyclable Materials: See Below	
	Roll-out container	\$6.00/container/pick-up
	Large Recycle Bags	\$3.00/bag/pick-up
24. Solid Waste	Schedule of Fees for Solid Waste Services to Municipal Buildings & Facilities – Curbside Collection of Solid Waste Materials: See Below:	
	6 cubic yard dumpster container	\$60.00 Per pick-up \$67.05 (effective Jan 1, 2024) \$69.40 (effective Jan 1, 2025)
	40 Yard Bin Switch During Office Hours After Office Hours	<u>Office Hours (per switch)</u> \$115.00 \$128.55 (effective Jan 1, 2024) \$133.05 (effective Jan 1, 2025)  <u>Out of Office Hours (per switch)</u> \$250.00 \$279.45 (effective Jan 1, 2024) \$289.25 (effective Jan 1, 2025)
	Haul Contractor Bin to Kenora Area Landfill Office Hours After Office Hours	<u>Office Hours (per pick up)</u> \$215.00 \$240.35 (effective Jan 1, 2024) \$248.75 (effective Jan 1, 2025)  <u>After Office Hours (per pick up)</u> \$315.00 \$352.10 (effective Jan 1, 2024) \$364.45 (effective Jan 1, 2025)

25. Solid Waste	Disposal of propane Tanks	<u>20lbs and under (per tank)</u> \$2.00 \$2.25 (effective Jan 1, 2024) \$2.30 (effective Jan 1, 2025)  <u>Over 20lbs (per tank)</u> \$5.00 each \$5.60 (effective Jan 1, 2024) \$5.80 (effective Jan 1, 2025)
26. Solid Waste	Household Hazardous Waste Day	Free to dispose
27. Solid Waste	Weighing of vehicle on Scale – per vehicle	\$20.00
28. Solid Waste	Industrial Solid Waste delivered to Kenora Area Landfill – Minimum 1,000 tonnes/year	<u>Per tonne</u> \$45.00 \$50.30 (effective Jan 1, 2024) \$52.05 (effective Jan 1, 2024)
29. Solid Waste	40 Yard Bin Rental/week/bin - Plus material drop off and pick-up in approved areas	\$250.00 \$279.45 (effective Jan 1, 2024) \$289.25 (effective Jan 1, 2025)
30. Solid Waste	Biosolids (formerly sewer sludge) per tonne	\$105.00 \$117.35 (effective Jan 1, 2024) \$121.50 (effective Jan 1, 2024)
31. Solid Waste	Handling of Approved Hazardous Materials that require immediate burial (handling surcharge)	\$140.00/transaction handling charge \$156.50 (effective Jan 1, 2024) \$162.00 (effective Jan 1, 2025)
32. Solid Waste	Commercial Garbage Pickup Surcharge:	<u>Regular Labour Rate (per hour)</u> \$40.00 \$44.70 (effective Jan 1, 2024) \$46.30 (effective Jan 1, 2025)  <u>Student Labour Rate (per hour)</u> \$30.00 \$33.55 (effective Jan 1, 2024) \$34.70 (effective Jan 1, 2025)
<b>Docking</b>		
33. Seasonal Docking Fees	Seasonal Docking a) Keewatin b) Harbourfront Dock “C” c) Water Street d) Coney Island (available to owners of interior Coney Island lots only) e) Mooring Balls (based on a maximum 72 hour period per each mooring buoy)	Fees and Rates: a) \$ 1025.00 b) \$ 1025.00 c) \$ 832.00 d) \$ 832.00  e) \$27.50/day  f) \$50.00
34. Engineering – GIS External Mapping	Hard copy drawings/PDF Drawings DIGITAL DRAWINGS -AUTOCAD VECTORS -TIFF ORTHO PHOTOS	See below
	City Road/Street Map	\$90.00
	CUSTOM MAPPING: Topographic features areas per square km-digital format	\$115.00



	Survey Line & ownership line Areas per sq km-digital format	\$ 115.00
	Address Numbers Areas per Square km	\$ 115.00
	Contours Areas per Square km	\$ 125.00
	Sewer Main Schematic per Square km	\$ 125.00
	Water Main Schematic per Square km	\$ 125.00
	Storm Sewer Schematic Areas per Square km	\$ 125.00
	Orthographic Photo Areas per Square km	\$ 100.00
	Shorelines Areas per Square km	\$ 90.00
	Road Centre Lines Areas per Square km	\$ 80.00
	City Limits Areas per Square km	\$ 115.00
	Minimum charge	\$ 50.00
	Custom work by the hour (by availability)	\$ 125.00
Description of	Size	Base Price
City Road Map	30 x 36	\$15.00
Base Topographic Vector or Ortho Photo Map	smaller than 24" x 36"	\$8.85
Arch D-24x36-max 10 pages per occurrence	24" x 36"	\$17.50 per page
Larger than Arch D- 24x36-max 10 pages per occurrence	larger than 24" x 36"	\$25.00 per page
Property/Survey Lines		\$8.85
Contours		\$8.85
Sewer /Water/Storm Schematic		\$8.85
Civic Address		\$4.43
Easement		\$4.43
33. Engineering	City Engineering Services Provided to Third Parties (by availability)	Minimum fee \$560 for up to 4 hrs per staff member and \$140/hr for every staff member beyond minimum fee

2024 - SCHEDULE 'D' - WATER & SEWER RATE CHARGES

TABLE 2024 (i)

	Meter Size	Ratio	Fixed Cost per Month	Water Cost	Sewer Cost	
5/8"	15	1.0	\$51.43	\$1.74	100% water cost	
3/4"	18	1.1	\$56.58	\$1.74	100% water cost	
1"	25	1.4	\$71.99	\$1.74	100% water cost	
1 1/2"	40	1.8	\$92.54	\$1.74	100% water cost	
2"	50	2.9	\$149.13	\$1.74	100% water cost	
3"	75	11.0	\$565.58	\$1.74	100% water cost	
4"	100	14.0	\$719.88	\$1.74	100% water cost	
6"	150	21.0	\$1,079.76	\$1.74	100% water cost	
8"	200	40.0	\$2,056.73	\$1.74	100% water cost	

**\*\* Customers with approved bleeders shall receive a discount of 50% on their volumetric water consumption for the approved bleeding period as directed by the water and sewer supervisor each year. This period will be no earlier than November 1st and ending no later than April 30th of the following year.**

2025 - SCHEDULE 'D' - WATER & SEWER RATE CHARGES

TABLE 2025  
(i)

	Meter Size	Ratio	Fixed Cost per Month	Water Cost	Sewer Cost	
5/8"	15	1.0	\$53.02	\$1.79	100% water cost	
3/4"	18	1.1	\$58.33	\$1.79	100% water cost	
1"	25	1.4	\$74.22	\$1.79	100% water cost	
1 1/2"	40	1.8	\$95.41	\$1.79	100% water cost	
2"	50	2.9	\$153.75	\$1.79	100% water cost	
3"	75	11.0	\$583.11	\$1.79	100% water cost	
4"	100	14.0	\$742.20	\$1.79	100% water cost	
6"	150	21.0	\$1,113.23	\$1.79	100% water cost	
8"	200	40.0	\$2,120.49	\$1.79	100% water cost	

**\*\* Customers with approved bleeders shall receive a discount of 50% on their volumetric water consumption for the approved bleeding period as directed by the water and sewer supervisor each year. This period will be no earlier than November 1st and ending no later than April 30th of the following year.**

## 2026 - SCHEDULE 'D' - WATER & SEWER RATE CHARGES

TABLE 2026

(i)

	Meter Size	Ratio	Fixed Cost per Month	Water Cost	Sewer Cost	
5/8"	15	1.0	\$54.66	\$1.85	100% water cost	
3/4"	18	1.1	\$60.14	\$1.85	100% water cost	
1"	25	1.4	\$76.52	\$1.85	100% water cost	
1 1/2"	40	1.8	\$98.37	\$1.85	100% water cost	
2"	50	2.9	\$158.52	\$1.85	100% water cost	
3"	75	11.0	\$601.19	\$1.85	100% water cost	
4"	100	14.0	\$765.21	\$1.85	100% water cost	
6"	150	21.0	\$1,147.74	\$1.85	100% water cost	
8"	200	40.0	\$2,186.23	\$1.85	100% water cost	

**\*\* Customers with approved bleeders shall receive a discount of 50% on their volumetric water consumption for the approved bleeding period as directed by the water and sewer supervisor each year. This period will be no earlier than November 1st and ending no later than April 30th of the following year.**

Year	Fixed cost per unit per month	Water Cost /m3	Sewer Cost (100% of total water charges)	Total	50 % of Total	% of phase in adjustment	Total Monthly Per Unit Cost
2021	**\$46.93	Based on Consumption from main water	\$46.93	\$93.86	\$93.86 x 50% = \$46.93	\$46.93 x 66.67%	**\$31.28
2022	**\$48.38	Based on Consumption from main water	\$48.38	\$96.76	\$96.76 x 50% = \$48.38	\$48.38 x 100%	**\$48.38

\*\*rates based on actual approved rates for 2020, commencing in 2021, there will be further adjustments for any overall rate increases as approved by Council for any given year, and will be based on the approved 5/8" meter rate.

Note: customers with water meter serving multi plex buildings connecting to the City's systems, either through a new build, conversion of an existing building to this category of customer that was previously connected to the City's system under a different category of customer, or a new connection to City systems regardless of the date of the build will be charged the fully phased in rate. For this class of customer, the fully phased rate would be based on the 2022 rate as reflected above.

One Water Meter Serving Multiple Individual Residences								
Year	Median Kenora Household Consumption per month	Billing Period Consumption	Equivalent Residence	Fixed cost per unit per	Sewer Cost (100% of total water	Total	% of phase in adjustment	Total Monthly Per Equivalent Residence's Rate
2022	11.5 Cubic Meters	Based on Consumption from main water meter	Billing Period Water Consumption 11.5 m3	**\$48.38	\$48.38	\$96.76	\$96.76 x 50%	**\$48.38

2023	11.5 Cubic Meters	Based on Consumption from main water meter	Billing Period Water Consumption 11.5 m3	**\$49.88	\$49.88	\$99.76	\$99.76 x 66.67%	**\$66.51
2024	11.5 Cubic Meters	Based on Consumption from main water meter	Billing Period Water Consumption 11.5 m3	**\$51.43	\$51.43	\$102.86	\$102.86 x 83.33%	**\$85.71
2025	11.5 Cubic Meters	Based on Consumption from main water meter	Billing Period Water Consumption 11.5 m3	**\$53.02	\$53.02	\$106.04	\$106.04 x 100%	**\$106.04

\*\*rates based on actual approved rates commencing in 2022 and are based on the approved 5/8" meter rate.

Note: customers with water meter serving multiple individual residences connecting to the City's systems, either through a new build, conversion of an existing builds to this category of customer that was previously connected to the City's system under a different category of customer, or a new connection to City systems regardless of the date of the build will be charged the fully phased in rate. For this class of customer, the fully phased rate would be based on the 2025 rate as reflected above.

### Water & Sewer Service Charges effective January 1, 2024

Service Charge	Fee	Application
Connect & Disconnect - regular hours	\$85.00	per hour
Connect & Disconnect - after hours	\$310.00	per hour, 2.0 hour minimum
Connect & Disconnect - after hours	\$155.00	per additional hour
W & S Line Tapping - regular hours	\$265.00	per hour
W & S Line Tapping – after hours	\$610.00	per hour, 2.0 hour minimum
W & S Line Tapping - after hours	\$305.00	per additional hour
Service Call - regular hours	\$85.00	per hour
Service Call - after hours	\$310.00	per hour, 2.0 hour minimum
W & S Pipe Locate - regular hours	\$140.00	per hour
W & S Pipe Locate - after hours	\$275.00	per hour
Water Thaw - regular hours	\$185.00	per hour
Water Thaw - after hours	\$450.00	per hour, 2.0 hour minimum
Water Thaw - after hours	\$225.00	per additional hour
Sewer Steaming - regular hours	\$200.00	per hour
Sewer Steaming - after hours	\$495.00	per hour, 2.0 hour minimum
Sewer Steaming - after hours	\$250.00	per additional hour
Sewer Rodding - regular hours	\$125.00	per hour
Sewer Rodding - after hours	\$320.00	per hour, 2.0 hour minimum
Sewer Rodding - after hours	\$160.00	per additional hour
Sewer Service Camera Inspection (2 staff)	\$275.00	per hour
Sewer Service Camera Inspection (3 staff)	\$350.00	per hour
S & W Private Connection Permit	\$95.00	flat rate
Flusher Truck – regular hours	\$210.00	per hour
Flusher Truck – after hours	\$450.00	per hour, 2 hours minimum
Flusher Truck – after hours	\$225.00	per additional hour

Frost Plate Replacement - Materials Only	Market Price	plus shipping + tax
Water Meter Replacement – Materials Only	Market Price	plus shipping + tax
Water Delivery - 0.1 to 2.27 cubic meters- Main Service Area	\$78.25	next day delivery as available
Water Delivery - 2.27 to 4.54 cubic meters- Main Service Area	\$86.08	next day delivery as available
Water Delivery - 4.54 to 6.81 cubic meters- Main Service Area	\$93.90	next day delivery as available
Water Delivery - 0.1 to 2.27 cubic meters- Extended Service Area	\$220.00	next day delivery as available
Water Delivery - 2.27 to 4.54 cubic meters- Extended Service Area	\$235.00	next day delivery as available
Water Delivery - 4.54 to 6.81 cubic meters- Extended Service Area	\$250.00	next day delivery as available
Bulk Water Depot - water	\$5.60	per cubic meter
Bulk Water Depot - Access Card Deposit	\$25.00	new customer
Bulk Water Depot - Access Card Deposit (with old card)	\$15.00	existing customer
Monthly interest rate for past due water and sewer charges	1.50%	/Month
Main Service Area - South of the Bypass + South of the Anderson Branch Rd/Carlton Branch Rd Intersection, South of the Reddit Hwy/Carlton Branch Rd Intersection, South of Lajeunesse Bridge, South of the E Mellick Rd/Coker Rd/Gauthier Rd/School Rd Intersection		
Extended Service Area - North of the Main Service Area		

## SCHEDULE 'E' – DEVELOPMENT SERVICES

To By-Law Number 123-2024

Section	Fee Description	Fee	Details
Property Sales and Leases			
	Application to purchase or lease municipal property – road/shore allowance abutting property owned by applicant(s)	\$ 500.00	+all costs including survey, legal, transfer and a minimum of either \$1000 or the established fair market value, whichever is more
	Application for purchase or lease of municipal property – property not a part of a road/shore allowance abutting property owned by applicant(s)	\$ 500.00	+ Fair market value or as established by Council



## **22. APPENDIX E**

### **22.1 Temporary Water and Water Main Disinfection Procedures**

# Watermain Disinfection Procedure

## August 1, 2020

Ministry of the Environment, Conservation and Parks  
Environmental Assessment and Permissions Division



## VERSION HISTORY

Version	Details	Date
<b>1.0</b>	Initial publication of the 2015 Watermain Disinfection Procedure	November 2015
<b>2.0</b>	Initial publication of the revised 2020 Watermain Disinfection Procedure	August 1, 2020
<b>2.1</b>	Appendix F (pg. 24) – administrative correction to Public Agency Notification Requirements in the Category 2 Flowchart. Corrected wording: “Speak to a Ministry person as soon as reasonable possible by speaking to someone at the Ministry’s Spills Action Centre” (s.2.3.1.2)	December 9, 2020

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## Preface

This watermain disinfection procedure is a supporting document for Ontario legislation and regulations related to *Drinking Water*. Schedule B, Condition 2.3 of the Drinking Water Works Permit adopts this procedure by reference. Where this procedure makes reference to ANSI/AWWA Standard C651 “Disinfecting Water Mains” and “CSA Standards B64.10 and B64.10.1”, the most current versions of these standards shall be used. The section numbers mentioned in this document are based on the 2014 version of C651 and the March 2017 version of B64.10 and B64.10.1. When updated versions of these standards are released however, the corresponding section(s) and amended wording of the updated versions will supersede the requirements of the previous version. Definitions listed in Appendix H are capitalized and italicized throughout this procedure.

The requirements in this procedure apply to all watermains of any size, including temporary watermains. *Service Pipes* of 100 mm diameter and greater shall be considered as watermains for the purposes of this procedure.

Operating Authorities shall use *Certified Operators* for activities that must be performed by a *Certified Operator* or may use a *Water Quality Analyst* for sampling and testing if permitted through regulation. Watermains that form part of a *Drinking Water System* can only be *Isolated* and placed into service by *Certified Operators*. Activities performed on *Isolated* watermains are not required to be performed by *Certified Operators*.

Any water used for the purposes of, but not limited to, flushing, swabbing, disinfection, hydrostatic testing, and displacing water to obtain samples for testing, shall be *Drinking Water*. Any temporary water supply to a new watermain shall be *Flushed* prior to its use as a water source.

Chemicals used for disinfection shall meet the requirements of both the American Water Works Association (“AWWA”) and the American National Standards Institute (“ANSI”) safety criteria standards NSF/ANSI/CAN 60.

Operating Authorities may use best management practices that exceed the minimum requirements in this procedure.

Deviations from this procedure may be requested from the ministry’s Approval and Licensing office on a case-by-case basis.

# 1. Addition, Modification, Replacement, Extension and Planned Maintenance

## 1.1. New Watermains

For watermains, including temporary watermains, that are added to, modified, re-aligned, replaced or extended within a *Drinking Water System*, Operating Authorities shall ensure that the requirements of ANSI/AWWA Standard C651 are followed as modified by this procedure.

### 1.1.1. Backflow Prevention Requirements for New Watermains

The *Backflow Prevention* provisions within Section 4.8.9 of ANSI/AWWA Standard C651 shall be mandatory for the installation of new watermains except for *Connections* (see section 1.1.4).

Where required, *Backflow Prevention* for new watermains shall be accomplished by:

- an air gap as defined in CSA Standard B64.10 “Selection and Installation of Backflow Preventers”; or
- A CSA-certified reduced pressure principle (RP) backflow preventer that has been selected and field tested in accordance with CSA Standards B64.10 and B64.10.1. Examples of RP backflow preventer installations are shown in Figures A-1 and A-2, while schematic representations are shown in Figures A-3 and A-4, respectively, of Appendix A.

**Exception:** If a backflow preventer is relocated within the same day, testing is only required for the first installation of the day provided that the backflow preventer is relocated by a *Certified Operator* who will guard against damage during transit and re-installation.

For the purposes of CSA Standard B64.10, a backflow prevention tester’s licence shall be an Ontario Water Works Association (OWWA) Certified Cross Connection Control Specialist Certificate or a *Ministry*-approved equivalent. In addition to the list of professionals in Table 1 of Figure E.1. of CSA Standard B64.10, a *Certified Operator* or a *Water Quality Analyst* with a backflow prevention tester’s licence shall also be

authorized to test, install, relocate, repair or replace backflow preventers used in the installation and commissioning of new watermains.

#### **1.1.2. Disinfection of New Watermains**

For preliminary flushing prior to disinfection referred to in Sections 4.4.2 and 4.5.2 of ANSI/AWWA Standard C651, if the requirements of ANSI/AWWA Standard C651 for a velocity of 3.0 ft/sec (0.91 m/sec) are not practical, alternative cleaning consisting of swabbing or flushing 2-3 pipe volumes can be used at the discretion of the Operating Authority.

Where a newly constructed watermain is disinfected using the tablet, continuous feed, slug, or spray chlorination method (not limited to large transmission mains) as per the procedures in ANSI/AWWA Standard C651, the minimum contact times, initial chlorine concentrations, and maximum allowable decreases in chlorine concentration as listed in Table 1 shall be used. The disinfection method used is at the discretion of the Operating Authority.

When using the Tablet or Continuous Feed Disinfection Method, if the Maximum Allowable Decrease in Chlorine Concentrations is exceeded at any of the sampling points, the disinfection procedure must be repeated.

When using the Slug Disinfection Method, the chlorine concentration shall be measured in the slug at the beginning of the disinfection process, as the slug moves through the watermain, and at the point of discharge. If the chlorine concentration decreases by more than 25 mg/L at any of the sampling points, the flow shall be stopped and additional chlorine shall be added to restore the chlorine concentration in the slug to not less than its original concentration.

**Table 1: Chlorine Concentrations\* and Contact Times for Disinfecting New Watermains**

Disinfection Method	Minimum Contact Time	Initial Chlorine Concentration	Maximum Allowable Decrease in Chlorine Concentration
Tablet or Continuous Feed	24 hours	$\geq 25$ mg/L	40% of the Initial Chlorine Concentration to a maximum of 50 mg/L**
Slug	3 hours	$\geq 100$ mg/L	25 mg/L
Spray	30 minutes	$\geq 200$ mg/L	Measurement Not Required

\* At concentrations over 10 mg/L, measurements of total chlorine and free chlorine shall be deemed equivalent.

\*\* **Exception:** Where copper pipe is used as a watermain, disinfection shall be performed using the continuous feed method, with an initial chlorine concentration of  $\geq 50$  mg/L and a minimum 24-hour contact time. Due to the chlorine demand exerted by the copper, the maximum allowable decrease requirement in Table 1 does not apply, and the effectiveness of the disinfection process shall be demonstrated by the Microbiological Sampling referred to in Section 1.1.3.

The following examples are provided to demonstrate the proper use of Table 1.

#### **Example 1**

When using the Continuous Feed Disinfection Method with an initial chlorine concentration of 50 mg/L, the maximum allowable decrease in chlorine concentration is 40% of 50 mg/L, or 20 mg/L. Therefore, at least 30 mg/L of chlorine must be present after 24 hours.

#### **Example 2**

When using the Continuous Feed Disinfection Method with an initial chlorine concentration of 150 mg/L, the maximum allowable decrease in chlorine concentration

is 50 mg/L, because 40% of 150 mg/L is greater than the maximum allowable decrease of 50 mg/L. Therefore, at least 100 mg/L of chlorine must be present after 24 hours.

### **Example 3**

When using the Slug Disinfection Method, if the initial chlorine concentration in the slug is 150 mg/L, then the chlorine concentration must not decrease below 125 mg/L (a decrease of > 25 mg/L). If the chlorine concentration were to fall below 125 mg/L, the flow shall be stopped and chlorine added to restore the chlorine concentration to at least 150 mg/L.

#### **1.1.3. *Microbiological Samples for New Watermains***

The Operating Authority shall ensure that the *Microbiological Samples* taken in accordance with ANSI/AWWA Standard C651 include as a minimum *Escherichia coli* and Total Coliforms and are tested by a licensed and accredited laboratory. When *Microbiological Samples* are taken from new watermains that have not been placed into service, Operating Authorities shall ensure that additional samples are taken at the same time from the same location and are tested immediately for:

- a) free chlorine residual, if the system provides chlorination and does not provide chloramination; or
- b) combined chlorine residual, if the system provides chloramination.

These *Microbiological Samples* and disinfectant residual tests are not considered *Drinking Water* tests for the purpose of the *Safe Drinking Water Act* (SDWA), and are, therefore, not reportable. Any person authorized by the owner or Operating Authority can collect *Microbiological Samples* from watermains that have not been placed into service and perform the associated disinfectant residual tests.

For new watermains with limited sampling points available, an alternative method of taking *Microbiological Samples* is called staged sampling. Staged sampling shall be performed as follows:

- A flow meter shall be installed to measure flow through the new watermain;
- A sampling point shall be installed at the end of the new watermain (additional sampling points may also be installed along the length of the watermain); and



- Flow shall be established, and samples shall be taken from the sampling point(s) at intervals that are calculated to represent the lengths of the watermain as required by Sections 5.1.1.2 and 5.1.1.3 of ANSI/AWWA Standard C651, based on the pipe size and the measured flow rate.

Operating Authorities shall endeavour to maintain an *Acceptable Disinfectant Concentration* until the new watermain is placed into service. If a concentration of 0.05 mg/L of free chlorine residual in a chlorinated system (or 0.25 mg/L of combined chlorine residual in a chloraminated system) is not maintained prior to placing into service, the microbiological sampling shall be repeated.

#### **1.1.4. Connecting New Watermains to the Existing System**

The provisions outlined in Section 4.10 of ANSI/AWWA Standard C651 are mandatory, along with the additional requirements prescribed below. The *Backflow Prevention* provisions within Section 4.8.9 of ANSI/AWWA Standard C651 are not mandatory for *Connections*.

When *Microbiological Samples* are taken from *Connections*, Operating Authorities shall ensure that additional samples are taken at the same time from the same location and are tested immediately for,

- a) free chlorine residual, if the system provides chlorination and does not provide chloramination; or
- b) combined chlorine residual, if the system provides chloramination.

##### **1.1.4.1. Connections Equal to or Less than One Pipe Length (Generally $\leq 6$ m)**

The Operating Authority shall ensure that *Connections* equal to or less than one pipe length (generally  $\leq 6$  m) are undertaken in accordance with Section 4.10.1 of ANSI/AWWA Standard C651 and that the *Connection* remain *Isolated* from the existing *Drinking Water System*, except while being flushed or sampled, until satisfactory results are received from one *Microbiological Sample*, taken by a *Certified Operator* or *Water Quality Analyst*, from water that has been directed through the *Connection*.

**Exception:** If a *Certified Operator* is present to witness the installation and disinfection of the *Connection* to ensure that the sanitary construction practices and disinfection requirements of Sections 4.10 and 4.10.1 of ANSI/AWWA Standard C651 were met, then the *Connection* can be placed into service with no *Microbiological Sample* required.

#### **1.1.4.2. Connections Greater than One Pipe Length (Generally > 6 m)**

*Connections* greater than one pipe length (generally > 6 m) shall be undertaken in accordance with Section 4.10.2 of ANSI/AWWA Standard C651.

**Exception:** The procedure described below may be used at the discretion of the Operating Authority for the installation and disinfection of *Connections* greater than one pipe length and up to a total length of 40 m if the *Connection*:

- a) Crosses a transportation corridor, the extended closure of which could result in significant community impacts (e.g., traffic congestion, loss of emergency vehicle access, safety concerns), or
- b) Cannot be constructed to within one pipe length of the existing watermain due to the potential for destabilizing an existing thrust block.

#### **Procedure:**

- The new watermain and *Appurtenances* forming the *Connection* shall be sprayed or hand swabbed with a minimum 1% sodium hypochlorite solution, aboveground or in the excavation, immediately prior to installation.
- A *Certified Operator* is required to witness the installation of the *Connection* to ensure that sanitary construction practices are followed, and proper disinfection is performed.
- The *Connection* shall remain *Isolated* from the existing *Drinking Water System*, except while being flushed or sampled, until satisfactory results are received from two *Microbiological Samples* taken by a *Certified Operator* or a *Water Quality Analyst* in accordance with Section 5.1.1.1 of ANSI/AWWA Standard C651.
- Where required by the Operating Authority, hydrostatic testing of the *Connection* shall not be undertaken against the isolating valve until satisfactory

results from the *Microbiological Samples* referred to above are received.  
*Drinking Water* shall be used for hydrostatic testing.

Figure B-1 in Appendix B provides an example to help understand this exception.

#### **1.1.4.3. Placing New Watermains into Service**

Valves opened to place a new watermain into service shall, in all cases, be operated by a *Certified Operator*. As part of placing a watermain into service, *Flushing* through the *Connection* shall be performed until a *Certified Operator* or a *Water Quality Analyst* verifies that an *Acceptable Disinfectant Concentration* is present in the new watermain. If *Microbiological Samples* are taken and/or disinfectant residual tests are performed after a watermain is placed into service, they are considered as *Drinking Water* tests for the purpose of the SDWA and adverse test results are reportable.

### **1.2. Relining of Watermains**

For relining of existing watermains, the conditions of Sections 1.1.2, 1.1.3 and 1.1.4 of this procedure will apply.

**Exception:** The Operating Authority may allow return to service prior to receiving all satisfactory *Microbiological Sample* results if all the following conditions are met:

- The watermain is physically *Isolated* from the remainder of the *Drinking Water System* through *Backflow Prevention*;
- The local Medical Officer of Health is consulted prior to the commencement of the project and their advice is documented and followed; and
- *Flushing* of the watermain has been completed and an *Acceptable Disinfectant Concentration* has been restored.

### **1.3. Planned Watermain Inspection and Cleaning**

All equipment used for the inspection of watermains shall be dedicated for that purpose only, and shall be suitable for disinfection. Sanitary practices shall be followed to prevent the introduction of *Contaminants* into the watermain. All inspection equipment inserted into a watermain (e.g., electromagnetic, acoustic, or video inspection equipment) shall be cleaned and disinfected using a minimum 1% sodium hypochlorite solution immediately

prior to insertion. *Drinking Water* shall be used for equipment cleaning and/or preparation of hypochlorite solutions. Disinfectant residual testing shall be performed upon removal of the inspection equipment. *Flushing* shall be performed if an *Acceptable Disinfectant Concentration* was not maintained.

For planned watermain cleaning by swabbing or *Higher Velocity Flushing*, the system can be returned to normal service, defined as having all valves returned to normal operating position, after an *Acceptable Disinfectant Concentration* is achieved at the point of flushing.

For all other types of cleaning (e.g., air scouring, ice pigging, etc.), the Operating Authority shall develop and implement a site-specific plan for cleaning, disinfection, and sampling in agreement with the local *Ministry* office in consultation with the local Medical Officer of Health.

#### **1.4. Planned Maintenance of *Appurtenances* and Fittings**

Section 2 of this procedure for Category 1 watermain breaks shall apply to the installation/replacement/repair of *Appurtenances* and/or fittings. If *Contamination* is evident or suspected, the procedures prescribed under Section 2 of this procedure for Category 2 watermain breaks shall apply.

#### **1.5. Tapping of Watermains**

Where existing watermains are tapped, the pipe surface at the location of the tap shall be cleaned and disinfected using a minimum 1% sodium hypochlorite solution. Where applicable, the drill/cutting/tapping bits and all surfaces of mainstops, service saddles, tapping sleeves and valves which will come into contact with *Drinking Water* shall likewise be cleaned and disinfected using a minimum 1% sodium hypochlorite solution immediately prior to installation. If any of the disinfected surfaces come into contact with the soil and/or water in the excavation prior to use, the cleaning and disinfection procedure shall be repeated.

The live tapping (i.e., “wet” tapping) of a watermain that is part of the *Drinking Water System* must be performed by a *Certified Operator*; however, a person or contractor who is not a *Certified Operator* may perform wet taps provided they are being *Directly Supervised*

by a *Certified Operator*. The Operating Authority shall maintain records of the name of the *Certified Operator* present for the wet taps.

### **1.6. *Service Pipes***

*Service Pipes* of 100 mm diameter and greater shall be considered as watermain for the purposes of this procedure and shall be disinfected and tested in accordance with the requirements of ANSI/AWWA Standard C651 as modified by this procedure. For *Service Pipes* of diameter less than 100 mm, Operating Authorities shall ensure that sanitary conditions are maintained during installation/repair, and that *Flushing* is conducted before they are placed into service.

### **1.7. Return to Service of Watermain *Isolated* from the Distribution System**

Where a section of watermain has been *Isolated* from a *Drinking Water System* and a concentration of 0.05 mg/L of free chlorine residual in a chlorinated system (or 0.25 mg/L of combined chlorine residual in a chloraminated system) was not maintained within the *Isolated* section (e.g., a valved-off stub), the Operating Authority shall develop and implement a re-commissioning plan that reflects the duration of isolation and the associated risks. The plan may include the implementation of Sections 1.1.2, 1.1.3, and/or 1.1.4 of this procedure. At a minimum, the plan must include:

- *Flushing* through the *Isolated* section of watermain; and
- Satisfactory test results to be received from at least one *Microbiological Sample* prior to the *Isolated* watermain being placed into service.

The Operating Authority shall keep a copy of the re-commissioning plan and maintain records showing that all items required by the re-commissioning plan were satisfactorily completed.

## 2. Watermain Disinfection Procedures for Emergency Repairs

This procedure uses a risk management approach to categorize watermain breaks based on the potential for *Contamination*. The objective of this procedure is to set minimum disinfection requirements to minimize the potential for *Drinking Water Health Hazards* during emergency/unplanned repairs resulting from the physical failure of a watermain and/or *Appurtenance* (a “watermain break”).

### 2.1. Categorization and Public Agency Notification of Watermain Breaks

All watermain breaks shall be classified as Category 2 as per Section 2.1.2 of this procedure unless an *Operator-in-Charge* (OIC) conducts a visual inspection upon completion of the excavation to determine the nature of the watermain break and classifies it as a Category 1 as per Section 2.1.1. The OIC shall assess the evidence of *Contamination* or suspected *Contamination* of the watermain throughout the repair procedure and shall reclassify if required.

Refer to Appendices C (flowchart) and D (pictures) to better understand the criteria for categorizing watermain breaks.

#### 2.1.1. Category 1

An OIC may classify watermain breaks with no evident or suspected *Contamination* as Category 1. The steps described in Sections 2.2 and 2.3 of this procedure shall be followed for Category 1 watermain break repairs.

*Contamination* is typically not suspected for circumferential breaks or small leaks where flow is maintained from the break until an *Air Gap* is established and where the *Air Gap* is maintained during the repair procedure. If, at any time, *Contamination* is evident or suspected, the watermain break shall be reclassified as Category 2.

#### 2.1.2. Category 2

Watermain breaks with evident or suspected *Contamination* shall remain classified as Category 2. Watermain repairs involving more than one pipe length (generally  $\geq 6$  m) of replaced pipe are also classified as Category 2. The steps described in Sections 2.2 and 2.4 of this procedure shall be followed for Category 2 watermain break repairs.

### **2.1.3. Public Agency Notification**

#### **2.1.3.1. Category 1**

Category 1 watermain breaks are not deemed to be observations of improper disinfection in accordance with Section 16-4 of Schedule 16 of *O. Reg. 170/03*, and are not reportable to the Spills Action Centre.

This procedure does not require that the local Medical Officer of Health be notified of Category 1 watermain break repairs; however, the local Medical Officer of Health may exercise their option to require such notification. Operating Authorities may choose to provide notification to, or seek advice from, the local Medical Officer of Health at any time.

#### **2.1.3.2. Category 2**

Category 2 watermain breaks are not reportable unless an Operating Authority believes that contaminated water was directed to users. If an Operating Authority believes that contaminated water was directed to users, this will constitute an observation of improper disinfection in accordance with Section 16-4 of Schedule 16 of *O. Reg. 170/03*, and the reporting and corrective actions of Schedule 16 and the applicable Schedule 17 or 18 of *O. Reg. 170/03* shall apply.

This procedure does not require that the local Medical Officer of Health be notified of Category 2 watermain break repairs unless an observation of improper disinfection has been reported as noted above; however, the local Medical Officer of Health may exercise their option to require such notification. Operating Authorities may choose to provide notification to, or seek advice from, the local Medical Officer of Health at any time.

Notification to the Ministry is not required for Category 2 watermain breaks however if a Water Advisory is declared or a watermain break is assessed to be a Special Case as described in sections 2.4.4 and 2.4.5, the Operating Authority shall verbally notify the Ministry as soon as reasonably possible by speaking in person or on the telephone with a person. The notification shall be made to the Spills Action Centre during and after business hours.



## **2.2. Watermain Break Disinfection Procedure Common to Categories 1 and 2**

The following steps must be performed for all emergency watermain repairs (Category 1 and Category 2). Examples of typical steps for Category 1, 2 and special cases are provided in Appendices E, F and G of this procedure, respectively.

### **2.2.1. Maintenance of Flow**

The Operating Authority shall determine if flow can be maintained to the watermain break site until the watermain is excavated. This determination shall be based on risks to worker and public safety, the possibility of property damage, and/or adverse impact to the natural environment.

The Operating Authority will attempt to maintain flow from the watermain break, where possible, until an *Air Gap* is established. Flow may be reduced by throttling valves while maintaining sufficient flow from the watermain break to minimize the potential for *Contamination*. Flow may be discontinued after an *Air Gap* has been created.

If flow from the watermain break is not maintained before an *Air Gap* is established, the watermain break shall remain Category 2.

### **2.2.2. Excavation Dewatering**

Excavation dewatering shall be continued for the duration of the repairs such that the *Air Gap* between the location of the watermain break and the water in the excavation is maintained. If the water level in the excavation rises such that the *Air Gap* is not maintained after flow from the watermain break has been discontinued, then the watermain break shall be classified as Category 2.

### **2.2.3. Disinfection of Pipe and Repair Parts**

All surfaces of pipe and repair parts which will come into contact with *Drinking Water* shall be disinfected using a minimum 1% sodium hypochlorite solution immediately prior to installation. If any of the disinfected surfaces come into contact with the water and/or soil in the excavation prior to installation, the surfaces shall be cleaned and the disinfection procedure shall be repeated.

If cutting out a section of pipe, the interior surfaces of the cut ends of the existing watermain shall be disinfected using a minimum 1% sodium hypochlorite solution, swabbed or sprayed as far as can be practically reached.

#### **2.2.4. Installation of Repair Parts**

The repair parts shall be installed while ensuring that *Contaminants* do not enter the watermain.

#### **2.2.5. Post-Repair *Flushing* and Return to Normal Service**

*Flushing* shall be conducted following repairs by creating a temporary dead end downstream of the watermain break through valve operation, and *Flushing* through the location of the repair to a discharge point. Flushed water may be discharged from a hydrant, plumbing or *Appurtenances*. Where there is no discharge point to allow for *Flushing*, the Operating Authority shall tap the watermain on the downstream side of the watermain break and discharge from that point.

*Flushing* shall continue until the discharged water is visibly free from discoloration and particulates, and an *Acceptable Disinfectant Concentration* has been restored; whereupon the system can be returned to normal service, defined as having all valves returned to normal operating position.

**Exception:** Where the repair was performed using a repair sleeve and flow was maintained from the watermain break until an *Air Gap* was established, *Flushing* is not required.

Dechlorination is required for any water that is directly discharged into surface water or if the discharge into the natural environment is likely to cause an adverse effect, as per Condition 10.0 of Schedule B of the Municipal Drinking Water Licence. The discharged water is deemed to be a Class II spill for the purposes of *O. Reg. 675/98* (Classification and Exemption of Spills and Reporting of Discharges) made under the *Environmental Protection Act*. Discharges of flushed water are also regulated under Condition 5.5 of Schedule C of the Municipal Drinking Water Licence.

## **2.3. Additional Information for Category 1 Watermain Break Repairs**

### **2.3.1. Microbiological Samples (Optional)**

There is no requirement for *Microbiological Samples* to be taken following Category 1 watermain break repairs. Where the Operating Authority chooses to perform *Microbiological Sampling*, the samples shall be deemed *Drinking Water* samples within the meaning of *O. Reg. 170/03*, and the reporting/corrective actions of Schedule 16 and the applicable Schedule 17 or 18 of *O. Reg. 170/03* shall apply.

## **2.4. Additional Requirements for Category 2 Watermain Break Repairs**

In addition to the requirements described in Section 2.2 of this procedure, the following steps are required for Category 2 watermain break repairs.

### **2.4.1. Removal of *Contaminants* from Watermain**

Appropriate additional steps shall be undertaken to remove *Contaminants* from the watermain, such as:

- Physical removal of *Contaminants*;
- *Flushing* into the excavation;
- *Higher Velocity Flushing* after repairs where practical and feasible.

### **2.4.2. Additional Disinfection Procedures**

In addition to the steps in Section 2.2.3 of this procedure, site-specific disinfection procedures may also be used depending on the severity or nature of the *Contamination*. The steps may include the disinfection procedures for new watermains as per ANSI/AWWA Standard C651.

### **2.4.3. Microbiological Samples (Mandatory)**

After the completion of *Flushing*, at least one *Microbiological Sample* shall be taken and submitted as soon as reasonably possible, taking into consideration laboratory working hours and transportation timeframes.

The flow shall be directed to ensure that the sample represents water that has passed through the location of the repair. The sampling will typically occur at the point of *Flushing*, and may take place from sampling ports, hydrants, blow-offs, or premise plumbing. All samples shall be considered *Drinking Water* samples, taken and tested in accordance with *O. Reg. 170/03* requirements. The reporting and corrective actions of Schedule 16 and the applicable Schedule 17 or 18 of *O. Reg. 170/03* shall apply.

The watermain may be returned to normal service, defined as having all valves returned to normal operating position, prior to receipt of *Microbiological Sample* results.

#### **2.4.4. Special Case—Sewage Contamination**

If there is evident or suspected sewage *Contamination* of a watermain, in addition to the steps in Sections 2.2 and 2.4 of this procedure, the Operating Authority shall develop and implement a plan with site-specific procedures for disinfection and sampling. The sampling plan shall include as a minimum taking two sets of *Microbiological Samples* at least 24 hours apart.

Return to normal service is contingent upon the corrective actions and sampling plan being completed to the satisfaction of the local *Ministry* office (in consultation with local Medical Officer of Health). The affected watermain(s) may not be placed into service before the corrective actions and sampling plan are completed unless a *Water Advisory* is declared.

The disinfection requirements for new watermain(s) as per Section 1.1.2 of this procedure may be used based on agreement between the Operating Authority and the local *Ministry* office, in consultation with the local Medical Officer of Health.

#### **2.4.5. Special Case—Chemical Contamination**

If there is evident or suspected chemical *Contamination* of a watermain, in addition to the steps in Sections 2.2 and 2.4 of this procedure, the Operating Authority shall develop and implement a plan with site-specific procedures for disinfection and/or decontamination and sampling. The Operating Authority shall finalize the plan in agreement with the local *Ministry* office, in consultation with the local Medical Officer of Health.

Return to normal service is contingent upon the corrective actions and sampling plan being completed to the satisfaction of the local *Ministry* office, in consultation with the local Medical Officer of Health. The affected watermain(s) may not be put back in service before the corrective actions and sampling plan are completed unless a *Water Advisory* is declared.

## 3. Documentation

### 3.1. Documentation for New Watermains

When installing new watermains as per Section 1.1 of this procedure, the Operating Authority shall maintain records of the following information as a minimum. The information shall be retained as per the record-keeping requirements of Section 27 of O. Reg. 128/04. This section does not require that all of the information be recorded on a single form:

- *Backflow Prevention*:
  - Air gap (as defined in CSA Standard B64.10 “Selection and Installation of Backflow Preventers) or Reduced Pressure Principle Backflow Preventer installed as per Section 4.8.9 of ANSI/AWWA Standard C651; and
  - Backflow preventer tested as per Section 1.1.1 of this procedure.
- Pre-disinfection swabbing and/or flushing have been completed.
- Disinfection Process:
  - Method of disinfection;
  - Disinfection chemical meets the requirements of both the AWWA and NSF/ANSI/CAN 60 Standards.
  - Date and time disinfection started and ended;
  - Chlorine concentration at start and end of contact time at each sampling point; and
  - Decrease in chlorine concentration in mg/L and/or percentage as applicable.
- *Microbiological Sampling* referred to in Section 1.1.3:
  - Schematic or drawing showing approximate location where *Microbiological Samples* were taken;
  - *Microbiological* and disinfectant residual sample results; and
  - For staged sampling: flow rate, time each sample was taken and calculated length.
- *Connections* referred to in Section 1.1.4:
  - Length of *Connection*;
  - Confirmation whether sanitary construction practices were followed;
  - Confirmation that proper disinfection was performed;
  - Name of *Certified Operator* present for the installation of the Connection if required;
  - Results of *Microbiological* and disinfectant residual samples if required;
  - Reason for using the exception under s. 1.1.4.2 (if used);
  - Disinfectant residual after watermain is flushed and put in service; and
  - Date and time watermain was placed into service.

### 3.2. Documentation for Watermain Maintenance and Repair

When performing maintenance and repair activities as per Sections 1.4 and 2 of this procedure, the Operating Authority shall maintain records of the following information as a minimum. The information shall be retained as per the record-keeping requirements of Section 27 of *O. Reg. 128/04*. This section does not require that all of the information be recorded on a single form:

- Date.
- Location (e.g., a municipal address).
- Flow maintained at the site until *Air Gap* created.
- Watermain size and material (e.g., 150 mm cast iron).
- No evident or suspected *Contamination* of the watermain was observed before or during the repair process.
- If watermain break, indicate type of watermain break (e.g., circumferential, longitudinal, split bell, spiral, rupture, blow-out, hole, leak at main stops/tapping valves, etc.).
- If planned maintenance, indicate type of planned maintenance (e.g., valve replacement)
- *Air Gap* maintained, once established, throughout the repair process.
- Name of *Operator-in-Charge* who classified the watermain break as Category 1 (if applicable).
- Type of repair (e.g., clamp, cut out, etc.).
- Pipe and repair parts disinfected.
- Post-repair *Flushing* undertaken (if applicable).
- For Category 2, where additional steps were required under 2.4.1 and 2.4.2, describe these steps.
- For Category 2 – Special Cases, include site-specific plan. If chlorine disinfection was used, indicate initial concentration, contact time, final concentration and final concentration as percentage of initial concentration.
- Disinfectant residual following final post-repair *Flushing*. If final disinfectant residual is less than 0.2 mg/L free chlorine in a chlorinated system or 1.0 mg/L combined chlorine in a chloraminated system, then provide the location and results of upstream disinfectant residual(s) or documented benchmarks for the area.
- *Microbiological Samples* taken (If applicable).



- Date and location(s) of sample(s) (e.g., Chain of custody).
- Date and time of return to normal service.
- *Water Advisory* declared (if applicable): Date and Time.
- Public Agency Notification (if applicable): local *Ministry* office (Date and Time).
- Public Agency Notification (if applicable): Spills Action Centre (Date and Time).
- Public Agency Notification/Direction (if applicable): local Medical Officer of Health (Date and Time).

## APPENDIX A: Examples of Reduced Pressure Principle Backflow Preventer Installations



Figure A-1: Temporary connection from a hydrant with *Backflow Prevention* using a CSA-certified reduced pressure principle backflow preventer.



Figure A-2: Temporary connection from a watermain with *Backflow Prevention* using a CSA-certified reduced pressure principle backflow preventer.

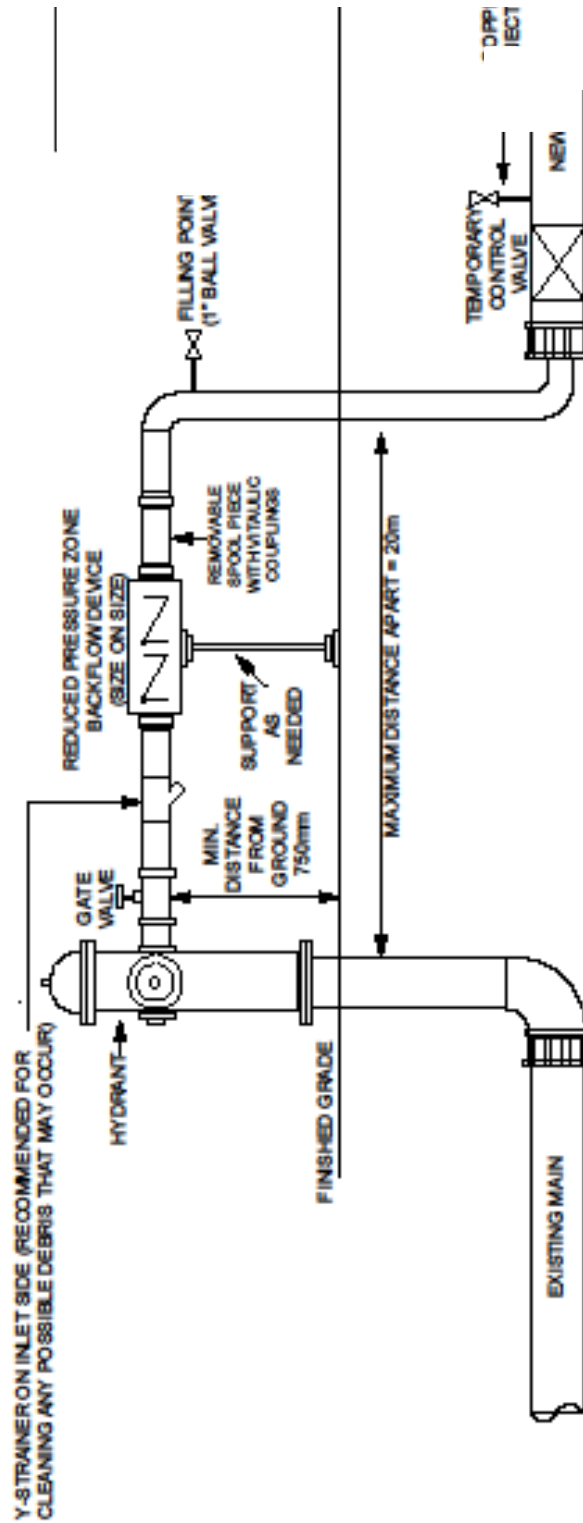


Figure A-3: Schematic of temporary connection from hydrant with *Backflow Prevention* using a CSA-certified reduced pressure principle backflow preventer.



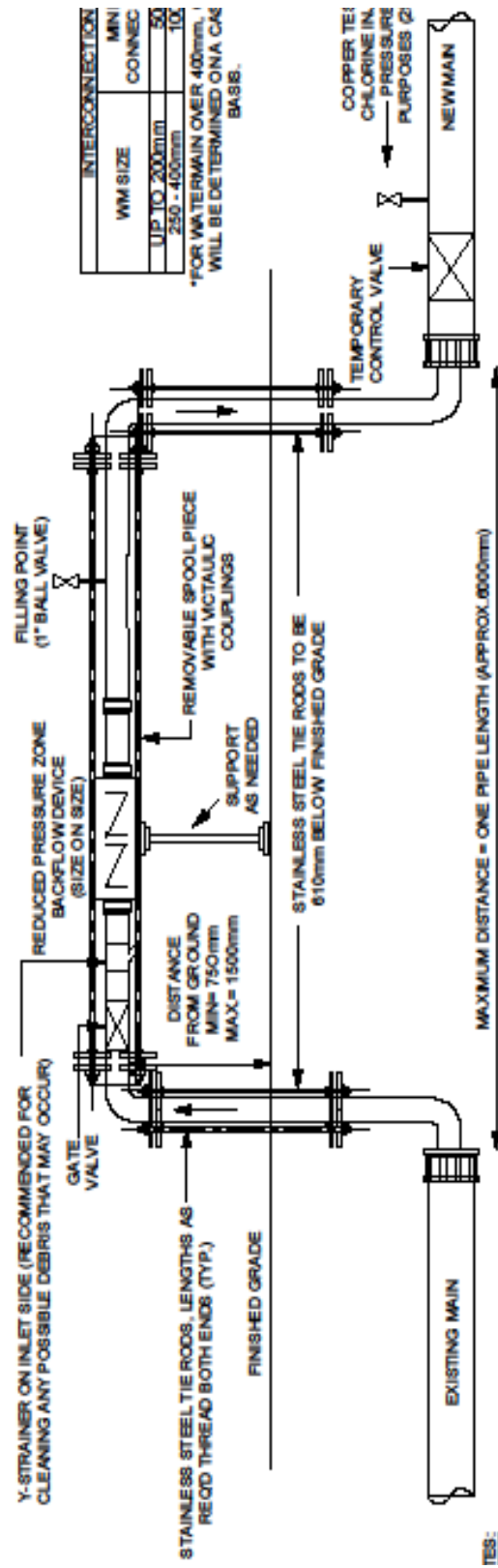


Figure A-4: Schematic of temporary connection from watermain with Backflow Prevention using a CSA-certified reduced pressure principle backflow preventer.

APPENDIX B: 1.1.4.2. Exception for *Connections* Greater than One Pipe Length

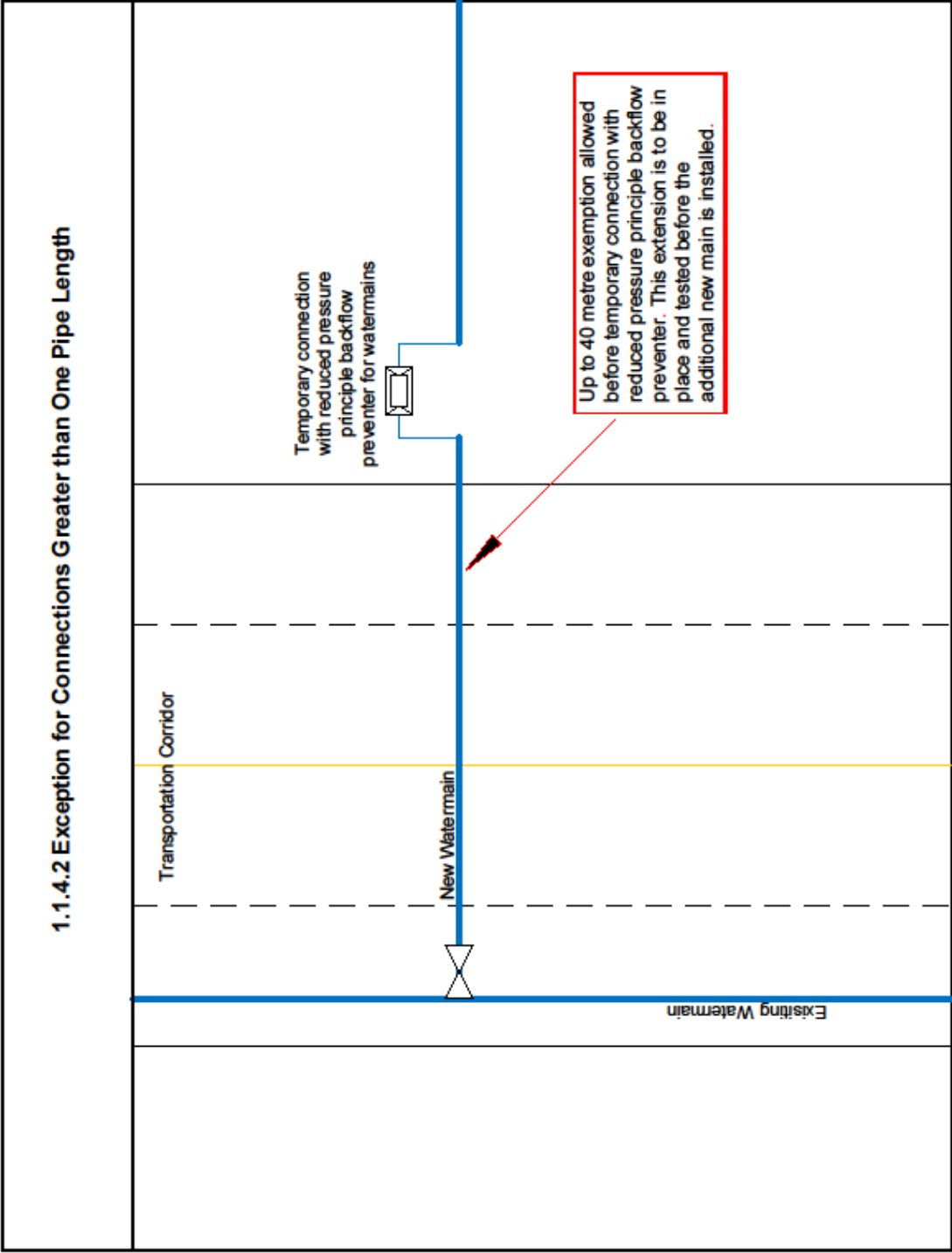
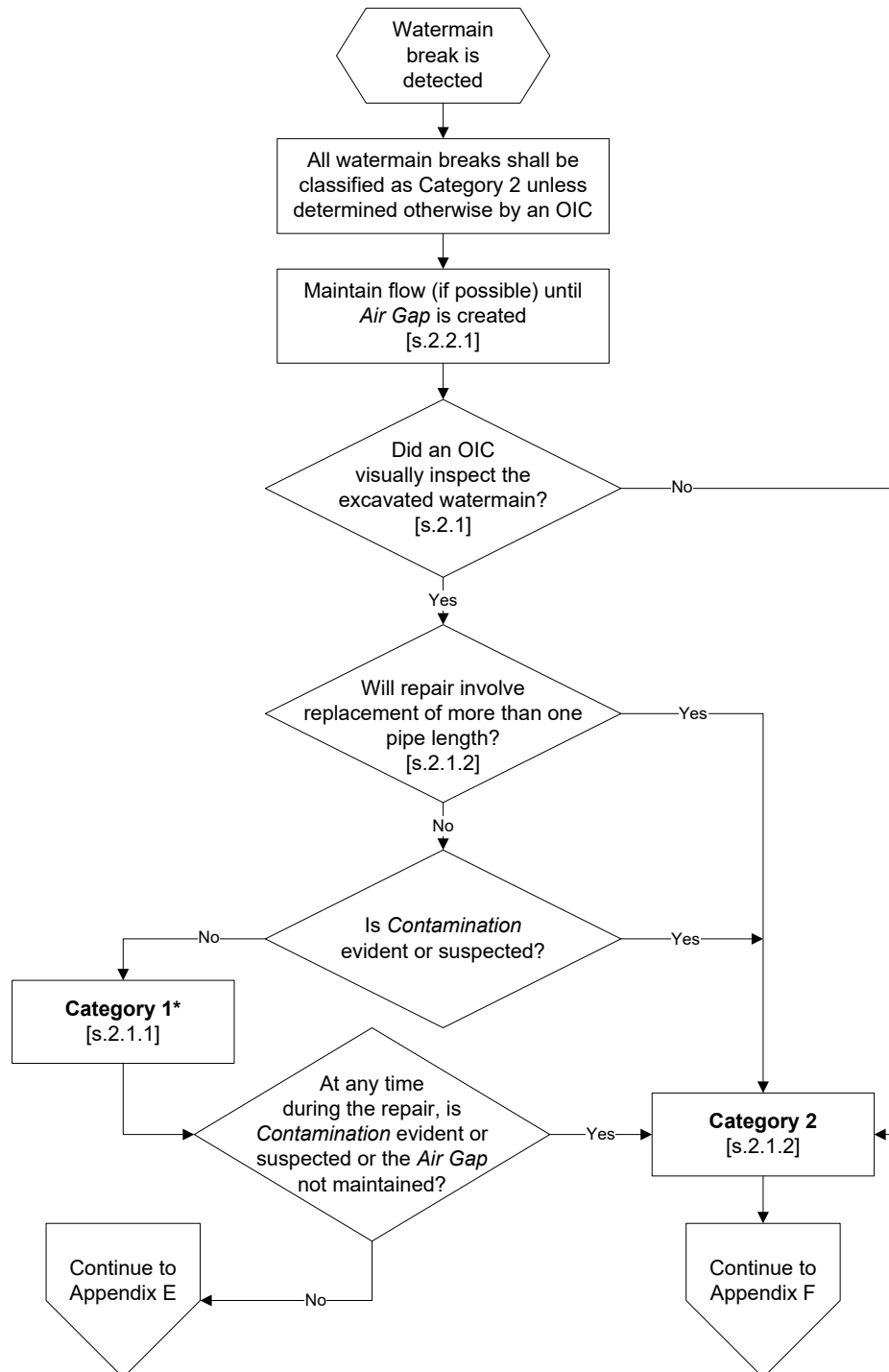


Figure B-1: Example of Exception in Section 1.1.4.2.

## APPENDIX C: Tools to Help Determine the Category of Watermain Break—Flowchart

The following flowchart will help determine the categories of watermain breaks.



\*An OIC must remain on-site throughout a Category 1 repair to assess the evidence of *Contamination* or suspected *Contamination*. If an OIC cannot be present for the duration of the repair, the watermain break shall remain as a Category 2.



## APPENDIX D: Tools to Help Determine the Category of Watermain Break—Pictures

Examples of watermain breaks that are typical of Category 1 are included below for illustrative purposes only:



Figure D-1: Circumferential watermain break with flow maintained until after an *Air Gap* was established.



Figure D-2: Corrosion hole leak in a watermain with flow maintained until after an *Air Gap* was established.

Examples of watermain breaks that are typical of Category 2 are included below for illustrative purposes only:



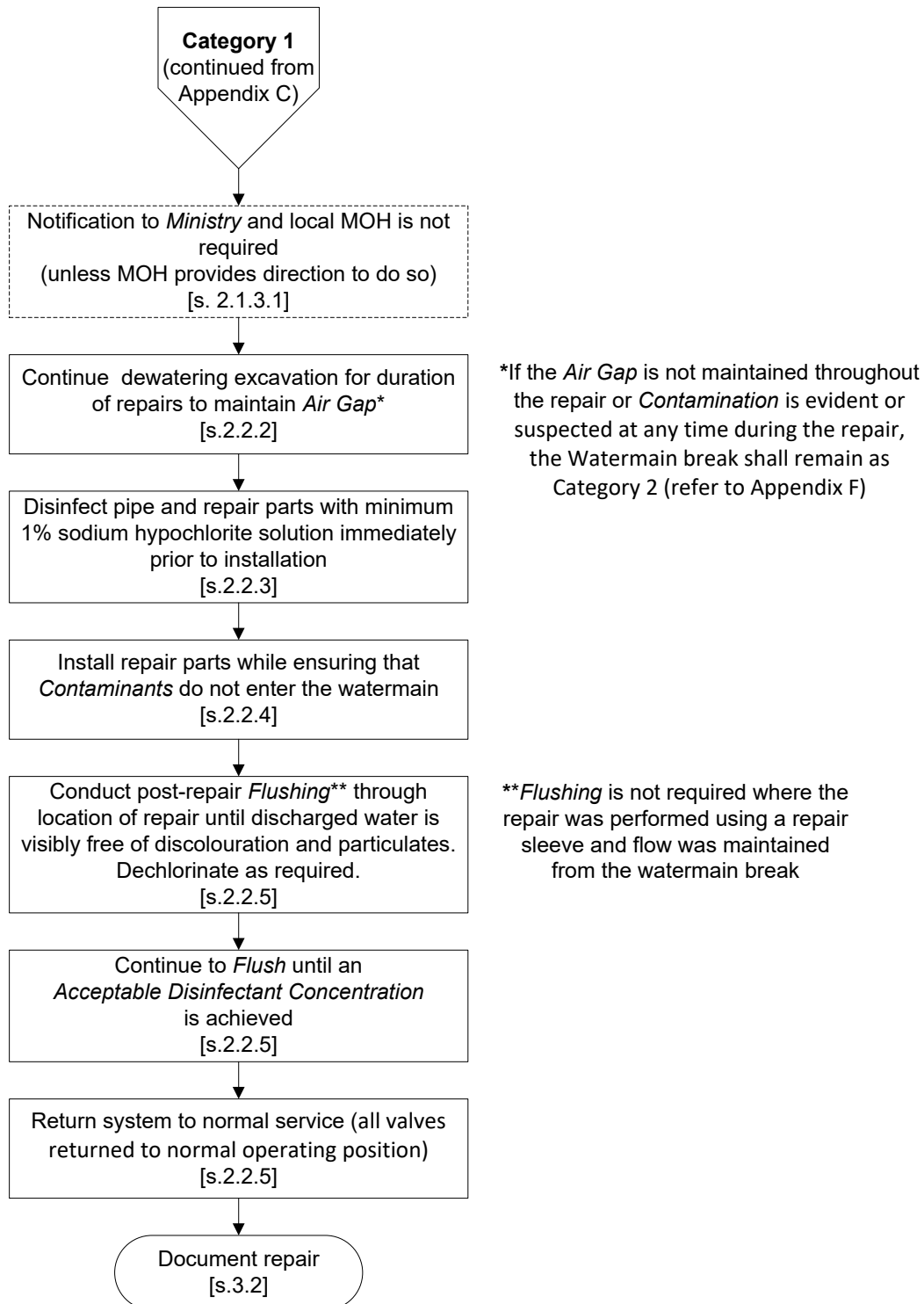
Figure D-3: Longitudinal watermain break with evident *Contamination*.



Figure D-4: Spiral watermain break with evident *Contamination*.

## APPENDIX E—CATEGORY 1 FLOWCHART

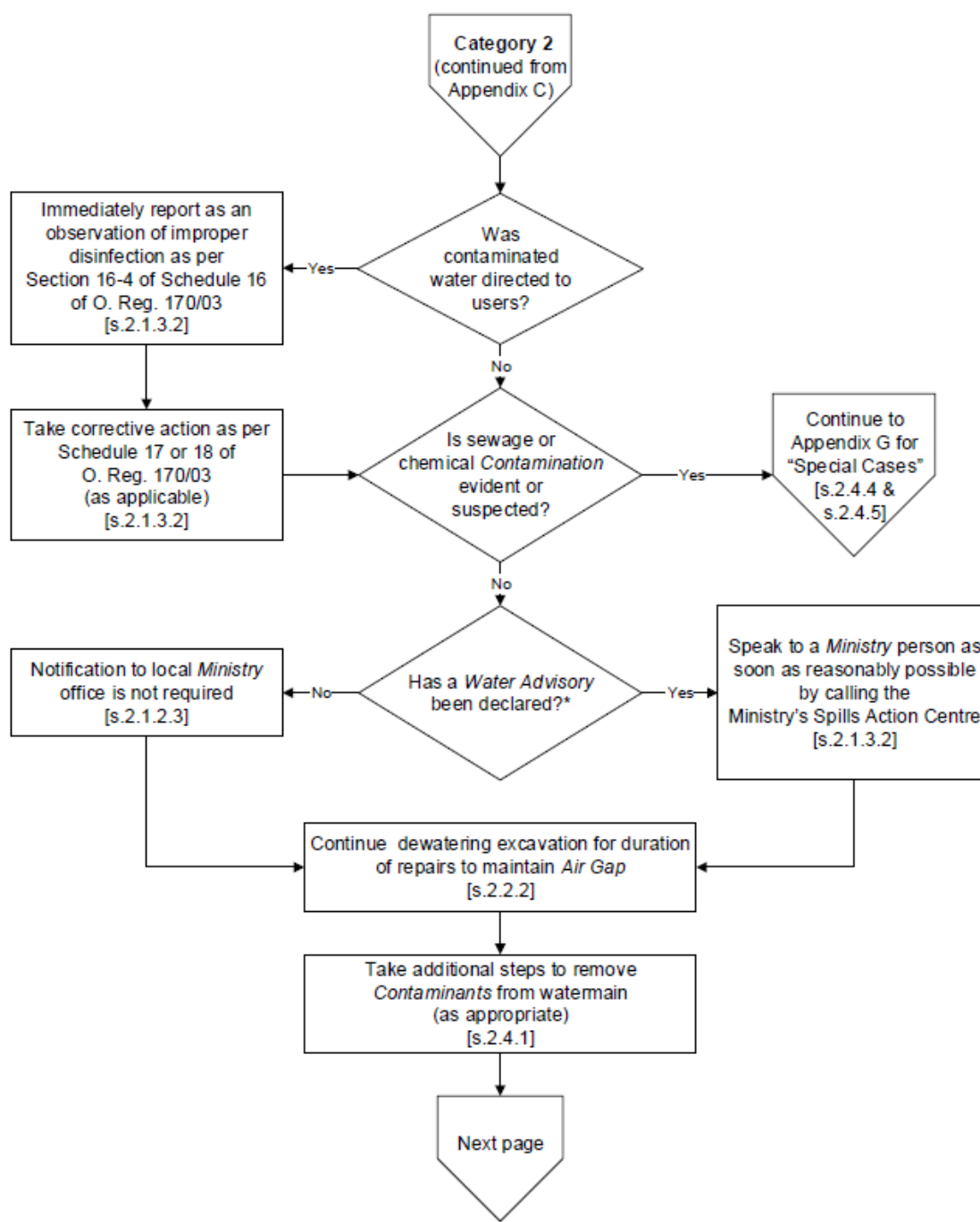
The following flowchart is an example of the typical steps required for **Category 1** watermain breaks. **Note:** These steps also apply to the planned maintenance of watermain *Appurtenances* and fittings (refer to Section 1.4). Any additional directions given by the *Ministry* and/or the local Medical Officer of Health must be followed.



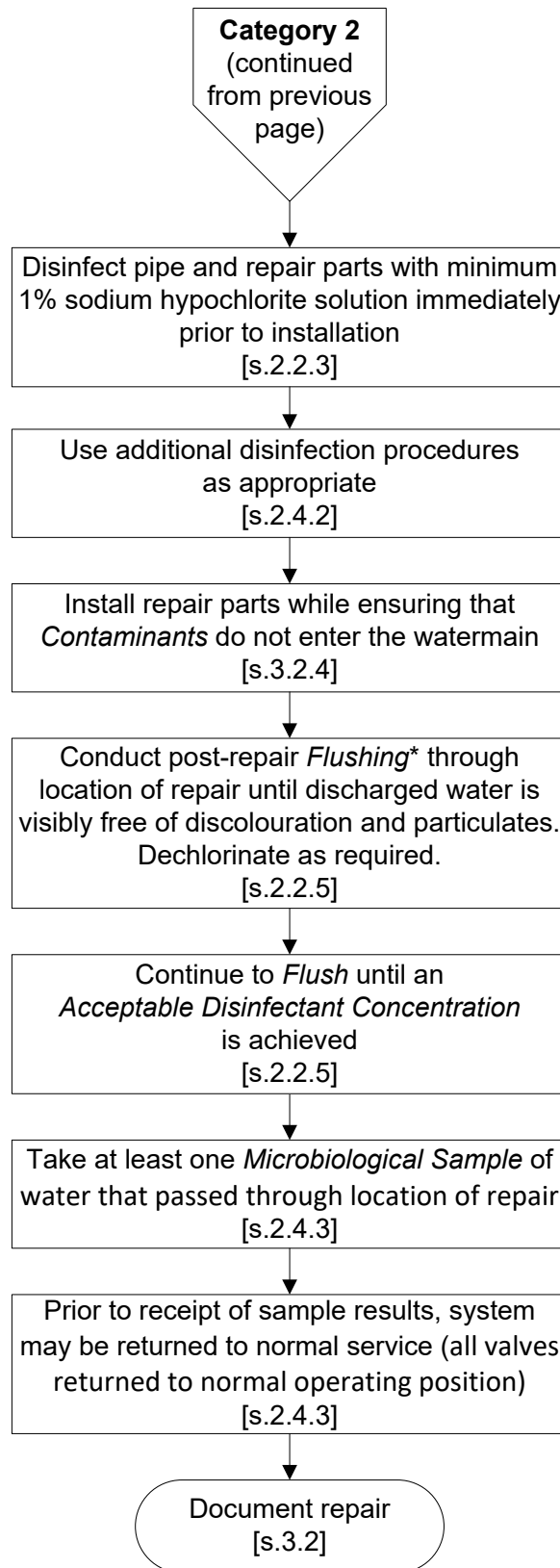


## APPENDIX F—CATEGORY 2 FLOWCHARTS

The following flowchart is an example of the typical steps required for **Category 2** watermain breaks. **Note:** The sequence of actions may be varied as appropriate for the specific situation. Any additional directions given by the *Ministry* and/or the local Medical Officer of Health must be followed.



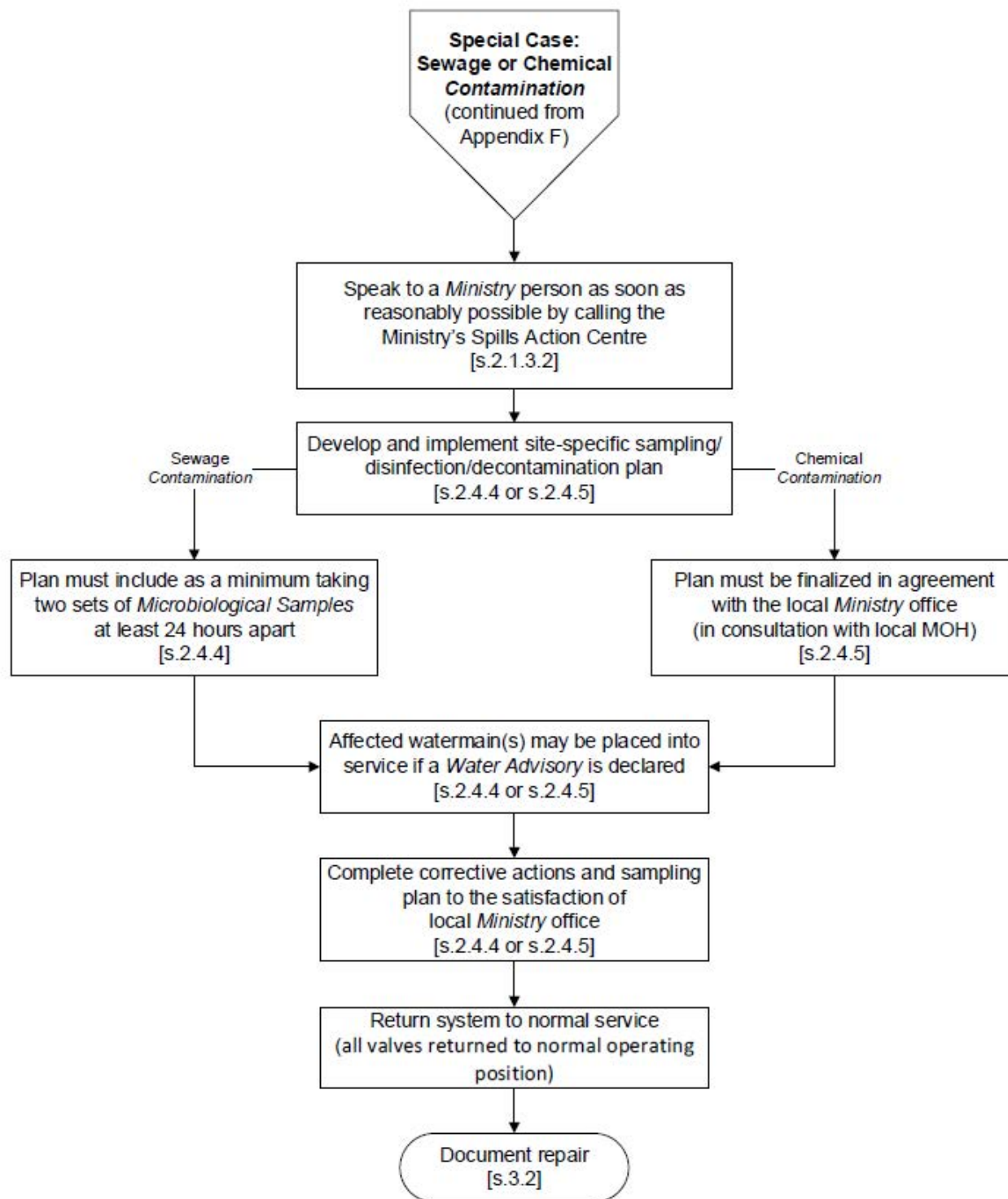
\*Local MOH may exercise their option to require notification for all Category 2 watermain breaks



\**Flushing* is not required where the  
repair was performed using a repair  
sleeve and flow was maintained  
from the watermain break

## APPENDIX G—SPECIAL CASE FLOWCHART

The following flowchart depicts the requirements for special case *Contamination* (sewage or chemical) as a result of a watermain break.





## APPENDIX H: Definitions

In this procedure,

**“Acceptable Disinfectant Concentration”** means:

- a) a disinfectant concentration of at least 0.2 mg/L free chlorine residual in a chlorinated system or 1.0 mg/L combined chlorine residual in a chloraminated system; or, if these disinfectant concentrations cannot be achieved,
- b) a disinfectant concentration that is representative of the residual in the area, determined by testing upstream and downstream from the testing location or by using documented benchmarks for the area, as long as free chlorine concentrations are at least 0.05 mg/L in a chlorinated system and combined chlorine concentrations are at least 0.25 mg/L in a chloraminated system.

**“Air Gap”** means a space at the location of the maintenance/repair between the exterior surface of the watermain and the interior surfaces of the excavation, including the water in the excavation, sufficient to prevent water, soil or any other *Contaminant* in the excavation from contacting the watermain, fittings, or *Appurtenances* throughout the maintenance/repair process.

**“Appurtenance”** means an appurtenance, within the meaning of *O. Reg. 170/03*, which is in contact with the *Drinking Water*.

**“Backflow Prevention”** means the prevention of a reversal of normal flow that could introduce *Contamination* to the *Drinking Water System*.

**“Certified Operator”** means certified operator within the meaning of *O. Reg. 170/03*.

**“Connection”** means all watermain and *Appurtenances* installed between an existing watermain and a new or future watermain/*Appurtenance*.

**“Contaminant”** means foreign matter that is not intended to enter a watermain.

**“Contamination”** means the introduction of a *Contaminant* into a watermain.

**“Directly Supervised”** means directly supervised within the meaning of Section 5.1.1 of the Certification Guide for Operators and Water Quality Analysts of Drinking Water Systems, as

amended, but it does not expressly refer to the definition of supervisor under the *Occupational Health and Safety Act*.

**“Drinking Water”** means drinking water within the meaning of the *Safe Drinking Water Act*.

**“Drinking Water Health Hazard”** means drinking water health hazard within the meaning of the *Safe Drinking Water Act*.

**“Drinking Water System”** means drinking water system within the meaning of the *Safe Drinking Water Act*.

**“Flushing”** means flowing water through a section of watermain/appurtenances and out of the system until the water appears visibly free from discoloration and particulates with an *Acceptable Disinfectant Concentration*. This definition does not include recharging a watermain.

**“Higher Velocity Flushing”** means flushing of a watermain with sufficient velocity to discharge settled materials.

**“Isolate”** means operate valves to ensure that there is no flow of water to or from a specific section of watermain.

**“Microbiological Samples”** means water samples taken and tested for *Escherichia coli* and Total Coliforms by a licensed and accredited laboratory.

**“Ministry”** means the Ministry of the Environment, Conservation and Parks.

**“Operator-in-Charge”** means an operator-in-charge within the meaning of *O. Reg. 128/04*.

**“Service Pipe”** means a service pipe within the meaning of *O. Reg. 170/03*.

**“Water Advisory”** means a boil or drinking water advisory for the area being serviced by the affected watermain declared by the local Medical Officer of Health.

**“Water Quality Analyst”** means a water quality analyst within the meaning of *O. Reg. 128/04*.



## **23. APPENDIX F**

### **23.1 Project Signage**

Project signage template to be provided to the successful bidder.



**CITY OF KENORA**  
**2025 Sewer and Water Reconstruction**

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**END OF TENDER**