

Engineer's Report  
Minor Improvements  
S.78(5) and O.Reg. 500/21  
Cross Creek Municipal Drain  
Municipality of La Nation

Prepared For:



Prepared By:

Robinson Consultants Inc.  
Consulting Engineers

Our Project No. 22073  
January 2024

January 31, 2024

La Nation  
P.O. Box 310  
2155 Roger Stevens Drive  
North Gower, ON K0A 2T0

**Attention: Mr. Eric Leroux**  
**Drainage Superintendent**

**Reference: Engineer's Report**  
**Minor Improvements – S.78(5) and O.Reg. 500/21**  
**Cross Creek Municipal Drain**  
**Project No. 22073**

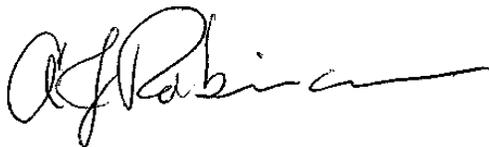
Dear Sir:

This Engineer's Report is to make minor improvements and amend the Engineer's Report for the Cross Creek Municipal Drain, Municipality of La Nation, subject to the requirements of S.78(5) of the Ontario Drainage Act, R.S.O. 1990, c. D.17 and the associated regulation O.Reg. 500/21. The purpose of this Engineer's Report is to accommodate a change in size of the base flow culvert under the Prescott and Russell Recreational Trail at the Cross Creek Municipal Drain – (1) of (3) culverts that conveys flow at this location (the other 2 remain unchanged).

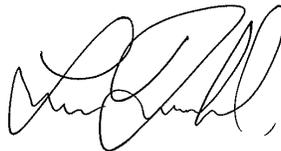
If you have any questions, please feel free to contact Andy Robinson at 613-592-6060 extension 104 or Lorne Franklin at extension 123.

Yours very truly,

ROBINSON CONSULTANTS INC.



A.J. Robinson, P.Eng.  
Drainage Engineer



Lorne Franklin, L.E.T., C.E.T., rcca, CISEC  
Licensed Engineering Technologist  
Drainage Services

AJR: plw

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## 1.0 INTRODUCTION

Robinson Consultants Inc. was directed by the Municipality of La Nation, in November 2022, to complete work on an Emergency Work basis for the modification and replacement of the low-flow conveyance culvert on the Cross Creek Municipal Drain under the Prescott and Russell Recreational Trail. The culvert under consideration is (1) of (3) culverts at this location and had collapsed. The culvert was also known to cause frequent flooding issues (due to the design of the system) prior to the collapse and was therefore subject to consideration for adequate sizing.

Emergency work was initiated by the Municipality of La Nation and authorized by the Minister of the Ontario Ministry of Agriculture Food and Rural Affairs by letter dated December 21, 2022.

Proposed sizing of the culvert was provided by Robinson Consultants Inc. in support of the Emergency Work and the construction was completed in February 2023.

This report modifies the sizing of the culvert and accommodates the Emergency Work but does not otherwise modify the existing report or By-Law for the Cross Creek Municipal Drain.

## 2.0 HISTORY

The existing report for the Cross Creek Municipal Drain entitled “Engineer's Report Major Improvements Of The Cross Creek Municipal Drain -- The Township Of Caledonia (Including land in West Hawkesbury and Longueuil Townships)” was completed for the Township of Caledonia by Desjardins/Lascelles Engineering Ltd., dated (Revised) December 8, 1983, (1983 Report).

The associated Township of Caledonia By-Law is By-Law 26-1983.

## 3.0 PROPERTY AND REQUEST

The official “Notice of Request for Drain Minor Improvement” as required by O.Reg. 381/12 was completed by the operating Authority of the Prescott and Russell Recreational Trail in consultation with the Municipal Drainage Superintendent subsequent to the Emergency work being completed and the by-law authorizing the work finalized following receipt and finalization of the notice, dated January 15, 2024. A copy of this documentation is provided in **Appendix A**.

The culvert under consideration is located on the Prescott and Russell Recreational Trail, formerly a rail corridor but now owned and operated by a private Prescott and Russell Recreational Trail Authority at approximately Sta. 0+135 on the Cross Creek Municipal Drain, Lot 12, Con 1, geographic Twp. of Caledonia.

#### **4.0 DETERMINATION OF THE ENGINEER**

Based on the Drainage Engineer's review of O. Reg. 500/21, the requirements of the regulation allowing for the "Minor Improvement Project" were met, including the following:

- 7.1(i) work completed on an individual property.
- 7.2(i/ii) all costs associated with the work will be paid by either the proponent or the Municipality.
- 7.3(i) the construction did not require access to neighbouring properties
- 7.4. no modification of the assessment schedules was required to complete the work.
- 7.5. the activity does not change the existing Drainage Capacity or erosion capacity.
- 7.6. the activity is not considered an "enclosure"
- 7.7. the activity does not take place in a wetland

It was the determination of the Drainage Engineer that all noted requirements were met, and the project could proceed in conformance with O.Reg. 500/21.

#### **5.0 REGULATORY REQUIREMENTS AND DESIGN**

Notice of the "On-Site Meeting" as required by O.Reg. 500/21 was sent to the Prescott and Russell Recreational Trail Authority, the Municipality, the County of Prescott and Russell, The South Nation Conservation Authority, and the adjacent landowner. The on-site meeting was completed on November 23, 2022.

Emergency work was initiated by the Municipality of La Nation and authorized by the Minister of the Ontario Ministry of Agriculture Food and Rural Affairs by letter dated December 21, 2022. A copy of the Authorization Letter is provided in **Appendix B**.

Consultation was completed with the Department of Fisheries and Oceans (DFO), the South Nation Conservation Authority (SNCA), the Ontario Ministry of Natural Resources and Forestry (MNRF) and the Ontario Ministry of Environment Conservation and Parks (MECP). Where applicable and/or received authorizations/permits are provided in **Appendix C**.

## 5.1 Design

Primary hydrology and hydraulic calculations utilized in the sizing for this culvert were previously completed by Robinson Consultants Inc. in conjunction with the Mill Creek Municipal Drain, located in close proximity downstream of this location and providing outlet for the Cross Creek Municipal Drain. Sizing was extrapolated from the calculations completed for the Engineer's Report, entitled "Engineer's Report -- Mill Creek Municipal Drain, Amendment and Emergency Work", by Robinson Consultants Inc., dated January 10, 2022.

Consideration was given for the increase in size of the base flow culvert (as defined in the 1983 Report) to convey the flows up to the 5-year design capacity, while a small check-dam/weir was placed between the other (2) culverts at this location, limiting conveyance of the overall system to the original total capacity in conformance with S.7.5 of O.Reg. 500/21.

The original 1200mm dia CSP culvert was replaced with a 3000mm dia CSP, similar in size to culverts located both immediately upstream and downstream of this location and is anticipated to convey flows associated with base flows up to the 5-year design storm event.

A rock check-dam/weir was placed between the existing twin 2950 dia CSP overflow culverts to a height of 1500mm thereby directing flow to only (1) of the overflow culverts first except in exceptional storm events.

Plan and Profile drawings of the work (as completed in February 2023 under the Emergency Work designation) are provided on Plan Dwg. 22073-A1 and Profile Dwg. 22073-P1, dated January 2023 are included in **Appendix D**.

## 6.0 COSTS

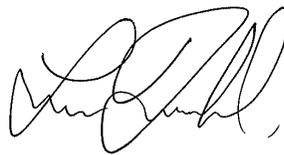
All costs associated with this Engineer's Report and the associated work (as completed in February 2023 under the Emergency Work designation) are to be assessed to the proponent lands.

All of which is respectfully submitted,

ROBINSON CONSULTANTS INC.



A.J. Robinson, P. Eng.  
Drainage Engineer



Lorne Franklin, L.E.T., C.E.T., rcca, CISEC  
Licensed Engineering Technologist  
Drainage Services

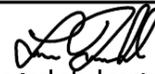


Professional Engineers  
Ontario

24/01/31

Licensed Engineering Technologist

Name: L. FRANKLIN  
Number: 100501335



Limitations: Providing plans, non-technical content of reports and other non-technical advice for submission under the Ontario Drainage Act.

Association of Professional Engineers of Ontario

Appendix A

Notice of Request for Drain  
Minor Improvement

By-Law No. 07-2024



**Notice of Request for Drain  
Minor Improvement  
*Drainage Act, R.S.O. 1990,  
c. D.17, subs. 78 (5)***

To: The Council of the Corporation of the Municipality of the Nation

Re: Cross Creek municipal drain

(Name of Drain)

**In accordance with section 78 (5) of the *Drainage Act*, take notice that I, as owner of land affected, request that the above mentioned drain be improved.**

The work being requested is a Minor Improvement Project

**I believe that the project being requested meets all the following criteria for a minor improvement project:**

- The property owner initiates the improvement on an individual property or two or more adjacent properties that are owned by the same person or the owners are related parties;
- The property owner is paying for costs of the activity, which includes, without limitation engineering construction, contingency costs, incremental future maintenance and eligible municipal administrative costs unless that person and the municipality in which the activity is taking place agree otherwise;
- Carrying out the activity does not require construction access from neighbouring properties or the person initiating the activity has obtained the consent for the construction access from all applicable owners of the neighbouring properties prior to beginning the activity and has provided such proof of consent to the municipality as part of the application to carry out the activity;
- The activity will not result in any changes as to how future repair and maintenance costs are allocated to other property owners in the watershed;
- The activity does not change drainage capacity or erosion potential;
- The activity does not result in the existing drainage works being enclosed; and
- The activity does not take place within any wetlands.

**The project can be completed with access from:**

- The requestor property
- My neighbour's property and written permission has been granted and attached to this Notice of Request for Minor Drain Improvements form.
- The municipal road right-of-way

**a. As owner of land requesting the minor improvement described below, I hereby request pursuant to subsection 78 (5) of the *Drainage Act* that the minor improvement project described immediately below be approved. I acknowledge responsibility for all costs of the minor improvement project, even if the minor improvement project does not proceed.**

Provide a more specific description of the proposed drain improvement you are requesting

**The initial culvert under the cycling trail as collapsed and we want to replace it with a bigger culvert to prevent flooding near a residential home. The have the flow capacity reduced at another culvert closer to the house. The flow capacity should not be upgraded, but moved further from the exsiting larger culverts.**

**Property Owners**

- Requestors of minor improvement projects become financially responsible as soon as they sign a request and it is accepted by council as a minor improvement project.
- Your municipal property tax bill will provide the property description and parcel roll number.
- In rural areas, the property description should be in the form of (part) lot and concession and civic address.
- In urban areas, the property description should be in the form of street address and lot and plan number, if available.

## Property Description

Recreational cycling trail built as a berm holding back water in spring. The higher ground can become a negative holding aspect of the municipal drainage area.

## Ward or Geographic Township

Old Caledonia Township part of the now Nation Township

## Parcel Roll Number

021201200105300

If the property is owned in partnership, all partners must be listed. If the property is owned by a corporation, list the corporation's name and the name and corporate position of the authorized officer. Only the owner of the property may request a drain improvement.

I hereby request approval for the minor improvement project for the land described above and acknowledge my/our financial obligations.

*Eric Collar - Director*

**Ownership****Select Ownership Type**

If you need to provide additional information, please attach along with this form.

**Enter the mailing address and primary contact information of property owner below:**

Last Name <i>Beaulne,</i>	First Name <i>RENE</i>	Middle Initial
------------------------------	---------------------------	----------------

**Mailing Address**

Unit Number	Street Number <i>5083</i>	Street Name <i>County Rd 17</i>	PO Box
City/Town <i>ALFred</i>	Province <i>Ontario</i>	Postal Code <i>K0B 1A0</i>	
Telephone Number	Cell Phone Number (Optional) <i>613-794-5154</i>	Email Address (Optional) <i>SentierViatrail@gmail.com</i>	

To be completed by recipient municipality:

Notice filed this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_ 1/9/2024

## Name of Clerk (Last, First Name)

Brizard Josée

## Signature of Clerk

DocuSigned by:

*Josée Brizard*

28FF5200AE9641A...

**CORPORATION OF THE NATION MUNICIPALITY**

**BY-LAW NO. 07-2024**

A By -Law to appoint an engineer for the replacement of the Prescott-Russell Recreational Trail culvert at Cross Creek Municipal Drain under section 78(5) of the Ontario Drainage Act

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**Whereas section 78 (1)** of the Drainage Act stipulate that if a drainage works has been constructed under a by-law passed under this Act or any predecessor of this Act, and the council of the municipality that is responsible for maintaining and repairing the drainage works considers it appropriate to undertake one or more of the major improvement projects listed in subsection (1.1) for the better use, maintenance or repair of the drainage works or of lands or roads, the municipality may undertake and complete the project in accordance with the report of an engineer appointed by it and without the petition required by section 4. 2010, c. 16, Sched. 1, s. 2 (27); 2020, c. 18, Sched. 4, s. 9 (1).

**WHEREAS section 78(5)** of the Drainage Act stipulate that despite subsections (2) to (4), the Minister may prescribe the process for approving minor improvements to a drainage works mentioned in paragraph 8 of subsection (1.1). 2020, c. 18, Sched. 4, s. 9 (6).

**WHEREAS**, The Nation Municipality directed the Drainage Superintendent in November 2022 to complete work on an Emergency Work designation by the Minister of Agriculture, Foods and Rural Affairs, for the modification and replacement of the low-flow conveyance culvert on the Cross Creek Municipal Drain under the Prescott and Russell Recreational Trail due to the collapse of the culvert at this location.

**WHEREAS** the official "Notice of Request for Drain Minor Improvement" as required by O.Reg. 381/12 was completed by the operating Authority of the Prescott and Russell Recreational Trail in consultation with the Municipal Drainage Superintendent subsequent to the Emergency work being completed and the by-law authorizing the work finalized following receipt and finalization of the notice, dated January 15, 2024.

**NOW THEREFORE** the Council of the Corporation of The Nation Municipality, hereby enacts as follows:

1. THAT Council appoint Robinson Consultants Inc. to review the Cross Creek Municipal Drain existing engineer's report to provide a proper design to lower the risks of flooding in this specific area.
2. THAT the landowners, of the Prescott & Russell Recreational Trail as deemed proper by the engineer's cost shares, to be responsible for the costs of the revised Engineer's Report as per section 78(5) of the Ontario Drainage Act request.
3. THAT by-law shall come into force as of January 15, 2024.

**READ A FIRST, SECOND AND DULY PASSED UPON THE THIRD READING IN OPEN COUNCIL THIS 15<sup>th</sup> of JANUARY 2024.**

  
Francis Brière, Mayor

  
Josée Brizard, CAO-Clerk

## Appendix B

Ontario Ministry of Agriculture Food and  
Rural Affairs Authorization Letter

Ministry of Agriculture,  
Food and Rural Affairs

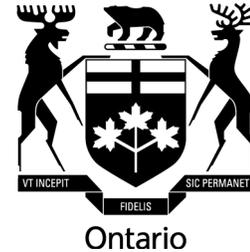
Office of the Minister

77 Grenville Street, 11th Floor  
Toronto, Ontario M7A 1B3  
Tel: 416-326-3074  
www.ontario.ca/OMAFRA

Ministère de l'Agriculture, de  
l'Alimentation et des Affaires rurales

Bureau du ministre

77, rue Grenville, 11<sup>e</sup> étage  
Toronto (Ontario) M7A 1B3  
Tél. : 416 326-3074  
www.ontario.ca/MAAARO



December 21, 2022

Eric Leroux  
Leroux Consultant  
Drainage Superintendent  
lerouxconsultant@gmail.com

Dear Mr. Leroux:

Thank you for your letter dated December 9, 2022, requesting an emergency designation under Section 124 of the [Drainage Act](#) to replace a collapsed culvert on the Cross Creek Municipal Drain in The Nation Municipality.

Your letter and the accompanying photographs demonstrate that the culvert is collapsing, reducing the capacity of the drain, and causing water to back up in the drain. You indicate that the culvert is under a recreation trail and close to a residential house which may be affected by the back up of water in the drain.

You indicate that Leroux Consultant has been appointed Drainage Superintendent, but you are unable to use the existing engineers' report to complete the work as maintenance. The municipality is planning to appoint Robinson Consultants Inc. to prepare a report on the Cross Creek Municipal Drain recommending the full replacement of the drainage crossing in accordance with Section 78 of the *Drainage Act*. I would encourage you to take any opportunity to expedite the resolution of this serious issue as quickly as possible.

After considering this information, I hereby designate the replacement of the collapsed culvert (as shown in the pictures in your submission) on the Cross Creek Municipal Drain in The Nation Municipality to be an emergency within the meaning of Section 124 of the *Drainage Act*.

This designation is granted on the condition that the replacement is made under the supervision of Robinson Consultants Inc., appointed by council under Section 78 of the *Drainage Act*. Any additional drain improvements will need to progress through the normal *Drainage Act* process. Since the total project cost is unknown at this time, all involved property owners must be given an opportunity to appeal their share of the project cost to the appeal bodies established under the act.

.../2

### Did you know about the Farmers' Wellness Initiative?

- Your mental health is important! If you're a farmer or a member of a farm family and in need of mental health support, please call 1-866-267-6255 and arrange to speak with a professional today.
- For additional resources visit: <https://farmerwellnessinitiative.ca/>.

Please note that this emergency designation does not exempt you and your municipality from any approvals that may be required from other agencies including the local conservation authority and Fisheries and Oceans Canada.

Sincerely,

A handwritten signature in blue ink that reads "Lisa M. Thompson". The signature is fluid and cursive, with the first name "Lisa" being more prominent than the last name "Thompson".

Lisa M. Thompson  
Minister of Agriculture, Food and Rural Affairs

## Appendix C

### Authorizations and Permits



**PERMISSION FOR DEVELOPMENT ACTIVITY, INTERFERE WITH A WATERCOURSE**

Ontario Regulation 170/06 made pursuant to  
Section 28 of the *Conservation Authorities Act*, R.S.O. 1990, c. C.27



**Permit Holder:** Municipality of The Nation  
Care of: Lorne Franklin  
Robinson Consultants  
350 Palladium Drive  
Kanata, ON  
K2V 1A8



**Decision:** **Approved (subject to conditions)**



**Issued:** August 15, 2023  
**Expires:** August 15, 2025



**Work Description:** Emergency Alteration to the Cross-creek Municipal Drain



**Location:** Prescott Russell Trail, Nation  
Former Township of Caledonia  
[UTM 18T 518977.47 5043221.89]



The attached Schedules form part of this permit for the approved work and must be implemented in accordance with the stated conditions. A copy of this permit must be kept at the worksite.



The Permit Holder, by acceptance and in consideration of the issuance of this permit, agrees to the permit conditions.



Dated at Finch, Ontario, this 15<sup>th</sup> day of August, 2023.



Alison McDonald,  
Managing Director, Approvals  
[amcdonald@nation.on.ca](mailto:amcdonald@nation.on.ca)



### **SCHEDULE A: WORK DESCRIPTION**

SNC understands the following work will be completed (the “Work”):

1. Emergency Alteration to the Cross-creek Municipal Drain at the Prescott Russell Trail at the above noted location.
2. The Main Alignment 1200mm CSP culvert has collapsed and will be replaced by a larger diameter culvert of at least 3000mm dia. of the same length measurement (24m).
3. A berm will be built in between the two existing twin culverts of the Bypass Alignment, effectively further dividing flows during storm and flooding events.
4. No regrading of the Prescott Russell Trail is expected.

The details of the Work are outlined in the following documents forwarded to SNC:

1. South Nation Conservation Application Form: Ontario Regulation 170/06 Development, Interference with Wetlands and Alteration to Shorelines and Watercourses - Received February 13, 2023, signed by Eric Leroux of the Municipality of The Nation and Lorne Franklin from Robinson Consultants.
2. Drawing: “Municipality of La Nation Cross Creek Municipal Drain – Prescott Russell Trail Culvert Plan, Emergency Work”, revision no. 2, drawing no. 22073-A1, project no. 22073, designed by LF, drawn by DD, checked and approved by AJR, prepared by Robinson Consultants, signed by A. J. Robinson P. Eng., dated January 24, 2023.
3. Drawing: “Municipality of La Nation Cross Creek Municipal Drain – Prescott Russell Trail Culvert Plan & Profile, Emergency Work”, revision no. 2, drawing no. 22073-P1, project no. 22073, designed by LF, drawn by DD, checked and approved by AJR, prepared by Robinson Consultants, signed by A. J. Robinson P. Eng., dated January 24, 2023.
4. Document: “Letter for Emergency Designation”, addressed to E. Leroux of Leroux Consultants, Drainage Superintendent, delivered via email to [lerouxconsultant@gmail.com](mailto:lerouxconsultant@gmail.com), prepared and signed by Lisa M. Thompson for the Ministry of Agriculture, Food and Rural Affairs, dated December 21, 2022.



5. Document: "Engineer's Report Major Improvements to the Cross Creek Municipal, the Township of Caledonia (Including Land in West Hawkesbury and Longueuil Townships) 1983", reference no. H-8072-D, prepared by Desjardins/Lascelles Engineering Limited, revised December 8, 1983.



## **SCHEDULE B: CONDITIONS**

SNC requires completion of the following conditions for permit compliance:

1. Department of Fisheries & Oceans (DFO) recommendations for environmental protection and mitigation measured should be followed.
2. Sediment and Erosion Control
  - a) **The Permit Holder is responsible to ensure that no sediment released by the Work enters a watercourse or waterbody.**
  - b) The Permit Holder must submit a sediment and erosion control plan for review and approval to SNC prior to work beginning, this plan should be in place prior to, and during, the Work.
  - c) In the event of unexpected rainfall, any fill that is removed from the site and placed on the shore (above the high-water mark) is to be properly stabilized as required through the implementing of appropriate sediment and erosion control measures.
  - d) SNC may visit the Work location anytime from application submittal through to the expiration of the permit to inspect the implementation of sediment and erosion control measures on site. SNC shall give reasonable notice of the entry to the Permit Holder or occupier of the property.
  - e) Disturbed areas must be stabilized and revegetated as required upon completion of work and restored to a pre-disturbed state or better.



### **SCHEDULE C: ADDITIONAL COMMENTS**

SNC makes the following additional comments:

1. This permit does not review, certify, or provide permission for any works that may be located outside the above noted property boundary.
2. Nothing in this permit relieves the Permit Holder(s) from obtaining, where necessary, regulatory approval from any other agency, government including his Majesty the King in Right of Ontario, municipality, landowner or authority having legal jurisdiction regarding development at the above noted location or any adjacent lands that may be impacted by the Work. SNC makes no representation and has made no representation as to whether the Permit Holder(s) must obtain any other approval(s) regarding the Work. SNC hereby confirms that it is the Permit Holder(s)' sole and complete responsibility to ensure that it applies for and obtains all necessary regulatory approvals prior to undertaking the Work.
3. Permit review completed by S. Desouches. Technical review completed by B. Harbers & S. Zand.



## **SCHEDULE D: GENERAL CONDITIONS**

### **1. Term**

This permit is valid for 24 months from the date of issuance. No notice will be issued on expiration and it is the responsibility of the Permit Holder to ensure a valid permit is in effect at the time the Work is occurring.

SNC may consider reissuing the permit upon request and payment of an administrative fee. A permit may be reissued where site conditions and plans remain the same as the date of the initial permit.

### **2. Other Permits and Permissions**

This permit does not relieve the Permit Holder of the responsibility to obtain any other documents or permits that the Work may require from the Government of Canada, the Government of Ontario, or the municipality.

It is the responsibility of third-party agents to secure property owner permission to undertake the Work.

### **3. Transferable**

The Permit Holder may transfer the permit to another individual or corporate entity upon payment of an administrative fee to SNC so long as site conditions and plans remain unchanged from the date the permit was issued.

### **4. Right to Hearing**

Every Permit Holder whose permit is refused will be granted the opportunity to present their position in a hearing before the SNC Board of Directors. Please contact our office for further details.

### **5. Property Entry**

SNC may request entry to the worksite at the time of work through to six months past the expiry date of the permit. SNC shall give reasonable notice of the entry to the Permit Holder or occupier of the property.



## **6. Cancellation of Permit**

SNC may cancel a permit or change the permit conditions if:

- a) false information was submitted as part of the permit application; or
- b) the Work deviates from the conditions of the permit without SNC's prior written approval.

## **7. Liability**

The Permit Holder acknowledges that the sole function of this permit is to confirm that the Work is consistent with Ontario Regulation 170/06 and SNC policies. SNC makes no representations or warranties regarding any other aspect of the Work.

By accepting this permit, the Permit Holder agrees:

- a) to indemnify and save harmless, SNC and its officers, employees, and agents, from and against all damage, injury, loss, costs, claims, demands, actions and proceedings, arising out of or resulting from any act or omission of the Permit Holder or of any of their agents, employees, or contractors relating to any of the particular terms or conditions of this permit; and
- b) that this permit shall not release the permit holder from any legal liability or obligation and remains in force subject to all limitations, requirements, and liabilities imposed by law.

SNC assumes no responsibility or liability for flood, erosion, or slope failure damage that may occur to this property nor any activity undertaken by the Permit Holder affecting the property interests of adjacent landowners.

Appendix D

PLAN DWG. 22073-A1

PROFILE DWG. 22073-P1

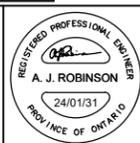


LEGEND  
 ——— PROPERTY LINE  
 ——— MUNICIPAL DRAIN



NOT FOR CONSTRUCTION

No.	DATE	REVISION	BY
1	23.01.23	ISSUED FOR FINAL TOWNSHIP REVIEW	AJR
2	24.01.23	FINAL APPROVED DESIGN	AJR
3	31.01.24	ISSUED FOR DISTRIBUTION	AJR



Professional Engineers  
 Ontario  
 24/01/31  
 Licensed Engineering Technologist  
 Name: L. FRANKLIN  
 Number: 100501335  
 Limitations: Providing plans, non-technical content of reports and other non-technical advice for submission under the Ontario Drainage Act.  
 Association of Professional Engineers of Ontario

SCALES
5 0 10 HORIZONTAL

**Robinson**  
 Consultants

350 Palladium Drive  
 Ottawa, Ontario K2V 1A8  
 (613) 592-6060 rcii.com

DESIGN	LF
CHECKED	AJR
DRAWN	DD
CHECKED	LF
APPROVED	AJR

MUNICIPALITY OF LA NATION

CROSS CREEK  
 MUNICIPAL DRAIN

PRESCOTT RUSSELL TRAIL CULVERT  
 PLAN  
 EMERGENCY WORK

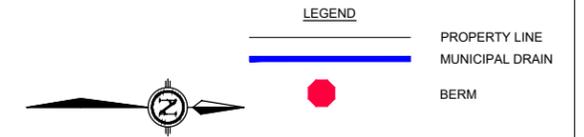
PROJECT No.	22073
CONTRACT No.	
DATED	JAN 2024
DWG. No.	22073-A1



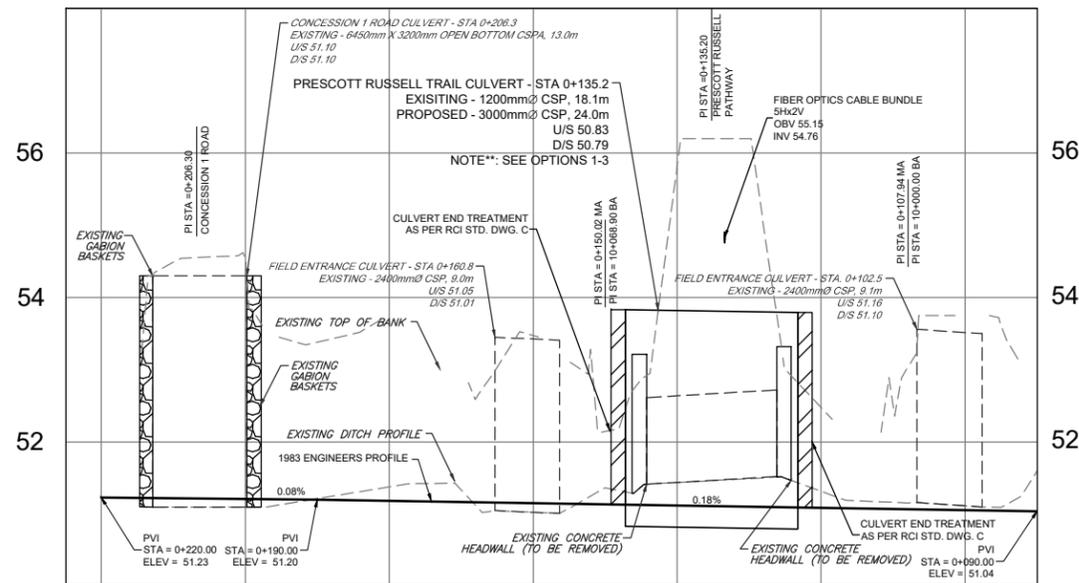
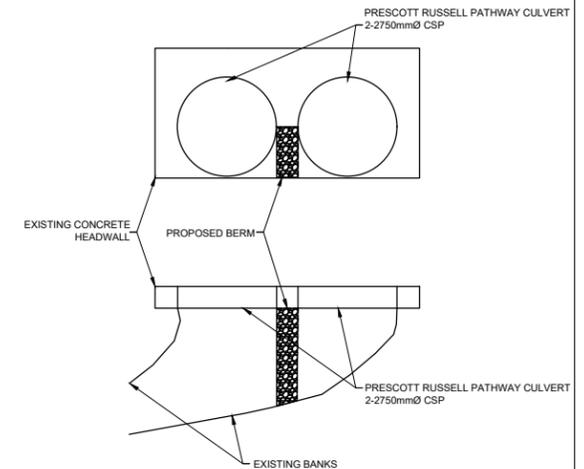
1983 MAIN ALIGNMENT(MA)



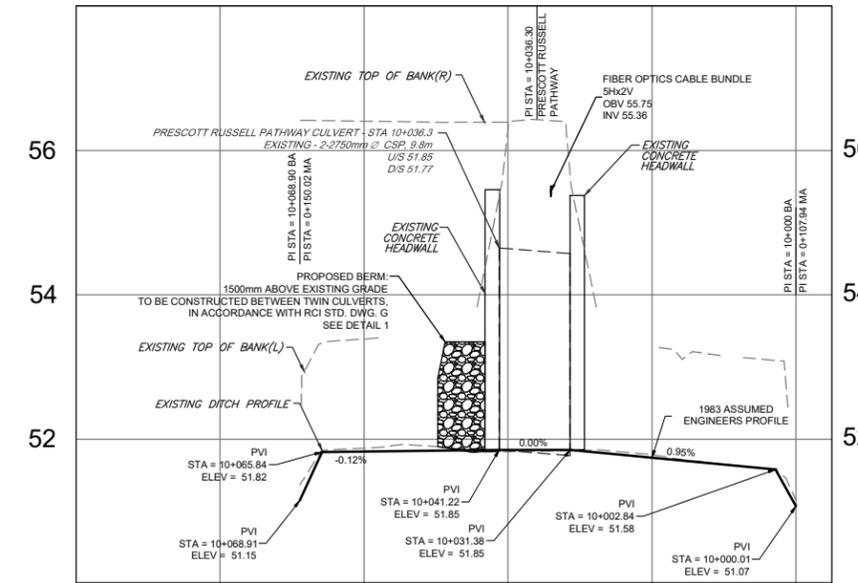
1983 BYPASS ALIGNMENT (BA)



DETAIL 1: FRONT AND TOP VIEW OF BERM

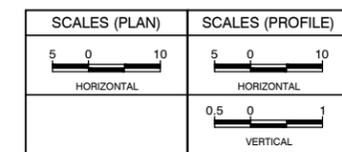


PROPOSED GRADE	51.23	51.21	51.20	51.18	51.15	51.12	51.09	51.06	51.04
EXISTING FIRM BOTTOM		51.10		51.38	51.03	51.44	51.32	51.12	
STATION	0+200	0+200	0+180	0+160	0+140	0+120	0+100		



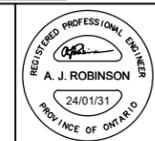
PROPOSED GRADE		51.87	51.83	51.78
EXISTING FIRM BOTTOM		51.87	51.83	51.78
STATION	10+100	10+080	10+060	10+040

NOTE\*\*: OPTIONS 1-3  
 OPTION 1: 1-3000mmØ CSP, 24m, 3.5mm THICKNESS  
 OPTION 2: 2-2000mmØ CSP, 24m, 2.8mm THICKNESS  
 OPTION 3: 3650mm X 2280mm CSP, 24m, 2.8mm THICKNESS



NOT FOR CONSTRUCTION

No.	DATE	REVISION	BY
1	23.01.23	ISSUED FOR FINAL TOWNSHIP REVIEW	AJR
2	24.01.23	FINAL APPROVED DESIGN	AJR
3	31.01.24	ISSUED FOR DISTRIBUTION	AJR



Professional Engineers Ontario  
 24/01/31  
 Licensed Engineering Technologist  
 Name: L. FRANKLIN  
 Number: 100501335  
 Limitations: Providing plans, non-technical content of reports and other non-technical advice for submission under the Ontario Drainage Act.  
 Association of Professional Engineers of Ontario



350 Palladium Drive  
 Ottawa, Ontario K2V 1A8  
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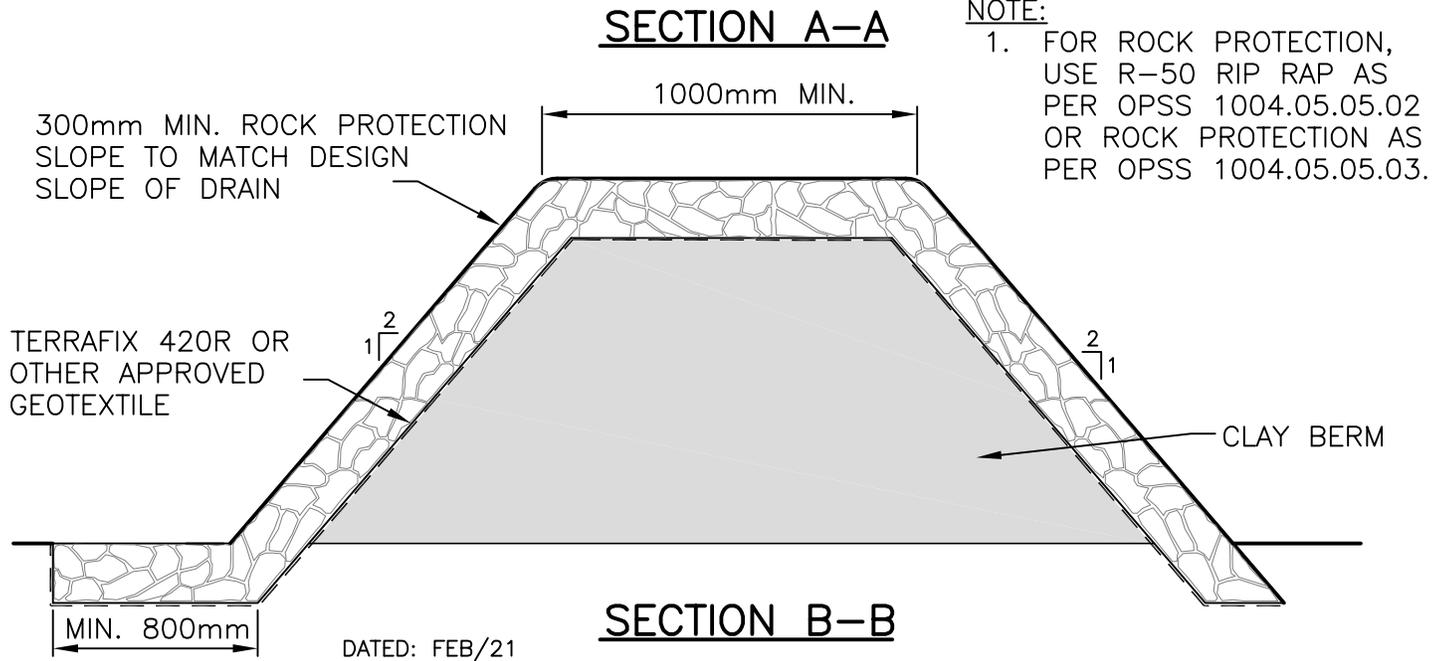
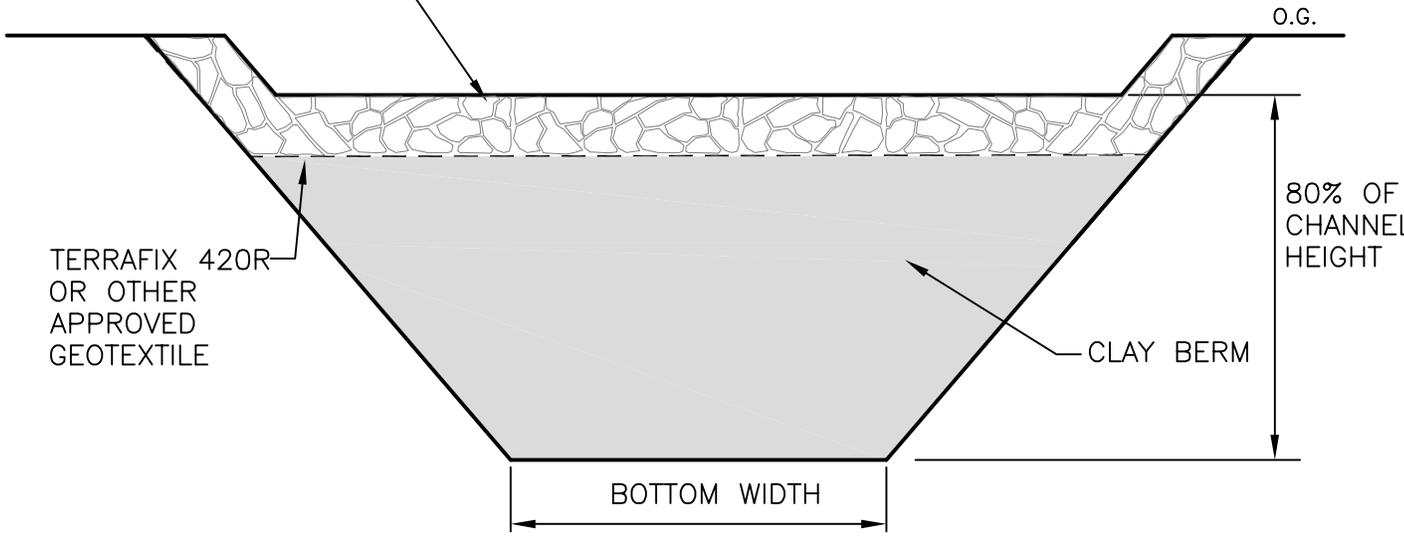
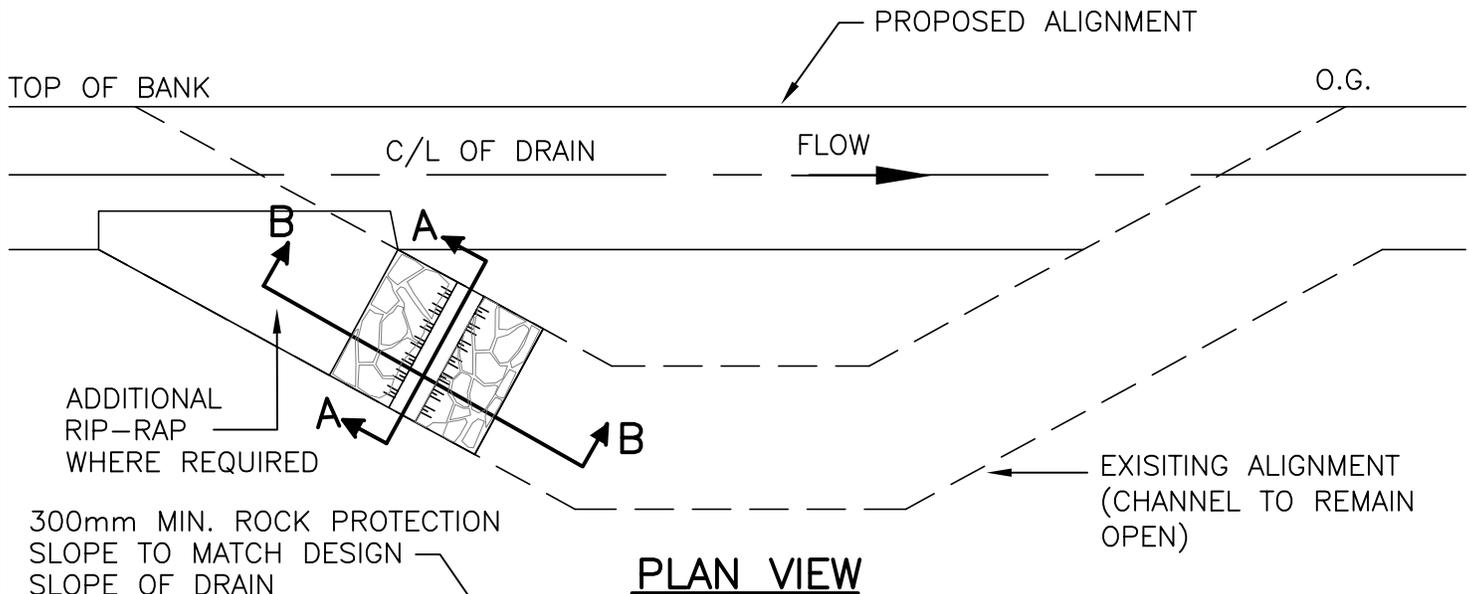
DESIGN	LF
CHECKED	AJR
DRAWN	DD
CHECKED	LF
APPROVED	AJR

MUNICIPALITY OF LA NATION  
 CROSS CREEK MUNICIPAL DRAIN

PRESCOTT RUSSELL TRAIL CULVERT  
 PLAN AND PROFILE  
 EMERGENCY WORK

PROJECT No: 22073  
 CONTRACT No:  
 DATED: JAN 2024  
 DWG. No: 22073-P1





DATED: FEB/21

<p>350 Palladium Dr. Suite 210 Ottawa, Ontario, K2V 1A8 (613) 592-6060 rcii.com</p>	SCALE	MUNICIPAL DRAIN	PROJECT NO.
	HORIZONTAL N.T.S.		TYPICAL CHANNEL BLOCKAGE DETAIL (FOR CHANNEL REALIGNMENT)
VERTICAL N.T.S.		G	