



THE CORPORATION OF THE TOWNSHIP OF HORTON
TRANSPORTATION & ENVIRONMENTAL SERVICES

January 4th, 2023
 8:30 a.m.
 Horton Council Chambers
 2253 Johnston Rd.

- | | | |
|-----|---|--------------|
| 1. | Call to Order & Roll Call | |
| 2. | Declaration of Pecuniary Interest | |
| 3. | Minutes from Previous Meeting: | PG.2 |
| | i. October 13 th , 2022 | |
| 4. | Community Centre HVAC Repairs | PG.4 |
| 5. | Municipalities as a Producer | PG.7 |
| 6. | Landfill Grinding Contract Extension | PG.15 |
| 7. | Phase 3 Landfill Site Feasibility Study | PG.23 |
| 8. | Landfill Site Waste Composition Study | PG.28 |
| 9. | Proposed Strategic Culvert Replacement Plan | PG.34 |
| 10. | Proposed Strategic Roads Infrastructure Plan | PG.44 |
| 11. | Draft Winter Maintenance & Salt Management Policy | PG.54 |
| 12. | New/Other Business | |
| 13. | Next Meeting: | |
| 14. | i. February 1 st , 2023 | |
| 15. | Adjournment | |

RETURN TO AGENDA

THE CORPORATION OF THE TOWNSHIP OF HORTON

TES Committee MeetingOctober 13th, 2022

8:30 a.m.

There was a meeting of the Transportation and Environmental Services Committee held in the Municipal Chambers on Thursday October 13th, 2022. Present was Chair Tom Webster, and Mayor David Bennett, Public Advisory Members Rick Lester, Murray Humphries, and Tyler Anderson. Staff present was Public Works Manager, Adam Knapp, and Executive Assistant Nichole Dubeau— Recording Secretary.

Councillor Lane Cleroux was present at 8:41 a.m.

1. CALL TO ORDER

Chair Webster called the meeting to order at 8:32 a.m.

2. DECLARATION OF PECUNIARY INTEREST

There was no declaration of pecuniary interest.

3. MINUTES FROM PREVIOUS MEETING:

- September 7th, 2022

Moved by Rick Lester

Seconded by Tyler Anderson

THAT the Committee approve the September 7th, 2022 Minutes.

Carried

4. GICB APPLICATION AND DESIGN STAGE II

Public Works Manager Adam Knapp reviewed the report. He highlighted on the significant savings and improvements that could be made at the Community Centre. He added that if successful in securing funding the maximum eligible funding allotment is 80% of the total eligible costs leaving the Township to fund an estimated \$140,472 toward the recommended upgrades and retrofits proposed and the Township may need to carry the cost above the grant funding allotment until we receive the contribution funding.

Moved by Rick Lester

Seconded by Tyler Anderson

THAT the TES Committee recommend to the Recreation Committee to proceed with the detailed design and GICB application phases of RFP 2022-01 GICB Application and Design, totaling \$53,850.15 including HST, and that this be funded from the Working Funds Reserves;

AND THAT the TES Committee recommend to the Recreation Committee that due to the summary report finding that the installation of an HRV in the rink change rooms and a make-up air unit to accommodate the community center kitchen hood did not fit the scope of the GICB fund, that an RFP be issued in 2023 to install the units, estimated at \$80,000 including HST, and that this is intended to be funded from the Recreation Reserves.

Carried

5. TOWN OF RENFREW MASTER TRANSPORTATION PLAN UPDATE

Public Works Manager Adam Knapp reviewed the report. He stated that the Township will have to pay attention to certain roads as it could increase traffic on certain Township roads.

6. JOINT TRANSPORTATION MASTER PLAN UPDATE

Public Works Manager Adam Knapp reviewed the report. The Committee was in agreeance that this could be the time when the County would take over some Township roads as artery roads.

RETURN TO AGENDA

7. NEW/OTHER BUSINESS

Councillor Cleroux questioned if there was any update on the Johnston Road speed limit since last discussed. Public Works Manager Adam Knapp stated that Jp2g Consultants could survey the road, but they did not recommend changing the whole road speed since the designs were for 50 km/h, but sections could be changed to a higher speed.

Public Works Manager Adam Knapp gave a brief update on the Thompsonhill Rehabilitation stating that there were 18 deficiencies to be addressed before completing and that 10 residents were notified of tree re-planting, 6 of which were interested in new trees. He also gave a brief update on Golf Course Road stating that by October 18th there should be hardtop on the road.

8. ADJOURNMENT

Chair Webster declared the meeting adjourned at 9:11 a.m.

CHAIR Doug Humphries

PUBLIC WORKS MGR Adam Knapp



Township of Horton COUNCIL / COMMITTEE REPORT

Title: Community Center HVAC Repairs	Date:	January 4 th 2023
	Council/Committee:	Committee
	Author:	Adam Knapp, Public Works Manager
	Department:	Recreation

RECOMMENDATIONS:

THAT the TES Committee agree with the staff recommendation to approve the repair of the Community Center HVAC systems noted in the quotation attached to this report to Valley Ventilation.

FURTHER THAT the funding for the repairs estimated at \$7,500 including HST and a \$1,536.60 provisional contingency be from the recreational reserves.

AND FURTHER THAT this be included in the 2023 Budget for consideration

BACKGROUND:

Staff had a thorough seasonal inspection performed on the HVAC systems at the community in late October of 2022. It was noted during the inspection that several components needed repair or replacement. Due to the seasonal importance of the systems in maintaining the operational status of the community center staff believe that the repairs should proceed forgoing formal RFQ processes. The contractor is a trusted local supplier that has worked with the Township in the past on numerous projects with no concerns for workmanship or pricing.

ALTERNATIVES:

N/A

FINANCIAL IMPLICATIONS:

\$7,500 including HST and a provisional contingency

ATTACHMENTS:

Valley Ventilation Quotation

CONSULTATIONS:

N/A

Prepared by: Adam Knapp, Public Works Manager

Reviewed by: Hope Dillabough, CAO/Clerk

RETURN TO AGENDA

VALLEY VENTILATION

1033 HUMPHRIES RD

RENFREW ONTARIO

K7V-3Z8

JEFFMCLEOD@VALLEYVENTILATION.CA

DATE: October 25 2022

SUBMITTED TO: Horton
Township

Project Address: Community Building heating systems

We are pleased to submit this quote, HVAC only. In reference to the above noted project, as per the plans and specifications.

INCLUDED :

Rennai Boiler

- 1- Master control PC board \$1856.00
 - 2- Electrode kit with gasket \$388.40
 - 3- Freight for parts from BC \$182.00
 - 4- Labour to Service Boiler \$1080.00
 - 5- Truck charge \$65.00
- Total = \$3571.40

York Propane Furnace

- 1- Combustion fan assembly \$889.00
 - 2- Gasket kit \$196.98
 - 3- Ignition kit \$98.70
 - 4- Ionization electrode Kit \$135.33
 - 5- Freight \$ 55.00
 - 6- Labour to service furnace \$772.00
 - 7- Truck charge \$ 65.00
- Total = \$2212.00

Price does not include other parts that are seen defective while doing these above-mentioned services.

Lead Time is 3-5 business days for parts

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Thank You

Jeff Mcleod

Price is subject to change after Two Weeks as metal has become a volatile material resulting in price increase.

Not included: Roofing, structural work, coring, drywall or stud demolition, cutting or patching of floors, drywall repairs, scanning, after hours work, concrete work, fire extinguishers, sprinkler work, wood framing for poured concrete or block foundation bucks, BONDING, FIRE ALARM BYPASS IF REQUIRED

This quote is valid for thirty days from the above noted date and is based on regular work hours.

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Township of Horton COUNCIL / COMMITTEE REPORT

Title: Horton Township as a Producer Two stage determination	Date:	January 4 th 2023
	Council/Committee:	TES
	Author:	Adam Knapp, Public Works Manager
	Department:	Environmental Services

RECOMMENDATIONS:

THAT the TES committee receive this report as information.

BACKGROUND:

Horton Township is proposed to transition to a producer-based responsibility system for curbside recycling collection on July 1, 2023. Due to municipalities producing paper products that are distributed into the community some municipalities shall be defined as producers and shall be required to register with the Resource Productivity and Recovery Authority (RPRA).

Under the new producer responsibility model a municipality shall be defined as a producer through two stages of determination.

Stage one = \$2 million dollars of revenue from products and services per year.

Stage two = Supplied weight of 9000 kg of paper or 2000 kg of plastics into the market per year.

Using the attached threshold calculator provided by the Continuous Improvement Fund confirms that Horton Township shall not be defined as a producer and required to register under the new collection model.

The slides attached to this report summarize the thresholds and deductibles that define a municipalities designation as a producer.

ALTERNATIVES:

N/A

FINANCIAL IMPLICATIONS:

N/A

ATTACHMENTS:

Producer Threshold Calculator
CIF Data monitoring and reporting slides 2-5
2023 who's in who's out with CMO

CONSULTATIONS:

Prepared by: Adam Knapp, Public Works Manager

Reviewed by: Hope Lillabouff, CAO/Clerk

RETURN TO AGENDA

Threshold Calculator

Category	Input
Population	3,182
Households	1,486
Total Revenue \$	\$3,421,908
Property Taxes \$	\$2,448,711
OMP Fund \$	\$239,000
Payment in Lieu \$	\$26,796
Federal or Provincial Grants \$	\$323,874
Category	Output
Net Revenue per Regulation \$	\$383,527
Above \$2M Threshold	No
Register/RPRA Registration Fee	No/No fee

Producer Management Fee Calculator

Category	Input
Population	3,182
Tier (click below for dropdown)	Price (kg/pp/yr)
Lower Tier	0.03
Estimated PPP (KG)	95
Category	Output
Above 9,000 kg Supplied Threshold?	No
Producer Management Fee \$	No Fee

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Municipality as Producer: *Two Stage Determination of Responsibility*

- Stage 1: Is Municipal revenue > \$2M from 'products and services'?
 - If yes, must Register with RPRA
 - Definition of 'Municipal revenue required RPRA input and ruling

- Stage 2: Is weight of the product or paper that you supply into market greater than?
 - Paper Products 9000 kg/yr
 - Plastic Film 2000 kg/yr
 - Exempt from Management Requirements if below thresholds

Municipality as Producer: *Two Stage Determination of Responsibility*

- Stage 1: Is Municipal revenue > \$2M from 'products and services'?
 - If yes, must Register with RPRA
 - Clarified definition of Municipal revenue and exemptions with RPRA
 - Financial Information Return (known as FIR) that every municipality in Ontario must file annually

- Stage 2: Is weight of the product or paper that you supply into market greater than per Section 40 (2)?
 - Paper Products 9000 kg/yr
 - Rigid Plastic 2000 kg/yr
 - Plastic Film 2000 kg/yr
 - Glass 1000 kg/yr
 - Metal 1000 kg/yr
 - Beverage Containers 1000 Kg/yr

Municipality as Producer: \$2M Revenue Threshold Definition

	RPRA Confirmed as Revenue in Regulation	RPRA Confirmed NOT Revenue in Regulation	Under Review by RPRA/Requires Individual Assessment
Municipal Tax Revenue		×	
Municipal User Fees	✓		
Revenue Collected for Related Party			?
OMP Fund		×	
Payment in Lieu of Taxes		×	
Grants		×	
Revenue from Sale of Capital Asset	✓		
Utility Revenue (If directly owned by Municipality)	✓		
Utility Revenue (If co-operative, but Municipality on Board)			?

Step 1 - Determining Requirement to Register as Producer \$2M Threshold 'Calculator'

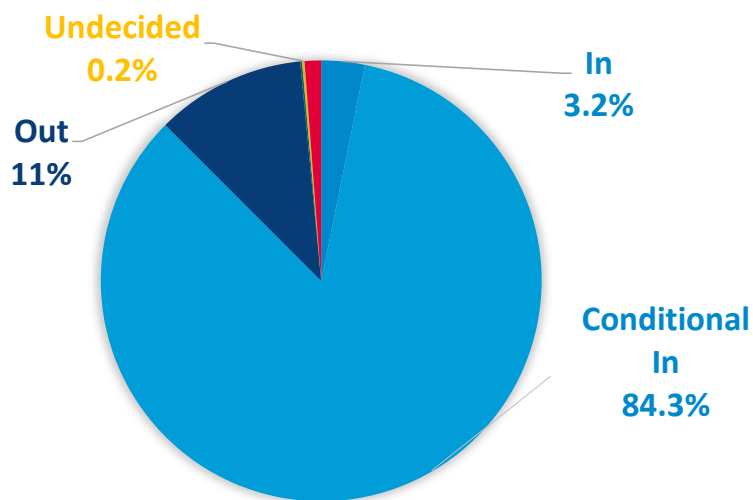
	Community A	Community B	Community C
Population	2,990	3,692	221,000
Households	1,081	1,482	77,000
Total Revenue	\$6.75M	\$11.22M	\$868.42M
	Deduct...	Deduct...	Deduct...
Property Taxes	(\$5.16M)	(\$2.68M)	(\$350.27M)
Ontario Municipal Partnership Fund (OMP)	(\$0.51M)	(\$0.41M)	(\$35.50M)
Payment in Lieu of Taxes	(\$0.03M)	(\$0.01M)	(\$30.02M)
Provincial/Federal Grants	(\$0.09M)	(\$1.2M)	(\$205.60M)
Net Revenue per Regulation	\$0.89M	\$6.92M	\$247.03M
Above \$2M Threshold?	NO	YES	YES
Register/RPRA Registration Fee?	NO/No Fee	YES/\$85	YES/\$85

Step 2: If Revenue >\$2M per Regulation Determine Management Requirement

	Community A	Community B	Community C
Population	2,990	3,692	221,000
Estimated Paper Supplied @ 0.05 Kg/PP/Yr (Range 0.03 - 0.09 Kg/PP/Yr)	149 Kg	184 Kg	11,050 Kg
Regulation Threshold for Paper Above Supplied Threshold?	9000 Kg NO	9000 Kg NO	9000 Kg YES*
Producer Management Fee	N/A	N/A	YES/TBD

Collection Agreements Status — Who's in & Who's out?

2023 Transition Update By household (~89%)



2023 Transition Update By communities

67 Local Communities to transition

- 34: OUT; leaning towards passing over their program (not definitive)
- 09: IN; intend to sign agreement with CMO
- 13: Negotiating with CMO to become a service provider
- 02: Undecided/ can't share
- 02: Just started
- 7: No response to CIF calls



Township of Horton COUNCIL / COMMITTEE REPORT

Title: 2nd Year Contract Extension PW 2018-11 Landfill Material Grinding	Date:	January 4 th 2023
	Council/Committee:	TES Committee
	Author:	Adam Knapp, Public Works Manager
	Department:	Environmental Services

RECOMMENDATIONS:

That the TES committee agree with staff and recommend to Council to extend the landfill material grinding contract with National Grinding Inc. for one (1) year at a total annual cost of \$27,685.00 including HST.

AND FURTHER THAT this be included in the 2023 Budget for consideration.

BACKGROUND:

The existing contract commenced on January 15, 2019 and will conclude December 31, 2021 (3 years). Extensions to the Contract may be considered on a yearly basis to a maximum of 3 additional years. This would be the second contract extension allowable. The work has been completed according to the contract schedule and to the satisfaction of the Township of Horton to date. Staff deem that extending the contract with National Grinding Inc. at the existing prices shall assist in promoting stability in the 2023 yearly budget.

ALTERNATIVES:

Re-issue the tender

FINANCIAL IMPLICATIONS:

\$27,685.00 including HST.

ATTACHMENTS:

National Grinding Inc. 2018 Bid Submission

CONSULTATIONS:

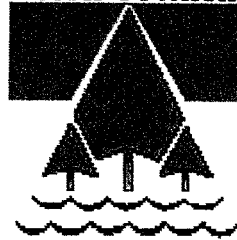
N/A

Prepared by: Adam Knapp, Public Works Manager

Reviewed by: Hope Dillabough, CAO/Clerk

RETURN TO AGENDA

Horton Township



The Corporation of The
TOWNSHIP OF HORTON

PUBLIC WORKS DEPARTMENT
Environmental Services

TENDER # PW 2018-11

MATERIAL GRINDING

Township of Horton Landfill

2082 Eady Road, Renfrew

CONTRACTOR NAME	BID AMOUNT
National Grinding Inc	\$ <u>27685.00</u> (incl. all applicable fees and taxes)

SEALED TENDERS on forms supplied by the Township will be received by the undersigned until:

**2:00 p.m. local time on Thursday, December 20, 2018, for
Material Grinding
RFT # PW 2018-11
Attn: Hope Dillabough, CAO/Clerk**

Tender forms may be obtained from the office of the Township of Horton located at 2253 Johnston Road, Renfrew, ON. or upon request via email to cmcdonald@hortontownship.ca.

A public tender opening will be held at the Township office immediately after closing of the tender on December 20, 2018. Award of the tender will not occur until the next regular Council meeting on January 8, 2019.

This offer shall be irrevocable for a period of thirty (30) calendar days following the date of tender opening.

The lowest or any Tender will not necessarily be accepted, and the Township reserves the right to award any portion of this Tender.

For further information please contact:

Charles McDonald, C.E.T.
Public Works Manager
613-432-6271
cmcdonald@hortontownship.ca

*cheque sent to
Dave Jan 11/19
D. Bennett*



**MATERIAL GRINDING
TENDER # PW 2018-11
BID FORM**

Company Bidding: National Grinding Inc.

Company Site Representative: D Ashley Bennett

Address: 997 Gillan Road Renfrew
Ont. K7V 3Z4

Telephone: (613) 432-5741

Fax: (613) 432-3887

Email: nationalgrinding@gmail.com

Equipment Listing (Make, Model, Year):

1994 Maxi Grinder 425

2001 Cx160 CASE EXCAVATOR

2005 Cx210 CASE EXCAVATOR

MATERIAL GRINDING SPECIAL PROVISIONS

- i. The Contract will commence January 15, 2019 and will conclude December 31, 2021 (3 years). Extensions to the Contract may be considered on a yearly basis to a maximum of 3 additional years.
- ii. The Contract will consist of four (4) grindings per year and must occur based on the following schedule, for each calendar year:
 1. Between February 1st and March 1st
 2. Between June 1st and July 1st
 3. Between August 1st and September 1st
 4. Between November 1st and December 1st
- iii. The landfill materials to be ground are:
 - Construction and Demolition Waste
 - Leaf and Yard Waste
 - Asphalt Shingles
 - Furniture, incl. all metal attachments and fixtures (box springs, mattresses, couches, etc.)
- iv. Waste Material will be managed by the Township and stock piled separately as it comes into the Landfill. However, the quantities are not tracked separately. Here is the average amount of combined material, in cubic meters (m³), per month, over the last couple of years:

JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
46	54	150	193	230	205	196	209	208	225	142	83
- v. Once the Contractor is on site to perform a scheduled grind, they shall make every attempt to complete the grind before demobilizing off site. A grind will not be considered complete until all stock piled material is ground.
- vi. Construction & Demolition waste, as well as Furniture, once ground, can be stock piled together. Leaf & Yard Waste and Asphalt Shingles must be placed in separate piles. The location of the stock piles must be approved by the Public Works Manager or their representative prior to commencement of any grinding activity.
- vii. All material shall be ground to a size 6" (150mm) or less.

- viii. No grinding operations shall occur during scheduled landfill hours. The hours of operation for the Landfill are:

<u>Summer Hours (Apr 1 to Oct 31)</u> Tuesdays from 1:00pm to 5:30pm Saturdays from 8:00am to 5:30pm	<u>Winter Hours (Nov 1 to Mar 31)</u> Tuesdays from 1:00pm to 4:00pm Saturdays from 8:00pm to 4:00pm
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These hours of operation are subject to change. The Contractor will be notified prior to any change takes effect.

- ix. The Contractor is responsible to ensure no unsuitable material, as specified by the Contractor's own policies and practices, is fed through their grinding equipment. Any material that cannot be fed through the grinding equipment shall be set aside for the Township to dispose of.
- x. If the Contractor wishes to use equipment other than what was identified in the equipment list on page 3 of this document, they must submit a request in writing, addressed to the Public Works Manager, prior to mobilizing the equipment to site.
- xi. The Contractor must have the appropriate MOE air and noise Certificates of Approval (CofA) for the scope of work identified in this document.
- xii. The Contractor must have suitable equipment, with appropriate MOE CofA documentation, to process the material identified in the document.

MATERIAL GRINDING TENDERING REQUIREMENTS

The successful bidder shall submit the following to the Township within ten (10) working days of receiving the Acceptance Notice:

- i. A certified copy of the Firm's Public Liability and Property Damage Insurance Policy for the works coverage in respect of any one accident to the limit of at least \$5,000,000 per accident in the name of the Municipality.
- ii. A valid Work Place Safety Insurance Board Certificate of Clearance at the time of commencement.
- iii. Statement of work and worker safety procedures to be implemented to fulfill the requirements of the Health and Safety Act

A bid deposit is required for this tender. The bidder must include with their bid a certified cheque made payable to the Township in the amount of 10% of the total tender amount. All bid deposit cheques will be returned once the contract has been executed by the Township and the successful Contractor.

Tenders may be rejected for any one of the following:

- i. Received after closing date and time
- ii. Not completed in ink or printer
- iii. Received on other than tender form supplied
- iv. Not properly signed and sealed
- v. Not restricted or modified in any way

COMPLETION OF WORK:

The Contractor must make every effort to complete each grind as per the schedule identified in the Special Provisions of this document. When possible, any deviation to this schedule must be identified prior to the commencement period of the grind. This will help the landfill attendants plan stock piling operations.

BASIS OF PAYMENT:

Payment at the lump sum contract price per grind shall be compensation in full upon completion of each scheduled grind.

**MATERIAL GRINDING
TENDERING REQUIREMENTS**

Location of Work: Township of Horton Landfill
2082 Eady Road, Renfrew

Bid Deposit Included: \$ 2768.50

ITEM No.	ITEM DESCRIPTION	UNIT	A QUANTITY (per year)	B UNIT PRICE (per grind)	A x B TOTAL
1	Scheduled Grinding	Lump sum	4	\$ 6125.00	\$ 24500.00

**Unit Price should include all cost for equipment, labour and materials as well as all mobilization and demobilization costs*

Sub-Total \$ 24500.00

H.S.T. \$ 3185.00

TOTAL \$ 27685.00

I have authority to bind the Company:

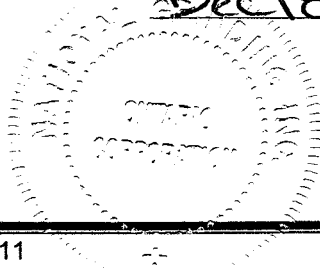
• Company: National Grinding Inc.

Representative / Position: DA Bennett Manager/Estimator
(please print)

Authorized Signature: 

Date: Dec 18/18

Company Seal:





Township of Horton COUNCIL / COMMITTEE REPORT

Title: Phase 3 Landfill Expansion Feasibility Study	Date:	January 4 th 2023
	Council/Committee:	TES Committee
	Author:	Adam Knapp, Public Works Manager
	Department:	Environmental Services

RECOMMENDATIONS:

THAT the TES Committee agree with Staff and recommend to Council to proceed with phase 3 of the expansion feasibility study per the 2023 work plan supplied by JP2G.

FURTHER THAT \$22,080.20 be allocated from Environmental Reserves to fund the work.

AND FURTHER THAT this be included in the 2023 Budget for consideration.

BACKGROUND:

The Township has been in the process of applying to the MOECP for a < 40,000 cubic meter landfill expansion since 2020. Early indicators are positive that the Township shall be successful pending further testing, studies and review. If successful, the expansion would add an estimated 15 to 18 years life to the landfill site.

The 2023 work plan shall include an upgraded expansion concept plan, further water quality monitoring, site investigation, upgrades to 3 monitoring wells, revisions to the Townships water sampling program, a preliminary storm water management plan, revisions to the existing provisional soak pit design and consultations with the MOECP as necessary.

ALTERNATIVES:

N/A

FINANCIAL IMPLICATIONS:

\$22,080.25 from Environmental Reserves Funds.

ATTACHMENTS:

2023 Expansion Feasibility Study Work Plan
2022 Expansion Design with Water Levels

CONSULTATIONS:

Kevin Mooder, JP2G – MCIP, RPP
Andrea Sare, JP2G – Environmental Technician

Prepared by: Adam Knapp, Public Works Manager

Reviewed by: Hope Dillabough, CAO/Clerk

RETURN TO AGENDA

Jp2g No. 20-6128C

November 3, 2022

Township of Horton
2253 Johnston Road
RR5
Renfrew, ON K7V 3Z8

Attention: Adam Knapp
Public Works Manager

**Re: Horton Landfill Site
Expansion Feasibility Study
2023 Work Plan**

Dear Adam,

Further to our November 3, 2022 work plan for the 2023 site compliance monitoring and reporting, we are pleased to describe tasks and an estimate of probable costs to continue the Expansion Feasibility Study.

The Expansion Feasibility Study letters were filed with MECP and Mr. Barr on September 9, 2021. Based on the responses to date we propose the following:

1. Project Management

Involves client liaison, QA/QC document production, billing, and cost control.

2. Upgrade Expansion Concept Plan

Jp2g revised the plan to increase the distance to the surface water features. We will make any further changes pending MECP comments.

3. Water Quality Monitoring Program

Under the current ECA monitoring is to be conducted biennially (every 2 years). In reference to the Groundwater Reviewer comments on the expansion feasibility study dated December 13, 2021 the Ministry requested that 21 monitoring wells be sampled and analysed for the full suite of parameters, and the Barr well is included in the site compliance program. The analysis includes the parameters in Schedule 5, Column 1 (Landfill Standards, 1993), in addition to strontium and hardness. The leachate well 93-7B also includes VOC analysis. Sampling is to occur annually in the spring.

The Surface Water program includes the sampling of two (2) locations SW-17 and SW-18, and the Barr Creek are included in the site compliance program. Sampling is annually in the spring and fall, analysis includes Schedule 5, Column 3 (Landfill Standards, 1993). This was accepted by MECP in their review dated October 21, 2021.

RETURN TO AGENDA

4. Site Investigation

To address MECP concerns with the high groundwater table at the proposed expansion of the landfilling area, we propose to install three (3) standpipes to allow water level measurements during the spring 2023. These will be located to avoid damage during site operations. Measurements will be taken during the spring monitoring event and on occasion thereafter in April/May (spring) and then in August (summer).

5. MECP Consultation

The following summarizes consultation to date:

September 9, 2021	Preliminary Expansion Feasibility Study to MECP
January 4, 2022	MEPC email to Township with the Groundwater comments dated December 13, 2021
March 17, 2022	Jp2g response to Groundwater comments
March 22, 2022	MECP email with Surface Water comments on the 2019-2020 BMR dated October 21, 2021
March 23, 2022	Jp2g response to Surface Water comments
March 29, 2022	MECP email with Surface Water comments on the Feasibility Study dated October 22, 2021.
March 29, 2022	Jp2g response to Surface Water comments
June 1, 2022	Jp2g/MECP telephone conversation and email of pictures May 19, 2022 which hadn't been sent
July 20, 2022	Jp2g response to Surface Water comments
October 26, 2022	MECP email with Groundwater review comments dated September 15, 2022

Upon receipt of any additional Surface Water review comments to our July 20, 2022 submission a comprehensive response will be filed in early 2023. It is assumed this submission combined with the 2021-2022 Biennial Report to be filed before April 30, 2023 will address most of the MECP comments and concerns.

6. Well Upgrades

Monitoring wells 96-11A and B extend beyond the protective steel casing. These will be cut during the spring monitoring event and the new elevation recorded for future water level measurements. Monitoring well 91-5 will be reviewed (find well water record) and potentially added into the sampling program in the future as requested by MECP. The Ministry has also asked that a new well be installed between the expanded fill area and wells G96-14A and B. This would be conditional upon approval of an expansion. There are no additional costs for these well upgrades in 2023.

RETURN TO AGENDA

7. Preliminary Stormwater Management

The MECP email dated May 17, 2022 indicated that a number of technical reports would be required to support an application for expansion. These included a hydrogeological and possibly a geotechnical study to demonstrate the landfilling will not cause negative impacts on the groundwater aquifer and not result in significant settlement of the waste mound. In addition, a surface water assessment and stormwater plan (potential update to the soak pit design) would be required. Jp2g will complete a preliminary stormwater management plan to confirm the feasibility of the expansion and what if any changes would be needed for the soak pit or a drainage plan.

2023 Work Plan

Task	Cost (HST Excluded)
1. Project Management	\$1,500.00
2. Upgrade Concept Plan	\$2,000.00
3. Monitoring Program	\$8,340.00
4. Site Investigation	\$1,200.00
5. MECP Consultation	\$3,500.00
6. Well Upgrades	\$0.00
7. Preliminary Stormwater Management	\$3,000.00
Total	\$19,540.00

Trusting this is satisfactory.

Yours truly,
Jp2g Consultants Inc.



Kevin Mooder, MCIP, RPP
 Project Manager

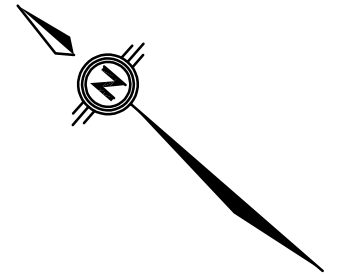


Andrea Sare, C.Tech., EP
 Environmental Consultant

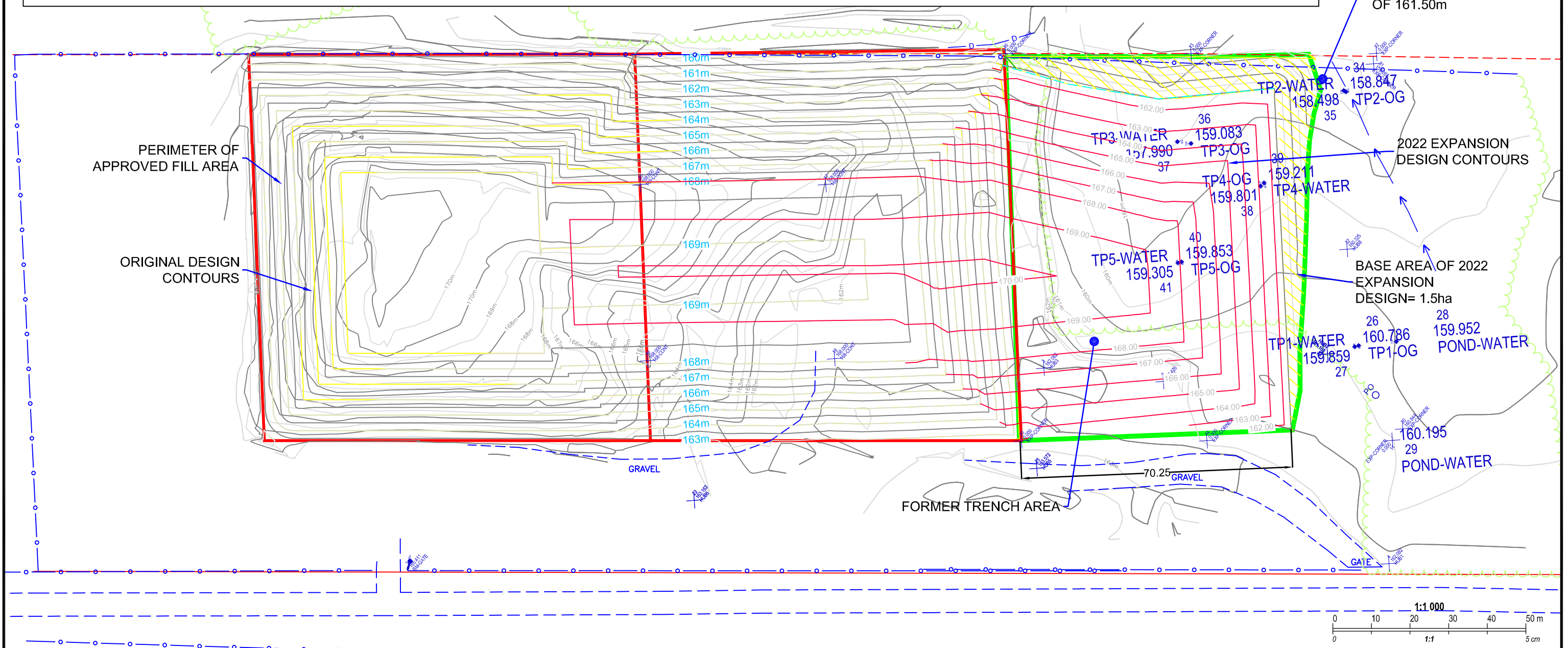
RETURN TO AGENDA

NOTES

1. EXPANSION DESIGN CONTOURS START AT A 4:1 SLOPE TO ELEVATION 168.50m.
2. EXPANSION DESIGN CONTOURS AT 12:1 SLOPE FROM ELEVATION 168.50m TO TIE IN. PEAK ELEVATION= 171.00m.
3. EXPANSION DESIGN CONTOURS SHOWN ARE TO TOP OF WASTE.
4. GROUND LEVEL BELOW 161.50m TO BE FILLED WITH APPROVED FILL AT 4:1 SLOPE TO 161.50m.
5. EXISTING FENCE LINE ON THE NORTH EAST SIDE TO BE REMOVED AND REPLACED FOR EXPANSION DESIGN CONTOURS
6. EXPANSION DESIGN CAPACITY= 32,800m³.
7. ELEVATIONS ARE GEODETIC.
8. APPROXIMATELY 8025m³ OF APPROVED FILL IS NEEDED TO HAVE A BASE ELEVATION OF 161.50m FOR THE EXPANSION DESIGN CONTOURS.



APPROVED FILL AT 4:1 SLOPE FROM EXISTING GROUND TO ELEVATION OF 161.50m



12 INTERNATIONAL DRIVE, PEMBROKE, ON Phone: (613)735-2507, Fax:(613)735-4513
 1150 MORRISON DRIVE, SUITE 410, OTTAWA, ON Phone: (613)828-7800, Fax: (613)828-2600

HORTON WDS

2022 EXPANSION DESIGN WITH WATER LEVELS SURVEY

DESIGNED: BWS QS	PROJECT No.: 20-6128B
DRAFTED: BWS QS	REVISION DATE: 2022-10-28
CHECKED: KM	APPROVED: KM
SCALE: 1:1000	REVISION No.: .
	SHEET No.: 1 of 1



**Township of Horton
COUNCIL / COMMITTEE REPORT**

Title: Waste Composition Study	Date:	January 4 th 2023
	Council/Committee:	TES
	Author:	Adam Knapp, Public Works Manager
	Department:	Environmental Services

RECOMMENDATIONS:

THAT the TES committee agree with staff and recommend to Council that a waste composition study be performed by JP2G as part of our monitoring and reporting program in 2023 / 2024 at the landfill site.

AND THAT the studies shall be performed pre transition to the producer-based blue box program, before July 1st, 2023, and post transition, in July of 2024.

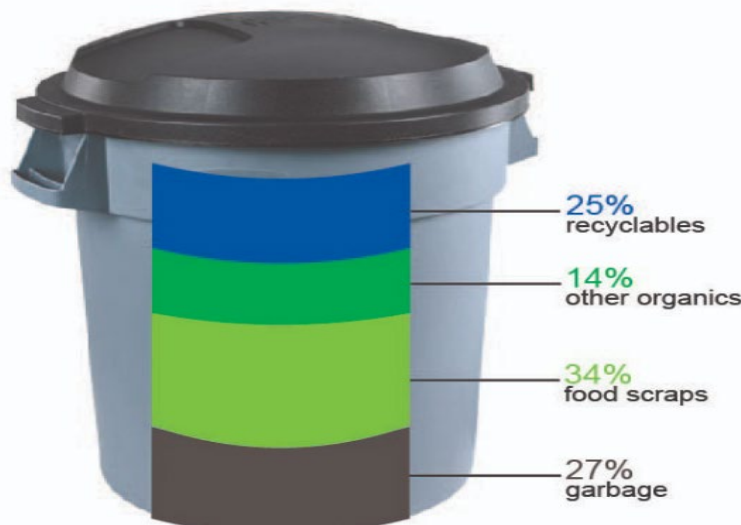
FURTHER THAT the study be funded from the Environmental Reserves at an upset estimated cost of \$10,000.

AND FURTHER THAT this be included in the 2023 Budget for consideration.

BACKGROUND:

The proposed study shall inform the Township on the effectiveness of waste reduction and diversion rates from the new producer-based blue box program in Ontario. During the waste composition study, garbage samples shall be sorted into material categories, weighed and given a percentage of the total weight per type.

What's in our garbage?



RETURN TO AGENDA

Staff conducted a usage survey of the recycling depot at our landfill to compare the ICI versus Residential usage in estimated kilogram quantities and actual users at the facility from September 13th to December 17th 2022. The survey displayed that ICI represents 23% of the users at the site but contributes 60% of the total aggregate weight of recyclables collected.

Horton LFS ICI versus Residential Recycling Depot Usage		
September 13th to December 17th 2022		
ICI Total (KG)		731.05
60 percent of total aggregate weigh		
ICI Users=	65	23% of users
Residential Total (KG)		480.45
40 percent of total aggregate weight		
Residential Users =	221	77% of users

Staff and colleagues within the industry believe that the new blue box model shall have negative effects on landfills. ICI has not been included in the program and those entities may be required to either register with the RPRA as a producer and pay into the program, create their own disposal program, or rely on Municipalities to provide a curbside collection program with associated fees. The creation of a tiered collection system is likely to result in a significant number of small businesses not participating in the collection programs and resorting to simply disposing of recyclables through their waste collection programs. The Province of Ontario states that a producer responsibility blue box program is the most effective way to promote waste diversion and save taxpayers money. Staff consider the program model flawed and miscued toward that goal. Corporations shall trickle down the cost to consumers, as seen in grocery stores today with consumers paying for bags and may in fact decrease diversion and negatively affect the life cycle of landfills, resulting in no savings for taxpayers. CMO shall only track diversion and contamination rates from the residential based program resulting in data that only tells part of the story. The onus shall be on Municipalities to display the effects the tiered program has on our landfill sites and the most effective and unbiased way to display this data is through third-party waste audit programs such as composition studies.

ALTERNATIVES:

N/A

RETURN TO AGENDA

FINANCIAL IMPLICATIONS:

Estimated upset of \$10,000

ATTACHMENTS:

Waste Composition Study Quotation

CONSULTATIONS:

Prepared by: Adam Knapp, Public Works Manager

Reviewed by: Hope Dillabough, CAO/Clerk

Jp2g No. 17-6022G

November 3, 2022

Township of Horton
2253 Johnston Road
RR5
Renfrew, ON K7V 3Z8

Attention: Adam Knapp
Public Works Manager

**Re: Horton Landfill Site
Monitoring and Reporting
2023 Work Plan**

Dear Adam,

In accordance with the requirements to monitor and maintain environmental compliance at the Horton Landfill Site in reference to RFP 2017-01 as extended, the following summarizes project tasks.

1. Annual Client Review

This task involves a spring meeting with the client to review the work plan and discuss compliance issues. Once we have the 2022 capacity assessment results we can schedule early in the new year

2. Project Management

To include coordination and administration of the work program and budget control. This does not include the cost of any additional meetings or presentations with Township staff or Council.

3. Biennial Operations and Monitoring Report

Every other year a report is to be prepared to satisfy ECA Conditions 92 and 93 and filed with the Ministry of Environmental Conservation and Parks (MECP) Ottawa District office by April 30. This is scheduled for 2023. The MECP Surface Water reviewer (October 21, 2021) has requested additional details on the trigger mechanism in the memo dated October 21, 2021 these will be included in the report.

4. Landfill Gas Monitoring

Under the current ECA, 8 monitoring sessions of the 2 gas monitoring locations is required per year. A letter report will be filed with the Township at the end of each year, and the results will be presented in the Biennial Report.

5. Barr Well and Creek Monitoring

As required under the terms of the CAZ acquisition agreement, a sample of the well and creek is to be completed twice per year. A letter with the results is to be sent to Mr. Barr and the results presented in the Biennial Report.

RETURN TO AGENDA

6. Environmental Monitoring Program

Every other year the groundwater and surface water monitoring program as approved under the current ECA Schedule “B” and “C” is to be completed. The ECA compliance monitoring program is not to be undertaken until 2024. We will conduct the monitoring under the Expansion Feasibility Project found under a separate submission, to address Technical Support Section (TSS) comments.

7. Site Capacity Assessment (Survey)

Every year the active waste mound is to be surveyed and compared to the previous year to obtain an annual landfilling rate. Every other year a drawing and description of existing site conditions, landfilling operation and site development in accordance with the approved design is included in a report to be filed with MECP.

8. MECP Consultation

Periodically the local MECP conducts a site inspection and/or files Technical Support Section (TSS) review comments on previous Annual Reports. The last site inspection was May 2022 and the Township responded. In the event this occurs in 2023, experienced Jp2g staff will assist as necessary at our regular hourly rates. The cost to be determined (TBD) pending the scope of work required.

9. Miscellaneous Tasks

At the request of the Township, Jp2g will attend additional meetings, provide additional assistance on various waste management issues such as post closure costs and establishing grades on site. A budget figure will be established prior to completing the work.

10. Optional Waste Composition Study

It is understood you may wish to conduct a waste audit before and after the transition of producer responsibility of blue box recyclables. It is not as yet clear when (potentially July 1, 2023) and how this transition will take place through the Resource Productivity & Recovery Authority (RPRA).

Currently the curb side collection deliveries to the landfill occur on Mondays and Tuesdays, with the site open to the public on Tuesdays and Saturdays. The audit would occur on all 3 days to capture any difference between curb side and individual bag deliveries.

A random 8-10 bags will be weighed and the contents separated into waste and various recyclable material categories to be weighed. The results will be presented in a report. Further discussion to refine the scope of work and cost is necessary.

The following presents the 2023 budget (HST excluded):

	Task	2023 Budget	Cost This Period	Total Cost
1.	Annual Client Review	\$365.00	\$0.00	\$0.00
2.	Project Management	\$ 900.00	\$0.00	\$0.00
3.	Biennial Report	\$5,500.00	\$0.00	\$0.00
4.	Landfill Gas Monitoring	\$ 1,990.00	\$0.00	\$0.00
5.	Barr Well and Creek Monitoring	\$ 1,190.00	\$0.00	\$0.00
6.	Environmental Monitoring Program	\$0.00	\$0.00	\$0.00
7.	Site Capacity Survey	\$1,990.00	\$0.00	\$0.00
8.	MECP Consultation	TBD	\$0.00	\$0.00
9.	Miscellaneous Tasks	TBD	\$0.00	\$0.00
	Sub-Total	\$11,935.00		
10.	Optional Waste Composition Study	\$10,000.00	\$0.00	\$0.00
	Total	\$ 21,935.00		

RETURN TO AGENDA

Trusting this is satisfactory.

Yours truly,
Jp2g Consultants Inc.

A handwritten signature in black ink, appearing to read 'K. Mooder', written in a cursive style.

Kevin Mooder, MCIP, RPP
Project Manager

A handwritten signature in black ink, appearing to read 'Andrea Sare', written in a cursive style.

Andrea Sare, C.Tech EP
Environmental Consultant



Township of Horton COUNCIL / COMMITTEE REPORT

Title: Proposed Strategic Culvert Replacement Plan	Date:	January 4 th 2023
	Council/Committee:	TES
	Author:	Adam Knapp, Public Works Manager
	Department:	Public Works

RECOMMENDATIONS:

THAT the TES Committee receive this report as information pertaining to the necessary culvert replacement over the upcoming construction seasons.

AND FURTHER THAT this be included in the 2023 Budget for consideration.

BACKGROUND:

Summer students have performed a detailed survey and inspection of all culverts within the Township over the last 2 seasons, utilizing the Township MESH operational management system. The data has been thoroughly audited by senior public works staff to compile a list of essential replacements over the upcoming construction seasons.

The list includes 12 culverts in failing or very poor condition that must be replaced or removed and the drainage works redesigned to suit the developed conditions in the area. Staff has consequently requested an adjustment to the operational culvert maintenance budget to replace the failing culverts in 2023 and the very poor culverts in 2024/2025, to ensure that they do not deteriorate to the point of critical failure, resulting in road closures, property damage, or injury to the public.

No paved roadways will be cut to facilitate these replacements. Culverts that are within a paved section shall be addressed through future capital rehabilitation thus ensuring the life cycle of the roadway is not detrimentally affected unless it is deemed essential to do so.

The total lowest quotation provided for all 12 culverts listed is \$47,784.88 including HST as displayed in the quotation provided by Armtec. The total listed above is for culvert procurement only and the cost of granular materials and salaries shall be absorbed into existing operational funds.

ALTERNATIVES:

N/A

FINANCIAL IMPLICATIONS:

Per 2023 budget request

RETURN TO AGENDA

ATTACHMENTS:

Culvert Replacement List
Armtec Quotation
ES Hubbell Quotation
M and R Feeds Quotation
Huckabone's Equipment Quotation

CONSULTATIONS:

Prepared by: Adam Knapp, Public Works Manager

Reviewed by: Hope Dillabough, CAO/Clerk

Street Name	Site Instructions	Shape	Material	Year	Overall Condition	Length (M)	Diameter (mm)	Start Location
Bingham	Remove do not replace			Remove 2023				45.5688238155687 -76.6842467710376
Cobus Road	Like for like replacement, rip rap inlet and outlet, 600 mm minimum cover top of pipe to road platform	Round	Polymer Lined CSP	2024	Poor	12	1800	45.5144009180884 -76.7140974104404
Eady Road	Contact Bell and coordinate lowering Bell line to install new culvert	Round	Polymer Lined CSP	2023	Poor	12	450	45.5404441132941 -76.678330488503
Early Road	Remove do not replace, ditch cleanout on east side to trail, new swale on West side from Driveway to trail			Remove 2023				45.4991398592213 -76.554156281054
Early Road	Ditch cleanout on South side, Rip Rap ditch line and Inlet, create rip rap plunge pool on outlet	Round	Polymer Lined CSP	2023	Poor	16	600	45.4879423234344 -76.5439836680889
Garden of Eden Road	Install like for like, ditch cleanout as necessary	Round	CSP	2025	Poor	12	600	45.5398107751509 -76.7214604094625
Jim Barr Road	Install on angle to match existing drainage creek	Round	CSP	2025	Poor	12	450	45.5390003643266 -76.6531582921743
Jim Barr Road	Lower inlet and outlet 100 to 150 mm if possible rip rap inlet	Round	Polymer Lined CSP	2023	Poor	12	450	45.5395805 -76.6538963 120.533508746284
McBride Rd	Re contour roadway to suit new culvert length, install delineators on North road edge	Round	Dual Wall HDPE	2023	Poor	16	1000	45.4877987086402 -76.7297752574086
McInnes Road	Install new culvert to North at low spot in field, ditch east and west ditch line to suit	Round	CSP	2025	Poor	12	300	45.4736529 -76.5708729
Mullins Road	Install new culvert at 2% slope, Rip Rap plunge pool and culvert on outlet	Round	CSP	2025	Poor	14	450	45.5292845 -76.6439048 71.3849680457259
Orin Road	Install like for like ditch North side to suit	Round	CSP	2025	Poor	10	300	45.5350898 -76.7690294

RETURN TO AGENDA



QUOTATION

PROJECT: 2023 Culvert Replacements
Horton Township, ON
TO: Adam Knapp

DATE: November 7, 2022
CLOSING DATE: n/a
QUOTE NO.: 46250-22
F.C.A. POINT: Jobsite on Trucks
DELIVERY: To Be Arranged

We are pleased to submit this quotation for **SUPPLY ONLY** of the construction products below.

Item	Quantity	Description	Price	Per	Amount	
		STEELCOR™ CSP - 68mm x 13mm Corrugation Profile				
	22	300mm x 1.6mm GALV. CSP c/w 2 - 300mm annular couplers	\$76.05	m	\$1,673.10	2025
	26	450mm x 2.0mm GALV. CSP c/w 2 - 300mm annular couplers	\$143.45	m	\$3,729.70	2025
	12	600mm x 2.8mm GALV. CSP c/w 1 - 300mm annular couplers	\$258.30	m	\$3,099.60	2025
	24	450mm x 2.0mm POLY. CSP c/w 2 - 300mm annular couplers	\$187.10	m	\$4,490.40	2023
	16	600mm x 2.8mm POLY. CSP c/w 1 - 300mm annular couplers	\$334.65	m	\$5,354.40	2023
		STEELCOR™ CSP - 125mm x 25mm Corrugation Profile				
	12	1800mm x 3.5mm POLY. CSP c/w 1 - 600mm annular couplers	\$1,272.85	m	\$15,274.20	2024
		Large Diameter HDPE Pipe 6.1m Lengths Conforming to AASHTO M294				
	18	1050mm diameter c/w Bell & Gasket	\$481.45	m	\$8,666.10	2023
		<i>Due to increased volatility in freight and fuel costs, additional charges may be applied at time of shipment. Customer is responsible for any additional freight costs which may be incurred at time of shipping. Current surcharge rate is expected to be 4% on the total, subject to change at time of shipping. Any material shipped beyond 30 days will be subject to revaluation of freight costs/surcharges at time of shipment.</i>				
		<i>Due to the recent raw material cost fluctuations, Armtec reserves the right to review prices and deliveries based on market conditions at time of order. Additionally, due to industry-wide raw material shortages, no delivery dates are guaranteed by Armtec.</i>				

Armtec Inc.

Josh Wagler
Senior Estimator

Sub-Total	\$42,287.50
Freight Surcharge Included	\$1,629.70
H.S.T.	Extra
Total	\$42,287.50

NOTE: DELIVERY BASED ON 3 TRUCK(S). ANY ADDITIONAL LOADS WILL BE RESPONSIBILITY OF THE CONTRACTOR.
TERMS OF SALE: PRICES QUOTED APPLY ONLY TO THE PROJECT SPECIFIED HEREIN. THE PRICES QUOTED HEREIN SHALL REMAIN IN EFFECT FOR **30 DAYS** FROM QUOTATION DATE. THE SELLER RESERVES THE RIGHT TO ADJUST THE PRICES AFTER 30 DAYS FROM THE QUOTATION DATE. PRICES QUOTED FOR CSP AND HDPE ARE BASED ON NESTING DIAMETERS WHENEVER POSSIBLE. IF UNNESTED LOADS ARE REQUIRED ADDITIONAL FREIGHT CHARGES WILL BE ADDED. ALL PRICES ARE BASED ON FULL TRUCKLOAD QUANTITIES. PRICES ARE SUBJECT TO CHANGE IF QUOTE IS NOT ACCEPTED IN ITS ENTIRETY. UNLESS NOTED, ALL STEELCOR CSP BASED ON GALV. MATERIAL. ALL OTHER TERMS ARE LISTED ON THE ATTACHED CONDITIONS OF SALE DOCUMENT ATTACHED TO THIS QUOTATION AND FORM PART OF ANY SALE BY ARMTEC.

INNOVATION FLOWS FROM HERE



TERMS AND CONDITIONS OF SALE

Between Armtec (the "Seller") and Purchaser or Dealer, Builder or Buyer specified on the front hereof (the "Buyer") in connection with the sale of the Seller's material, product and services (collectively, the "Goods"). All orders with the Seller are subjected to the following terms and conditions (the "Terms and Conditions") as may be amended by the Seller from time to time in its sole discretion. By placing an order with the Seller the Buyer will be deemed to have accepted and agreed to be bound by the Terms and Conditions.

ACCEPTANCE. These Terms and Conditions shall govern the Seller's furnishing of all Goods identified in the applicable Quotation of the Seller ("Quotation") issued to the Buyer. While the Seller may acknowledge receipt of a purchase order or any other form or purchase documentation issued by a Buyer by signing and returning it, any terms and conditions in any specific order or purchase documentation used or provided by the Buyer, pre-printed or otherwise, shall be inapplicable and shall not modify these Terms and Conditions.

QUOTATIONS AND PRICES. A Quotation shall expire at the end of the period identified in the Quotation or, if none is stated the Quotation shall expire thirty (30) days from the date of issuance. The Seller's prices exclude, and the Buyer shall pay, in addition to the price of any Goods purchased from the Seller, any and all taxes or like charges which may be imposed by Canadian federal, provincial or municipal authorities on the sale or purchase of such Goods. The terms of payment are as determined by the Seller's Credit Department and as set out on the order acknowledgment.

LIMITED WARRANTIES. The Seller warrants that it can convey good title to the Goods sold under this Quotation and that such Goods are free of liens and encumbrances. The Seller warrants that any Goods sold under a Quotation that are manufactured by the Seller shall be free from any defect due to materials or workmanship for a period of one (1) year after the date of delivery. The Seller does not make, and expressly disclaims, any warranties, expressed or implied, with respect to Goods sold hereunder which are misused, abused, incorrectly unloaded or incorrectly installed. In no event will the Seller be liable or responsible for any defect in the Goods caused by improper installation or poor site conditions (e.g. dents, scrapes, coating damage, misalignment of pipe, deflection, localized bucking) on the part of the Buyer.

THE SELLER DOES NOT MAKE, AND EXPRESSLY DISCLAIMS, WITHOUT LIMITATION, ALL OTHER WARRANTIES, EXPRESS OR IMPLIED UNDER ANY "SALE OF GOODS" LEGISLATION OR OTHERWISE, OF ANY KIND, INCLUDING WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE, NON-INFRINGEMENT, AND THOSE WARRANTIES ALLEGEDLY ARISING FROM ANY TRADE USAGE OR FROM ANY COURSE OF DEALING OR PERFORMANCE, ETC.

BUYER REPRESENTATION AND WARRANTY. The Buyer warrants that it has not relied on any representation made by the Seller which has not been stated expressly in writing or upon any descriptions, illustration or specifications contained in any marketing or other publicity material produced by the Seller. Further, the Buyer acknowledges that to the extent the Seller has made any representation which is not otherwise expressly stated in writing, the Buyer has been provided with an opportunity to independently verify the accuracy of any such representation.

LIMITATION OF LIABILITY. The Seller's sole liability to the Buyer shall be, in the sole discretion of the Seller, to REPAIR or REPLACE such part(s) in respect of the Goods that are shown to satisfaction of the Seller to be defective in material, quality or workmanship in accordance with these Terms and Conditions, or, to allow credit to the Buyer at the sole option of the Seller.

IN NO EVENT SHALL THE SELLER BE LIABLE TO THE BUYER FOR ANY BODILY INJURY OR PROPERTY DAMAGE, OR ANY OTHER LOSS, DAMAGE, COST OF REPAIRS OR REPLACEMENT, OR INDIRECT, INCIDENTAL, PUNITIVE, SPECIAL, CONSEQUENTIAL OR LIQUIDATED DAMAGES INCURRED BY THE BUYER, INCLUDING WITHOUT

LIMITATION, DAMAGES FOR LOST BUSINESS OR PROFITS, WHETHER BASED IN CONTRACT, TORT (INCLUDING NEGLIGENCE), INDEMNITY, CONTRIBUTION, STRICT LIABILITY OR ANY OTHER CAUSE OF ACTION, ARISING OUT OF OR IN CONNECTION WITH THE DESIGN, MANUFACTURE, SALE, TRANSPORTATION, INSTALLATION, USE OR REPAIR OF THE GOODS SOLD BY THE SELLER. THE SELLER'S TOTAL LIABILITY, IF ANY, ARISING OUT OF OR IN CONNECTION WITH THE GOODS SOLD UNDER THESE TERMS AND CONDITIONS, FOR CLAIM(S) OF ANY NATURE, SHALL IN NO EVENT EXCEED THE PURCHASE PRICE OF THE GOODS RELATED TO THE CLAIM. THE LIMITATION OR EXCLUSION OF WARRANTIES, REMEDIES, DAMAGES OR LIABILITIES SET FORTH ABOVE ARE INTENDED TO APPLY TO THE MAXIMUM EXTENT PERMITTED BY APPLICABLE LAW.

LIMITATION OF BUYER'S REMEDIES AND SELLER'S LIABILITY FOR FAILURE OR DELAY IN DELIVERY. NO DELIVERY DATES ARE GUARANTEED BY THE SELLER. All promises as to the date of shipment and delivery are made in good faith by the Seller and as an estimate only. THE BUYER'S SOLE AND EXCLUSIVE REMEDIES AND SELLER'S ONLY LIABILITY FOR ANY DELAY IN DELIVERY SHALL BE LIMITED AS SET FORTH IN THESE TERMS AND CONDITIONS.

CLAIMS AND HOLDBACKS. Under no circumstances will the Seller accept back charges, claims and holdbacks unless otherwise authorized in writing by the Seller in advance.

FORCE MAJEURE Notwithstanding any provision herein to the contrary, the Seller shall not be deemed to have defaulted under or breached these Terms and Conditions for failure or delay in fulfilling or performing any term or provision of these Terms and Conditions when such failure or delay is caused by any of the following: fire; flood; accident; explosion; equipment or machinery breakdown not related to the Seller's negligence; sabotage; strike or any labor disturbance (regardless of the reasonableness of the demands of labor); civil commotions; riots; invasions; wars (present or future); epidemics or pandemics (present or future); acts, restraints, requisitions, regulations or directions of any Governmental authority, including without limitation, any bulletin, notice or public health communication related to any disease, virus or other biological or physical agent which may be detrimental to human health in any way; voluntary or mandatory compliance by the Seller with any request of any Governmental authority; shortage of labor, fuel, power or raw materials; inability to obtain supplies; failures of normal sources of supplies; inability to obtain or delays of transportation facilities; any act of God; any act or omission of the Purchaser/Buyer (insofar as the Seller or the transactions or arrangements contemplated by these Terms and Conditions are concerned); or any other cause or circumstance beyond the Seller's reasonable control, whether similar or dissimilar to any of the foregoing. Any such causes of delay even though existing on the date of order or on the date of starting of manufacture shall extend the time of the Seller's performance by the length of delays occasioned thereby, including delays reasonably incidental to the resumption of normal procedures.

BUYER'S CANCELLATION. Upon written notice, the Buyer has the right to terminate the agreement formed by the Buyer's acceptance of a Quotation (an "Agreement") in whole or in part. In the event of cancellation, the Seller shall cease work upon receipt of written notice from the Buyer and the Buyer shall be liable for all completed work to that date at the price specified in the particular Quotation. Any partially completed work by the Seller, including raw material, shall be payable by the Buyer to the Seller at a reasonable rate and profit to be determined by the Seller in its discretion, but in no event shall exceed the applicable

Quotation price.

SELLER'S CANCELLATION OR DELAYED SHIPPING. Upon written notice to the Buyer, the Seller has the right to terminate an Agreement outright or to delay the shipping of any Goods forthwith, at the Seller's sole option, if the Buyer's account with the Seller is in arrears.

DESIGN & STANDARDS. It is the Buyer's sole responsibility to ensure that any Goods commissioned by the Buyer are independently designed and verified by a qualified engineer and are suitable for the Buyer's intended application. The Buyer represents, warrants and confirms to the Seller that it has not relied in any aspect of any written or oral statements from Seller in connection with the design, installation, or use of the Goods. If the Seller provides any design and installation guidelines or any specifications whatsoever in respect of the Goods, all Goods supplied by the Seller in connection therewith shall conform to the specifications and parameters requested by the Buyer; any onsite modifications, changes in site conditions, changes in design requirements or specifications are done at the sole risk of the Buyer. Unless otherwise expressly agreed upon in writing by the Seller, all Goods shall be subject to the Seller's standard specifications, manufacturing variations, and tolerances.

Without limiting the foregoing, for MultiPlate and BridgePlate structure Goods, whether purchased from or designed by the Seller or parties other than the Seller, it is the Buyer's responsibility to ensure that all components of any MultiPlate and BridgePlate structures purchased fit together and can be assembled by the Buyer on site based on the combination of thickness, radius and shape of the components ("Constructible"). For certainty, the Seller is not responsible for ensuring that the MultiPlate and BridgePlate structures purchased by the Buyer are Constructible and shall not be liable for any MultiPlate or BridgePlate structures which are not Constructible.

INSURANCE. The Buyer shall maintain, at its sole cost, such insurance and in such amounts as is normally required in the applicable industry including, without limitation, comprehensive general liability insurance and builders' risk insurance (covering the Seller). The Buyer hereby agrees to indemnify the Seller, its servants, representatives and agents against any liability, claims, suits, costs, damages, losses, expenses or otherwise arising out of any injury (including death or total destruction) to any person or property which arises out of or results from the Buyers installation or use of goods supplied hereunder.

The Seller shall maintain the following insurance over the duration of an Agreement: (i) COMMERCIAL GENERAL LIABILITY INSURANCE, including product liability, with a limit not less than three million (\$3,000,000) per occurrence and not less than three million (\$3,000,000) dollars in the aggregate; (ii) AUTOMOBILE LIABILITY COVERAGE, with a limit not less than two million (\$2,000,000) dollars per occurrence and not less than two million (\$2,000,000) dollars in the aggregate; (iii) WORKERS COMPENSATION INSURANCE, which coverage shall be maintained by Seller in respect of all employees in accordance with the applicable statutory requirements having jurisdiction over such employees. Upon request, Seller shall provide written confirmation in respect of the above-listed policies to the Buyer.

INTELLECTUAL PROPERTY RIGHTS AND PATENTS. The Buyer shall indemnify and hold harmless the Seller for any legal fees, costs, expenses or other damages, for any claim or other legal action for the breach or alleged breach of any intellectual property rights in respect of any Goods made by

RETURN TO AGENDA



TERMS AND CONDITIONS OF SALE

the Seller in accordance with the Buyer's drawings, designs, or other specifications whatsoever.

CONFIDENTIALITY. These Terms and Conditions and any Agreement shall be confidential between the Buyer and Seller. The Seller will not publish or disclose any details, scope of work, drawings or specifications governed by these Terms and Conditions without the prior written consent of Buyer. These obligations shall survive the termination of this contract for a period of not less than one (1) year from date of any Quotation. Both the Seller and the Buyer shall keep confidential and prevent the unauthorized disclosure of information disclosed by the other party which is confidential by its nature including, without limitation, technical, commercial, financial, operational or strategic information relating to the business of a party, on any verbal, visual or written medium, whether it is marked confidential or restricted or not. The receiving party shall protect such confidential information from third parties using the same degree that it uses for its own confidential information.

INSPECTIONS AND RETURNS. The Buyer acknowledges that it is the **Buyer's responsibility** to count and inspect the shipped Goods and that the Buyer shall be responsible for inspection upon delivery. The Buyer shall notify the Seller within one (1) day of receipt of goods, and before the Goods are covered or put out of sight, of any deficiencies, shortages, or defects and provide the Seller with reasonable opportunity to inspect these deficiencies. The Seller will not be liable for any deficiencies, shortages or defects alleged with respect to the Goods after the expiry of the one (1) day period.

The Buyer shall not return any Goods without obtaining prior written authorization from the Seller. Upon such authorization, the Seller can arrange for a carrier to pick-up the Goods for return at the Buyer's sole expense. The Seller's standard return policy for STANDARD GOODS is twenty-five (25%) percent of the Invoice purchase price plus any additional freight cost incurred by the Seller. It is at the Seller's sole discretion to accept the return of any CUSTOM GOODS OR ENGINEERED PRODUCTS. The Seller shall under no circumstances be liable for any costs incurred by the Buyer in returning Goods to the Seller.

INSPECTION AND AUDIT. Upon reasonable notice, the Buyer or their third party Representative shall have the right to inspect their Goods in fabrication or storage at the Seller's property. At all reasonable times the Seller will provide the Buyer with safe and convenient access to the Goods for inspection. The Buyer must follow all of the Seller's Health and Safety Practices while on property. Inspection by the Buyer shall not constitute acceptance of the applicable Goods, including any finished or work in process. The Buyer's representative may not be a direct or indirect competitor of the Seller. Upon reasonable notice, the Buyer shall have the right to audit all quality control records, production documentation and steel certification as it pertains to their Goods. Notwithstanding that the Seller may be on site during the unloading, installation or assembly of the Goods, the Buyer shall be solely responsible and the Seller shall have no responsibility or liability whatsoever for, any installation and assembly of Goods in accordance with contract documents or specifications.

QUALITY ASSURANCE/QUALITY CONTROL. The Seller agrees to maintain a Quality Control ("QC") Program. Upon reasonable request, the Seller shall provide the Buyer with details in respect of the QC Program as it pertains to their Goods.

WHERE PURCHASE PRICE NOT PAID IN FULL. Seller shall retain a purchase money security interest (PMSI) in the Goods sold to the applicant everywhere in Canada, except for Quebec where it will have a moveable hypothec in the amount of the Invoice purchase price plus any applicable

interest, until the full Invoice purchase price shall have been paid to the Seller.

TITLE AND RISK OF LOSS. Unless otherwise specified in the applicable Quotation, title to the Goods and risk of loss shall pass to the Buyer, the Buyer's representative, or Buyer's common carrier, as applicable, upon loading of the Goods at Seller's location. Seller shall have no responsibility for any damages or losses attributable to Buyer, or Buyer's carrier transporting the Goods or otherwise from that point. In the event a Quotation specifies F.C.A. jobsite, the risk of loss shall pass to the Buyer at the time of arrival of the Goods at the specified jobsite and prior to unloading the Goods.

TERMS OF PAYMENT. The standard terms of payment under an Agreement are as determined by the Seller's Credit Department and as set out on the Seller's order acknowledgement. Shipment and deliveries of any Goods shall at all times be subject to the approval of the Credit Department of the Seller. The Seller reserves the right to obtain satisfactory security, full or partial payment, and copies of any material bonds prior to shipping Goods to ensure performance of an Agreement. The Seller shall retain a purchase money security interest (PMSI) in all Goods and the proceeds thereof until the Buyer has made payment in full to the Seller of all sums due, including processing and late charges and any collection costs. The Buyer agrees to complete Seller's Application for Credit and provide financial information or such other documents requested by the Seller as may be reasonably necessary to perfect such security interest. Interest on any outstanding amount payable by the Buyer to the Seller shall be charged by the Seller to the Buyer at the rate of 1.5% per month (19.6% per annum) on any Invoices past due.

DELIVERY AND FREIGHT CONDITIONS. Unless otherwise specified in the applicable Quotation or subsequent written agreement between the parties, terms of delivery shall be F.C.A. the Seller point of manufacture (i.e. the Seller shall be responsible for loading the Goods on to the delivery vehicle and after the loading has been completed, the Goods shall be at the risk of the Buyer). If transportation charges are incorporated in the price quoted on the Quotation, such charges are freight prepaid unless otherwise specified. The Seller is authorized to ship any Goods in installments as may be considered appropriate by the Seller in its sole discretion.

SEVERABILITY. If any provision of the Terms and Conditions is held to be invalid or unenforceable for any reason, the remaining provisions shall continue to be valid and enforceable. If a court finds that any provision hereof is invalid or unenforceable but, that by limiting such provision it would become valid or enforceable, then such provision shall be deemed to be written, construed and enforced to be so limited.

NON-WAIVER. The waiver by the Seller of any breach of any provision contained herein shall not be deemed to be a waiver of such provision on any subsequent breach of the same or any other provision contained herein.

NOTICE. Any notices required or permitted to be given to the Seller pursuant to these Terms and Conditions shall be in writing and acknowledged by Seller.

ASSIGNMENT. The Buyer shall not assign its rights nor delegate its duties under these Terms and Conditions without the prior written consent of the Seller and any attempted assignment without such consent will be void. However, the Seller may assign or otherwise transfer its rights or delegate its duties under these Terms and Conditions, in whole or in part and subject to these Terms and Conditions, to a subsidiary or affiliate, or a purchase or transferee of substantially all of the assets used by such party in its business to which these Terms and Conditions

relates or in the event of a merger, acquisition, corporate restructuring or change in control, upon written notice of same to the Buyer.

HEADINGS. Headings used in these Terms and Conditions are for ease of reference only and will not be used to interpret any part of these Terms and Conditions.

CURRENCY. Unless expressly stated otherwise in a Quotation (on a case-by-case basis) or a subsequent agreement in writing between the Seller and the Buyer, all references to currency herein shall be in Canadian dollars.

CONFLICTING PROVISIONS OFFERED BY BUYER. FOR ABSOLUTE CERTAINTY, any terms and conditions of any form, purchase order or other purchase or order documentation whatsoever issued by the Buyer, in connection with a Quotation, which purport to be a modification of, in addition to or inconsistent with the Terms and Conditions express herein, shall not be binding on the Seller nor will such terms modify, add to, or detract from the Terms and Conditions or to any matter to which the Terms and Conditions applies in any way whatsoever.

GOVERNING LAW AND DISPUTE RESOLUTION. This Agreement shall be governed in all respects by the laws of the Province of Manitoba and the federal laws of Canada applicable therein, without regard to conflict of laws principles. The Buyer and Seller specifically agree that any claim, proceeding, legal action or dispute resolution relating to this contract shall be brought in Winnipeg, Manitoba.

ENTIRE AGREEMENT. These Terms and Conditions, in addition to the applicable Quotation, contain the complete and exclusive statement of the terms of agreement with the parties with respect to the subject matter and supersede all prior and contemporaneous understandings, representations and warranties, written and oral.



QUOTE#

54880

PO Box 306, Napanee, ON K7R 3M4
 Phone: (613) 354-3864
 Fax: (613) 354-9415
 Email: napanee@eshubbell.com

Valid For: 14 Days

Sold To:
 Horton, Township of
 2253 Johnston Road
 Renfrew ON
 K7V 3Z8

HORTOW

Ship To:
 Horton, Township of
 2253 Johnston Road
 Renfrew
 K7V 3Z8

Contact: Attention: Adam Knapp
Phone: (613) 432-6271
Fax:

Shipment Date: 21-Nov-2022
F.O.B.: Napanee
Customer P.O.:

Terms: N30
Carrier: OUR TRUCK
Date: 07-Nov-2022

DESCRIPTION	QUANTITY	U/M	UNIT PRICE	PRICE
MISC CSP Poly Coat 1800mm x 3.5mm x 12m (125mm x 25mm) includes one coupler	1.00	EA	18,222.62	18,222.62
PP04502006 CSP, Polymer Laminated, 450mm X 2.0mm X 6m	4.00	EA	1,250.78	5,003.12
CP0450(5) Coupler Polymer 450mm (5Corr)	2.00	EA	102.48	204.96
MISC CSP, Polymer Laminated, 600mm X 2.8mm X 8m	2.00	EA	2,581.53	5,163.06
CP0600(5) Coupler Polymer 600mm (5 Corr.)	1.00	EA	128.60	128.60
PG06002806 CSP, Helical, 600mm X 2.8mm X 6m	2.00	EA	1,327.74	2,655.48
CG0600(5) Coupler 600mm (5 Corr.)	1.00	EA	105.96	105.96
PG04502006 CSP, Helical, 450mm X 2.0mm X 6m	2.00	EA	773.37	1,546.74
PG04502007 CSP, Helical, 450mm X 2.0mm X 7m	2.00	EA	902.27	1,804.54
CG0450(5) Coupler 450mm (5 Corr.)	2.00	EA	87.36	174.72
PG03001606 CSP, Helical, 300mm X 1.6mm X 6m	2.00	EA	381.31	762.62
PG03001605 CSP, Helical, 300mm X 1.6mm X 5m	2.00	EA	317.76	635.52
CG0300(5) Coupler 300mm (5 Corr.)	2.00	EA	66.88	133.76
PHI1050B&S3206 HDPE (320kpa) Culvert 1050mm X 6m B&S water tight connections	3.00	EA	3,360.00	10,080.00
Includes delivery, estimated wait time 4 weeks for product.				

SUB TOTAL	46,621.70
HST	6,060.82
TOTAL	52,682.52



RETURN TO AGENDA

30 Day Culvert Quotation for the Township of Horton

Dated: November 10, 2022

22 m	CSP 30mm thickness 1.6, - Galv (1x10mm & 1x12m)	\$1,617.22
14m	CSP 450mm thickness 2.8 m – Galv (2x7m)	\$2,713.90
12m	CSP 600mm thickness 2.8m – Galv (1x12m)	\$3,142.92
12m	CSP 450mm thickness 2.0m – Poly (1x12m)	\$2,376.60
12m	CSP 450mm thickness 2.8m – Poly (1x12m)	\$3,256.80
16m	CSP 600mm thickness 2.8m – Poly (2x8m)	\$5,867.20
12m	CSP 1800mmthickness 3.5m – Poly (1x12m)	\$17,892.00
1	Coupler 450mm 5 corrugations – Galv	\$83.93
1	Coupler 600mm 5 corrugations – Poly	\$102.25
18.3m	1050mm HDPE Pipe bell and gasket (3x6.1m)	\$9,572.73

**Please note this HDPE pipe only comes in 1050 mm and NOT 1000mm

2 Loads of freight @ \$950.00 per load delivered to Horton Garage	<u>\$1,900.00</u>
Sub total	\$48,525.55
Plus HST	<u>\$6,308.32</u>
Total	\$54,833.87

Quotation price is based on a complete order **ONLY**

Due to recent steel and poly cost fluctuations, all prices are firm for 30 days from the Quotation date, and we reserve the right to adjust prices (higher or lower) after 30 days based on market conditions.

M & R Feeds and Farm Supply (Renfrew)

400 Raglan St. S.,

Renfrew, ON K7V 1R8

613-432-8886

RETURN TO AGENDA

From: parts@huckabones.com
To: [Adam Knapp](#)
Subject: RE: Culvert Quotation
Date: November 14, 2022 4:02:13 PM
Attachments: [image003.png](#)
[image002.png](#)

Hello Adam,

Please find attached culvert quote delivered to 2253 Johnston Rd Renfrew Ont K7V3Z8. Please note prices are firm for 30 days.

STEELCOR CSP - 68mm x 13mm Corrugation Profile

CSP 300mm thickness 1,6mm - Galv (1x10m & 1x12m)-**\$1,764.05**

CSP 450mm thickness 2,8mm - Galv (2x7m)-**\$2,960.50**

CSP 600mm thickness 2,8mm - Galv (1x12m)-**\$3,428.64**

CSP 450mm thickness 2,0mm - Poly (1x12m)-**\$2,592.43**

CSP 450mm thickness 2,8mm - Poly (1x12m)-**\$3,552.62**

CSP 600mm thickness 2,8mm - Poly (2x8m)-**\$6,400.13**

CSP 1800mm thickness 3,5mm - Poly (1x12m)-**\$19,518.48**

Accessory STEELCOR CSP

Coupler 450mm 5 corrugations – Galv-**\$91.56**

Coupler 600mm 5 corrugations – Poly-**\$111.54**

HDPE PIPE - 140 kPa

1050mm HDPE Pipe bell and gasket (3x6.1m)-**\$10,441.32**

SUB TOTAL-\$50,861.27

HST-\$6,611.97

TOTAL-\$57,473.24

Thanks, have a great day!

Darren Blaire

Parts Department

Huckabones Equipment Ltd.

Address 16002 HWY 17 Cobden ON K0J1K0

P:613-631-2708 F:613-631-2732

www.huckabones.com

Shop Huckabone's @ www.huckabonesonline.com



**HUCKABONES
EQUIPMENT**

RETURN TO AGENDA

From: Adam Knapp <aknapp@hortontownship.ca>
Sent: Thursday, November 3, 2022 11:29 AM
To: parts@huckabones.com
Subject: RE: Culvert Quotation

Please see the revised list for quotation

Thank You

*Adam Knapp - CRS
Public Works Manager*



Township of Horton
2253 Johnston Road
Renfrew, ON
K7V 3Z8
O: 613-432-6271
F: 613-432-7298
C: 613-281-1315

From: Adam Knapp
Sent: November 3, 2022 10:01 AM
To: parts@huckabones.com
Subject: Culvert Quotation

Please provide a quotation for the culverts provided in the attached list.

All measurements a minimum spec and shall be delivered to the address listed below.

RETURN TO AGENDA



Township of Horton COUNCIL / COMMITTEE REPORT

Title: Proposed Strategic Roads Infrastructure Plan	Date:	January 4 th 2023
	Council/Committee:	TES
	Author:	Adam Knapp, Public Works Manager
	Department:	Public Works

RECOMMENDATIONS:

THAT the TES committee receive this report as information.

AND FURTHER THAT this be included in the 2023 Budget for consideration.

BACKGROUND:

Staff have reviewed the pavement condition index data collected in 2022 and composed a recommendation list that prioritizes the roads in need of reconstruction or rehabilitation in the upcoming construction seasons.

Provided below are several options for consideration that shall allow the TES Committee and Council to designate a path forward within acceptable budgetary allowances. All costs listed below are estimated including HST and a 7% contingency based on 2022 costing models.

Capital Funded Proposals

Option 1 – Mullins Road, 50mm Superpave 12.5

Length Treated = 1.43 km

Estimated at \$444,373.63

Work Type – Reconstruction

Funding Source - To be determined

- Staff performed granular base testing in the fall of 2022 and the base is within the structural design specifications for the volume of traffic on the roadway.
- Staff noted during preliminary planning that the roadways ditching was not suitable to prevent base saturation and water migration. Ditching began in the fall of 2022 to rectify the problems and shall be completed in the 2023 construction season.
- This option would see the existing road platform pulverized, 75 mm of granular A added to the platform and paved with 50mm of Super Pave 12.5.
- Staff endorses this option due to the significant amount of commercial traffic. These conditions are not favorable for double surface treatment applications.
- This reconstruction option would also accommodate increased traffic volumes from the forecasted growth within the Township and has an estimated useful life cycle of 25 years and with standard maintenance and preservation techniques can be extended significantly.

Option 2 - Mullins Road, Double Surface Treatment

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Length Treated = 1.43 km

Estimated at \$328,254.69

Primary and Secondary Treatment Total = \$463,567.25.

Work Type – Reconstruction

Funding Source - To be determined

- This option would see the existing road platform pulverized, 75 mm of granular A added to the platform, double surface treatment applied, and fog sealed.
- In order for the section of roadway to have a justifiable life cycle a secondary single surface treatment and fog seal must be applied to the surface within 4-6 years for a total estimated cost of \$135,312.56.
- With no secondary treatment applied the estimated useful life cycle of this application is 10 years and staff predict a similar deterioration pattern as we have today in that time span. The existing surface was applied in approximately 2013.
- With the secondary treatment applied the estimated useful life cycle of this application is 20 years with proper maintenance and preservation. The life cycle may be extended slightly if significant rehabilitative treatments are applied but flexible surfaces in our climate zone do not typically last longer than 20 years without failing, as displayed on McBride Road prior to reconstruction.
- Staff does not encourage this option and recommend postponing the reconstruction to 2024 if adequate funding cannot be obtained to facilitate option #1.

Option 3 – Goshen Road, Single Surface Treatment and Fog Seal

Length Treated = 3 km

Estimated at \$283,872.50

Work Type - Rehabilitation

Funding Source - To be determined

- This option would see the existing platform rehabilitated with a single surface treatment and fog seal.
- This treatment should be applied within the next 2 years, or the surface may deteriorate beyond a rehabilitative state and require reconstruction at a significantly higher cost.
- The estimated life extension of this treatment is 10 years

Operational Funded Proposal

Option 3 – Jamieson Road

Length Treated = 1.4 kms

Estimated at \$30,069.84

RETURN TO AGENDA

Work Type - Rehabilitation**Funding Source - 2023 Paved Road Maintenance Operating Funds**

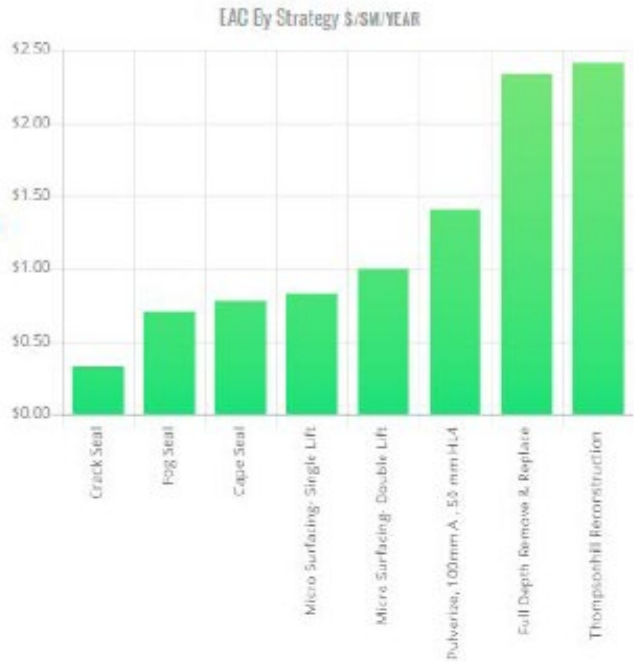
- This is the only recommendation proposed to be funded from the 2023 operating budget.
- The roadway would see Township staff perform ditch clean out, shoulder clean off and re application of granular materials as necessary, clean debris from culvert inlets and outlets, brushing and apply pavement overlays to improve the roads ride condition to improve the roads ride condition.
- Contracted works would include crack sealing to repair the largest cracks in the roadway, rehabilitative fog seal applied to seal the remainder of the cracks. The estimated cost is for contracted works only. The estimated cost of the in-house works is \$8,000 for materials.
- The estimated useful life extension of this treatment is between 6 to 10 years pending increased traffic volumes from development in the area.

Staff has requested an adjustment to the paved road maintenance budget in 2023 that shall allow for a proactive set of maintenance programs to be implemented on a yearly basis as determined by Staff. These programs shall focus on extending the life cycles of our current paved roads network and in turn lower the Townships capital rehabilitation needs over the long term and allow reserves to be established to healthy levels to accommodate future reconstruction needs and the Townships forecasted growth. The rehabilitative treatments shall include but not be limited to, crack sealing, shoulder sealing, fog sealing, cape sealing, and micro-surfacing. These methods are industry tested and proven to be cost effective methods of increasing the useful life of a paved road while lowering capital reconstruction cost and improving network condition ratings.

As shown below the Equivalent Annual Cost (EAC) per square meter for preservative maintenance versus reconstruction is significantly lower. Equivalent Annualized Cost (EAC) compares the true cost of various treatments over time, by dividing the treatment cost over the life extension the treatment provides.

RETURN TO AGENDA

Treatment Type	Cost Per Sq Meter	Life Extension	EAC \$ SM/YEAR
Crack Seal	1.60	3.0	0.32
Fog Seal	1.40	2.0	0.70
Cape Seal	7.77	10.0	0.78
Micro Surfacing- Single Lift	5.00	6.0	0.83
Micro Surfacing- Double Lift	8.00	8.0	1.00
Pulverize, 100mm A, 50 mm	35.00	25.0	1.40
Full Depth Remove & Replace	38.32	25.0	2.33
ThompsonHil Reconstruction	60.26	25.0	2.41



Clear Data / Chart Your Own

CONVENTIONAL APPROACH

TREATMENT: Pulverize, 100mm A, 50 mm HL4

UNIT COST: 35.00

LIFE EXTENSION: 25.0

SQUARE METERS: 6500

Total Cost: **\$227,500**
 Equivalent Annualized Cost: **1.40**

PRESERVATION & RECYCLING APPROACH

TREATMENT: Cape Seal

UNIT COST: 7.77

LIFE EXTENSION: 10.0

SQUARE METERS: 6500

Total Cost: **\$50,505**
 Equivalent Annualized Cost: **0.78**

By choosing a preservation & recycling approach...

COST SAVINGS **\$176,995**
 78% LESS THAN PULVERIZE, 100MM A, 50 MM HL4

ALTERNATIVES:

N/A

FINANCIAL IMPLICATIONS:

As stated in the background.

ATTACHMENTS:

- Mullins Road Pavement Estimate
- Mullins Road DST Estimate
- Mullins Road Secondary SST Estimate
- Goshen Road SST and Fog Seal Estimate
- Jamieson Lane Crack Seal and Fog Seal Estimate


RETURN TO AGENDA


CONSULTATIONS:


N/A


Prepared by: Adam Knapp, Public Works Manager


Reviewed by: Hope Dillabough, CAO/Clerk

Mullins Road Pavement Estimate						
From:	Johnston Road					
To:	Eady Road, Including approach aprons					
Treatment Type:	Super Pave 12.5					
Average Lane Width (m)	6.5					
Item	Category	Life Extension	Lane-Km Treated	Lane-Km-Years	Unit Cost	Total Cost
Pulverizing (150mm +/- 15mm)		0	1.43	0	\$4.00	\$37,180.00
75mm Granular A		0	1.43	0	10	\$92,950.00
50 mm Super Pave 12.5mm		25	1.43	35.75	22	\$204,490.00
Shouldering Granular "A"		0	1.43	0	3.5	\$32,532.50
Line Painting		0	1.43	0	0.04	\$371.80
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
Notes:					Sub Total	\$367,524.30
					7% Contingency	\$25,726.70
					HST	\$51,122.63
					Non Refundable HST	\$6,952.68
					Total after HST rebate	\$400,203.68
					Total before HST rebate	\$444,373.63

Mullins Road Double Surface Estimate						
From:	Johnston Road					
To:	Eady Road, Including approach aprons					
Treatment Type:	Double Surface Treatment with Fog Seal					
Average Lane Width (m)	6.5					
Item	Category	Life Extension	Lane-Km Treated	Lane-Km-Years	Unit Cost	Total Cost
Pulverizing (150mm +/- 15mm)		0	1.43	0	\$4.00	\$37,180.00
75mm Granular A		0	1.43	0	10	\$92,950.00
Fog Seal	Preservation	2	1.55	3.1	2	\$20,150.00
(DST) Double Surface Treatment		10	1.43	14.3	13	\$120,835.00
Line Painting		0	1.43	0	0.04	\$371.80
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
Notes:					Sub Total	\$271,486.80
					7% Contingency	\$19,004.08
					HST	\$37,763.81
					Non Refundable HST	\$5,135.88
					Total after HST rebate	\$295,626.75
					Total before HST rebate	\$328,254.69

Mullins Road Single Surface Estimate						
From:	Johnston Road					
To:	Eady Road, Including approach aprons					
Treatment Type:	Single Surface Treatment with Fog Seal					
Average Lane Width (m)	6.5					
Item	Category	Life Extension	Lane-Km Treated	Lane-Km-Years	Unit Cost	Total Cost
(SST) Single Surface Treatment 3/8 Granite		10	1.43	14.3	\$10.00	\$92,950.00
Fog Seal	Preservation	2	1.43	2.86	2	\$18,590.00
Line Painting		0	1.43	0	0.04	\$371.80
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
Notes:					Sub Total	\$111,911.80
					7% Contingency	\$7,833.83
					HST	\$15,566.93
					Non Refundable HST	\$2,117.10
					Total after HST rebate	\$121,862.73
					Total before HST rebate	\$135,312.56

Goshen Road Single Surface Estimate						
From:	Lochwinnoch Road					
To:	Yantha Road					
Treatment Type:	Single Surface Treatment with Fog Seal					
Average Lane Width (m)	6.5					
Item	Category	Life Extension	Lane-Km Treated	Lane-Km-Years	Unit Cost	Total Cost
(SST) Single Surface Treatment 3/8 Granite		10	3	30	\$10.00	\$195,000.00
Fog Seal	Preservation	2	3	6	\$2.00	\$39,000.00
Line Painting		0	3	0	\$0.04	\$780.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
Notes:					Sub Total	\$234,780.00
					7% Contingency	\$16,434.60
					HST	\$32,657.90
					Non Refundable HST	\$4,441.47
					Total after HST rebate	\$255,656.07
					Total before HST rebate	\$283,872.50

Jamieson Lane Fog Seal Estimate						
From:	Gillan Road					
To:	Dead End					
Treatment Type:	Crack Seal and Fog Seal					
Average Lane Width (m)	6.5					
Item	Category	Life Extension	Lane-Km Treated	Lane-Km-Years	Unit Cost	Total Cost
Minimal Crack Sealing		0	1.4	0	\$0.75	\$6,825.00
Fog Seal	Preservation	2	1.4	2.8	\$2.00	\$18,200.00
Line Painting		0	1.4	0	\$0.04	\$364.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
						\$0.00
Notes:					Sub Total	\$25,389.00
					7% Contingency	\$1,777.23
					HST	\$3,531.61
					Non Refundable HST	\$480.30
					Total after HST rebate	\$27,646.53
					Total before HST rebate	\$30,697.84

RETURN TO AGENDA



Township of Horton COUNCIL / COMMITTEE REPORT

Title: Draft Winter Maintenance and Salt Management Policy	Date:	January 4 th 2023
	Council/Committee:	TES
	Author:	Adam Knapp, Public Works Manager
	Department:	Public Works

RECOMMENDATIONS:

THAT the TES committee agree with staff and recommend to Council to adopt the T-06 Winter Maintenance and Salt Management policy as drafted.

BACKGROUND:

This policy shall provide concise direction to staff and clearly communicate the level of service for winter maintenance and salt management within the Township.

The Township of Horton is committed to providing safe and sustainable winter maintenance operations while continuing to improve those operations to provide safety and mobility for the traveling public. As an integral part of this effort the Township of Horton will strive to optimize the use of all winter maintenance materials as they pursue the goal of a safe and sustainable transportation system.

The Township of Horton's Public Works staff will strive, as reasonably practicable, to provide safe winter road conditions for vehicular and pedestrian traffic as set out in the level of service policies and within the resources established by the Council of the Township of Horton.

ALTERNATIVES:

N/A

FINANCIAL IMPLICATIONS:

N/A

ATTACHMENTS:

DRAFT - Winter Maintenance and Salt Management Policy

CONSULTATIONS:

N/A

Prepared by: Adam Knapp, Public Works Manager

Reviewed by: Hope Dillabough, CAO/Clerk

RETURN TO AGENDA

Township of Horton Policy and Procedures			
SECTION: Transportation		POLICY #: T-06	
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Purpose

This Winter Maintenance policy sets out procedural framework for ensuring that the Township of Horton continuously improves on the safe and sustainable delivery of winter maintenance services and the effective and efficient use of road salt in our winter maintenance operations. This plan supersedes all previous plans for the Township of Horton.

The plan is meant to be dynamic, to allow the municipality to evaluate and phase-in any changes, new approaches and technologies in winter maintenance activities in a fiscally sound manner. At the same time, any modifications to municipal winter maintenance activities must ensure that roadway safety is not compromised.



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Definitions

AVL is an Automatic Vehicle Locating (AVL) system that the Township utilizes to track vehicle locations, direction of travel, speed, plow functions, and material application rates. The Township utilizes ACE AVL systems.

Continuous Winter Event Response is a response to a winter event with full deployment of manpower and equipment that plow/salt/sand the entire system.

De-icing means the application of solids, liquids, pre-treated material to the road surface after the on-set of the winter event.

Highway means a common and public highway, street, avenue, parkway, driveway, square, place, bridge, viaduct or trestle, any part of which is intended for or used by the general public for the passage of vehicles and includes the area between the lateral property lines thereof.

MMS is the Minimum Maintenance Standards for Municipal Highways of Ontario, O. Reg 366/18 as amended.

MTO means the Ministry of Transportation of Ontario.

MOU means Memorandum of Understanding.

Paved Road means a road with an asphalt surface, concrete surface, composite pavement, or Portland cement.

Pre-treat means the application of liquids (sodium chloride, calcium chloride, etc.) to dry salt or sand prior to being loaded for storage or applied to the road surface.

Roads Superintendent is the person who is on duty at the time directing the snow/ice removal operations of the Township of Horton.

Route is another term used for patrol routes.

Plow Route is a collection of road segments which during a winter storm will have the snow removed and receive applications of a salt and sand mixture to provide a temporary increase in grip. The level of service on such routes may or may not have a bare road platform as a service goal.



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Significant Weather Event as per the Ontario Municipal Act, a municipality may declare a significant weather event when a weather hazard, either forecasted or occurring, has the potential to pose a significant danger to users of the highways (roadways) in which they have authority over.

S.O.P means Standard Operating Procedure.

Spot Winter Event Response is a response to a winter event with only a partial deployment of manpower and equipment or with full deployment to only part of the system.

Surface Treated Road is road with bituminous surface treatment comprised of one or two applications of asphalt emulsion and stone chips over a gravel road.

Unpaved Road is a graded road with a gravel, stone or other loose traveling surface.

Winter Event is a weather condition affecting roads such as snowfall, windblown snow, freezing rain, frost or ice to which, a winter event response is required.

Winter Event Response is a series of winter control activities performed in response to a winter event.

Winter Event Response Hours are the total number of person-hours per year (plowing, salting/sanding, winging back, etc.) to respond to winter events.



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1. Objective of Winter Maintenance and Salt Management

The Township of Horton is committed to providing safe and sustainable winter maintenance operations while continuing to improve those operations to provide safety and mobility for the traveling public. As an integral part of this effort the Township of Horton will strive to optimize the use of all winter maintenance materials as they pursue the goal of a safe and sustainable transportation system.

The Township of Horton's Public Works staff will strive, as reasonably practicable, to provide safe winter road conditions for vehicular and pedestrian traffic as set out in the level of service policies and within the resources established by the Council of the Township of Horton.

2. Policy Statement

The Township of Horton will conduct safe and sustainable snow removal to ensure the safety and mobility of users of the municipal road network, as reasonably practicable, in keeping with applicable Provincial legislation and accepted standards while striving to minimize adverse impacts to the environment. These commitments will be met by:

- a) Adhering to the procedures contained within the Winter Maintenance Policy.
- b) Reviewing and upgrading the Winter Maintenance Policy on an as needed basis to incorporate new technologies and new developments.
- c) Committing to ongoing winter maintenance staff training and education
- d) Monitoring on an annual basis, the present conditions of the winter maintenance program, as well as the effectiveness of the Winter Maintenance Policy.



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3. Overview of the Township of Horton

Type of Organization: Municipal - Lower Tier

Estimated Population (2022 Consensus): 3182 Total Area: 158.0 Square kilometers

Street Address: Municipal Office

2253 Johnston Road, RR5

Renfrew, Ontario K7V 3Z8 Canada

Telephone: 613-432-6271

Website: <https://www.hortontownship.ca/>

CAO/Clerk: Hope Dillabough

Public Works Manager: Adam Knapp

Roads Superintendent: Rod Eady

Main Contact #: 613-432-6271

Emergency After Hours Contact #: 613-433-2527

By-Law: 613-281-3773 or e-mail bylaw.mles@gmail.com

Law Enforcement Agency: OPP -Renfrew Detachment

Contact Information: Central Operations Center 613-432-3211 or 911



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4. Winter Maintenance Program

The major activities related to winter maintenance are:

- a) Snow plowing (Per MMS)
- b) Salt /sand application (Per MMS)
- c) Snow removal (As needed)
- d) Drift-control Snow fencing (Optional)
- e) Landfill snow removal (Per operational needs)
- f) Parking lot clearing at Municipal owned properties (Per operational needs)

The Township of Horton is responsible for winter maintenance on:

Road Class	Surface Type	Type Length (Lane Kilometers)	Total Length (Lane Kilometers)
Class 3 through 6	Paved	69.2	180.4
	Surface Treated	9.8	
	Gravel	101.4	
Millennium Trail	Gravel	5.7	Sno Goers maintain per MOU

5. Road Category and Priority Index

Road Category	Priority	Color
Class 3	1	
Class 4	1	
Class 5	2	
Class 6	3	



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6. Level of Service

The Township of Horton provides the following level of service during the winter maintenance season in response to a winter event.

The standards listed below define the Townships procedure for addressing the applicable winter event.

1. Snow Accumulation

- a) after becoming aware of the fact that the snow accumulation on a roadway is greater than the depth set out in the table below this section, to deploy resources as soon as practicable to address the snow accumulation; and
- b) after the snow accumulation has ended, to address the snow accumulation so as to reduce the snow to a depth less than or equal to the depth set out in the table below this section.
- c) to provide a minimum lane width of the lesser of three meters for each lane or the actual lane width, or
- d) on a Class 4 or Class 5 highway with two lanes, to provide a total width of at least five meters. O. Reg. 47/13, s. 4.

If the depth of snow accumulation on a roadway is less than or equal to the depth set out in the table below the roadway is deemed to be in a state of repair with respect to snow accumulation. O. Reg. 47/13, s. 4.

For the purposes of this section, the depth of snow accumulation on a roadway may be determined in by a municipal employee whose duties or responsibilities include one or more of the following:

- a) Patrolling highways.
- b) Performing highway maintenance activities.
- c) Supervising staff who perform activities described in paragraph a) or b). O. Reg. 47/13, s. 4.

The depth of snow accumulation on a roadway and lane width may be determined by:

- a) Performing an actual measurement;
- b) Monitoring the weather; or
- c) Performing a visual estimate. O. Reg. 47/13, s. 4.



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For the purposes of this section, addressing snow accumulation on a roadway includes, but is not limited to:

- a) Plowing the roadway;
- b) Salting the roadway;
- c) The application of other chemical or organic agents to the roadway;
- d) Applying abrasive materials to the roadway; or
- e) Any combination of the methods described in clauses (a), (b), (b.1) and (c). O. Reg. 47/13, s. 4.

This section does not apply to that portion of the roadway designated for parking. O. Reg. 47/13, s. 4.

If at any time a municipality declares a significant weather event, then all roadways within the municipality are deemed to be in a state of repair in respect of any snow accumulation present, until the applicable time under the table to this section expires following the end of the declaration.

2. Ice Formation

The standard for attempting the prevention of ice formation on roadways is doing the following in the 24-hour period preceding an alleged formation of ice on a roadway:

- a) Monitor the weather in accordance with the MMS.
- b) Patrol in accordance with the MMS.

If the municipality determines during weather monitoring and patrolling that there is a substantial probability of ice forming on a roadway:

- a) Treat the roadway to attempt to prevent ice formation within the time set out in the table below this section, starting from the time that the municipality determines is the appropriate time to deploy resources for that purpose. O. Reg. 47/13, s. 5.

If the municipality meets the standard set out in this policy, despite such compliance, ice forms on a roadway, the roadway is deemed to be in a state of repair until the earlier of:

- a) The time that the municipality becomes aware of the fact that the roadway is icy and can mobilize in a practicably timely manner; or
- b) The applicable time set out in the table below this section for treating the roadway to prevent ice formation expires. O. Reg. 47/13, s. 5.



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The standard for treating icy roadways after the municipality becomes aware of the fact that a roadway is icy is to treat the icy roadway within the time set out in the table below this section, and an icy roadway is deemed to be in a state of repair until the applicable time set out in the table for treating the icy roadway expires. O. Reg. 47/13, s. 5.

For the purposes of this section, treating a roadway means applying material to the roadway, including but not limited to, salt, sand or any combination of salt and sand. O. Reg. 47/13, s. 5.

If at any time a municipality declares a significant weather event, then all roadways within the municipality are deemed to be in a state of repair in respect of any ice present, until the applicable time under the table below this section expires following the end of the declared weather emergency.

DRAFT



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7. Accumulation Tables

Snow

Class of Highway	Depth	Time
1	N/A	N/A
2	N/A	N/A
3	8 cm	12 hours
4	8 cm	16 hours
5	10 cm	24 hours
6	10 cm	24 Hours

Ice

Class of Highway	Time
1	N/A
2	N/A
3	8 hours
4	12 hours
5	16 hours
6	24 Hours

8. Sidewalk Responsibility

The Township of Horton has no sidewalks within its boundaries and does not maintain or accept responsibility for any privately owned walkways.



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9. Winter Maintenance of Private Property

Private properties are the responsibility of the respective owners.

10. Winter Maintenance Season

For winter maintenance purposes, the Township of Horton assumes the winter season commences on October 1st and is completed by April 30th, while acknowledging that winter events may occur outside of this timeframe.

11. Winter Patrolling

During the winter maintenance season, the Township of Horton shall carry out winter patrols as per the MMS. Between winter events, a patrol of representative roads will occur during daylight hours and a second night patrol may also be scheduled, if practicable. The purpose of the patrol is to monitor and record weather and road conditions and mobilize winter maintenance operators and equipment should a winter event be observed, and a winter event response is required. On the approach of a winter event or during a winter event the patrol and plow routes of representative roads may be modified per priority of class as listed in this policy, or as reasonably practicable, depending on the type and severity of winter event or the direction from which the storm approaches. The patrol person will be familiar with local conditions in their patrol area and may prepare a condition log of road and weather conditions as well as any actions taken during the shift. The winter patrol schedule parallels the designated winter season.



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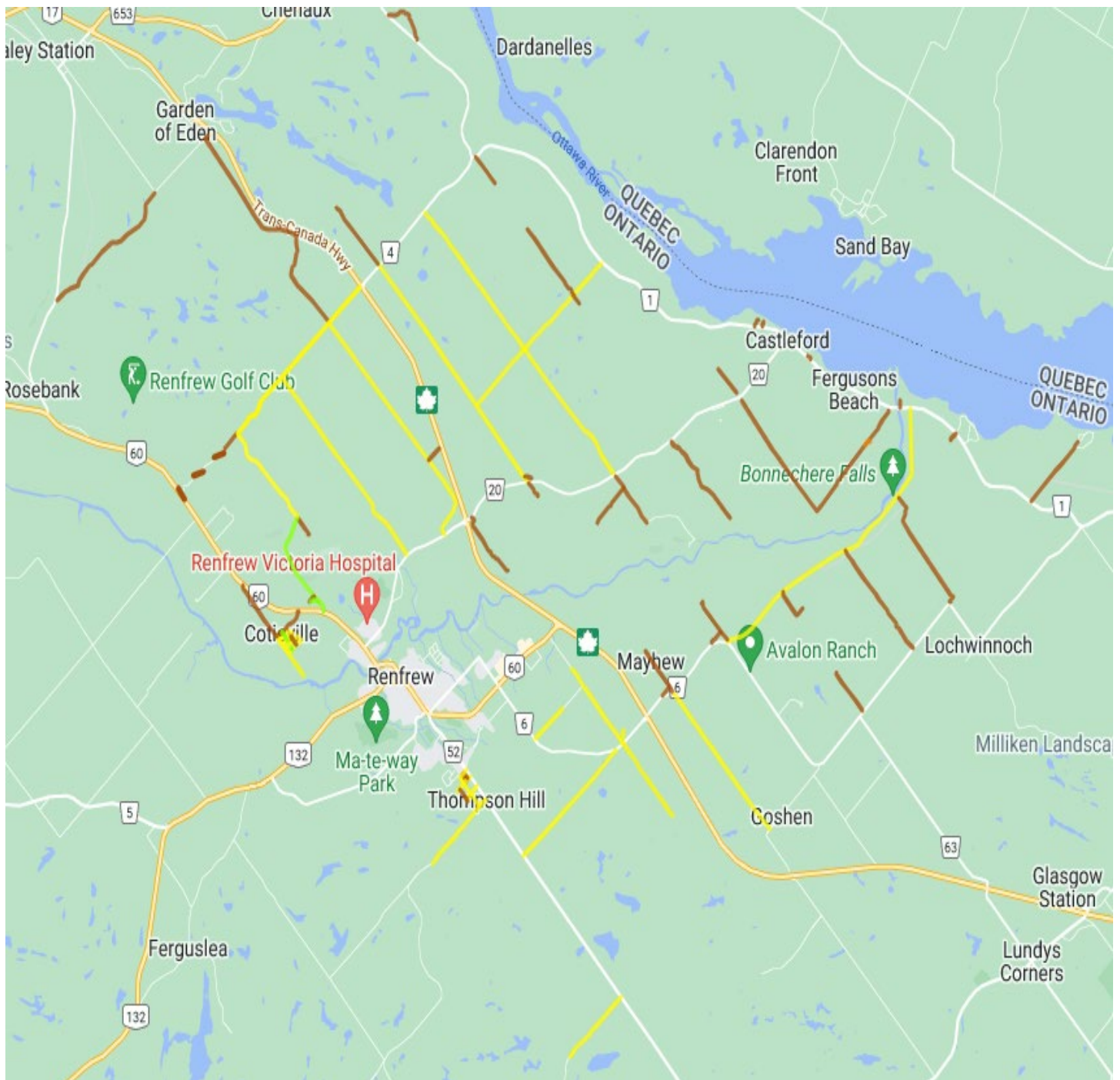
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12.Patrolled Roads Map



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13. Winter Preparations

In the months prior to the start of the winter maintenance season, as identified in this policy, the Township of Horton undertakes the following tasks to prepare for the upcoming winter season.

Prior to the winter season, the Township shall prepare and call tenders for the supply of materials (salt, sand) wear parts (for plowing equipment) calibrate and document rates of spread for all material spreading equipment.

At a practicable time prior to the beginning of the winter season the Township of Horton shall:

- a) Conduct a training session for staff and contract operators where all policies, procedures, schedules, reporting procedures for callout, route maps, equipment training and safety precautions will be discussed. Any issues resulting from the meeting with regard to the policies, procedures, schedules, reporting procedures for callout, route maps, equipment training and safety precautions shall be resolved either at the meeting or prior to the winter season.
- b) Train winter patrollers (or staff whose duties also include patrolling) on the route of representative roads to be patrolled, their duties during a winter event, record keeping requirements, callout procedures and specific material application rates and types for individual weather conditions.
- c) Inspect equipment to ensure proper working order. Schedule and complete any and all equipment repairs.
- d) Arrange for the delivery of materials (salt, sand) and begin filling storage facilities, a minimum of 500 tonnes of premixed sand and 30 tonnes of salt should be in storage by October 1st.
- e) A minimum of 3000 tonnes of premixed sand and 30 tonnes of salt should be in storage by November 1st.
- f) Confirm that all guiderails, catch basin, hazard and fire hydrant markers, steep hill, sharp curve ahead warning signs, bridges ices sign, if any, are in place. Any missing markers should be replaced prior to the winter season.



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14. One Month Prior to the Winter Season

One month prior to the winter season the Township of Horton shall:

- a) Assign equipment to staff.
- b) Allow operators time to familiarize themselves with any new equipment, material application rates, and their route (driving the route and noting obstacles along the route, if necessary).
- c) commission all winter maintenance equipment. Test and calibrate equipment if practicable.
- d) Upon the forecast of an approaching winter event have sufficient staff available to operate the fleet if conditions warrant a winter event response.

15. Two Weeks Prior to the Winter Season

Two weeks prior to the winter season the Township of Horton shall:

- a) Have 100 % of the fleet ready, tested and calibrated to respond to a winter event.
- b) Have staff available to operate the required complement of the fleet if conditions warrant a winter event response.

16. Two Weeks After the Winter Season Ends

Two weeks after the winter season ends:

- a) Continue monitoring and recording weather forecasts.
- b) Do not decommission any equipment.

17. One Month After the Winter Season Ends

One month after the winter season ends and no weather events for 2 weeks:

- a) Cease all winter highway maintenance operations.
- b) Decommission all winter maintenance equipment.
- c) Begin preparations for construction season



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18. Staffing and Hours of Work

The Township of Horton has full-time employee assigned to each vehicle used for winter operations. Each vehicle is assigned a route for sanding/salting and/or plowing.

The Township of Horton adheres to the hours of service as dictated by Highway Traffic Safety Act, Reg. 555/06 (Ontario, Canada).

Employee	Job Title	Reports to Facility	Assigned Equipment
Adam Knapp	Public Works Manager	Horton Public Works Yard	Administrative Response
Rod Eady	Public Works Superintendent	Horton Public Works Yard	One tonne GMC Plow and Patrol Vehicle
Dustin Howard	Lead Hand	Horton Public Works Yard	3 tonne CV 515 Plow and Sanding Unit
Dave Radke	Technician / Operator	Horton Public Works Yard	Freightliner Tandem Plow Truck
Peter Storie	Operator	Horton Public Works Yard	Western Star Tandem Plow Truck

In the event of staffing modifications this table may be revised by the CAO/Clerk or Public Works Manager without bringing the policy back to Council for consideration.



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19. Key Responsibilities

Some of the key responsibilities associated with the management and overseeing of winter operations for this winter season are as below:

- a) The Public Works Manager will receive issues and concerns of the citizens regarding snow and ice control efforts.
- b) The Public Works Manager will ensure media releases are sent to local news and radio stations advising of road closures and significant weather events.
- c) The Public Works Manager shall be the AVL system administrator.
- d) The Public Works Superintendent shall observe and document the weather and actions taken in compliance with the MMS.
- e) The Public Works Superintendent shall be responsible for making operational decisions pertaining to weather event responses.
- f) The Public Works Superintendent shall be the authority to which the field staff communicate the field conditions too.
- g) The Public Works Superintendent shall communicate the severity of those conditions to the Public Works Manager to evaluate the need to declare a significant weather event.
- h) The Public Works Superintendent shall be responsible for call-ins, as necessary.
- i) The Public Works Superintendent shall (when physically possible) be responsible or delegate responsibility for providing appropriate signage and/or barricades in case a road has to be closed due to a severe winter storm.
- j) The Lead Hand shall be second in command of the Public Works Superintendent and shall perform all duties assigned to the Public Works Superintendent in his absence or inability.
- k) The Lead Hand shall communicate all critical decisions necessary to the Public Works Manager when performing the Public Works Superintendents duties.
- l) The Operator/ Technician shall perform all AVL equipment installations, calibrations and maintenance and shall work with the Public Works Manager to ensure that all AVL systems are operating as designed for the winter maintenance season.



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20. Training

The Township of Horton provides winter operations training for all staff involved in the delivery of winter services.

Staff is trained through numerous organizations including but not limited to:

- a) Association of Ontario Road Supervisors
- b) Ontario Good Roads Association
- c) Renfrew County Roads Supervisors Association
- d) Public Services Health and Safety Association
- e) Advanced Consulting
- f) Infrastructure Health and Safety Association
- g) Safety Hub
- h) The County of Renfrew
- i) Canadian Red Cross
- j) Ground Force

Current winter operations training for staff include but is not limited to:

- a) Equipment Circle Check
- b) Equipment Calibration
- c) Record Keeping
- d) Health and Safety
- e) Level of Service – policies, practices and procedures
- f) Identification of Plow Routes – including variations from year to year and issues identified along the route
- g) Equipment Operation and Maintenance
- h) WHMIS
- i) First Aid and CPR
- j) Spreader Usage, Application Rates, and Material Mixing
- k) Tire Chaining



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21.AVL Equipment and Application Settings

Vehicle #	Description	Sreader Port	GPS #	Input 0 On	Input 0 Off	Input 1 On	Input 1 Off	Input 2 On	Input 2 Off
TR 11	2013 3/4 Tonne Truck GM	None	0013A20040B10325						
TR 24	2020 Freightliner Tandem	GPS ACE	0013A20040B102C5	Plow Down	Plow Up				
TR 22	2020 CV 515 3 Tonne	None	0013A20040B102B5			Plow Up	Plow Down	Sander On	Sander Off
TR 14	2018 International Tandem	GPS ACE	0013A20040B1030A	Plow UP	Plow Down				
G5	2008 Grader	None	0013A20040B10331			Mould Board Up	Mould Board Down		
B8	2017 JCB Backhoe	None	None						
EW180	Volvo Excavator	None	None						
TR 21	2021 GMC 1 Tonne	None	0013A20040B10309						

Report Options

Material

Name	Alias	Salt %	Abrasive %
Salt	Pure Salt		
Abrasive	Pure Sand	0 %	
Mix A	3-5% Salt Mix	5 %	95 %
Mix B	6-10% Salt Mix	10 %	90 %
Liquid			

Liquid weight (kg) to Volume (liter) conversion

1 kg = 1.00 liter

Others

First day of the week: Sunday

Show Spreader Operators

Oscar Road Patrol Report Enabled

Show overlapped points on map



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22. Average Winter Material Used Annually

Primary Solid Material	Supplier	Minimum Stocked Piled Quantity per Season	Stockpiled Premixed Salt %
Winter Sand per OPSS 1004	Yearly Tender	3000 to 3300 tonnes	3% to 5%

The mixture of salt to sand is by the bucket method where a senior staff member adds a specified amount of excavator bucket scoops, to attain the premixed salt percentages aforementioned, on top of the sand while in the transport vehicle prior to being dumped, stacked, and piled into the sand dome.

23. Application Rates for 3% to 5% Salt to Sand Mixture

Weather Type	Min and Max Ranges (KGS per lane Kilometer)		Min and Max Ranges (KGS per lane Kilometer)		Min and Max Ranges (KGS per lane Kilometer)	
	0 celcius	Minus 5 Celcius	Minus 5 Celcius	Minus 10 Celcius	Minus 10 Celcius	Minus 18 Celcius
Frost	300	350	400	450	450	650
Light Snow	300	350	400	450	400	450
Heavy Snow	300	350	400	450	400	450
Freezing Rain	450	650	800	850	800	850



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24. Application Rates for 6% to 10% Salt to Sand Mixture “Sweet Mix”

This mixture is typically applied only to hard top roads and is only applied to gravel roads and vulnerable areas when significant freezing rain events occur.

Weather Type	Min and Max Ranges (KGS per lane Kilometer)		Min and Max Ranges (KGS per lane Kilometer)		Min and Max Ranges (KGS per lane Kilometer)	
	0 celcius	Minus 5 Celcius	Minus 5 Celcius	Minus 10 Celcius	Minus 10 Celcius	Minus 18 Celcius
Frost	300	350	400	450	450	650
Freezing Rain	450	650	800	850	800	850

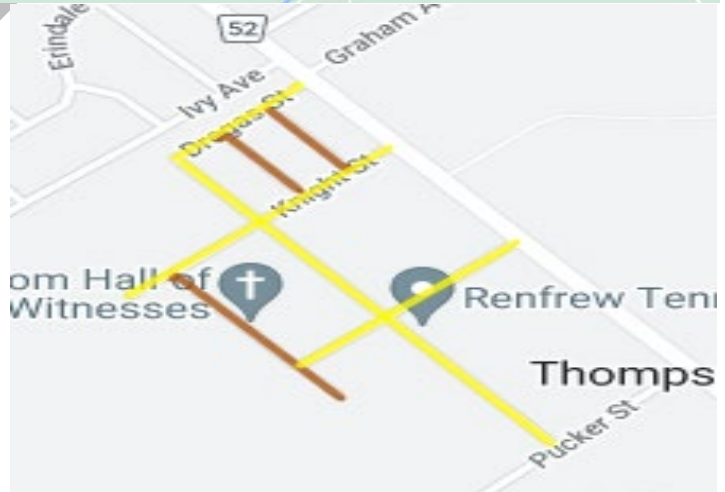
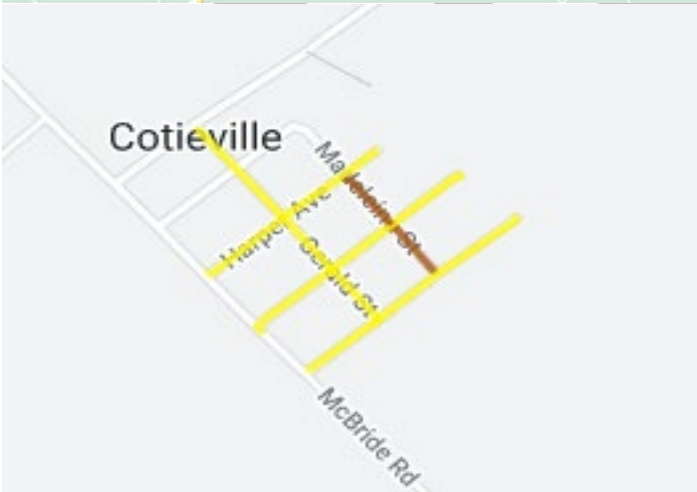
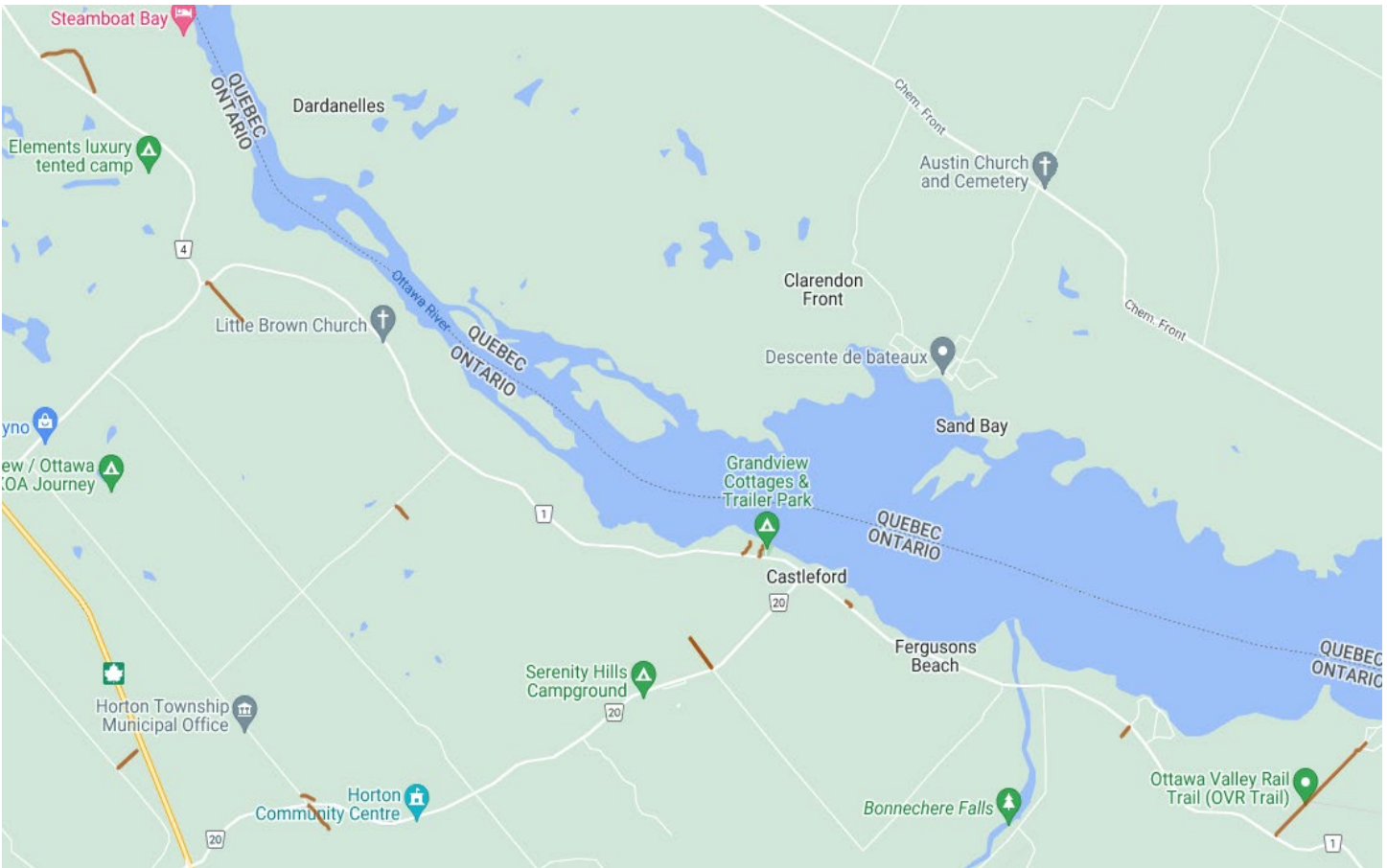
25. Equipment - Winter Maintenance Routes

VEHICLE NAME and UNIT NUMBER	VEHICLE TYPE	ASSOCIATED ROUTES	OPERATOR
International Unit #22	Single Axle	Plow Route A	Dustin Howard
Freightliner Unit #24	Tandem Axle	Plow Route B	Dave Radke
Western Star Unit # 24	Tandem Axle	Plow Route C	Peter Storie
GMC Unit #21	Single Axle	Parking lots and intersections clearing as needed	Rod Eady



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26. Plow Route A Map – CV 515



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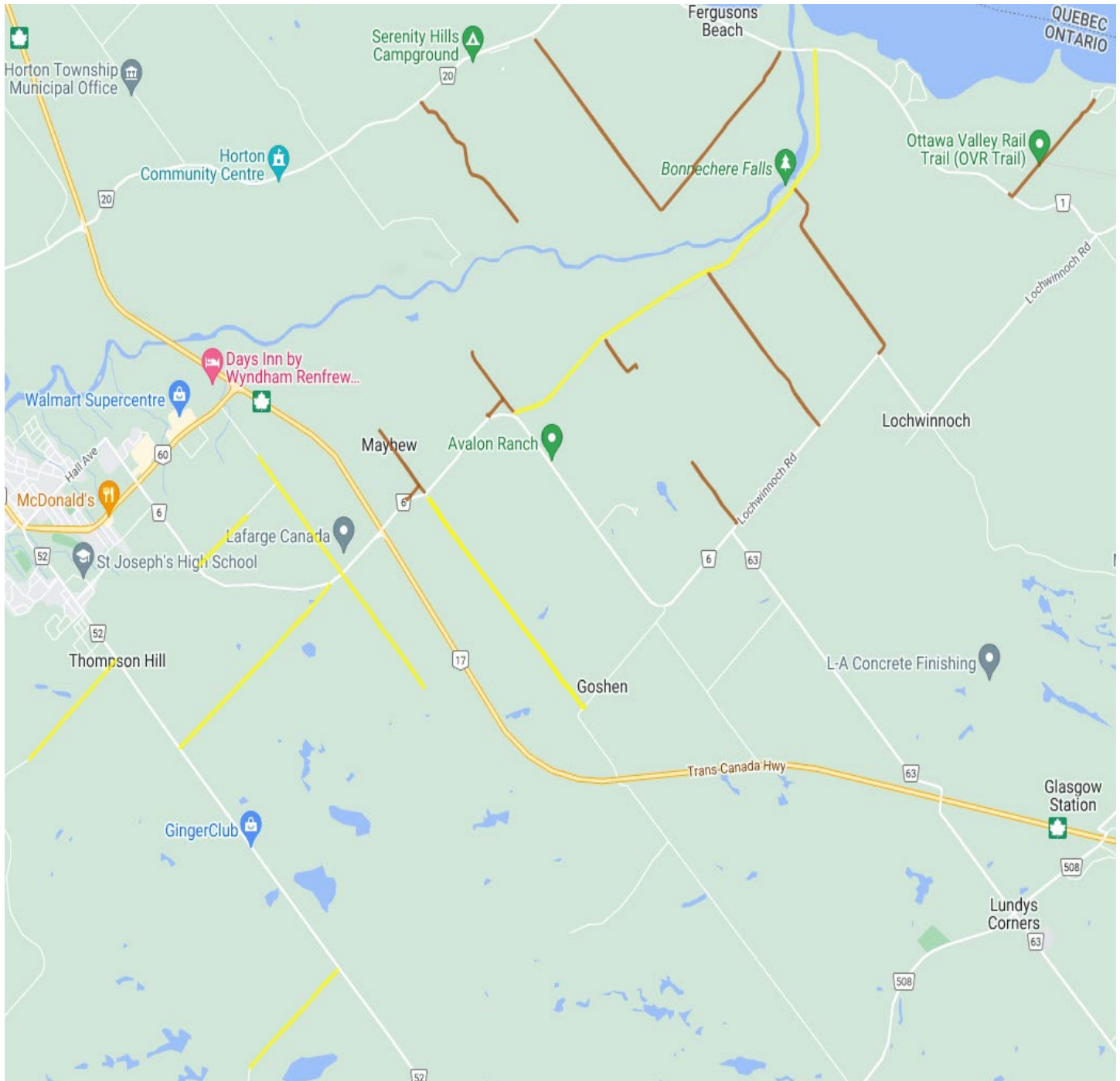
DATE:
2023

REV. DATE:

COVERAGE:
All Employees

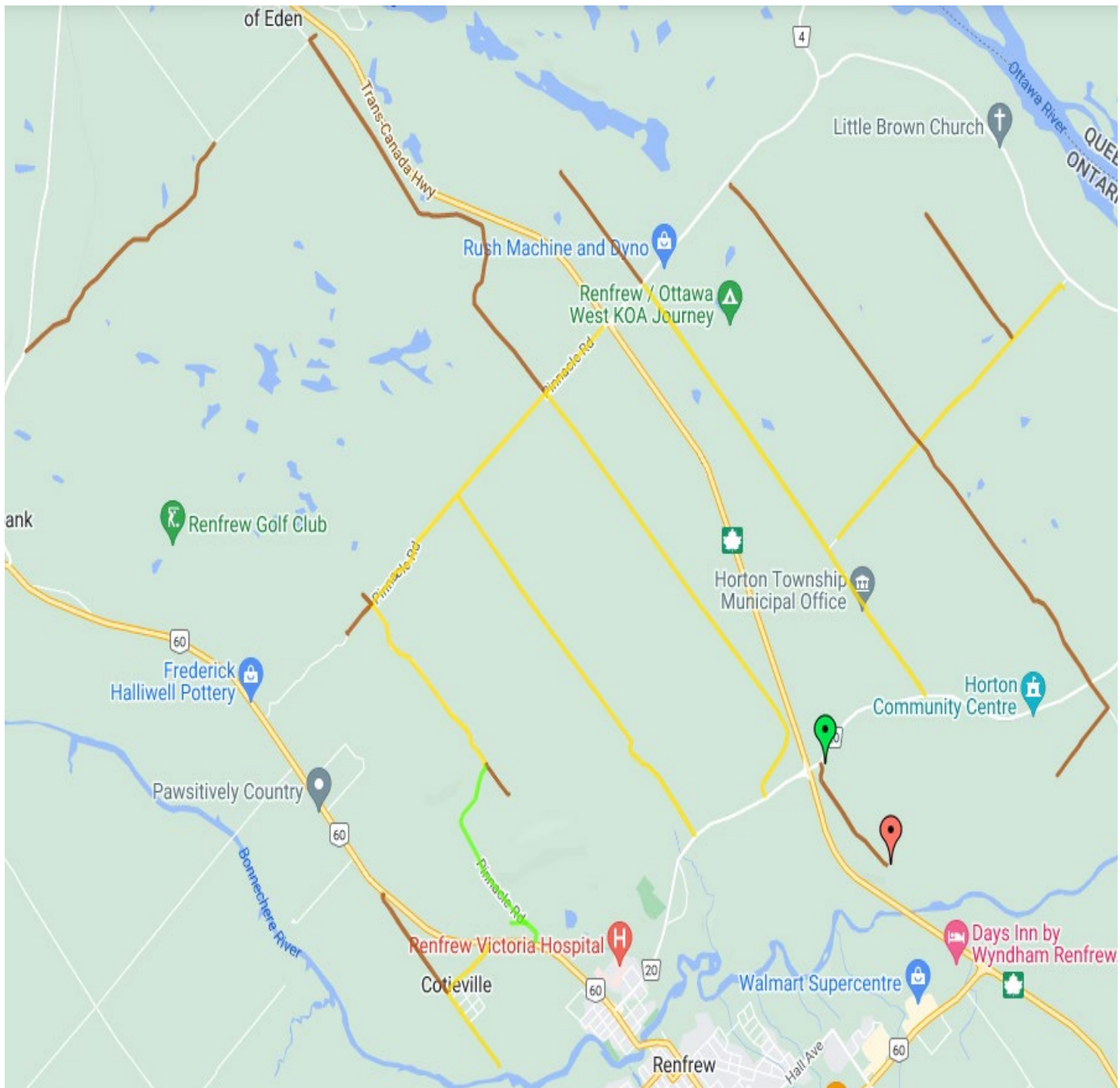
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27. Plow Route B Map - Freightliner



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28. Plow Route C Map – Western Star



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29. Parking Lots

The Township of Horton provides winter maintenance services to the listed parking lots below

Municipal Office and Fire Hall

Facility Address: 2253 Johnston Road,
RR5, Renfrew, Ontario
K7V 3Z8

Number of Parking Spots: 15

Horton Community Center

Facility Address: 1005 Castleford Road
Renfrew, Ontario
K7V 3Z8

Number of Parking Spots: Approximately 100

Horton Municipal Boat Launch

Facility Address: 3746 River Road
Renfrew Ontario
K7V 3Z8

Number of Parking Spots: Approximately 15

During operational hours of the facilities equipment will be dispatched to parking lots upon the accumulation of five (5) centimeters of new snow. All efforts shall be made to remove accumulation of five (5) cm of new snow prior to the beginning of operational hours when practicable. Plowing operations will remove snow down to a smooth snow packed surface. Sand/salt mix will be added at the same time to increase traction for pedestrians on icy/slippery areas and pure salt or a sand/salt mix shall be applied by hand at the access', egress', and walkways of the facilities.



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30. Technicians

The Township of Horton has:

- One (1) unlicensed technician on staff.
- All Public Works staff are trained on basic vehicle maintenance in house.
- Multiple external contracted mechanic(s) available upon request.
- Staff take all reasonable efforts to perform repairs in house to mitigate cost and down time.

31. Winter Maintenance Facilities

Horton Public Works Yard

Facility Type: Patrol Yard

Facility Address: Public Works Garage

2253 Johnston Road

RR5, Renfrew Ontario

K7V 3Z8

Facility Phone: 613-432-6271

Number of Front-end Loaders at facility: One (1) 2017 JCB Backhoe

Facility Built in 1976

32. Facility Design and Logistics

- All materials are not handled in a designated area characterized by an impermeable surface.
- Equipment is not in place to prevent overloading of trucks.
- Systems are in place for collection and/or treatment of wastewater from cleaning of trucks.
- Control and diversion of external waters (not impacted by salt) is in place.
- Ongoing clean-up of the site surfaces and spilled material are cleaned up as quickly as practicable.
- Risk management and emergency measures plans are in place.



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33. Material Storage Details

- The storage of winter sand is in a MTO type sand dome with an approximate 3000 tonne capacity and an impermeable floor.
- The storage of salt is in a covered lean to with an approximate storage capacity of 120 tonnes and does not have an impermeable floor.
- Both buildings are located adjacent to one another to localize any potential contamination into the ground and are equipped with lockable gates to inhibit public entry.
- On occasion materials are stored outside these facilities and all practicable efforts are made to cover them with a tarp.

34. Equipment Storage Details

All plowing equipment is stored indoors during the winter season. Outside storage is utilized for seasonal construction equipment. The Township has a lean to and sand dome storage area for construction supplies, stock signage, and wear parts, as well as an up stairs storage area in the main garage for electronics and miscellaneous parts.

35. Equipment Washing Details

Equipment is washed on an as needed basis after material applications. Equipment is washed with an industrial grade pressure sprayer with a diesel-powered water heating system. Every spring all fleet vehicles and equipment are washed thoroughly with the Townships slip in water tank equipped with a 2" fire hose sprayer and are then krown undercoated to prevent rusting and equipment damage. During this thorough spring cleaning all equipment is inspected for damage and necessary repairs to prepare for the upcoming construction season.

36. Snow Removal and Disposal

The Township of Horton does not have dedicated disposal site(s) in its jurisdiction and utilizes dead end turn around areas if/when necessary. The Township only performs snow removal when high banking techniques are not adequate to remove the snowbanks to a safe height at intersections to improve line of sight and safety.



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37. Salt Vulnerable Areas

Certain locations within the area of jurisdiction of the Township of Horton have been identified as being potentially vulnerable to the over-application of road salt. These areas are shown map below. Accordingly, salt storage, snow disposal and material application in these areas will be strictly monitored and, in some cases, may be restricted in a variety of ways.



The areas noted as vulnerable areas are known wetland areas that encroach into the Municipal Right-of-Way. The Township makes all reasonable efforts to mitigate excess usage of salt in these areas.

Mitigation Measures

The Township applies the minimum materials specified to the roadways in these areas while limiting the salt percentage in the material. Increased salt / sand ratio material "sweet mix" is only applied to these areas in extreme freezing rain events.



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38. Weather Monitoring

In order to determine an effective winter event response and allocate the appropriate resources the Township of Horton supplements their general observations with weather information from various sources which includes:

Meteorological Services: Environment Canada - <https://weather.gc.ca>

Observations Techniques: Weather Monitoring per the MMS, M511 Stationary Cameras System, Visual by Municipal Staff, Communication with staff of adjacent municipalities.

Weather Documentation per MMS: MESH Operational Management System by Go Evo.

39. Communications

Maintaining reliable internal communications is a critical component of winter operations. The Township of Horton uses the following:

- a) All winter maintenance vehicles are equipped with two-way communications radios.
- b) All citizen issues concerning snow and ice control efforts will be routed to the Public Works Manager.
- c) The Public Works Manager shall determine the follow-up responses to citizen inquiries.

The municipality provides external communication with the general public via:

- a) Information posted on the municipality's web site <https://www.hortontownship.ca>
- b) The Township's Social Media Platforms
- c) Municipal 511
- d) Verbal Communication
- e) Email



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40. Declaring a Road Closure or Significant Weather Event S.O.P.

In the event a road must be closed, or a significant weather event declared due to a severe winter storm:

- a) The Public Works Superintendent shall communicate the requirement to the Public Works Manager.
- b) The Public Works Manager shall evaluate the need and make the final decision to close road(s) or declare a significant weather event and communicate that decision to the Superintendent.
- c) The Public Works Manager shall release the road closure notice or significant weather event notice utilizing the templates provided in this policy.
- d) The decision shall be communicated to the CAO/ Clerk prior to closure and allowed time to review and approve the release documents if practicable and they choose to do so.
- e) The CAO/Clerk shall inform Council of the decision in a timely manner or assign a designate to inform Council.
- f) The notice shall be posted on M511 and include all members on the Horton Township closure notification list.
- g) The Townships secretary or designate shall post the release verbatim on the Townships website and social media platforms.

41. Ending a Road Closure or Significant Weather Event S.O.P.

The procedure for ending a road closure or significant weather event is:

- a) The Public Works Superintendent shall communicate that the closure or declaration is no longer needed to the Public Works Manager.
- b) The Public Works Manager shall evaluate and make the final decision to end the closure or declaration and communicate that decision to the Superintendent.
- c) The Public Works Manager shall end the road closure notice or significant weather event on the Township's M511 platform.
- d) The decision shall be communicated to the CAO/ Clerk and include all members on the Horton Township closure notification list.
- e) The CAO/Clerk shall inform Council of the decision in a timely manner or assign a designate to inform Council.
- f) The Townships secretary or designate shall post end notification on the Townships website and social media platforms in as simple of wording as possible.



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42. Significant Weather Event Declaration Template

The Township of Horton

Declaration of Significant Weather Event

Date: _____

Time: _____

After reviewing weather reports that the Township of Horton subscribes to and observing the current weather conditions, the Township is declaring a significant weather event in the municipality, as defined within the Minimum Maintenance Standards Regulation O.Reg..239/02.

A “significant weather event” means an approaching or occurring weather hazard with the potential to pose a significant danger to users of the highways (roadways) within a municipality.

During the significant weather event, the Township of Horton is advising motorists and residents to use extra caution as the municipality may not be able to meet its maintenance standards due to the extreme weather conditions expected.

This declaration will not change how or when the municipality performs its winter maintenance operations. However, it may take the municipality longer than usual to bring the roads back to a state of repair. Public safety is the Municipality’s top priority. The Township will continue to diligently monitor weather conditions and notify the public when the significant weather event has ended

Please contact the Township office during regular business hours at 613-432-6271 or the Public Works Superintendent at 613-433-2527 if you have serious concerns during this significant weather event.



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43. Termination of Significant Weather Event Template

**The Township of Horton
Termination of Significant Weather Event**

Date: _____

Time: _____

After reviewing weather reports that the Township of Horton subscribes to and observing the current weather conditions, the Township has declared the significant weather over within the municipality, as defined within the Minimum Maintenance Standards O.Reg.239/02.

The Township is still advising its residents to use extreme caution when traveling as this declaration does not imply the roads are in a full state of repair as per the minimum maintenance standards

Please contact the Township office during regular business hours at 613-432-6271 or the Public Works Superintendent at 613-433-2527 if you have any concerns regarding this declaration.

