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March 12, 2026

The Mayor and Council
The Corporation of the
Town of Kingsville
2021 Division Road North
Kingsville, Ontario
N9Y 2Y9

Re: Ferry Drain

In accordance with your instructions, we have undertaken an examination of the Ferry Drain with regards to making drainage improvements in Lot 22, Concession 6 ED in the Town of Kingsville. The work includes the replacement of a shared crossing between Roll No. 450-02501 and Roll No. 450-02510, as well as reviewing the size and installation of the access crossing at Roll No. 450-00108.

Authorization under the *Drainage Act*

This Engineer's Report has been prepared under Section 78 of the *Drainage Act* as per the request of an affected Owner.

R. Dobbin Engineering Inc. was appointed on July 8, 2025.

Section 78 of the *Drainage Act* states that, where, for the better use, maintenance or repair of any drainage works constructed under a bylaw passed under this *Act*, or of lands or roads, it is considered expedient to change the course of the drainage works, or to make a new outlet for the whole or any part of the drainage works, or to construct a tile drain under the bed of the whole or any part of the drainage works as ancillary thereto, or to construct, reconstruct or extend embankments, walls, dykes, dams, reservoirs, bridges, pumping stations, or other protective works as ancillary to the drainage works, or to otherwise improve, extend to an outlet or alter the drainage works or to cover the whole or any part of it, or to consolidate two or more drainage works, the Council whose duty it is to maintain and repair the drainage works or any part thereof may, without a petition required under Section 4 but on the report of an Engineer appointed by it, undertake and complete the drainage works as set forth in such report.

Existing Drainage

The Ferry Drain is an open channel drain located in Lots 22 & 23, Concession 6 ED, 7 ED, and 8 ED. The drain outlets into the Ruscom River just North of Road 8E.

The drain was last improved under an Engineer's Report dated April 15, 1971 prepared by William J. Setterington, P.Eng. Under this report, the entire Ferry Drain was brushed and cleaned out.

An Engineer's Report dated January 9, 1959 was prepared by Wm. D. Colby, Consulting Civil Engineer. Under this report, a new access bridge in Lot 22, Concession 6 ED was constructed. This bridge is the access that has been requested for replacement under this report.

On-site Meeting

An On-site Meeting was held on September 17, 2025.

The following were present at the meeting:

- David Moores (R. Dobbin Engineering)
- Lu-Ann Marentette (Town of Kingsville)
- Clare Janisse (Town of Kingsville)
- Mark Fishleigh (County of Essex)
- Scott Douglas (Landowner)
- Dave Boulton (Landowner)
- Michelle Boulton (Landowner)
- Christina Lapointe (Landowner)
- Chris Lapointe (Landowner)

The following is a brief summary of the meeting:

- General discussion of the *Drainage Act* and Landowners rights under the *Drainage Act*.
- Landowners were made aware that a request to replace a shared crossing was received by the Town and that this was the first step in the public process.
- The current crossing is failing and is very narrow for the farmer to use. It is a shared access between Roll No. 450-02501 and Roll No. 450-02510.
- As this crossing was originally constructed under an Engineer's Report prepared under the *Drainage Act*, a cost share could be applied to the new crossing. It was explained that a portion would be assessed to the benefiting owners and a portion would be assessed to upstream land and roads.
- The Drainage Superintendent requested that the new crossing located at Roll No. 450-00108 be reviewed for proper sizing and to be incorporated into the Ferry Drain as there was no approval given to install that access crossing.

- No other concerns were received.

Discussion and Investigation

The drain was surveyed along Road 7E and a crossing inspection report was completed for the shared access at Roll No. 450-02501 and Roll No. 450-02510 and for the crossing at Roll No. 450-00108.

The open channel consists of heavy brush. Our survey did not encompass the entire drain, as our appointment was to only investigate the crossings and those in attendance at the On-site Meeting did not wish to have any additional work completed. Therefore, the amount of sediment in the channel bottom was not investigated.

Below is a summary of the condition of the existing crossings:

Crossing No.	Location	Existing Crossing Size & Details	Condition
1	Sta. 0+152 Roll No. 450-02501 & Roll No. 450-02510	5m wide open span bridge crossing with concrete abutments, steel I-beams, concrete deck, and gravel drive	Poor condition, very narrow for farm equipment, the deck is failing and requires replacement
2	Sta. 0+233 Roll No. 450-00108	12m x 1200mm dia. HDPE & 4m x 900mm dia. HDPE with one sloping endwall and one vertical endwall and a gravel drive over top of the crossing that meets a concrete drive to the house	Good condition, although the 900mm section is undersized

Crossing No. 1 located at Sta. 0+152 is a shared access to properties with Roll No. 450-02501 and Roll No. 450-02510. There is a legal easement agreement registered on title between the two properties for use of the crossing. The crossing is currently fully located on the property with Roll No. 450-02501. Due to the location of the house, the current driveway, and the existing hydro pole, the new proposed crossing will not be able to split on the property line as originally discussed at the on-site meeting.

Crossing No. 2 located at Sta. 0+233 was installed privately by the Owner as the result of a severance. The Town of Kingsville has no record that this crossing was installed under the Report of an Engineer under the *Drainage Act*. The Town Drainage Superintendent requested that the crossing be reviewed for sizing and capacity and to incorporate it into

the Ferry Drain. Our investigation revealed that the crossing is a total length of 16m. It consists of 12m of 1200mm dia. HDPE pipe and 4m of 900mm dia. HDPE pipe. The upstream endwall is a sloping endwall constructed with rip rap quarry stone. The downstream endwall is a vertical endwall constructed of quikrete concrete bags. Calculations of the required size pipe at this location revealed that the 900mm section is too small for the capacity required and either needs to be removed or replaced with a 1200mm HDPE pipe.

Public Information Centre Meeting

R. Dobbin Engineering submitted a Draft Engineer's Report dated January 30, 2026. A Public Information Centre Meeting was held on March 11, 2026 to discuss the contents of the Report.

The following were present at the meeting:

- David Moores (R. Dobbin Engineering)
- Lu-Ann Marentette (Town of Kingsville)
- Clare Janisse (Town of Kingsville)
- Ronald Thompson (Landowner)
- Ashor Khoshaba & Partner (Landowner)
- Chris Eccles (Landowner)

The following is a brief summary of the meeting:

- The Drainage Superintendent provided introductions and gave a brief explanation of the project.
- An overview of the *Drainage Act* was provided and it was explained to the landowners in attendance how the project will affect the them and more details of the project was provided.
- The Owner of Roll No. 450-00108 expressed that they have just purchased the property and were not aware of this project. The Drainage Superintendent confirmed that they were invited to the On-site Meeting.
- The cost breakdown was reviewed with the landowners present and it was explained to them how the estimate of cost was reached. Residents were advised that the Town does not debenture costs, but there are payment plans available depending on the invoice amount. When the invoice is received, there will be details on to pay up front or be put on a payment plan.
- The Owner of Roll No. 450-02501 was advised that his property will qualify for a 1/3 farm tax class grant which the Town will apply for on his behalf and the grant amount will be deducted from his invoice.

- Residents were advised that there will be a meeting for Council to consider the report, but they do not need to be present unless they would like to address Council. This meeting will only be to discuss the scope of the work. They will also be invited to the Court of Revision to address assessment concerns.
- The Owner of Roll No. 450-02501 inquired about the tendering process and was advised it will be put up for competitive bid.
- It was explained that both the Engineer and Drainage Superintendent will complete inspection of the project during construction.
- The Owner of Roll No. 450-00108 asked how long their culvert has been an issue and the Drainage Superintendent advised that it was discovered when responding to the drainage request from the Owner of Roll No. 450-02501, but stated that it had been installed illegally.
- When construction begins, the Contractor will notify landowners when the bridge will be removed so they can make parking arrangements.
- The Drainage Superintendent reiterated that if the residents have no further concerns, they do not need to attend the Consideration Meeting or the Court of Revision.
- No additional requests for work were received at the meeting.

Recommendations

It is therefore recommended that the following work be carried out:

1. Crossing No. 1 at Station 0+152 shall be replaced.

2. Crossing No. 2 at Station 0+233 shall be incorporated and the downstream end shall be replaced.

Design

All agricultural and residential crossings have been designed to meet a 1 in 5-year storm event.

Estimate of Cost

It is recommended that the work be carried out in accordance with the accompanying Specification of Work and the Profile, which forms part of this Report. There has been prepared an Estimate of Cost in the amount of $58,500.00 including the cost of engineering. A Plan has been prepared showing the location of the work and the approximate drainage area. An estimate for tendering, inspection, and contract administration has been provided. This estimate includes attendance at the Meeting to

Consider and the Court of Revision, but does not include any appearances before appeal bodies beyond the Court of Revision.

Assessment

As per Section 21 of the *Drainage Act*, the Engineer in his report shall assess for benefit and outlet for each parcel of land and road liable for assessment.
Lands, roads, buildings, utilities, or other structures that are increased in value or are more easily maintained as a result of the construction, improvement, maintenance, or repair of a drainage works may be assessed for benefit. (Section 22)

Lands and roads that use a drainage works as an outlet, or for which, when the drainage works is constructed or improved, an improved outlet is provided either directly or indirectly through the medium of any other drainage works or of a swale, ravine, creek, or watercourse may be assessed for outlet. The assessment for outlet shall be based on the volume and rate of flow of the water artificially caused to flow into the drainage works from the lands and roads liable for such assessments. (Section 23)

The Engineer may assess for special benefit any lands for which special benefits have been provided by the drainage works. (Section 24)

A Schedule of Assessment for the lands and roads affected by the work and therefore liable for the cost thereof is attached as per the *Drainage Act*. Also, assessments may be made against any public utility or road authority, as per Section 26 of the *Drainage Act*, for any increased cost for the removal or relocation of any of its facilities and plant that may be necessitated by the construction or maintenance of the drainage works. Items to be assessed under Section 26, as specified, shall be tendered separately with the actual cost plus a portion of the engineering (25% of the construction cost).

The estimated cost of the drainage works has been assessed in the following manner:

1. Crossing No. 1 is a shared access between Roll No. 450-02501 & Roll No. 450-02510. The cost of this replacement has been assessed with 50% of the cost applied as a benefit assessment. This 50% has been split equally between the two benefiting properties. The remaining 50% has been applied as an outlet assessment against upstream land and roads based on equivalent hectares.

2. The cost to incorporate Crossing No. 2 into the Ferry Drain and to replace the downstream portion of the crossing has been assessed with 100% of the cost applied as a benefit assessment to the property.

All final costs included in the cost estimate of this report shall be pro-rated based on the Schedule of Assessment. Any additional costs shall be assessed in a manner as determined by the Engineer.

Allowances

Under Section 29 of the *Drainage Act*, the Engineer in his report shall estimate and allow in money to the Owner of any land that it is necessary to use for the construction or improvement of a drainage works or for the disposal of material removed from a drainage works. This shall be considered an allowance for right of way.

Under Section 30 of the *Drainage Act*, the Engineer shall determine the amount to be paid to persons entitled thereto to damage, if any, to ornamental trees, fences, land, and crops occasioned by the disposal of material removed from a drainage works. This shall be considered an allowance for damages.

In this Report, no allowances have been applied as work is proposed to take place from the road side of the drain.

Approvals and Drain Classification

The Ferry Drain is currently classified as a class "F" drain along its length.

Class "F" drains are intermittent or ephemeral (dry for more than three consecutive months). The proposed work will require a permit from the Essex Region Conservation Authority. No authorization is required from Fisheries and Oceans if the work is completed in the dry and the Culvert BMP is followed. No works can take place until all approvals are received.

The proposed improvements and crossing replacements will have very little effect on the drainage works if carried out during low flows in the channel.

Restrictions

No trees or shrubs shall be planted nor shall permanent structures be erected within 10m of either side of the proposed drain without prior written permission of Council. If trees are planted that interfere with access for future maintenance of the drainage works, they shall be removed at the expense of the Owner.

Attention is also drawn to Sections 80 and 82 of the *Drainage Act* that refer to the obstruction of a drainage works.

Agricultural Grant

It is recommended that application for subsidy be made for eligible farm tax class agricultural properties by the Township. The Ontario Ministry of Agricultural, Food, and Agribusiness offers the "Agricultural Drainage Infrastructure Program (ADIP)". This program will pay 1/3 of any eligible agricultural assessments that meet the criteria contained within the policy.

Any assessments against non-agricultural properties are shown separately in the Schedule of Assessment.

Maintenance

The open channel shall be maintained and repaired in accordance with the specifications and drawings contained within the last applicable drainage reports.

The crossings addressed under this Report shall be maintained and repaired in accordance with the specifications and drawings contained within this report and assessed out as follows:

1. Crossing No. 1 at Station 0+152 shall be assessed with 50% of the cost applied as a benefit assessment. This 50% shall be split equally between Roll No. 450-02510 & Roll No. 450-02501. The remaining 50% of the cost shall be assessed as an outlet assessment against upstream land and roads based on equivalent hectares shown on the attached Schedule of Assessment.

2. Crossing No. 2 at Station 0+233 shall be assessed with 75% of the cost applied as a benefit assessment to Roll No. 450-00108 and the remaining 25% shall be assessed as an outlet assessment against upstream land and roads based on equivalent hectares.

Each property is allowed one crossing over each municipal drain with any additional crossings on the property maintained and repaired 100% by the owner.

Any extra cost as a result of the location of underground utilities shall be assessed 100% to the utility as per Section 26 of the *Drainage Act*.

These above conditions will apply unless otherwise altered under the provisions of the *Drainage Act*.

All of the above is submitted for your consideration.

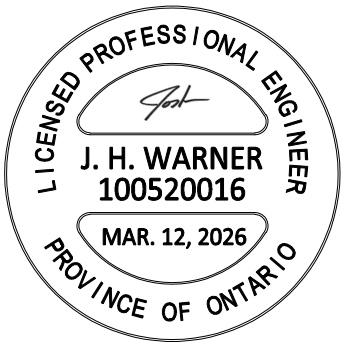
Yours truly,

Report Prepared By:

David Moores, C.E.T

Report Approved By:

Josh Warner, P. Eng.



Ferry Drain
The Corporation of the
Town of Kingsville
March 12, 2026

SPECIFICATION OF WORK

1. Scope of Work

The work includes the replacement of a shared open span concrete bridge crossing with a 18m x 1200mm diameter Sanitite HP pipe for Roll No. 450-02501 and Roll No. 450-02510. The work also includes the removal of 4m x 900mm diameter HDPE pipe from the downstream section of the crossing at Roll No. 450-00108 and replacing it with a new 6m x 1200mm diameter HDPE pipe. All works are located in Lot 22, Concession 6 ED on Road 7E in the Town of Kingsville.

2. General

Each tenderer must inspect the site prior to submitting their tender and satisfy themselves by personal examination as to the local conditions that may be encountered during this project. The tenderer shall make allowance in the tender for any difficulties which they may encounter. Quantities or any information supplied by the Engineer is not guaranteed and is for reference only.

All work and materials shall be to the satisfaction of the Drainage Superintendent who may vary these specifications as to minor details but in no way decrease the proposed capacity of the drain.

The Contractor shall be responsible for the notification of all utilities prior to the start of construction.

3. Plans and Specifications

These specifications shall apply and be part of the contract. This specification of work shall take precedence over all plans and general conditions pertaining to the contract. The Contractor shall provide all labour, equipment, and supervision necessary to complete the work as shown in the plans and described in these specifications. Any work not described in these specifications shall be completed according to the Ontario Provincial Standard Specifications and Standard Drawings.

4. Health and Safety

The Contractor at all times shall be responsible for health and safety on the worksite including ensuring that all employees wear suitable personal protective equipment including safety boots and hard hats.

The Contractor shall be responsible for traffic control as per the Ontario Traffic Manual Book 7 – Temporary Conditions (latest revision) when working on public road allowances. A copy of the traffic control plan shall be kept onsite at all times. The Contractor shall maintain suitable barricades, warning lights, and temporary traffic notices, at his expense, in their proper position to protect the public both day and night. Flagmen are the responsibility of the Contractor when working on the road allowance and when entering or exiting a worksite onto a roadway.

The Contractor shall be responsible to ensure that all procedures are followed under the Occupational Health and Safety Act to ensure that work sites are safe and that accidents are prevented. In the event of a serious or recurring problem, a notice of noncompliance will be issued. The Contractor will be responsible for reacting immediately to any deficiency and correcting any potential health and safety risk. Continuous disregard for any requirement of the Occupational Health and Safety Act could be cause for the issuance of a stop work order or even termination of the contract.

The Contractor shall also ensure that only competent workers are employed onsite and that appropriate training and certification is supplied to all employees.

5. Workplace Safety and Insurance Board

The Contractor hereby certifies that all employees and officers working on the project are covered by benefits provided by the Contractor. The WSIB clearance certificate must be furnished prior to the execution of the Contract.

6. Weather Conditions

Work shall be carried out under this Report and completed within the agreed upon Schedule as permitted by weather. The Engineer or the Drainage Superintendent reserves the right to restrict construction and access to the site based on the weather and ground conditions.

7. Access and Working Area

Access to the drain for the replacement of the crossings shall be from Road 7E.

The working area at each crossing shall be from the road side of the drain. The working area shall extend 10m upstream and downstream of the crossing. The property side of the crossing can be used is needed during the construction, at the discretion of the Drainage Superintendent.

8. Crossing No. 1 – Sta 0+152

This item shall apply to the access crossing located at Sta. 0+152. This crossing is a shared access between Roll No. 450-02510 and Roll No. 450-02501.

The existing crossing is a 5m wide open span bridge that consists of steel I-beams and a concrete deck that sit on concrete abutments. There is a gravel drive on top of the concrete deck.

The existing gravel can be stockpiled for use in backfill of the new crossing. The concrete deck and steel I-beams shall be removed and disposed of offsite to a location determined by the Contractor. The concrete abutments may be left in place.

The crossing shall be replaced with 18m of 1200 mm diameter Sanitite HP pipe with rip rap endwalls, full granular backfill, and a gravel drive.

The pipe shall be Sanitite HP pipe, minimum 320 kPa pipe stiffness, and CSA certified with bell and spigot joints.

The proposed crossing shall be installed in the same general location as the existing crossing. The crossing shall be installed with the invert 10% (minimum 150mm) below the proposed channel bottom elevation and to the grade shown on the Profile. The exact location will be determined in the field at the time of construction. The intention is to start at the utility pole and head east.

The crossing may be moved upstream or downstream as necessary to avoid existing tile outlets. If they cannot be avoided the pipes shall be extended downstream of the proposed crossing and shall be done with non-perforated HDPE agricultural tubing with a manufactured coupling, elbow and rodent grate. Any tile outlets extended as a result of extra length requested by an owner shall be extended at the owner’s expense.

The bottom of the excavation shall be excavated to the required depth with any over excavation backfilled with clearstone. When the pipe has been installed to the proper grade and depth, the excavation shall be backfilled with clearstone from 100mm below the bottom of the pipe up to the springline of the pipe. Care shall be taken to ensure that the backfill on either side of the crossing does not differ by more than 300 mm so that the pipe is not displaced. The crossing shall be backfilled from the springline to 300mm of finished grade with granular "B" type 2 or 100% crushed granular "A". The top 300mm for shall be backfilled with compacted 100% crushed granular "A" material to finished grade.

All backfill shall be free from deleterious material. All granular material shall be mechanically compacted to 98% modified standard proctor density. All backfill material above the springline shall be mechanically compacted using appropriate compaction equipment.

The crossing shall be installed as per manufacturer recommendations with a minimum cover of 300mm over top of the pipe measured from the top of the crossing to finished grade. It shall be the responsibility of the Contractor to ensure the crossing has no traffic on it until the minimum cover is met.

End protection shall be rip rap quarry stone placed with a minimum slope of 1.5:1. The rip rap shall consist of 150 mm x 300 mm quarry stone or approved equal. The area to receive the rip rap shall be graded to a depth of 450mm below finished grade. Filter fabric (Terrafix 250R or approved equal) shall then be placed with any joints overlapped a minimum 600mm. The quarry stone shall then be placed with the smaller pieces placed in the gaps and voids to give it a uniform appearance.

9. Crossing No. 2 – Sta 0+233

This item shall apply to the crossing located at Sta. 0+233. This crossing provides access to Roll No. 450-00108.

The crossing is a total length of 16m. It consists of 12m of 1200mm dia. HDPE pipe and 4m of 900mm dia. HDPE. The upstream endwall is a sloping endwall constructed with rip rap quarry stone. The downstream endwall is a vertical endwall constructed of quikrete concrete bags. There is gravel over the top of the crossing that meets with a concrete drive that goes to the house.

The downstream 4m section of 900mm shall be carefully removed along with the quikrete concrete bags and disposed offsite to a location determine by the Contractor. The existing gravel can be stockpiled for use in backfill of the new crossing.

The 4m section shall be replaced with 6m of 1200mm diameter HDPE smooth wall pipe. The HDPE pipe shall have a variable pipe stiffness with manufactured couplers. This section of pipe shall be connected to the existing 1200mm pipe using a manufactured HDPE coupler. The crossing shall be installed with the invert 10% (minimum 150mm) below the proposed channel bottom elevation and to grade shown on the Profile.

The bottom of the excavation shall be excavated to the required depth with any over excavation backfilled with clearstone. When the pipe has been installed to the proper grade and depth, the excavation shall be backfilled with clearstone from 100mm below the bottom of the pipe up to the springline of the pipe. Care shall be taken to ensure that the backfill on either side of the crossing does not differ by more than 300 mm so that the pipe is not displaced. The crossing shall be backfilled from the springline to 300mm of finished grade with granular "B" type 2 or 100% crushed granular "A". The top 300mm for shall be backfilled with compacted 100% crushed granular "A" material to finished grade.

All backfill shall be free from deleterious material. All granular material shall be mechanically compacted to 98% modified standard proctor density. All backfill material above the springline shall be mechanically compacted using appropriate compaction equipment.

The crossing shall be installed as per manufacturer recommendations with a minimum cover of 300mm over top of the pipe measured from the top of the crossing to finished grade. It shall be the responsibility of the Contractor to ensure the crossing has no traffic on it until the minimum cover is met.

End protection shall be rip rap quarry stone placed with a minimum slope of 1.5:1. The rip rap shall consist of 150 mm x 300 mm quarry stone or approved equal. The area to receive the rip rap shall be graded to a depth of 450mm below finished grade. Filter fabric (Terrafix 250R or approved equal) shall then be placed with any joints overlapped a minimum 600mm. The quarry stone shall then be placed with the smaller pieces placed in the gaps and voids to give it a uniform appearance.

In the future, the crossing shall be replaced with 18m of 1200 mm diameter Sanitite HP pipe with rip rap endwalls, full granular backfill, and a gravel drive. The Sanitite HP pipe shall have a minimum pipe stiffness of 320 kPa and be CSA certified with bell and spigot joints.

10. Silt Fence

The Contractor shall maintain a dry working area during construction by installing a silt fence downstream of the work area. Under this report, there are two working areas. Silt fences shall be installed downstream of both Crossing No.1 and No.2 prior to commencing any work.

The silt fence shall consist of filter fabric or manufactured silt fence supported with posts (OPSD 219.110). The silt fence shall remain in place until construction is complete. Any sediment that has collected upstream of the silt fence shall be removed prior to the removal of the silt fence.

The location of the silt fence can be changed by the Engineer or Drainage Superintendent.

11. Environmental Considerations

The Contractor shall take care to adhere to the following considerations.

- Operate machinery in a manner that minimizes disturbance to the banks of the watercourse.

- Erosion and sediment control measures must be installed prior to construction to prevent sediment from entering the water body.

- All granular and erosion control materials shall be stockpiled a minimum of 1.5 metres from the top of the bank or excavation. Material shall not be placed in surface water runs or open inlets that enter the channel.

- All activities, including maintenance procedures, shall be controlled to prevent the entry of petroleum products, debris, rubble, concrete, or other deleterious substances into the water. Vehicle and equipment refuelling and maintenance shall be conducted away from the channel, any surface water runs, or open inlets. All waste materials shall be stockpiled well back from the top of the bank and all surface water runs and open inlets that enter the drain.

- When possible, all construction within the open channel shall be carried out during periods of low flow or in dry conditions.

- The Culvert BMP provided in the Guidance Document for maintaining and repairing municipal drains shall be used to isolate the working area. This shall be included in the tender document.

- The Contractor shall conduct regular inspections and maintain erosion and sediment control measures and structures during the course of construction.

- The Contractor shall repair erosion and sediment control measures and structures if damage occurs.

- The Contractor shall remove non-biodegradable erosion and sediment control materials once site is stabilized.

- The Contractor shall remove all construction materials from site upon project completion.

12. Benchmarks

The benchmarks are based on geodetic elevations. Elevations are available at the crossing locations shown on the profile drawings. Where these elevations are on existing crossings to be replaced, they shall be moved prior to the removal of the crossing. Prior to construction, it is the responsibility of the Contractor to perform a benchmark loop and report any discrepancies to the Engineer or Drainage Superintendent.

Ferry Drain
Town of Kingsville
March 12, 2026

Estimate of Cost

To replace a shared crossing between Roll No. 450-02501 and Roll No. 450-02510, as well as portion of another crossing at Roll No. 450-00108.

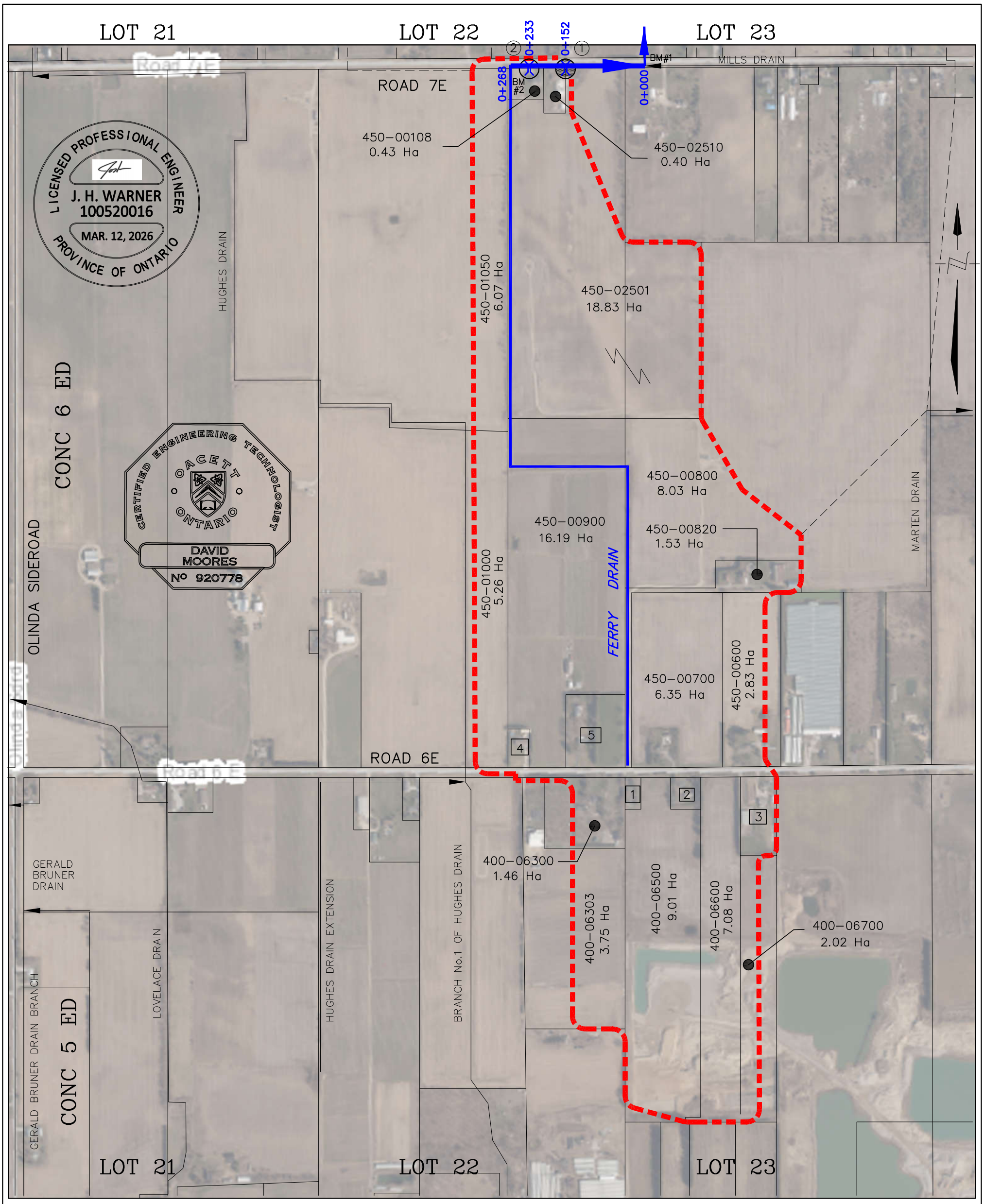
	Quantity	Unit	Unit Cost	Total
Crossing No. 1 - Station 0+152				
R.& D. Bridge Deck, Gravel, and Steel I-beams	1	LS	2,000.00	2,000.00
Supply and Installation of 1200mmø Santite	18	m	1,050.00	18,900.00
Open Channel Excavation U/S and D/S of Proposed Culvert including disposal (6m)	1	LS	500.00	500.00
Supply Clearstone Bedding	20	t	40.00	800.00
Supply Granular "B" Type II Backfill	100	t	40.00	4,000.00
Supply Granular "A" Driveway	40	t	40.00	1,600.00
Rip Rap Endwalls	20	t	100.00	2,000.00
Environmental Considerations (Silt Fence)	1	LS	200.00	200.00
				30,000.00
Crossing No. 2 - Station 0+233				
R.& D. Existing 4.0m Culvert and Conc. Endwalls	1	LS	500.00	500.00
Supply and Installation of 1200mmø HDPE	6	m	950.00	5,700.00
Open Channel Excavation D/S of Proposed Culvert including disposal (3m)	1	LS	250.00	250.00
Supply Clearstone Bedding	10	t	40.00	400.00
Supply Granular "B" Type II Backfill (P)	20	t	40.00	800.00
Supply Granular "A" Driveway (P)	10	t	40.00	400.00
Rip Rap Endwalls	15	t	100.00	1,500.00
Environmental Considerations (Silt Fence)	1	LS	200.00	200.00
				9,750.00
Contingency				2,600.00
			Sub Total	42,350.00
			Engineering	9,350.00
			Estimate for Tendering, Inspection & Contract Admin.	5,000.00
			ERCA Fees (Permit)	800.00
			Total Estimate excluding HST	57,500.00
			Non-Recoverable HST (1.76%)	1,000.00
			Total Estimate	**$58,500.00**

SCHEDULE OF ASSESSMENT

To replace a shared crossing between Roll No. 450-02501 and Roll No. 450-02510, as well as portion of another crossing at Roll No. 450-00108.

Conc.	Lot or Part	Affected Hect.	Equiv. Ha	Roll No.	Benefit	Outlet	Total
Agricultural Lands (Grantable)							
5 ED	pt. NE 1/4 Lot 22	3.75	3.75	400-06303	-	652.00	652.00
6 ED	pt. SE 1/4 Lot 23	2.83	2.83	450-00600	-	492.00	492.00
	pt. SE 1/4 Lot 23	6.35	6.35	450-00700	-	1,103.00	1,103.00
	Ctr. Pt. Lot 23	8.03	8.03	450-00800	-	1,395.00	1,395.00
	pt. SE 1/4 Lot 22	16.19	16.19	450-00900	-	2,813.00	2,813.00
	pt. SW 1/4 Lot 22	5.26	5.26	450-01000	-	914.00	914.00
	pt. NW 1/4 Lot 22	6.07	6.07	450-01050	-	1,055.00	1,055.00
	pt. NE 1/4 Lot 22 & pt. NW 1/4 Lot 23	18.83	18.83	450-02501	10,804.00	3,271.00	14,075.00
		67.31	67.31	Total Agricultural Lands	10,804.00	11,695.00	22,499.00

Conc.	Lot or Part	Affected Hect.	Equiv. Ha	Roll No.	Benefit	Outlet	Total
Non-Agricultural Lands (Non-Grantable)							
5 ED	pt. NE 1/4 Lot 22	1.46	2.92	400-06300	-	507.00	507.00
	pt. NW 1/4 Lot 23	0.15	0.30	400-06400	-	52.00	52.00
	pt. NW 1/4 Lot 23	0.15	0.30	400-06501	-	52.00	52.00
	pt. NW 1/4 Lot 23	9.01	18.02	400-06500	-	3,131.00	3,131.00
	pt. N 1/2 Lot 23	7.08	14.16	400-06600	-	2,460.00	2,460.00
	pt. N 1/2 Lot 23	2.02	4.04	400-06700	-	702.00	702.00
	pt. N 1/2 Lot 23	1.21	2.42	400-06800	-	420.00	420.00
6 ED	Ctr. Pt. Lot 23	1.53	3.06	400-00820	-	532.00	532.00
	pt. SE 1/4 Lot 22	1.70	3.40	450-00850	-	591.00	591.00
	pt. SE 1/4 Lot 22	0.35	0.70	450-00920	-	122.00	122.00
	pt. NE 1/4 Lot 22	0.43	0.86	450-00108	15,285.00	149.00	15,434.00
	pt. NE 1/4 Lot 22	0.40	0.80	450-02510	10,803.00	139.00	10,942.00
		25.49	50.98	Total Non-Agricultural Lands	26,088.00	8,857.00	34,945.00
Public Lands							
	Road 6E	1.15	4.60	Town of Kingsville	-	799.00	799.00
	Road 7E	0.37	1.48	Town of Kingsville	-	257.00	257.00
		1.52	6.08	Total Public Lands	-	1,056.00	1,056.00
				Total Agricultural Lands	10,804.00	11,695.00	22,499.00
				Total Non-Agricultural Lands	26,088.00	8,857.00	34,945.00
				Total Public Lands	-	1,056.00	1,056.00
		94.32	**124.37**	**Total Assessment**	**36,892.00**	**21,608.00**	**58,500.00**



LICENSED PROFESSIONAL ENGINEER
J. H. WARNER
100520016
MAR. 12, 2026
PROVINCE OF ONTARIO

CERTIFIED ENGINEERING TECHNOLOGIST
OACETT
ONTARIO
DAVID MOORES
Nº 920778

LEGEND

- DRAINAGE AREA
- FERRY DRAIN
- MUNICIPAL DRAIN
- ① CROSSING NUMBER
- EXISTING CROSSING EAST END TO BE REPLACED
- EXISTING CROSSING TO BE REPLACED

OWNER INDEX NUMBER

1.	400–06400	0.15 Ha
2.	400–06501	0.15 Ha
3.	400–06800	1.21 Ha
4.	450–00920	0.35 Ha
5.	450–00850	1.70 Ha

Dobbin Engineering Inc.
4218 Oil Heritage Road
Petrolia Ontario, N0N 1R0
Phone: (519) 882-0032 Fax: (519) 882-2233

DRAWING NAME: Ferry Drain Plan

PROJECT No. 2025–1765

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED				
D. MOORES	1	FINAL REPORT	MAR. 12, 2026	DM
DRAWN				
C. SAUNDERS				

SCALE: 1:7500
0 100 200 300m

TOWN of KINGSVILLE

FERRY DRAIN PLAN

1 OF 3

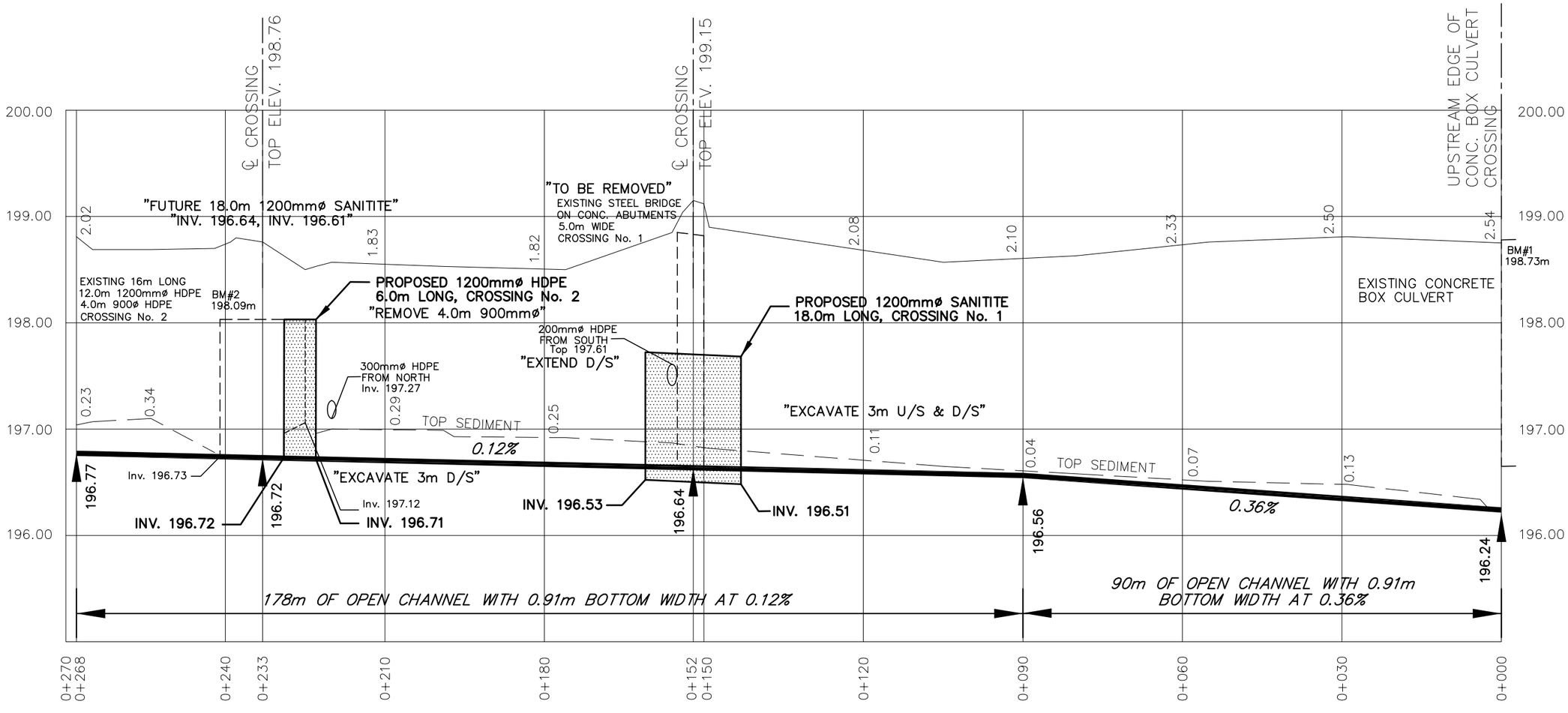
Last Updated: March 12, 2026

GENERAL NOTES

1. BENCHMARK No.1 ELEV. 198.73
   TOP OF SOUTHEAST CORNER OF EXISTING CONCRETE BOX CULVERT CURB CROSSING ROAD 7E, STATION 0+000.
2. BENCHMARK No.2 ELEV. 198.09
   TOP OF EXISTING 1200mmø HDPE CROSSING No.2, STATION 0+241.
3. UPPER NUMBERS ARE DEPTH FROM TOP OF BANK TO DESIGN CHANNEL BOTTOM.
4. LOWER NUMBERS ARE THE APPROX. DEPTH FROM TOP OF SEDIMENT TO DESIGN CHANNEL BOTTOM.
5. CHANNEL TO BE EXCAVATED U/S & D/S OF CROSSING No. 1 & D/S OF CROSSING No. 2.

CERTIFIED ENGINEERING TECHNOLOGIST
OACETT
ONTARIO
DAVID MOORES
Nº 920778

LICENSED PROFESSIONAL ENGINEER
J. H. WARNER
100520016
MAR. 12, 2026
PROVINCE OF ONTARIO



Dobbin Engineering Inc.
4218 Oil Heritage Road
Petrolia Ontario, N0N 1R0
Phone: (519) 882-0032 Fax: (519) 882-2233

DRAWING NAME: Ferry Drain Profile

PROJECT No. 2025-1765

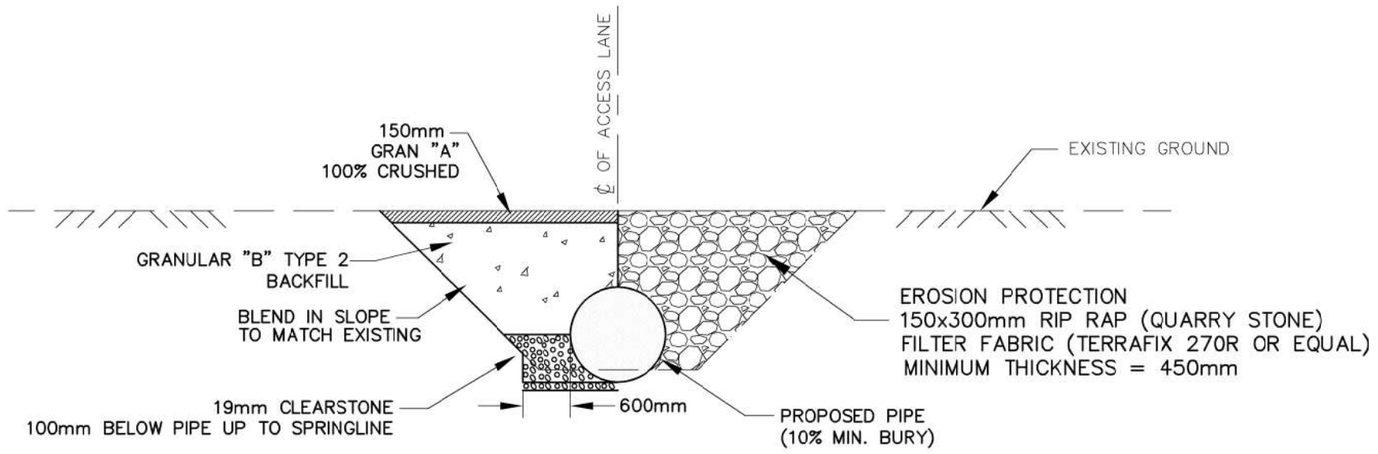
APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	FINAL REPORT	MAR. 12, 2026	DM
D. MOORES				
DRAWN				
C. SAUNDERS				

SCALE 1: 850
0 10 20 30m

TOWN of KINGSVILLE

FERRY DRAIN PROFILE

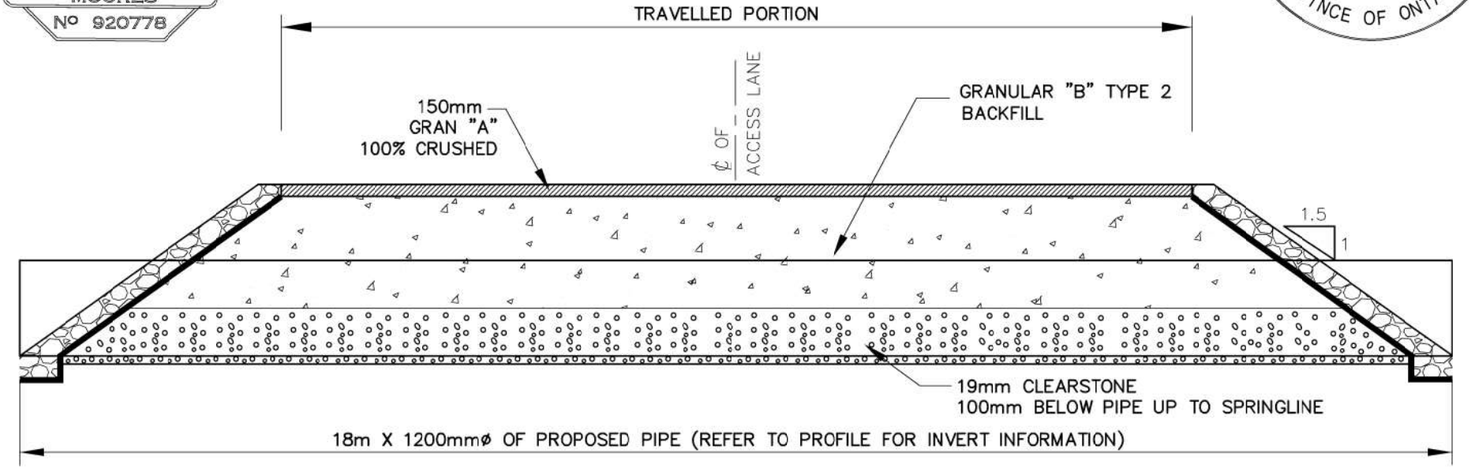
Last Updated: March 12, 2026



PROPOSED PIPE END SECTION

CERTIFIED ENGINEERING TECHNOLOGIST
OACETT
ONTARIO
DAVID
MOORES
Nº 920778

LICENSED PROFESSIONAL ENGINEER
J.H. WARNER
100520016
MAR. 12, 2026
PROVINCE OF ONTARIO



PROPOSED CROSS-SECTION

GENERAL NOTES

1. BENCHMARK No.1 ELEV. 198.73m
   TOP OF SOUTHEAST CORNER OF EXISTING CONCRETE BOX CULVERT CURB CROSSING ROAD 7E, STA. 0+000.

   BENCHMARK No.2 ELEV. 198.09m
   TOP OF WEST END OF EXISTING 1200mmø HDPE, CROSSING No.2, STA. 0+241. MN#240

2. PROPOSED CROSSING No. 1 INFORMATION:
   CROSSING No. 1 SHALL BE 18m X 1200mmø SANITITE SMOOTH WALL PIPE.

   ENDWALLS SHALL BE RIP RAP QUARRY STONE 150mm X 300mm, 450mm THICK

   BACKFILL:
   CLEAR STONE BEDDING
   GRANULAR B TYPE 2 BACKFILL
   100% CRUSHED GRANULAR A TOP

3. PROPOSED CROSSING No. 2 INFORMATION:
   CROSSING No. 2 SHALL BE 18m X 1200mmø SANITITE SMOOTH WALL PIPE (FUTURE).

   PROPOSED TO REPLACED DOWNSTREAM END 6m X 1200mmø HDPE SMOOTH WALL PIPE.

   ENDWALLS SHALL BE RIP RAP QUARRY STONE 150mm X 300mm, 450mm THICK

   BACKFILL:
   CLEAR STONE BEDDING
   GRANULAR B TYPE 2 BACKFILL
   100% CRUSHED GRANULAR A TOP

3. PROPOSED OPEN CHANNEL EXACAVTION:
   3m UPSTREAM & DOWNSTREAM OF CROSSING No.1 SHALL BE EXCAVATED TO THE PROPOSED GRADE LINE SHOWN ON THE PROFILE.

   3m DOWNSTREAM OF CROSSING No.2 SHALL BE EXCAVATED TO THE PROPOSED GRADELINE SHOWN ON THE PROFILE.

NOTE:
ALL GRANULARS COMPACTED
TO 98% MODIFIED PROCTOR DENSITY

Dobbin Engineering Inc.
4218 Oil Heritage Road
Petrolia Ontario, N0N 1R0
Phone: (519) 882-0032 Fax: (519) 882-2233

DRAWING NAME: Ferry Drain Typical Culvert Details
PROJECT No. 2025-1765

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	FINAL REPORT	MAR. 12, 2026	DM
C. SAUNDERS				
DRAWN				
D. MOORES				

SCALE 1:75
0 2m

TOWN of KINGSVILLE

FERRY DRAIN
TYPICAL CULVERT REPLACEMENT DETAILS

Last Updated: March 12, 2026