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July 1, 2026

The Mayor and Council
The Town of Plympton-Wyoming
546 Niagara Street
Wyoming, Ontario
N0N 1T0

Gentlemen and Mesdames:

Re: Jardine Drain (2026)

In accordance with your instructions, R. Dobbin Engineering has undertaken an examination with regards to improving the Jardine Drain in the Town of Plympton-Wyoming.

Authorization under the Drainage Act

This is an Engineer's Report that has been prepared under Section 78 of the Drainage Act. R. Dobbin Engineering Inc. was appointed by council on January 14th, 2026.

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 Jardine Drain outlets into a watercourse just west of the center of Lot 15, Concession 9. The drain continues as an open channel in a general southeasterly direction for 4,337m to the center of Lot 20, Concession 8.

Under an Engineer's Report dated April 17th, 1953 the Jardine Drain was incorporated as a Municipal Drain under the Drainage Act. At this time, the open channel was cleaned, culverts were either underpinned, installed or replaced and the culvert under Fisher Line was replaced.

Under an Engineer's Report dated April 29th, 1972 the Jardine Drain was deepened from its bottom end to the center of Lot 15, Concession 8 to properly convey surface and subdrainage flow from the drainage area and the culverts were brought up to the standards at this time.

Drain Classification

The Jardine Drain is currently Rated as a Class "F" Drain according to the Department of Fisheries and Oceans (DFO) classification as presented by the Ontario Ministry of Agriculture, Food and Rural Affair's Agricultural Information Atlas.

Approvals

The drain will require approval from the St. Clair Region Conservation Authority and the Department of Fisheries and Oceans. Construction cannot commence without necessary approvals.

Site Meeting

A site meeting for this drain was held on February 27th, 2026. The following were present:

- Josh Warner (R. Dobbin Engineering)
- Ryan Tamming (Drainage Coordinator, Town of Plympton-Wyoming)
- Peter Stock (Landowner)
- Chris Verhoeven (Landowner)
- Amy Symington (Landowner) (Virtually)
- Cade Symington (Landowner) (Virtually)

The following is a brief summary of the meeting:

- General discussion of the Drainage Act and Landowners rights under the Drainage Act.
- A request has been made for the replacement of the culvert in Lot 18, Concession 8. The Town has further requested a comprehensive assessment of all culverts along the drain, given that the majority were installed during the same period. It was discussed that an updated profile and Schedule of Maintenance will also be provided through the report.
- It was discussed that R. Dobbin Engineering and the Town will walk the drain and determine if any other work is recommended.
- No other requests for work were made on the drain.

Existing Conditions

On March 20th, 2026 the drain was walked with the Town of Plympton-Wyoming's Drainage Coordinator. Below is a summary of the condition of the existing culverts:

Culvert Number	Roll Number / Owner	Existing Culvert	Condition	Recommendation
1	Oil Heritage Road (County of Lambton)	2400x1700mm dia. CSPA. 27m Long	Okay	Leave and Specify for Future Replacement.
2	30-116 (Saul Farms Ltd.)	1400mm dia. CSP. 9m Long	Rust below Springline but otherwise Okay.	Leave and Specify for Future Replacement.
3	30-117 (D. Burnley)	1400mm dia. CSP. 9m Long	Rust below Springline but otherwise Okay.	Leave and Specify for Future Replacement.
4	30-118 (D. Burnley)	1200mm dia. CSP. 9m Long (Extension of Moved Pipe in 1972)	Minor Deformation and Rust below Springline but otherwise Okay.	Leave and Specify for Future Replacement.
5	30-119 (D. McGregor)	1200mm dia. CSP. 9m Long. (Extension of Moved Pipe in 1972)	Over ½ Full of Water. Unable to Observe Condition.	Investigate for replacement after brushing. If replaced would be completed under Maintenance. Leave and Specify for Future Replacement under this report.
6	Fisher Line (Town of Plympton-Wyoming)	1500mm dia. CSP. 12m Long	Poor. South End Wall is falling into channel. Culvert needs extension to the south.	To Be Replaced by the Town as part of Road Reconstruction Project.
7	30-082 (B. Bell)	1200mm dia. CSP. 9m Long (Extension of Moved Pipe in 1972)	Bottom has separated from the rest of the Barrel	Replace
8	Hillsboro Road (Town of Plympton-Wyoming)	1200mm dia. CSP. 14m Long	Rust below Springline but otherwise Okay	Leave and Specify for Future Replacement.

9	30-084 (B. Verhoeven)	900mm dia. CSP. 9m Long	Rust below Springline but otherwise Okay	Leave and Specify for Future Replacement.
10	30-085 (1476276 Ontario Inc.)	900mm dia. CSP. 9m Long	Rust below Springline but otherwise Okay	Leave and Specify for Future Replacement.

It was observed that parts of the drainage works have significant brush within the channel cross section and the drain could use a brushing along its entire length.

Discussion

The Town of Plympton-Wyoming is planning to tender the resurfacing of Fisher Line at the Jardine Drain in late May of 2026. As part of this project, the existing Fisher Line culvert crossing at the Jardine Drain will be replaced. The specifications and drawings contained in this report were provided to the road project consultant prior to the adoption of this report in order to facilitate the design and construction of the road crossing improvements.

Draft Report dated May 27th, 2026

A draft report for the Jardine Drain, dated May 27th, 2026, was sent to the affected properties. A meeting was held on June 30th, 2026. The following were present:

- Josh Warner (R. Dobbin Engineering)
- Ryan Tamming (Drainage Coordinator, Town of Plympton-Wyoming)
- Jessica Wilson (Executive Assistance – Parks / Drainage Clerk, Town of Plympton-Wyoming)
- John VanKlaveren (Council Representative, Town of Plympton Wyoming)
- Bradey Bell (Landowner)
- Amy Symington (Landowner) (Virtually)

The following is a brief summary of the meeting:

- Josh Warner provided an overview of the proposed work on the project.
- There were no major concerns brought forward.

Design

The access culverts have been designed to provide outlet for a 1 in 5-year storm event.

The County Road culvert has been designed to provide outlet for a 1 in 50-year storm event.

The Town's Road culverts have been designed to provide outlet for a 1 in 25-year storm event.

Recommendations

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

1. The Jardine Drain shall be improved with brushing along its entire length.

2. Future maintenance specifications, drawings and schedules shall be developed for the open channel portion of the Jardine Drain.

3. Culvert #7 shall be replaced. Future specifications shall be developed for the replacement of the remainder of the culverts along the length of the drainage works.

Estimate of Cost

It is recommended that the work be carried out in accordance with the accompanying Specification of Work and Profile that forms part of this Report. There has been prepared an Estimate of Cost in the amount of $94,525.00, including preparation of the report, attending the Meeting to Consider the Report, attending the Court of Revision and estimates for tendering, construction inspection, permitting and contract administration. Appearances before appeal bodies have not been included in the cost estimate.

A Plan has been prepared showing the location of the work and the approximate drainage area. A Profile is included showing the depths and grades of the proposed work.

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 will be prepared 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 outside those identified in this report shall be assessed to the utility or road authority as per Section 26 of the Drainage Act plus a portion of the engineering (25% of the construction cost).

The cost of any fees for permits or approvals or any extra work required by any affected utility or road authority shall be assessed to that organization requiring the permit, approval, or extra work.

The proposed work has generally been assessed in the following manner, including all estimated fees, taxes and disbursements:

1. The replacement of Culvert #7 has been assessed with 50% of the cost applied as benefit assessment to property and the remainder of the cost applied as an outlet assessment on upstream lands and roads based on equivalent hectares.

2. The remaining cost has generally been assessed with approx. 60% of the cost applied as a benefit assessment and the remainder applied as an outlet assessment to the upstream lands and roads based on equivalent hectares.

Unless otherwise noted above, 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.

If a Landowner intends to sell their property they shall disclose this project to any potential purchasers.

Allowances

Under Section 29 of the Drainage Act, the Engineer in their 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 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 for damage, if any, to ornamental trees, lawns, fences, land and crops occasioned by the disposal of material removed from a drainage works. This shall be considered an allowance for damages.

Allowances have been made, where appropriate, as per Section 29 of the Drainage Act for right-of-way for the re-sloping that would increase the area occupied by the drain and as per Section

30 of the Drainage Act for damages to lands and crops. Allowances for right of way are based on a land value of $50,000.00 per hectare (approximately $20,000.00 per acre). Allowances for crop loss are based on $2,000.00 per hectare for the first year and $1,000.00 for the second year ($3,000.00 per hectare total).

Access and Working Area

Access to the drain shall be from Oil Heritage Road, Fisher Line and Hillsboro Road, using existing culverts and laneways, and then along the length of the drainage works. Access shall generally be restricted to a width of 6m.

The working area for brushing of the open channel shall be done from either side of the drainage works, shall extend 8m past the top of bank and shall include a designated burn site on each property. The Contractor shall limit access to one side of the drainage works if possible.

For future maintenance the working area shall be restricted to a width of 10m from the top of bank where the work is taking place and 4m from the top of bank on the opposite side. Unless otherwise noted, the excavation shall generally be done from the south/west side of the drainage works except from Culvert #1 to #2 and from Culvert #8 to #9 where work shall be done from the east/north side of the drainage works.

The working area at each culvert to be replaced, maintained, or repaired either under this report or in the future shall extend 10 metres on either side of the culvert within the same property or road.

Restrictions

No trees and shrubs shall be planted nor shall permanent structures be erected within 10 metres of the proposed drain without prior written permission of Council.

Attention is also drawn to Sections 80 and 82 of the Drainage Act, which refer to the removal of obstructions in a drain and damage caused to a drain.

Agricultural Grant

If available, it is recommended that application for subsidy be made for eligible agricultural properties. Any assessments against non-agricultural properties are shown separately in the Schedule of Assessment.

Maintenance

The Jardine Drain culverts and open channel shall be maintained and repaired with the specifications and drawings contained in this Engineer’s Report. The open channel portion of

the Jardine Drain shall be maintained in the same proportions as contained in the Schedule of Maintenance.

The access culverts shall be maintained and repaired with a culvert length required to provide an 8m top width. With the culverts included in the specifications (including rip rap end walls) they shall be assessed in the following manner:

Culvert Number	Benefiting Lands	Road Authority	Upstream Properties Based on Equivalent Hectares as Contained in Schedule of Maintenance
2, 3, 4, 5	45%		55%
7	50%		50%
9, 10	55%		45%
1, 6, 8		100%	

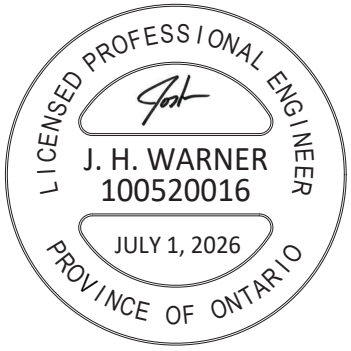
If any owner requests an additional length of culvert beyond that required to have an 8m top width or an asphalt travel surface the extra cost shall be borne by the Landowner making the request including the future maintenance and repair. The location of the 8m top width shall be determined by the Drainage Superintendent and shall generally be in the primary access location.

The additional costs as a result of a road or utility shall be assessed to the owner of the road or utility as per Section 26 of the Drainage Act.

A secondary access on a property shall be constructed, maintained and repaired with 100% of the cost assessed to the benefitting property.

Yours truly,

Josh Warner, P. Eng.
R. Dobbin Engineering Inc.



Jardine Drain
Town of Plympton-Wyoming
July 1, 2026

ALLOWANCES

Allowances have been made as per Sections 29 & 30 of the Drainage Act for Right of Way and damages to lands and crops.

Conc.	Lot or part	Roll No.	Owner	Section 29 ($)	Section 30 ($)	Total ($)
8	E 1/2 Lot 17	30-081	D. Burnley		480	480
	Lot 18	30-082	B-Bell		3,020	3,020
	Lot 19	30-084	B. Verheoven		4,270	4,270
	W 1/2 Lot 20	30-085	1476276 Ontario Inc.		1,390	1,390
9	W 1/2 Lot 15	20-248	A. Symington		140	140
	E 1/2 Lot 15	20-250	A. Symington		1,470	1,470
	W 1/2 Lot 16	30-116	Saul Farms Ltd.		2,750	2,750
	E 1/2 Lot 16	30-117	D. Burnley		1,390	1,390
	W 1/2 Lot 17	30-118	D. Burnley		1,390	1,390
	S/E 1/4 Lot 17	30-119	D. McGregor		2,160	2,160
			TOTAL ALLOWANCES	$0	$18,460	$18,460

Town of Plympton-Wyoming
July 1, 2026

Estimate of Cost

Item Description (Supply and Install New)	Quantity	Unit	Unit Cost ($)	Total ($)
Pre-Construction Meeting	1	LS	200	200
Brushing and Tree Removal	4337	m	5	21,685
Culvert #7 (30-082, B. Bell)				
Removal and Disposal of Existing Structure and Excavated Material	1	LS	1,500	1,500
Supply and Install 1200mm dia. CSP c/w Bedding	14	m	800	11,200
Supply and Install Granular "B" Type II	80	tonne	40	3,200
Supply and Install Granular "A"	22	tonne	45	990
Supply and Install Rip Rap End Walls	25	tonne	110	2,750
Silt Fence	1	each	500	500
Contingency				2,110

Sub Total	44,135
Allowances	18,460
Engineering	5,550
Future Culvert Design	12,600
Preparation of New Schedule of Maintenance, Profile and Surveying of Drain	5,400
Daylighting of Utilities	-
Estimate for Tendering, Inspection and Contract Administration	6,500
SCRCA Fee	570
Total Estimate excluding HST	**93,215**
Non-Recoverable HST (1.76%)	1,310
Total Estimate	**$ 94,525**

SCHEDULE OF ASSESSMENT

Conc.	Lot or Part	Affected Hectares	Roll No.	Owner	Special Benefit ($)	Benefit ($)	Outlet ($)	Total ($)
Public Lands								
	Oil Heritage Line	1.62		County of Lambton		1,669	162	1,831
	Fisher Line	1.44		Town of Plympton-Wyoming		1,402	333	1,735
	Hillsboro Road	1.10		Town of Plympton-Wyoming		2,752	1,056	3,808
					-	5,823	1,551	7,374
Agricultural Lands								
8	Pt. E 1/2 Lot 16, W 1/2 Lot 17	0.00	30-080	J. Smith		-	-	-
	E 1/2 Lot 17	4.86	30-081	D. Burnley		1,623	326	1,949
	Lot 18	40.78	30-082	B. Bell		19,111	5,609	24,720
	Lot 19	40.38	30-084	B. Verhoeven		6,790	12,461	19,251
	W 1/2 Lot 20	14.17	30-085	1476276 Ontario Inc.		3,220	5,980	9,200
	E 1/2 Lot 20	13.15	30-087	Verhoeven Poultry Farms Ltd.		-	6,023	6,023
	W 1/2 Lot 21	7.69	30-087-01	J. Verhoeven		-	3,562	3,562
9	Pt. Lot 14	0.00	20-247	P. Stock		-	-	-
	W 1/2 Lot 15	0.00	20-248	A. Symington		270	-	270
	E 1/2 Lot 15	18.21	20-250	A. Symington		2,542	108	2,650
	W 1/2 Lot 16	24.28	30-116	Saul Farms Ltd.		4,410	361	4,771
	E 1/2 Lot 16	18.62	30-117	D. Burnley		4,139	627	4,766
	W 1/2 Lot 17	15.37	30-118	D. Burnley		3,220	775	3,995
	S/E 1/4 Lot 17	12.95	30-119	D. McGregor		4,572	843	5,415
	W 1/2 Lot 18	8.30	30-120	H. Van Moorsel		-	579	579
	Total Area (Ha)	222.92			-	49,897	37,254	87,151

Total Public Lands	7,374
Total Agricultural Lands	87,151
Total Non Agricultural Lands	-
Total Assessment	$94,525

Estimated Net Assessment

Net assessment subject to OMAFRA ADIP Policy and actual construction costs.

Conc.	Lot or Part	Affected Hecatares	Roll No.	Owner	Total Assessment ($)	Estimated Grant ($)	Allowances ($)	Estimated Net Assessment ($)
Public Lands								
	Oil Heritage Line	1.62		County of Lambton	1,831			1,831
	Fisher Line	1.44		Town of Plympton-Wyoming	1,735			1,735
	Hillsboro Road	1.10		Town of Plympton-Wyoming	3,808			3,808
Agricultural Lands								
8	Pt. E 1/2 Lot 16, W 1/2 Lot 17	0.00	30-080	J. Smith	-	-		-
	E 1/2 Lot 17	4.86	30-081	D. Burnley	1,949	650	480	819
	Lot 18	40.78	30-082	B. Bell	24,720	8,240	3,020	13,460
	Lot 19	40.38	30-084	B. Verhoeven	19,251	6,417	4,270	8,564
	W 1/2 Lot 20	14.17	30-085	1476276 Ontario Inc.	9,200	3,067	1,390	4,743
	E 1/2 Lot 20	13.15	30-087	Verhoeven Poultry Farms Ltd.	6,023	2,008		4,015
	W 1/2 Lot 21	7.69	30-087-01	J. Verhoeven	3,562	1,187		2,375
9	Pt. Lot 14	0.00	20-247	P. Stock	-	-		-
	W 1/2 Lot 15	0.00	20-248	A. Symington	270	90	140	40
	E 1/2 Lot 15	18.21	20-250	A. Symington	2,650	883	1,470	297
	W 1/2 Lot 16	24.28	30-116	Saul Farms Ltd.	4,771	1,590	2,750	431
	E 1/2 Lot 16	18.62	30-117	D. Burnley	4,766	1,589	1,390	1,787
	W 1/2 Lot 17	15.37	30-118	D. Burnley	3,995	1,332	1,390	1,273
	S/E 1/4 Lot 17	12.95	30-119	D. McGregor	5,415	1,805	2,160	1,450
	W 1/2 Lot 18	8.30	30-120	H. Van Moorsel	579	193		386
				Totals	94,525	29,051	18,460	47,014

SCHEDULE OF MAINTENANCE - OPEN DRAIN
To Maintain the Open Channel Portion of the Jardine Drain

Conc.	Lot or Part	Affected Hecatares	Roll No.	Owner	Benefit ($)	Outlet ($)	Total ($)	Equivalent Hectares
Public Lands								
	Oil Heritage Line	1.62		County of Lambton	5	3	8	1.46
	Fisher Line	1.44		Town of Plympton-Wyoming	-	5	5	1.30
	Hillsboro Road	1.10		Town of Plympton-Wyoming	25	9	34	0.99
					30	17	47	
Agricultural Lands								
8	Pt. E 1/2 Lot 16, W 1/2 Lot 17	0.00	30-080	J. Smith	-	-	-	
	E 1/2 Lot 17	4.86	30-081	D. Burnley	30	5	35	1.16
	Lot 18	40.78	30-082	B. Bell	96	57	153	11.28
	Lot 19	40.38	30-084	B. Verhoeven	110	108	218	11.17
	W 1/2 Lot 20	14.17	30-085	1476276 Ontario Inc.	44	60	104	4.25
	E 1/2 Lot 20	13.15	30-087	Verhoeven Poultry Farms Ltd.	-	62	62	3.95
	W 1/2 Lot 21	7.69	30-087-01	J. Verhoeven	-	37	37	2.31
9	Pt. Lot 14	0.00	20-247	P. Stock	-	-	-	0.00
	W 1/2 Lot 15	0.00	20-248	A. Symington	5	-	5	0.00
	E 1/2 Lot 15	18.21	20-250	A. Symington	47	2	49	5.46
	W 1/2 Lot 16	24.28	30-116	Saul Farms Ltd.	66	6	72	7.28
	E 1/2 Lot 16	18.62	30-117	D. Burnley	61	10	71	5.59
	W 1/2 Lot 17	15.37	30-118	D. Burnley	44	12	56	4.61
	S/E 1/4 Lot 17	12.95	30-119	D. McGregor	69	13	82	3.89
	W 1/2 Lot 18	8.30	30-120	H. Van Moorsel	-	9	9	2.49
	Total Area (Ha)	222.92			572	381	953	

Total Public Lands	47
Total Agricultural Lands	953
Total Non Agricultural Lands	-
Total Assessment	$1,000

Jardine Drain
Town of Plympton-Wyoming
July 1, 2026

SPECIFICATION OF WORK

1. Location

The location of the proposed and future work outlined in this specification is in Lots 15 to 17, Concession 9 and Lots 17 to 20, Concession 8 in the Town of Plympton-Wyoming.

2. Scope of Work

The work to be included in this specification includes, but is not limited to, the following:

Proposed Works:

- Brushing of Open Channel and Working Areas
- Culvert #7 Replacement

Future Works:

- Open Channel Cleanout and Brushing
- All Remaining Culvert Replacements

3. 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 Contractor shall make allowance in their 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 Contract Administrator who may vary these specifications as to minor details but in no way decrease the proposed capacity of the drain.

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.

The quantities are estimates only. The actual quantities shall be determined at the time of construction by the Contract Administrator and shall be paid at the established unit prices.

Any equivalents shall be approved in writing by the Contract Administrator prior to ordering.

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 a traffic control plan shall be submitted to the Engineer, Drainage Superintendent and kept on site 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.

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

The Contractor shall submit their traffic control plan within 10 working days of notice of award. Road closures will not be permitted on this project without the approval of the Town of Plympton-Wyoming.

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 and updated every 90 days.

6. Utilities

The Contractor is responsible for organizing locates and exposing all the utilities along the length of the drainage works. If any utilities interfere with the proposed drainage works in a manner not shown on the accompanying Estimate of Cost or profile the Contractor shall notify the Contract Administrator.

The Contractor is responsible for coordinating the replacement of additional utilities with the utility company if they interfere with the proposed drain. All costs for the utility to replace their services will be outside of this report and shall be borne by the utility as per Section 26 of the Drainage Act.

All additional costs to work around and organize replacement of the utilities not included in the estimate shall be tracked separately and the cost plus a portion of the engineering (25% of the cost) shall be borne by that utility.

Utilities have not been located as part of the Engineering Design process.

7. Pre-Construction Meeting

There is a requirement for a pre-construction meeting to be held prior to any construction taking place. The meeting will be scheduled by the Contractor. Contact information will be provided to the Contractor by the Engineer. The affected Landowners, Engineer, and the Town of Plympton-Wyoming shall be invited. The Contractor shall notify all parties at least one week prior to wanting to hold a pre-construction meeting.

8. Benchmarks

The benchmarks are based on geodetic elevations. Elevations are available at the locations outlined in this report. Where these elevations are on existing structures to be replaced, they shall be transferred by the Contractor prior to the removal.

The Contractor is required to complete a benchmark loop prior to construction to verify the benchmarks. If discrepancies exist the Contractor must notify the Drainage Superintendent and Engineer prior to completing any work.

9. Traffic Control

Access and driveways to private properties shall not be obstructed longer than the minimum time necessary for the work and shall be reinstated as soon as possible all to the satisfaction of the Engineer. The Contractor shall schedule any obstruction of existing driveways and accesses with the owners at least two full working days in advance. The Traffic Plan must be approved by the Town prior to the commencement of any road closures.

a) The Contractor shall supply, erect and maintain all detour signs and special signs necessary for detours to divert traffic from the area under construction as directed by the Contract Administrator. All this work shall be at the Contractor's expense.

b) The Contractor shall be responsible for supplying, erecting and maintaining all signs, supports, barricades, flashers, cones, etc. in the construction area and at the boundaries of the work as part of the above detours, all to the satisfaction of the Contract Administrator. All this work shall be done by the Contractor at their own expense.

c) The Contractor shall not be allowed to proceed with construction activities unless proper signage and flagmen are present. Flagging procedures, signage and detours shall conform to the recommendations of Book 7, Temporary Conditions, Ontario Traffic Manual, issued by the Ministry of Transportation. Conformance shall be enforced by the Ministry of Labour Inspector.

10. Access and Working Area

Access to the drain shall be from Oil Heritage Road, Fisher Line and Hillsboro Road, using existing culverts and laneways, and then along the length of the drainage works. Access shall generally be restricted to a width of 6m.

The working area for brushing of the open channel shall be done from either side of the drainage works, shall extend 8m past the top of bank and shall include a designated burn site on each property. The Contractor shall limit access to one side of the drainage works if possible.

For future maintenance the working area shall be restricted to a width of 10m from the top of bank where the work is taking place and 4m from the top of bank on the opposite side. Unless otherwise noted, the excavation shall generally be done from the south/west side of the drainage works except from Culvert #1 to #2 and from Culvert #8 to #9 where work shall be done from the east/north side of the drainage works.

The working area at each culvert to be replaced, maintained, or repaired either under this report or in the future shall extend 10 metres on either side of the culvert within the same property or road.

11. Removals

The culverts and any native backfill material, when required, shall be removed in their entirety. The culvert, backfill and the concrete rubble shall be disposed offsite at the expense of the Contractor. Any broken concrete or rip rap (concrete bags) from the existing structures shall be disposed offsite at the expense of the Contractor unless determined re-usable by the Drainage Superintendent or Engineer. Any asphalt shall be sawcut prior to removal and shall be milled and tac coated at the discretion of the Engineer or Drainage Superintendent.

The Contractor shall work around the existing fences and signs if they are able to. If the existing fences and signs are required to be removed, they shall be removed and re-installed in the same location with the existing materials. All work in connection with fences and signs shall be carried out in a careful manner so they are replaced in as good a condition as the existing materials permit.

12. Brushing and Tree Removal

For construction and future maintenance all brush, stumps, trees, woody vegetation, etc. within the working area and the cross section of the drain, as determined by the Contract Administrator, shall be removed.

A mechanical grinder attached to an excavator shall be used for the removal of brush and trees. Any brush and trees too large to grind shall be close cut. The Contractor shall stockpile the trees and brush in a single pile on the property in which they were removed or dispose of the trees and brush offsite. Where brush and trees are removed within a bush section of the drain the trees and brush shall be disposed of within the bush at the limits of the working area. The Contractor is responsible for the burning of the trees and brush not in the bush sections. The Contractor is

responsible for obtaining all necessary permits for any disposal sites. Burning of the trees and brush is subject to local bylaws and guidelines of the Ministry of the Environment Conservation and Parks.

Certain trees may be left in place at the direction of the Contract Administrator. Trees may be limbed and piled for firewood, instead of burned, at the request of a Landowner.

13. Excavation of Open Channel (Future)

For construction and future maintenance, the open channel shall be excavated and maintained to the depths and grades as per the profile and drawings contained in this Engineer's Report. The channel shall be excavated to the proper depth using a laser or similar approved device with a labourer onsite to ensure correctness of grade and to confirm location of tile ends.

For future maintenance, the excavated material shall generally be cast on the side it is being excavated from, except across finished lawns or where trees are on the field side do not provide a suitable area to the level the material. In these areas the excavated material shall be trucked. Excavated material shall be cast at least 1.5 metres clear of the bank. Excavated material shall not be placed in low runs or swales outletting surface water to the channel. The excavated material shall be levelled to a maximum depth of 150mm and left in a condition suitable for cultivation. This shall include the removal of any rocks larger then 10cm in diameter and any debris/wood that could damage or plug farm equipment. Leveling shall occur when the material is dry enough to do so as determined by the Contract Administrator. All high spots above grade shall be removed. The sediment shall be removed leaving a rounded bottom with the intent not to undercut the existing side slopes. All material unfit for placing on farmlands, as determined by the Contract Administrator, shall be disposed of offsite at the expense of the Contractor.

The Contractor shall excavate a stable slope where determined by the Drainage Superintendent or Engineer. The bank slope shall be determined by the Drainage Superintendent or Engineer and shall not be flatter than a 2:1.

14. Installation of Culverts

The Contractor is required to notify the Landowner forty-eight (48) hours prior to the removal of a culvert.

The minimum cover is not always adequate during construction and it is the Contractors responsibility to provide additional cover to avoid damage to the pipe.

The high-density polyethylene (HDPE) smooth wall pipe (320 kPa) shall be CSA Approved with bell and spigot joints.

Sanitite Pipe shall be SaniTite HP with 320kPa and bell and spigot joints or approved equivalent. The exposed ends of the SaniTite culverts shall be wrapped in filter cloth to prevent UV damage.

The Contractor shall supply, install, and backfill aluminized corrugated steel pipe with a minimum wall thickness of 2.8mm for all access culverts. Corrugated Steel Pipe Arches and Road Culverts shall have a minimum wall thickness of 3.5mm. Roads culverts shall be polymer laminated. All corrugation profiles shall be of helical lock seam manufacture using 68 x 13mm corrugations for 1600mm dia. pipe and smaller and 125 x 25mm corrugations for 1800mm dia. pipe and larger. Pipe with 125 x 25mm corrugations shall be used if 68 x 13mm corrugations are not available.

The culverts designated to be replaced in the future under this report shall be examined after any cleanout of the open channel as to its condition. If it is found to be in disrepair (i.e. there are holes corroded in the bottom or sides) it shall be replaced as per these specifications.

The culverts shall be installed generally in the same location or as approved by the Contract Administrator. The culverts shall be installed with the invert 10% (minimum 150mm) below the original channel bottom elevation unless otherwise shown in order to achieve the minimum cover.

All culverts shall have rip rap end walls. The access culverts shall be assessed, as per the report, to provide an 8m access width. If an owner requests a longer culvert than that required to achieve an 8m top width, please refer to the report.

The pipes that shall be extended upstream or downstream of the proposed culvert shall be done with non-perforated HDPE agricultural tubing with a manufactured coupling, elbow and rodent grate.

Access Culverts:

The bottom of the excavation shall be excavated to a minimum of 100mm below the proposed invert. When the pipe has been installed to the proper grade and depth, the excavation shall be backfilled with ¾" clear stone and wrapped in filter fabric from the bottom of the excavation to the spring line of the pipe, this shall be considered the bedding. Care shall be taken to ensure that the backfill on either side of the culvert does not differ by more than 300mm so that the pipe is not displaced. The access culverts shall be backfilled from the spring line or bottom to within 150mm of finished grade with granular "B" Type II. The top 150mm shall be backfilled with OPS granular "A" material to finished grade. If asphalt is proposed, the asphalt shall be HL4 and shall match the existing thickness. In these cases, the granular "A" shall occupy 150mm below the proposed asphalt. Excavated material shall be utilized to build up the adjacent access laneways to blend with the required cover height. Granular "A" shall be utilized, at the discretion of the Contract Administrator, in the vicinity of the proposed culverts in order to provide a suitable finished surface.

Road Culverts:

Where there is asphalt, the asphalt shall be sawcut and milled for a thickness of 45mm and 0.30m past the joint. The milled surface shall be tack coated as per OPSS.

The bottom of the excavation shall be excavated to a minimum of 100mm below the proposed invert. When the pipe has been installed to the proper grade and depth, the excavation shall be backfilled with ¾" clear stone and wrapped in filter fabric from the bottom of the excavation to the spring line of the pipe, this shall be considered the bedding. For concrete box culverts the clear stone shall extend from the bottom of the culvert to 200mm below. The bedding material shall not be native material. Care shall be taken to ensure that the backfill on either side of the culvert does not differ by more than 300mm so that the pipe is not displaced. The pipe shall be backfilled above the clear stone with OPS Granular "A".

Asphalt Road: The asphalt shall be HL4 and HL3 at depths to match the existing thickness with a minimum thickness of 50mm for each.

Gravel Road: The top 200mm shall be OPS Granular "M", produced from 100% crushed dolomite, and shall be mechanically compacted to 100% modified standard proctor density.

If rip rap end walls are used, they shall consist of 150mm x 300mm quarry stone or approved equal. The area to receive the rip rap shall be graded to a depth of 400mm below finished grade. Filter fabric (Terrafix 270 R or approved equal) shall then be placed with any joints overlapped a minimum 600mm. Select native material may be used adjacent the rip rap. The quarry stone shall then be placed with the smaller pieces placed in the gaps and voids to give it a uniform appearance.

If concrete block end walls are used, they shall consist of concrete blocks with dimensions of approx. 600mm x 600mm x 1200mm, 600mm x 600mm x 2400mm or 300mm x 600mm x 1200mm as required. 600mm x 600mm x 2400mm concrete blocks will be paid at twice the unit price established per block, all others will be at a unit of 1. The top of the culvert shall govern block elevation. The correct block shall be set with the top of the block equal to the top of the culvert. 2400mm wide concrete blocks shall be used as the top block on arch and larger round pipes in order to span between the culvert top and the supporting block. The blocks shall be set at each end of the culvert so that each row of blocks will be offset approx. 100mm from the row below. The bottom row shall consist of one block placed parallel to the culvert. The blocks shall be imbedded a minimum of 300mm into each bank and shall extend into the drain bottom to match the pipe invert or below. Erosion protection shall be placed on the banks next to the end walls. The erosion protection shall consist of 150mm x 300mm quarry stone over filter fabric (Terrafix 270R or approved equal). It shall extend 500mm upstream or downstream and from top of bank to top of bank at each end wall.

The blocks shall be placed over a layer of filter fabric (Terrafix 270R or approved equal). The culvert shall be backfilled in conjunction with the placement of the blocks. The gaps between the culvert and the blocks shall be filled with concrete cinder blocks/bricks and mortar to give the end wall a finished appearance.

Culvert Number	Roll Number / Owner	Existing Culvert	Replacement Culvert
1	Oil Heritage Road (County of Lambton)	2400x1700mm dia. CSPA. 27m Long	2500x1830mm dia. CSPA 29m Long Rip Rap End Walls
2	30-116 (Saul Farms Ltd.)	1400mm dia. CSP. 9m Long	1600mm dia. CSP 15m Long Rip Rap End Walls
3	30-117 (D. Burnley)	1400mm dia. CSP. 9m Long	1600mm dia. CSP 15m Long Rip Rap End Walls
4	30-118 (D. Burnley)	1200mm dia. CSP. 9m Long (Extension of Moved Pipe in 1972)	1400mm dia. CSP 14m Long Rip Rap End Walls
5	30-119 (D. McGregor)	1200mm dia. CSP. 9m Long. (Extension of Moved Pipe in 1972)	1400mm dia. CSP 14m Long Rip Rap End Walls
6	Fisher Line (Town of Plympton-Wyoming)	1500mm dia. CSP. 12m Long	1600mm dia. CSP 16m Long Rip Rap End Walls
7	**30-082 (B. Bell)**	**1200mm dia. CSP. 9m Long (Extension of Moved Pipe in 1972)**	**1200mm dia. CSP 14m Long Rip Rap End Walls**
8	Hillsboro Road (Town of Plympton-Wyoming)	1200mm dia. CSP. 14m Long	1400mm dia. CSP 16m Long Rip Rap End Walls
9	30-084 (B. Verhoeven)	900mm dia. CSP. 9m Long	900mm dia. HDPE or 1000mm dia. CSP 14m Long Rip Rap End Walls
10	30-085 (1476276 Ontario Inc.)	900mm dia. CSP. 9m Long	900mm dia. HDPE or 1000mm dia. CSP 14m Long Rip Rap End Walls

The Culverts in Bold are being replaced under this Report.

15. Culvert Maintenance

The Contractor shall be responsible for maintenance of the access culverts for a period of one year after their installation. This will include repairing any settlement areas on the travel surface with Granular "A" and/or asphalt, topsoil and seed.

16. Subsurface Drainage

All existing subsurface drains encountered during maintenance of the open channel shall be reconnected or extended to the tile drain or open channel unless otherwise noted on the drawings or as directed by the Contract Administrator.

A suitable length of equivalent sized PE agricultural tubing shall be used to connect the drain to the open channel. Manufactured fittings shall connect the PE tile to the existing drain. The connections shall be carefully backfilled to ensure there is adequate support under the pipe and large clumps of clay do not displace the tile.

Tile outlets larger than 150mm in diameter, or as determined by the Contract Administrator at the time of construction, require erosion protection and rodent grates. The erosion protection made up of rip rap and filter fabric shall be installed on the embankment slope from 0.3m above the tile obvert to the channel bottom. The erosion protection shall be 1.0m wide.

17. Rip Rap

Erosion protection made up of rip rap and filter fabric shall be installed in the locations determined by the Contract Administrator. Generally, the rip rap shall be installed where the toe is eroding at bends and at tile outlets 150mm diameter or greater.

All rip rap shall consist of 150mm x 300mm quarry stone or approved equal. The area to receive the rip rap shall be graded to a depth of 400mm below finished grade. After grading, a layer of filter fabric (Terrafix 270 R or approved equal) is to be placed with any joints overlapped a minimum of 600mm. Rip rap shall then be placed with the smaller pieces placed in the gaps and voids to give it a uniform appearance.

18. Seeding/Restoration

All side slopes disturbed by construction shall be restored with double straw matting and seed. The double straw matting shall be installed according to the manufacturer's specifications. The straw matting and seed shall be installed no longer than 2 days after the disturbance of the side slope in that area.

All other areas disturbed by construction shall be restored to their pre-construction condition, which may include topsoil and seed. 50mm of screened topsoil and seed shall be installed at all disturbed areas within the road allowances.

19. Environmental Considerations

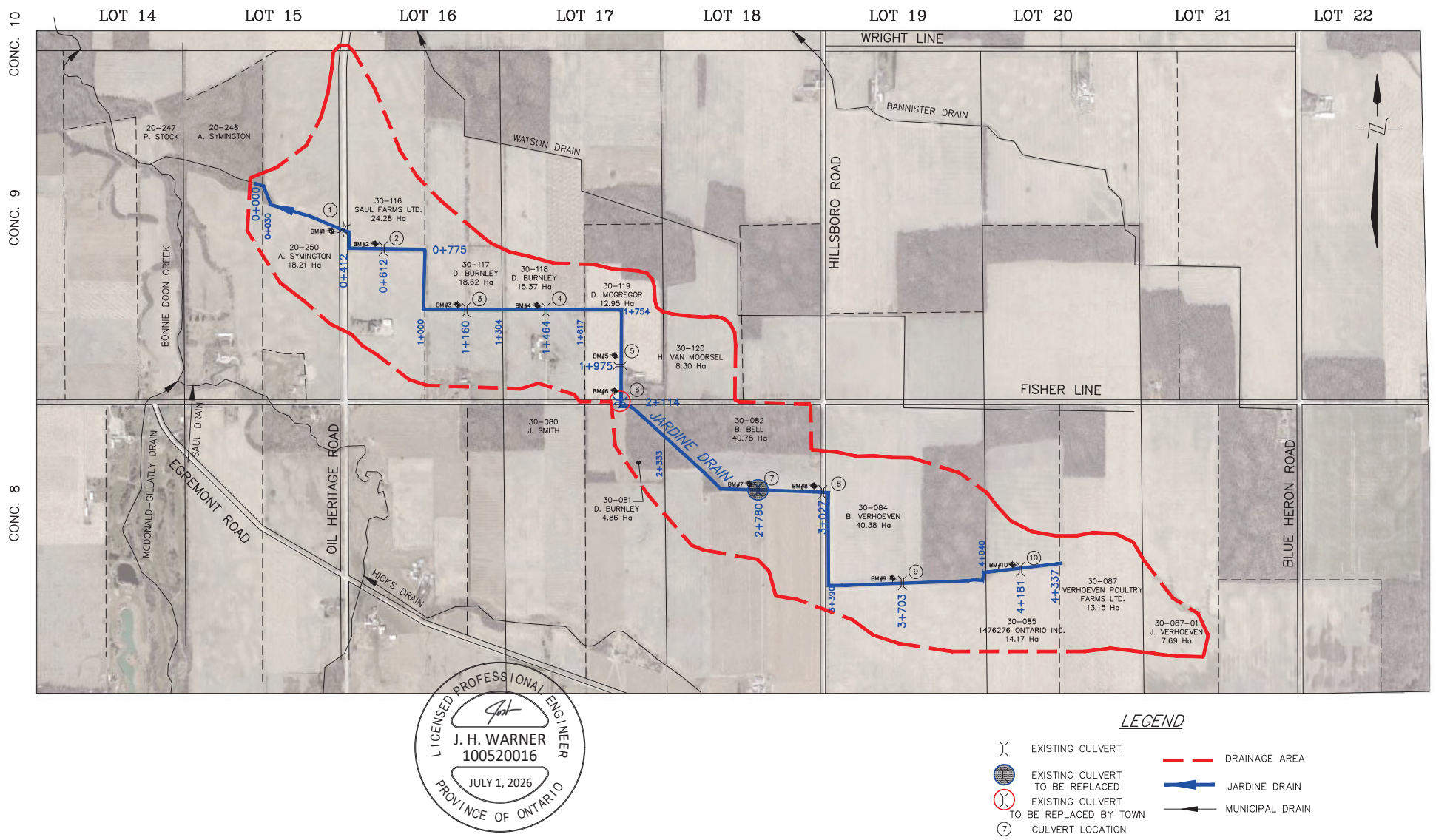
The Contractor shall take care to adhere to the following considerations.

- 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.

- Material shall not be placed in areas regulated by the Conservation Authority or Ministry of Natural Resources.
- All granular and erosion control materials shall be stockpiled a minimum of 3.0m 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 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.
- Remove all construction materials from site upon project completion.

Light duty silt fences shall be installed down-gradient of the work for the duration of construction.

The light duty silt fencing shall be supplied and installed in accordance with OPSS 577 and OPSD 219.110. The light duty silt fencing shall be removed once construction is complete.



LICENSED PROFESSIONAL ENGINEER
J. H. WARNER
100520016
JULY 1, 2026
PROVINCE OF ONTARIO

LEGEND

- EXISTING CULVERT
- EXISTING CULVERT TO BE REPLACED
- EXISTING CULVERT TO BE REPLACED BY TOWN
- (7) CULVERT LOCATION
- DRAINAGE AREA
- JARDINE DRAIN
- MUNICIPAL DRAIN

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

DRAWING NAME: Jardine Drain Plan

PROJECT No. 2026-1808

APPROVED	J. WARNER
CHECKED	B. VAN RUITENBURG
DRAWN	C. SAUNDERS

NO.	REVISIONS	DATE	BY
1	FINAL REPORT	JULY 1, 2026	CS

SCALE: 1:15,000
0 200 400m

TOWN of PLYMPTON-WYOMING

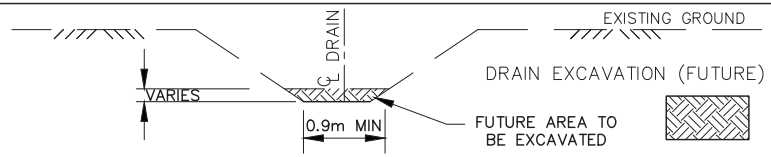
JARDINE DRAIN PLAN

Last Updated: July 1, 2026

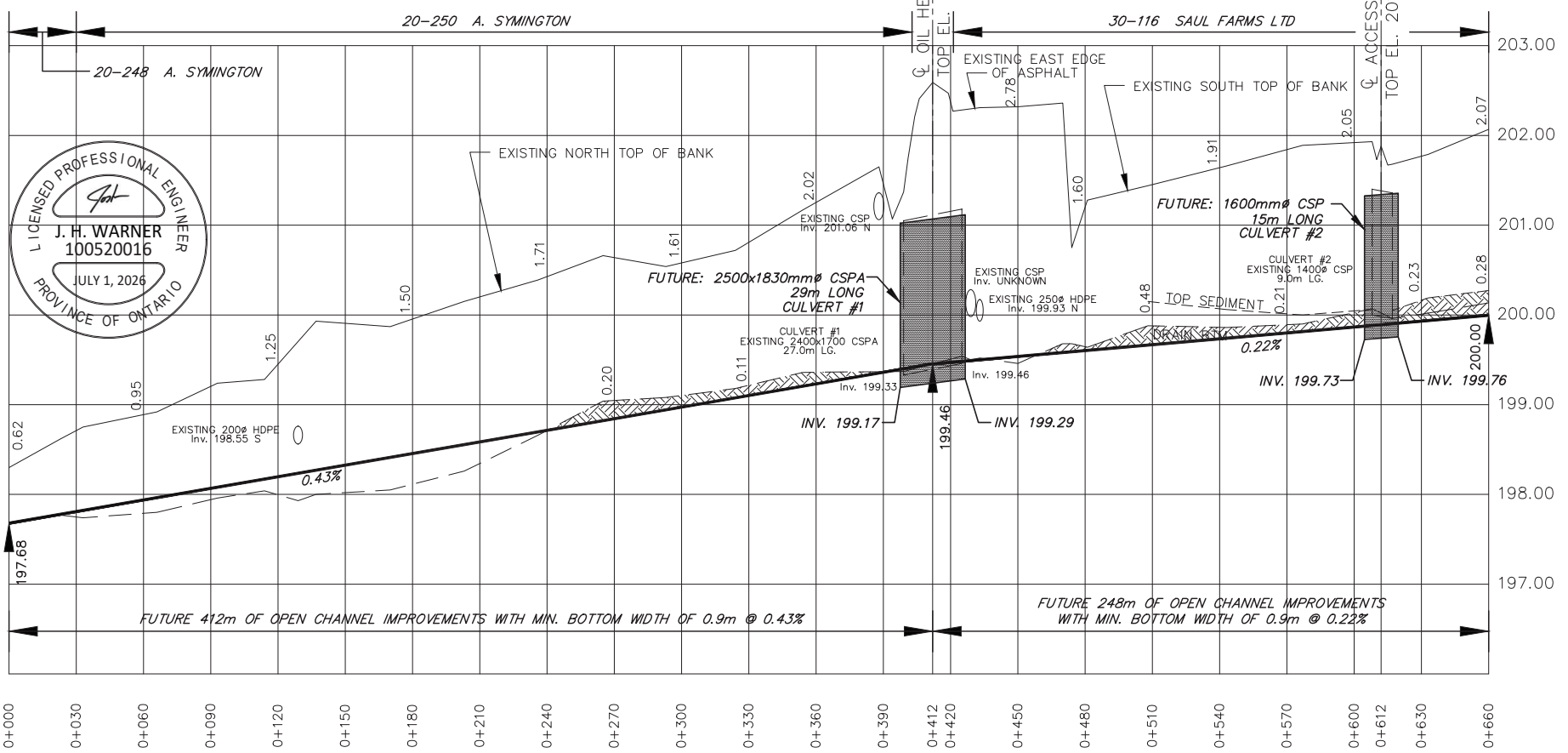
GENERAL NOTES

1. BENCHMARK No.1 ELEV. 201.05
   TOP OF WEST END OF EXISTING 2400x1700 CSPA
   CROSSING STATION AT STATION 0+412
2. UPPER NUMBERS ARE DEPTH FROM TOP OF BANK TO PROPOSED/FUTURE CHANNEL BOTTOM.
3. LOWER NUMBERS ARE DEPTH OF PROPOSED/ FUTURE CHANNEL EXCAVATION.

1. BENCHMARK No.2 ELEV. 201.40
   TOP OF WEST END OF EXISTING 1400ø CSP
   CROSSING ACCESS AT STATION 0+612



TYPICAL DRAIN CROSS SECTION
NTS



LICENSED PROFESSIONAL ENGINEER
J. H. WARNER
100520016
JULY 1, 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: Jardine Drain Profile 1
PROJECT No. 2026–1808

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	FINAL REPORT	JULY 1, 2026	CS
B. VAN RUITENBURG				
DRAWN				
C. SAUNDERS				

SCALE: 1:2,000
0 20 40 60m

TOWN of PLYMPTON-WYOMING

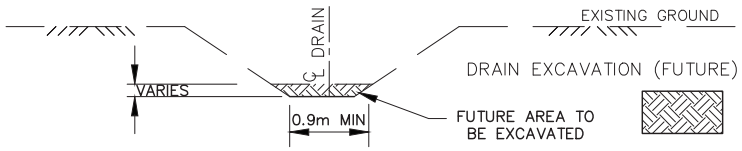
JARDINE DRAIN
PROFILE

Last Updated: July 1, 2026

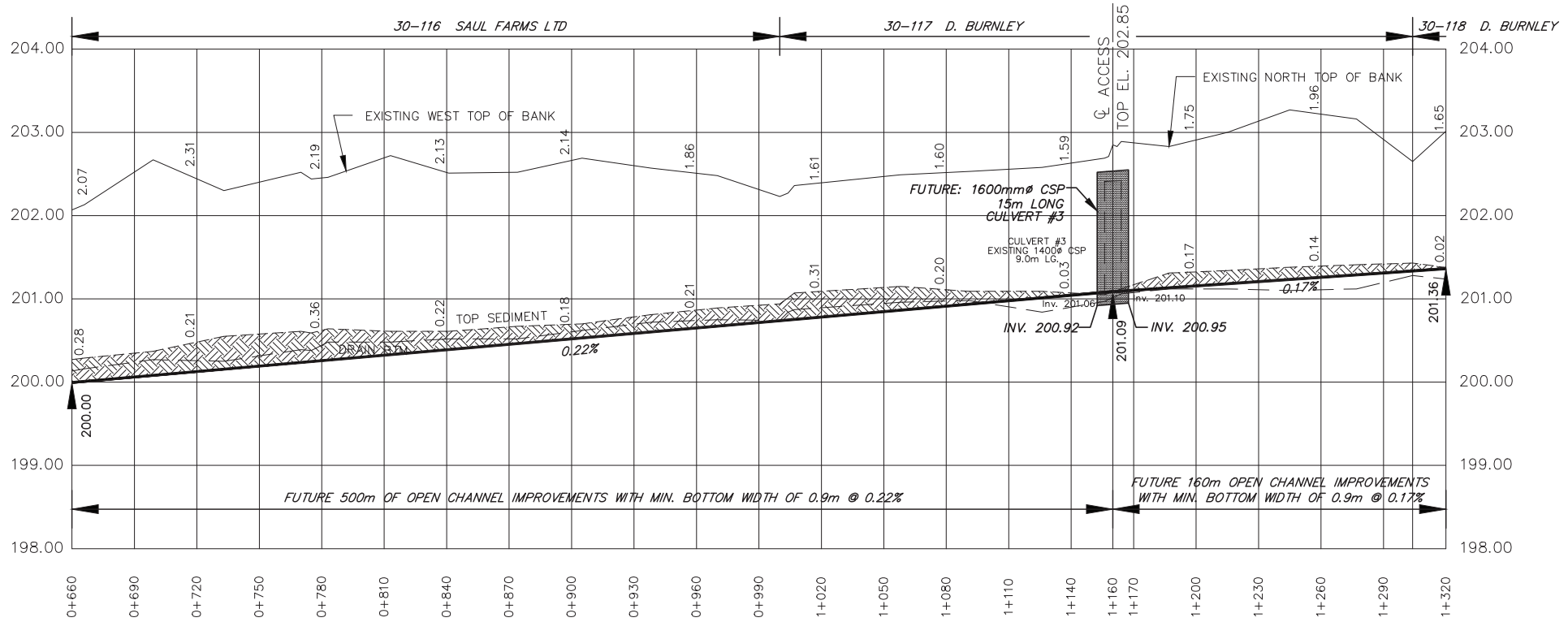
GENERAL NOTES

1. BENCHMARK No.3 ELEV. 202.41
   TOP OF WEST END OF EXISTING 1400ø CSP CROSSING ACCESS AT ST. 1+160
2. UPPER NUMBERS ARE DEPTH FROM TOP OF BANK TO PROPOSED/FUTURE CHANNEL BOTTOM.
3. LOWER NUMBERS ARE DEPTH OF PROPOSED/ FUTURE CHANNEL EXCAVATION.

LICENSED PROFESSIONAL ENGINEER
J. H. WARNER
100520016
JULY 1, 2026
PROVINCE OF ONTARIO



TYPICAL DRAIN CROSS SECTION
NTS



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

DRAWING NAME: Jardine Drain Profile 2
PROJECT No. 2026–1808

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	FINAL REPORT	JULY 1, 2026	CS
B. VAN RUITENBURG				
DRAWN	SCALE: 1:2,000			
C. SAUNDERS	0 20 40 60m			

TOWN of PLYMPTON-WYOMING

JARDINE DRAIN

PROFILE

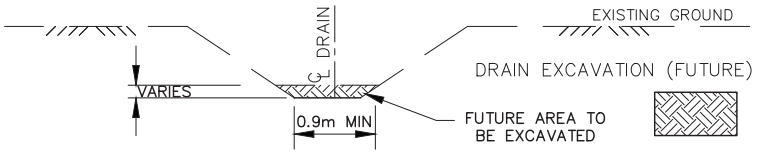
Last Updated: July 1, 2026

GENERAL NOTES

1. BENCHMARK No.4 ELEV. 202.72
   TOP OF WEST END OF EXISTING 1200ø CSP
   CROSSING ACCESS AT ST. 1+464
2. UPPER NUMBERS ARE DEPTH FROM TOP OF BANK TO PROPOSED/FUTURE CHANNEL BOTTOM.
3. LOWER NUMBERS ARE DEPTH OF PROPOSED/ FUTURE CHANNEL EXCAVATION.

1. BENCHMARK No.5 ELEV. 202.97
   TOP OF NORTH END OF EXISTING 1200ø CSP
   CROSSING ACCESS AT ST. 1+975

LICENSED PROFESSIONAL ENGINEER
J. H. WARNER
100520016
JULY 1, 2026
PROVINCE OF ONTARIO



TYPICAL DRAIN CROSS SECTION
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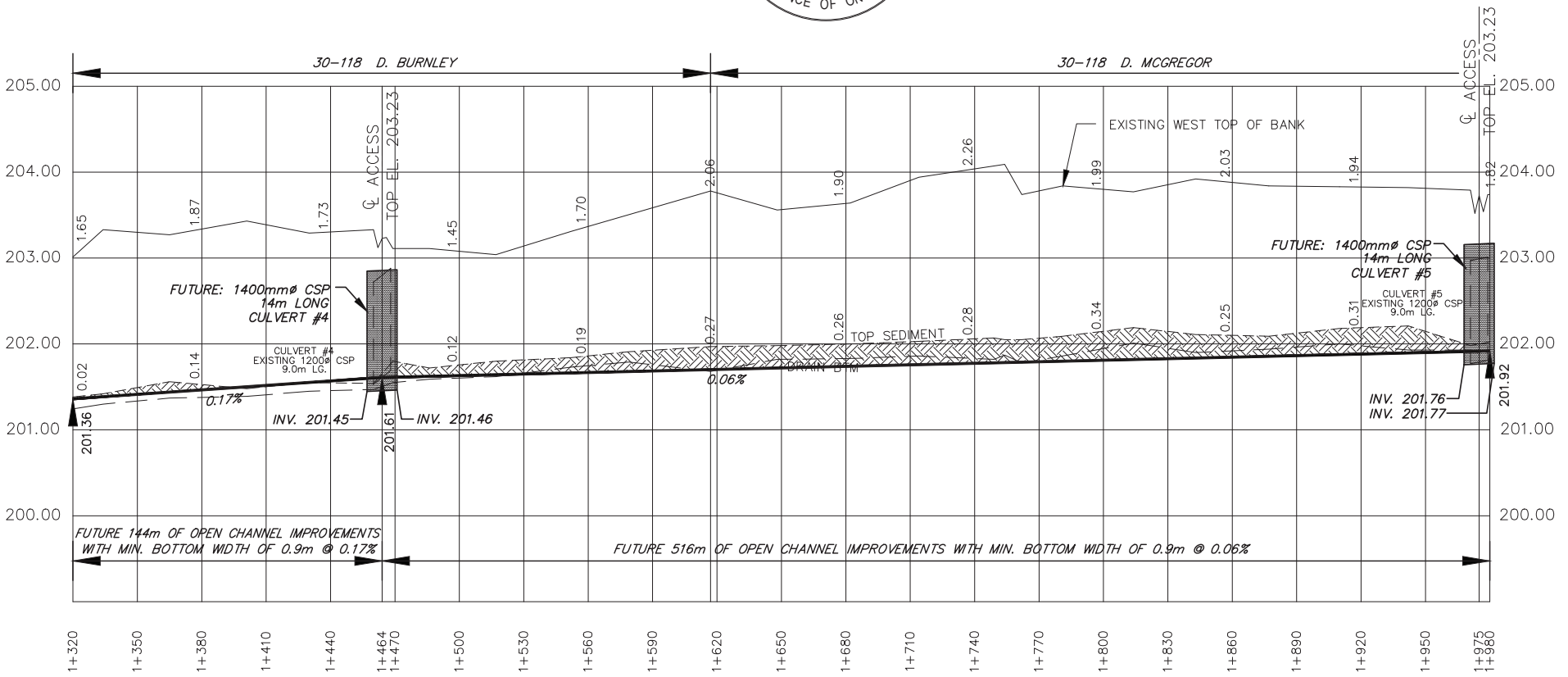

Dobbin Engineering Inc.
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Phone: (519) 882-0032 Fax: (519) 882-2233

DRAWING NAME: Jardine Drain Profile 3
PROJECT No. 2026–1808

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	FINAL REPORT	JULY 1, 2026	CS
B. VAN RUITENBURG				
DRAWN				
C. SAUNDERS				

SCALE: 1:2,000
0 20 40 60m

TOWN of PLYMPTON-WYOMING

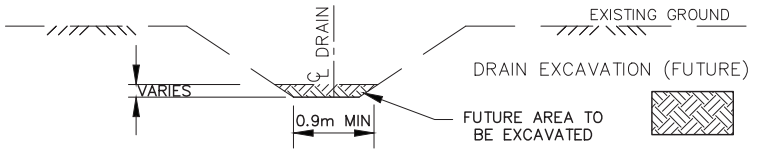
JARDINE DRAIN
PROFILE

Last Updated: July 1, 2026

GENERAL NOTES

1. BENCHMARK No.6 ELEV. 203.07
   METAL SCREW ON THE NORTH END OF EXISTING 1500ø CSP CROSSING FISHER LINE AT ST. 2+114 (TO BE TRANSFERRED PRIOR TO CONSTRUCTION)
2. UPPER NUMBERS ARE DEPTH FROM TOP OF BANK TO PROPOSED/FUTURE CHANNEL BOTTOM.
3. LOWER NUMBERS ARE DEPTH OF PROPOSED/ FUTURE CHANNEL EXCAVATION.

LICENSED PROFESSIONAL ENGINEER
J. H. WARNER
100520016
JULY 1, 2026
PROVINCE OF ONTARIO



TYPICAL DRAIN CROSS SECTION
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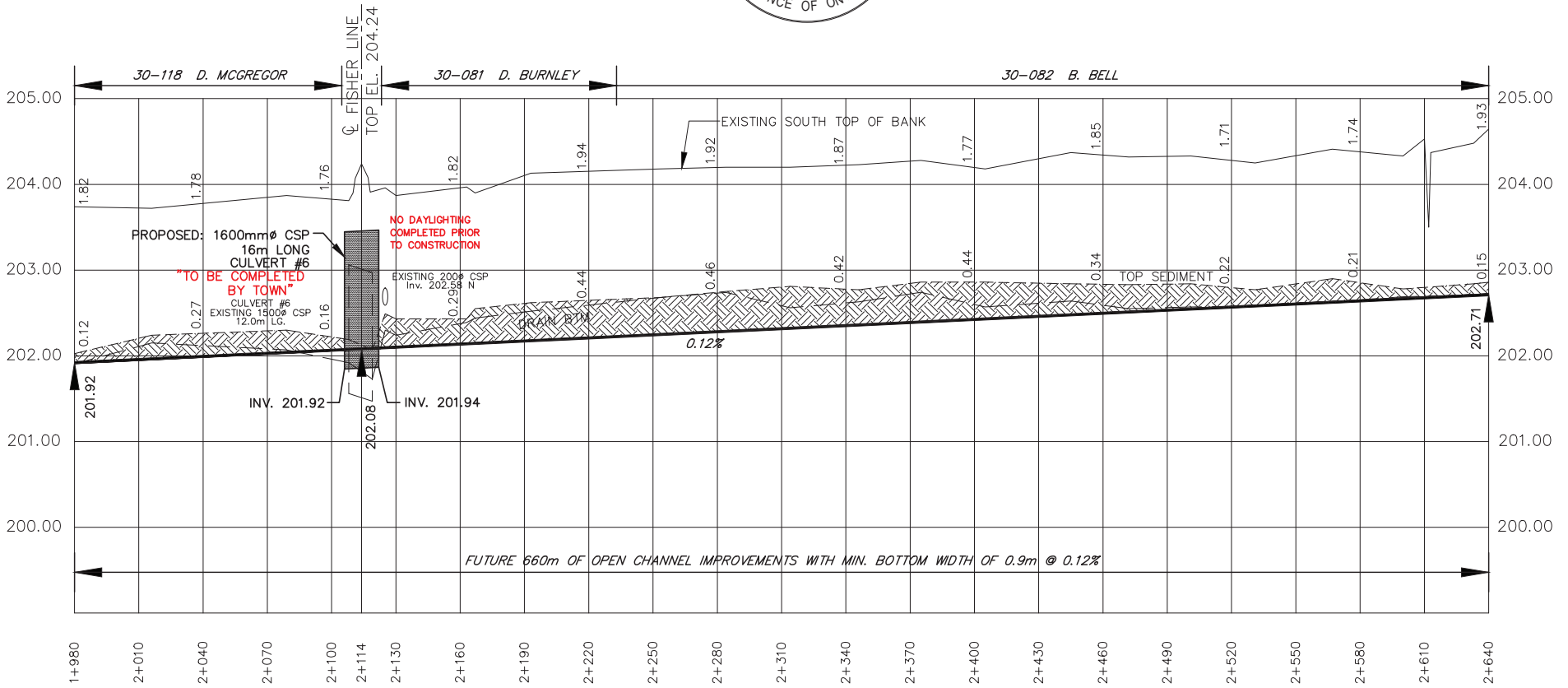

Dobbin Engineering Inc.
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DRAWING NAME: Jardine Drain Profile 4
PROJECT No. 2026–1808

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	FINAL REPORT	JULY 1, 2026	CS
B. VAN RUITENBURG				
DRAWN				
C. SAUNDERS				

SCALE: 1:2,000
0 20 40 60m

TOWN of PLYMPTON-WYOMING

JARDINE DRAIN
PROFILE

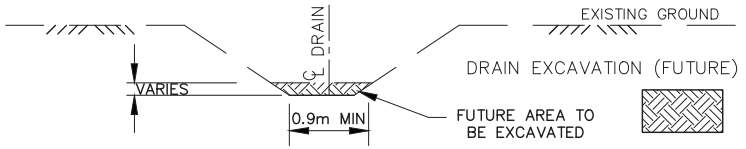
Last Updated: July 1, 2026

GENERAL NOTES

1. BENCHMARK No.7 ELEV. 204.14
   TOP OF WEST END OF EXISTING 1200ø CSP
   CROSSING ACCESS AT ST. 2+780
2. UPPER NUMBERS ARE DEPTH FROM TOP OF BANK TO PROPOSED/FUTURE CHANNEL BOTTOM.
3. LOWER NUMBERS ARE DEPTH OF PROPOSED/ FUTURE CHANNEL EXCAVATION.

1. BENCHMARK No.8 ELEV. 204.22
   TOP OF WEST END OF EXISTING 1200ø CSP
   CROSSING HILLSBORO ROAD AT ST. 3+027

LICENSED PROFESSIONAL ENGINEER
J. H. WARNER
100520016
JULY 1, 2026
PROVINCE OF ONTARIO



TYPICAL DRAIN CROSS SECTION
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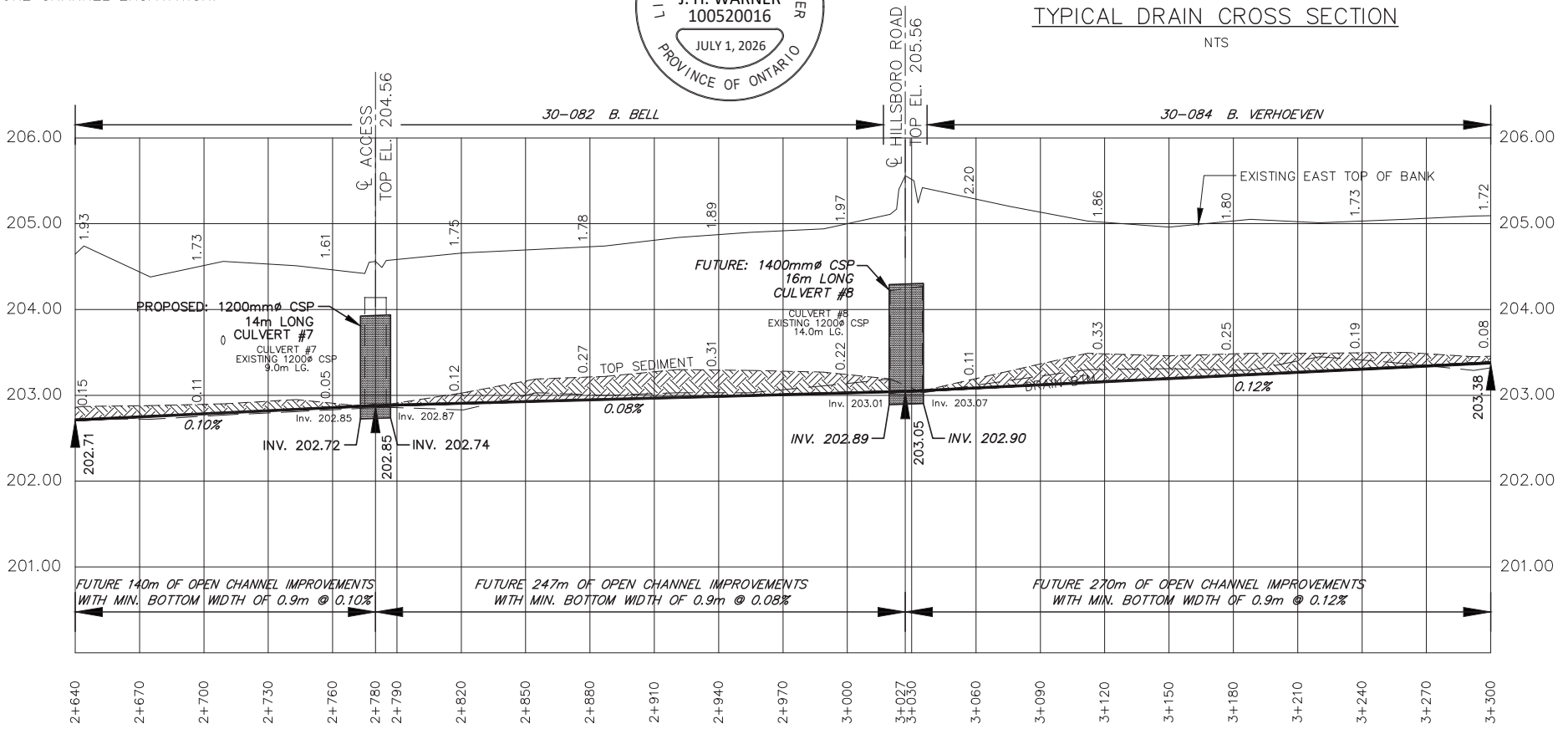

Dobbin Engineering Inc.
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Phone: (519) 882-0032 Fax: (519) 882-2233

DRAWING NAME: Jardine Drain Profile 5
PROJECT No. 2026-1808

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	FINAL REPORT	JULY 1, 2026	CS
B. VAN RUITENBURG				
DRAWN				
C. SAUNDERS				

SCALE: 1:2,000
0 20 40 60m

TOWN of PLYMPTON-WYOMING

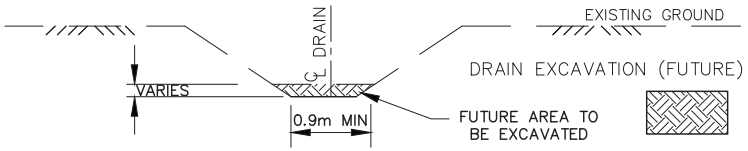
JARDINE DRAIN
PROFILE

Last Updated: July 1, 2026

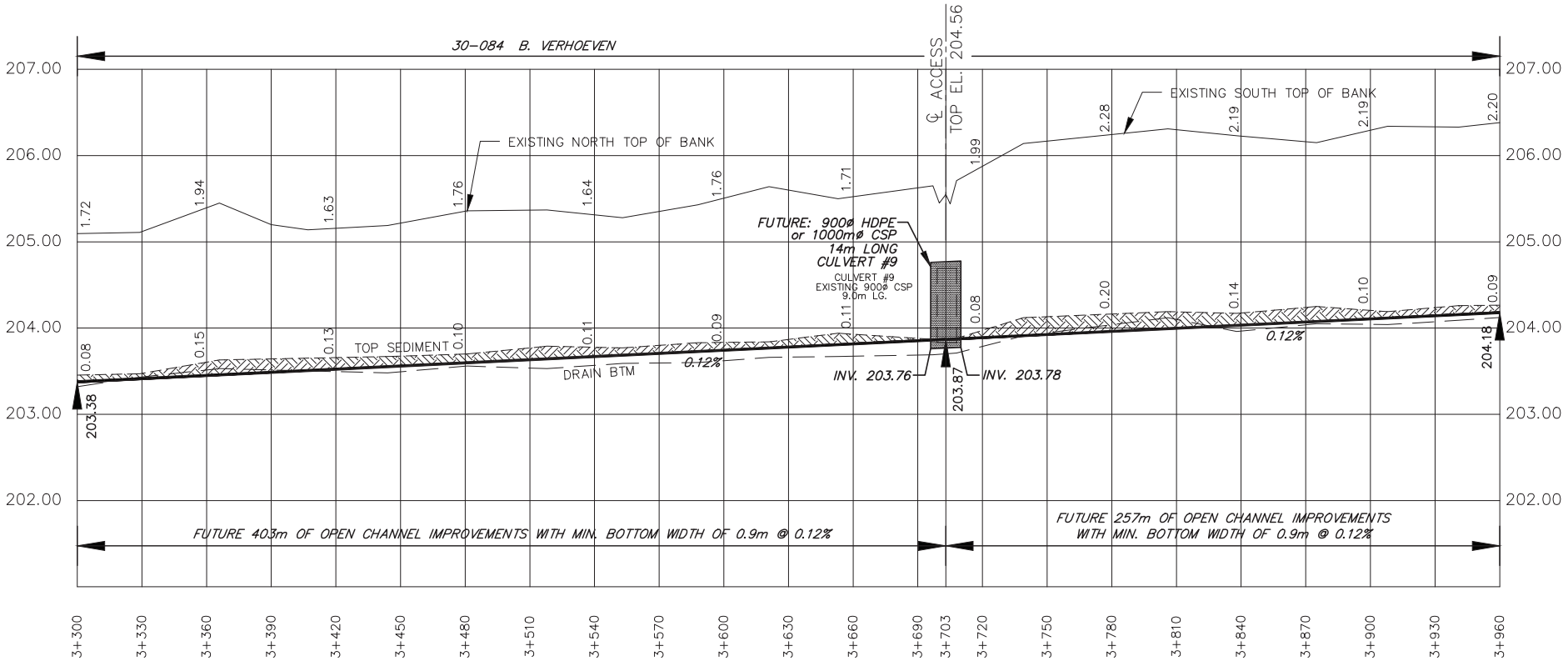
GENERAL NOTES

1. BENCHMARK No.9 ELEV. 204.69
   TOP OF EAST END OF EXISTING 900ø CSP
   CROSSING ACCESS AT ST. 3+703
2. UPPER NUMBERS ARE DEPTH FROM TOP OF BANK TO PROPOSED/FUTURE CHANNEL BOTTOM.
3. LOWER NUMBERS ARE DEPTH OF PROPOSED/ FUTURE CHANNEL EXCAVATION.

LICENSED PROFESSIONAL ENGINEER
J. H. WARNER
100520016
JULY 1, 2026
PROVINCE OF ONTARIO



TYPICAL DRAIN CROSS SECTION
NTS



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

DRAWING NAME: Jardine Drain Profile 6
PROJECT No. 2026-1808

APPROVED J. WARNER
CHECKED B. VAN RUITENBURG
DRAWN C. SAUNDERS

NO.	REVISIONS	DATE	BY
1	FINAL REPORT	JULY 1, 2026	CS

SCALE: 1:2,000
0 20 40 60m

TOWN of PLYMPTON-WYOMING

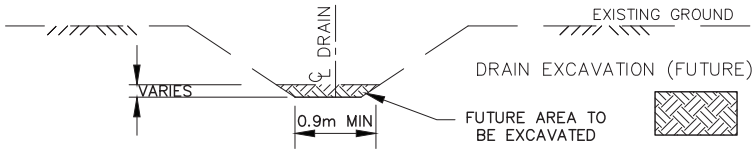
JARDINE DRAIN

PROFILE

Last Updated: July 1, 2026

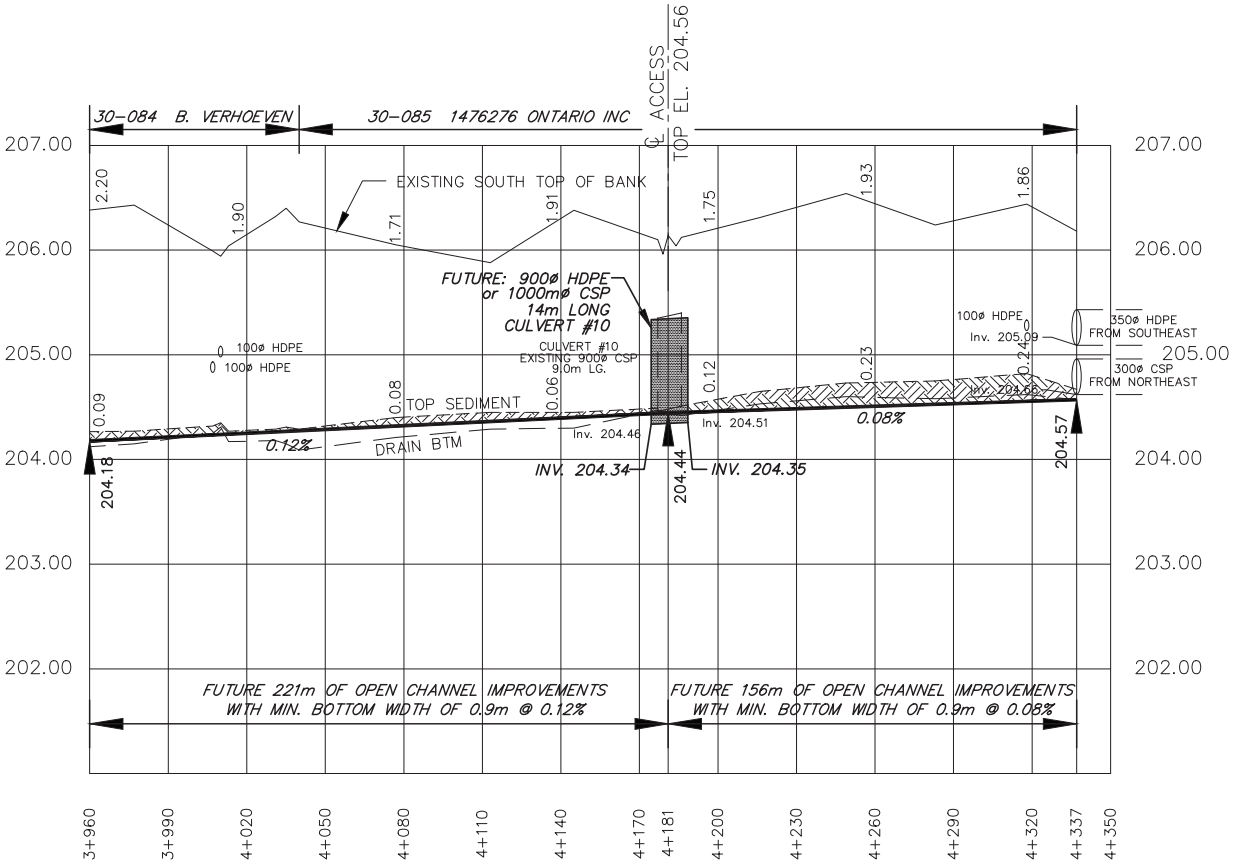
GENERAL NOTES

1. BENCHMARK No.10 ELEV. 205.35
   TOP OF WEST END OF EXISTING 900ø CSP
   CROSSING ACCESS AT ST. 4+181
2. UPPER NUMBERS ARE DEPTH FROM TOP OF BANK TO PROPOSED/FUTURE CHANNEL BOTTOM.
3. LOWER NUMBERS ARE DEPTH OF PROPOSED/ FUTURE CHANNEL EXCAVATION.



TYPICAL DRAIN CROSS SECTION

NTS



LICENSED PROFESSIONAL ENGINEER
J. H. WARNER
100520016
JULY 1, 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: Jardine Drain Profile 7

PROJECT No. 2026-1808

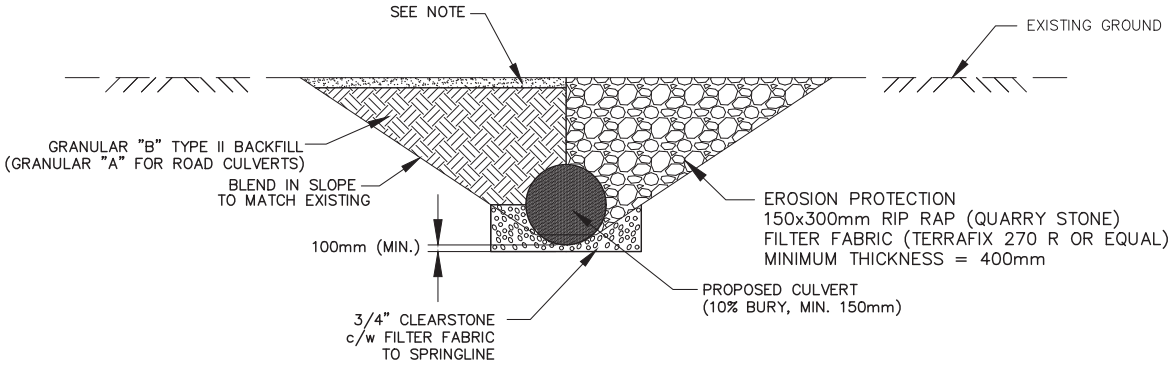
APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	FINAL REPORT	JULY 1, 2026	CS
B. VAN RUITENBURG				
DRAWN				
C. SAUNDERS				

SCALE: 1:2,000
0 20 40 60m

TOWN of PLYMPTON-WYOMING

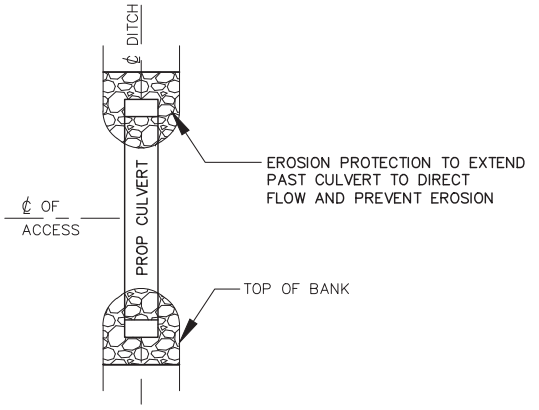
JARDINE DRAIN
PROFILE

Last Updated: July 1, 2026



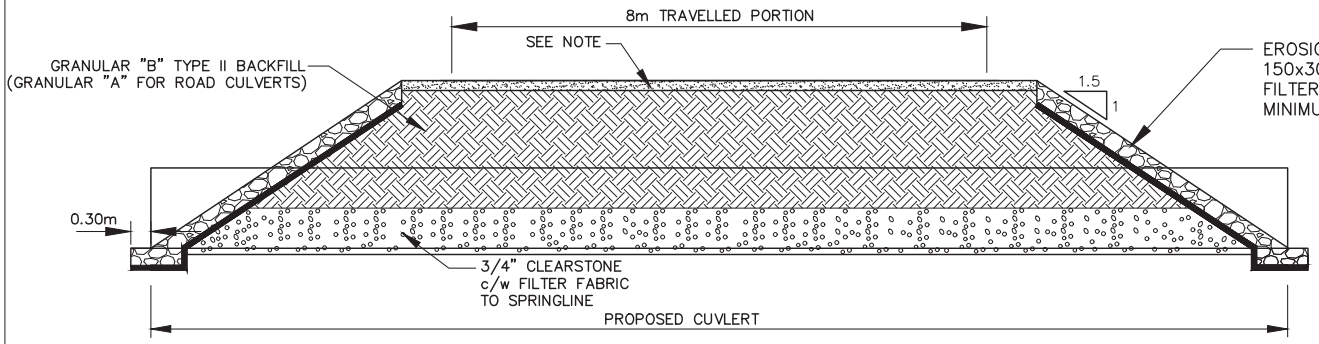
TYPICAL CUVLERT END SECTION

NTS



TYPICAL CUVLERT PLAN

NTS



TYPICAL CROSS-SECTION

NTS

NOTE:
ALL GRANULARS COMPACTED
TO 98% MODIFIED PROCTOR DENSITY

NOTE:

FOR ACCESS CULVERTS:
–150mm 100% CRUSHED GRANULAR 'A'

FOR ROAD CROSSING CULVERTS:
– GRAVEL ROADS: GRANULAR "A"
– ASPHALT ROADS: HL4 AND HL3 TO MATCH EXISTING (MINIMUM 50mm)

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

DRAWING NAME: Jardine Drain Culvert Details

PROJECT No. 2026-1808

APPROVED J. WARNER

CHECKED B. VAN RUITENBURG

DRAWN C. SAUNDERS

NO.	REVISIONS	DATE	BY
1	FINAL REPORT	JULY 1, 2026	CS

SCALE 1:75
0 2m

TOWN of PLYMPTON-WYOMING

JARDINE DRAIN
CSP CULVERT DETAIL

9

OF 9

Last Updated: July 1, 2026