

May 28, 2026

The Mayor and Council  
Town of Essex  
33 Talbot Street South  
Essex, Ontario  
N8M 1A8

Gentlemen & Mesdames:

**Re: Brousseau-Grondin Drain 2026**

In accordance with your instructions, we have undertaken an examination of the Brousseau-Grondin Drain with regards to making drainage improvements in Lot 1, Concession 11 in the Town of Essex. The work includes the replacement of the enclosed piped drain through Sunpark Hidden Creek Residence.

Authorization under the Drainage Act

This Engineers 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 May 20, 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 Brousseau-Grondin Drain currently exists as both an open channel drain and an enclosed piped drain. The drain is located in Lots 1-4, Concession 11 in the Town of Essex. The drain commences at an outlet to the Sucker Creek Drain as an enclosed piped drain and heads in the south easterly direction through Sunpark Hidden Creek Residences where it turns into an open channel. The open channel heads in a south direction to 11<sup>th</sup> Concession Road and then east along the north side of 11<sup>th</sup> Concession Road to the head of the drain at Walker Sideroad.

Under an Engineer's Report dated September 8, 1950 prepared by C.G.R. Armstrong, the Brousseau Drain was converted from an Award Drain to a municipal drain. Both the Brousseau Drain and the Grondin Drain were an open channel for the entire length. This report incorporated both under the name "Brousseau-Grondin Drain".

An Engineer's Report dated June 30, 1966 prepared by C.G.R. Armstrong, provided for drain improvements along with replacing and lowering of culverts throughout the drain.

An Engineer's Report dated March 18, 1971 prepared by C.G.R. Armstrong, recommended enclosing the open channel with a piped section through part of Lot 1, Concession 11 (currently Sunpark Hidden Creek Residences property). From the records at the Town of Essex, this report was never adopted under By-law and the Drainage Act, but the proposed work outlined in the report was constructed privately by the owner for the trailer park.

An Engineer's Report dated June 3, 1983 prepared by J.M. Horan, P.Eng. relocated the open channel drain along the 11<sup>th</sup> Concession Road north off the road allowance.

### Onsite Meeting

An Onsite Meeting was held on July 29, 2025.

The following were present at the meeting:

- Josh Warner (R. Dobbin Engineering)
- David Moores (R. Dobbin Engineering)
- Lindsay Dean (Town of Essex)
- Tanya Tuzlova (Town of Essex)
- Sam Paglia (Town of Amherstburg)
- Ralph Billingsley (Landowner)
- Paul Bennett (Tenant – Sunpark)
- Joe & Melody Bezaire (Landowner)
- Rick Menard (Tenant – Sunpark)
- Lynne Menard (Tenant – Sunpark)
- Pat Cooper (Tenant – Sunpark)
- Marc Gagnon (Landowner)
- Glen Lemire (Sunpark Maintenance)
- James Quелlette (Tenant – Sunpark)
- Lenora Beneteau (Tenant – Sunpark)

The following is a brief summary of the meeting:

- General discussion of the Drainage Act and Landowners rights under the Drainage Act was presented to those in attendance.
- Attendees were made aware that a request was received by the Town of Essex to either replace or reline the enclosed piped drain through Sunpark Hidden Creek Residence.
- Discussion was held about the current condition of the piped drain and that there were multiple sinkholes in tenant's backyards that are becoming a safety issue.
- It was explained that a survey and investigation would be completed and those findings would be outlined in a Drainage Report.
- It was explained that the cost of the project would be assessed out to lands and roads that contributed water to the drain based on benefit and outlet. Those lands that touch the enclosed drain will be assessed a benefit assessment and upstream lands will be assessed an outlet assessment.
- A representative that identified himself as representing Sunpark Hidden Creek Residence said that residents would not be assessed for the work. The Engineer responded to this that we are required under the Drainage Act to assess the individual properties.
- Next steps regarding the Drainage Act process were explained to those in attendance.

#### Discussion and Investigation

The enclosed piped drain was surveyed through the park. The current condition of the pipe showed multiple failures and holes throughout. We were unable to operate a camera through the entire pipe due to debris and tree roots in the pipe. Therefore, we dug up the pipe at various locations to obtain a visual inspection.

During the inspection of the drain multiple sinkholes were visible in the backyards of the residents. Interim repairs were completed to make the area safe until the report was completed.

Currently, there are fences, trees, decks, sheds, and air conditioners installed over the existing pipe and trailers are in close proximity to the drain. A list of encroachments has been recorded and will be outlined in the specifications. These encroachments will need to be removed prior to construction by the owner. This report will develop a setback required where no encroachments can be placed over the pipe or within the outlined working corridor. Encroachments removed for construction will not be allowed to be reinstalled.

Part of the investigation included surveying and daylighting utilities in the vicinity of the enclosed piped drain to ensure there are no conflicts.

The enclosed drain was analysed for both full replacement and relining. Due to the pipe size required to accommodate the capacity of upstream water, the relining option would not work. Therefore, full replacement of the pipe is required.

### Design

The pipe has been designed to accommodate a 1 in 5-yr storm event.

### Recommendations

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

1. The enclosed piped drain shall be replaced from the outlet at Walker Drain upstream for approximately 220m.
2. Maintenance provisions for the enclosed pipe section shall be prepared.

### Estimate of Cost

It is recommended that the work be carried out in accordance with the accompanying Specification of Work and the Profile, which form part of this Report. There has been prepared an Estimate of Cost in the amount of \$827,260.00 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 their 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 (20% of the construction cost).

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

1. The enclosed piped drain has been assessed with 90% of the cost applied as a benefit assessment and 10% of the cost applied as an outlet assessment to upstream lands and roads based on equivalent hectares.
2. The increased cost to replace the covered drain under Parkside Drive including removals, asphalt road, curb, sidewalk, and granular backfill has been assessed 100% of the cost applied as a special benefit assessment to the owner of the private road.

The asphalt road, curb, and sidewalk installation are non-pro-rateable special benefit assessments and shall be tendered separately. The actual construction costs for these items shall be assessed 100% to the owner of Parkside Drive. The remaining items for work at Parkside Drive are pro-rateable special benefit assessments. The pro-rateable special benefit assessment to Parkside Drive shall be \$59,866.00 - \$18,300.00.

3. The cost to replace the manhole at Station 0+072 has been assessed as a benefit assessment to the benefiting landowners only, prorated based on their benefit assessment for the covered drain.
4. The cost to grout the existing pipe under the garage and the replacement of a section of the concrete driveway at 1 Elm Court has been assessed 100% of the cost applied as a special benefit assessment to the owner of Roll No. 560-13154.
5. As per Section 26 of the Drainage Act, utilities have been assessed the increased cost of the drainage works caused by the existence of the utilities to the proposed works. The cost to daylight and survey the utilities in the vicinity of the drain prior to

construction has been assessed \$3,125.00 per utility (this cost includes a portion of engineering).

During construction the Contractor will be required to daylight and work around these utilities, therefore these items shall be tendered separately with the actual cost plus the net HST and a portion of the engineering (20% of the construction cost) being assessed to the owner of the utility. This amount shall be split equally between the utilities shown on the Schedule of Assessment.

If additional utilities not identified on the drawings or assessed under this report are found during construction, any work required by the Contractor to work daylight or work around shall be assessed 100% of the cost to the utility plus the net HST and a portion of engineering (20% of the construction cost).

All final costs included in the cost estimate of this report shall be pro-rated based on the Schedule of Assessment, unless otherwise stated. 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, allowances have been made under section 30 for damages to lands occasioned by the operation of excavation equipment to replace the covered drain.

#### Access and Working Area

Access to the drain shall be from Parkside Drive then along the length of the drainage works for both the replacement of the enclosed piped drain and future maintenance.

The working area outside the limits of Parkside Drive shall be identified on the drawings as the "limits of the working corridor". It shall be 6 meters centered on the enclosed piped drain.

The working area for Parkside Drive shall be 15 meters centered on the enclosed drain.

#### Approvals and Drain Classification

The Brousseau-Grondin Drain has two drain classes. The work area under this report is currently classified as a Class “C” drain with the upstream portion classified as a Class “F” drain. The Brousseau-Grondin Drain outlets to the Walker Drain / Sucker Creek Drain which is a Class “C” drain.

Class “C” drains have permanent flow with a spring spawning period and no sensitive species present. Works in a “C” Drain are restricted to no in water works between March 15<sup>th</sup> and July 15<sup>th</sup>. A Class Authorization may be required.

Class “F” drains are intermittent or ephemeral (dry for more than three consecutive months). No Class Authorization is required if work is completed in the dry or no flow and therefore can be completed at anytime of the year.

The proposed improvements will have very little effect on the Sucker Creek Drain or the open portion of the Brousseau-Grondin Drain if works are carried out during low flows in the channel. The work area shall be maintained in a dry condition during construction by the Contractor.

The proposed work will require a permit from the Essex Region Conservation Authority. A request for review will be sent to the Fisheries and Oceans Canada (DFO). No works can take place until all approvals are received.

#### Restrictions / Encroachments

No trees and shrubs shall be planted nor shall permanent structures (decks, sheds, buildings, fences, etc.) be erected within 3 metres of either side of the proposed drain without prior written permission of Council. Any tree, shrub, or structure that is placed in the future shall be removed at the expense of the Owner.

Currently, there are existing structures (decks, fences, shed, building, etc.) within the working corridor for the drain. Sunpark Hidden Creek Residences has agreed to work with the tenants to have these structures removed prior to construction. R. Dobbin Engineering will lay out the location of the proposed enclosed drain and mark which of these structures are required to be removed. If they are not removed prior to construction the Contractor will remove them and the cost will be assessed as a special benefit to the properties accordingly.

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 enclosed piped drain shall be maintained and repaired in accordance with the specifications and drawings contained within this report and assessed out with 90% of the cost applied as a benefit assessment to the abutting property(s) and 10% of the cost applied as an outlet assessment to upstream lands and roads based on equivalent hectares as shown on the Schedule of Assessment. If the repair location abuts multiple properties, then the 90% benefit assessment shall be split equally between the properties.

If the drain is flushed, cleaned or inspected the cost shall be assessed as per the attached Schedule of Assessment, less any special benefit assessments.

The grassed swale above the enclosed piped drain shall be maintained and repaired in accordance with the specifications and drawings contained within this report and assessed out in the same manner as described above for flushing and cleaning.

Any maintenance or repair required at the outlet (rip rap or steel grate) to Sucker Creek Drain or the inlet at the open portion of the Brousseau-Grondin Drain shall be assessed an outlet assessment to upstream lands and roads based on equivalent hectares as shown on the Schedule of Assessment.

Any increased costs required during maintenance or repair of the enclosed drain located within the limits of Parkside Drive shall be assessed 100% of the costs to the owner of Parkside Drive. (i.e. such as, but not limited to work required for the sidewalk, curb, asphalt road, or granular materials).

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.

Yours truly,

Report Prepared By:



David Moores, C.E.T

Report Approved By:



Josh Warner, P. Eng.





Brousseau-Grondin Drain  
Town of Essex  
May 28, 2026

**ALLOWANCES**

Allowances have been made as per Sections 30 of the Drainage Act for damages to lands.

Conc.	Lot or part	O.I.N	Roll No.	Owner	Section 30	Total
11	Pt. Lot 1	33	560-13169	Sunpark Hidden Creek Residence	50.00	50.00
	Pt. Lot 1	34	560-13166	Sunpark Hidden Creek Residence	50.00	50.00
	Pt. Lot 1	35	560-13163	Sunpark Hidden Creek Residence	50.00	50.00
	Pt. Lot 1	36	560-13160	Sunpark Hidden Creek Residence	50.00	50.00
	Pt. Lot 1	37	560-13157	Sunpark Hidden Creek Residence	80.00	80.00
	Pt. Lot 1	38	560-12965	Sunpark Hidden Creek Residence	80.00	80.00
	Pt. Lot 1	39	560-12962	Sunpark Hidden Creek Residence	80.00	80.00
	Pt. Lot 1	40	560-12959	Sunpark Hidden Creek Residence	60.00	60.00
	Pt. Lot 1	41	560-12956	Sunpark Hidden Creek Residence	90.00	90.00
	Pt. Lot 1	42	560-13145	Sunpark Hidden Creek Residence	180.00	180.00
	Pt. Lot 1	43	560-13148	Sunpark Hidden Creek Residence	50.00	50.00
	Pt. Lot 1	44	560-13151	Sunpark Hidden Creek Residence	60.00	60.00
	Pt. Lot 1	45	560-13154	Sunpark Hidden Creek Residence	120.00	120.00
	Pt. Lot 1	46	560-12968	Sunpark Hidden Creek Residence	50.00	50.00
	Pt. Lot 1	47	560-12971	Sunpark Hidden Creek Residence	60.00	60.00
	Pt. Lot 1	48	560-12974	Sunpark Hidden Creek Residence	60.00	60.00
	Pt. Lot 1	49	560-12977	Sunpark Hidden Creek Residence	50.00	50.00
	Pt. Lot 1	50	560-12980	Sunpark Hidden Creek Residence	50.00	50.00
	Pt. Lot 1	51	560-12983	Sunpark Hidden Creek Residence	50.00	50.00
	Pt. Lot 1	52	560-12986	Y. & P. Cooper	50.00	50.00
	Pt. Lot 1	53	560-12989	Sunpark Hidden Creek Residence	50.00	50.00
	Parkside Drive (Private Road)			Essex Vacant Lan Condominium Corp. No. 163	320.00	320.00
					<u>\$1,740.00</u>	<u>\$1,740.00</u>



**Estimate of Cost**

To replace the covered drain of the Brousseau - Grondin Drain through Sunpark Hidden Creek Residence.

	Quantity	Unit	Unit Cost	Total
<u>Covered Drain - Sta. 0+000 to 0+072</u>				
R. & D. of Existing 1500mmø Covered Drain including Excess Material	62	m	500.00	31,000.00
Grout Existing 1500mmø Covered Drain from Sta. 0+057 to 0+067 (Under Garage)	10	m	800.00	8,000.00
Remove, Dispose, and Reinstall a portion of the Concrete Drive at #1 Elm Court	12	sq.m	200.00	2,400.00
S. and I. 1500mmø HDPE pipe c/w Clearstone Bedding up to Springline and Native Backfill	72	m	1,450.00	104,400.00
S. and I. 1500mmø Stainless Steel Inside Grate at Outlet	1	LS	500.00	500.00
S. and I. 300mmø Catchbasin c/w Inserta Tee and Steel Grate	1	ea	2,000.00	2,000.00
S. and I. 2400mmø Concrete MH c/w Clearstone Bedding at Station 0+072	1	ea	25,000.00	25,000.00
Tree Removal and Disposal	1	LS	25,000.00	25,000.00
Brushing at Outlet	1	LS	1,000.00	1,000.00
Restoration, Build Swale, & Seeding	1	LS	10,000.00	10,000.00
Rip Rap endwall	30	t	100.00	3,000.00
Environmental Considerations (Silt Fence)	1	LS	350.00	350.00
				212,650.00
<u>Parkside Drive - Sta. 0+072 to 0+090</u>				
R.& D. Covered Drain, Existing Manhole, Sidewalks, and Concrete Curb c/w Excess Material & Asphalt	1	LS	10,000.00	10,000.00
S. and I. 1500mmø Sanitite HP pipe c/w Clearstone Bedding up to Springline	18	m	1,800.00	32,400.00
Connect Existing 300mmø Storm on North Side of Road to Proposed MH c/w all Fittings and Clearstone Bedding	1	ea	1,500.00	1,500.00
Connect Existing 300mmø Storm on South Side of Road to Proposed Storm c/w Inserta Tee and Clearstone Bedding	1	ea	2,500.00	2,500.00
Supply Granular "B" Type II Backfill	120	t	40.00	4,800.00
Supply Granular "A" Base	40	t	40.00	1,600.00
S. & I. HL3 Asphalt	12	t	450.00	5,400.00
S. & I. HL4 Asphalt	12	t	450.00	5,400.00
S. & I. Concrete Curb	30	m	100.00	3,000.00
S. & I. Concrete Sidewalk	45	sq.m	100.00	4,500.00
				71,100.00

	Quantity	Unit	Unit Cost	Total
<u>Covered Drain - Sta. 0+090 to 0+220</u>				
R. & D. of Existing 1500mmø Covered Drain including Excess Material	130	m	500.00	65,000.00
S. and I. 1500mmø HDPE pipe c/w Clearstone bedding up to springline and Native Backfill	130	m	1,450.00	188,500.00
S. and I. 1500mmø 22-degree Elbow at Sta. 0+108	1	ea	5,000.00	5,000.00
S. and I. 300mmø Catchbasin c/w Inserta Tee and Steel Grate	2	ea	2,000.00	4,000.00
S. and I. 1500mmø Stainless Steel Inside Grate at Outlet	1	LS	500.00	500.00
Tree Removal and Disposal	1	LS	25,000.00	25,000.00
Brushing at Open Channel	1	LS	1,000.00	1,000.00
Restoration, Build Swale, & Seeding	1	LS	10,000.00	10,000.00
Rip Rap endwall	30	t	100.00	3,000.00
Environmental Considerations (Silt Fence)	1	LS	350.00	350.00
				302,350.00
<u>Utilities:</u>				
Daylight and Work around Utilities during Construction	1	LS	10,000.00	10,000.00
Contingency				42,000.00
				Sub Total 638,100.00
				Allowances 1,740.00
				Engineering 87,420.00
				Surveying & Daylighting Utilities 15,625.00
				Interim Repairs 15,625.00
				Estimate for Tendering, Inspection & Contract Admin. 53,690.00
				ERCA Fees (Permit) 800.00
				Total Estimate excluding HST 813,000.00
				Non-Recoverable HST (1.76%) 14,260.00
				<b>Total Estimate \$827,260.00</b>

**SCHEDULE OF ASSESSMENT**

To replace the covered drain of the Brousseau - Grondin Drain through Sunpark Hidden Creek Residence.

Conc.	Lot or Part	Affected Hect.	Roll No.	O.I.N	Owner	Sp. Benefit	Benefit	Outlet	Total	Equiv. Ha
<b>Agricultural Lands (Grantable)</b>										
10	Pt. Lot 1	4.46	530-036		G. Gardiner	-	-	831.00	831.00	4.46
	Pt. Lot 1	2.91	530-027		Ingratta Group Inc	-	-	542.00	542.00	2.91
	Pt. Lot 3 & Lot 4	3.83	530-040		K. Higginbottom	-	-	713.00	713.00	3.83
11	Pt. Lot 1	1.20	560-014	3	J. Bezaire	-	-	223.00	223.00	1.20
	Pt. Lot 1	5.39	560-015		J. & M. Bezaire	-	-	1,004.00	1,004.00	5.39
	Pt. Lot 2	7.08	560-121		G. & V. Clozza	-	-	1,318.00	1,318.00	7.08
	Pt. Lot 2 & Lot 3	44.51	560-004		P. Robinson	-	-	8,289.00	8,289.00	44.51
	Pt. Lot 3	19.11	560-122		L. Stankovic	-	-	3,559.00	3,559.00	19.11
	Pt. Lot 4	6.27	560-123		A. Drouillard	-	-	1,168.00	1,168.00	6.27
	Pt. Lot 4	11.41	560-12475		R. & A. Drouillard	-	-	2,125.00	2,125.00	11.41
	Pt. Lot 4	23.26	560-125		L. & I. Stankovich	-	-	4,332.00	4,332.00	23.26
	Pt. Lot 4	9.19	560-126		L. & S. Stankovich	-	-	1,711.00	1,711.00	9.19
	Pt. Lot 4	19.81	560-001		L. & L. & M. Stankovich	-	-	3,689.00	3,689.00	19.81
Total Agricultural Lands						-	-	29,504.00	29,504.00	158.43
<b>Non-Agricultural Lands (Not Grantable)</b>										
10	Pt. Lot 1	2.03	530-038		L. Rickeard	-	-	756.00	756.00	4.06
	Pt. Lot 2	0.37	530-03801	1	J. Sterling	-	-	138.00	138.00	0.74
	Pt. Lot 2 & Lot 3	10.61	530-041		A. & L. Badria	-	-	3,952.00	3,952.00	21.22
	Pt. Lot 3	0.70	530-00010	2	Conservation Authority Exreg	-	-	391.00	391.00	2.10
11	Pt. Lot 1	0.03	560-13247	14	Sunpark Hidden Creek Residence	-	-	4.00	4.00	0.06
	Pt. Lot 1	0.03	560-13244	15	D. Prieur	-	-	4.00	4.00	0.06
	Pt. Lot 1	0.03	560-13241	16	Sunpark Hidden Creek Residence	-	-	4.00	4.00	0.06
	Pt. Lot 1	0.03	560-13238	17	Sunpark Hidden Creek Residence	-	-	4.00	4.00	0.06
	Pt. Lot 1	0.04	560-13235	18	Sunpark Hidden Creek Residence	-	-	5.00	5.00	0.08
	Pt. Lot 1	0.03	560-13232	19	Sunpark Hidden Creek Residence	-	-	4.00	4.00	0.06
11	Pt. Lot 1	0.03	560-12917	20	Sunpark Hidden Creek Residence	-	-	4.00	4.00	0.06
	Pt. Lot 1	0.03	560-12920	21	Sunpark Hidden Creek Residence	-	-	4.00	4.00	0.06
	Pt. Lot 1	0.03	560-12923	22	Sunpark Hidden Creek Residence	-	-	4.00	4.00	0.06
	Pt. Lot 1	0.03	560-12926	23	Sunpark Hidden Creek Residence	-	-	4.00	4.00	0.06

Conc.	Lot or Part	Affected Hect.	Roll No.	O.I.N	Owner	Sp. Benefit	Benefit	Outlet	Total	Equiv. Ha
11	Pt. Lot 1	0.03	560-12929	24	Sunpark Hidden Creek Residence	-	-	4.00	4.00	0.06
	Pt. Lot 1	0.03	560-12932	25	Sunpark Hidden Creek Residence	-	-	4.00	4.00	0.06
	Pt. Lot 1	0.03	560-12935	26	Sunpark Hidden Creek Residence	-	-	4.00	4.00	0.06
	Pt. Lot 1	0.03	560-12938	27	Sunpark Hidden Creek Residence	-	-	4.00	4.00	0.06
	Pt. Lot 1	0.03	560-12941	28	Sunpark Hidden Creek Residence	-	-	4.00	4.00	0.06
	Pt. Lot 1	0.04	560-12944	29	Sunpark Hidden Creek Residence	-	-	5.00	5.00	0.08
	Pt. Lot 1	0.03	560-12947	30	Sunpark Hidden Creek Residence	-	-	4.00	4.00	0.06
	Pt. Lot 1	0.03	560-12950	31	T. Barrette & J. Diebel	-	-	4.00	4.00	0.06
	Pt. Lot 1	0.03	560-12953	32	Sunpark Hidden Creek Residence & Sunpark Misc. MT	-	-	4.00	4.00	0.06
	Pt. Lot 1	0.03	560-13169	33	Sunpark Hidden Creek Residence	-	21,760.00	-	21,760.00	0.06
	Pt. Lot 1	0.03	560-13166	34	Sunpark Hidden Creek Residence	-	21,760.00	-	21,760.00	0.06
	Pt. Lot 1	0.03	560-13163	35	Sunpark Hidden Creek Residence	-	21,760.00	-	21,760.00	0.06
	Pt. Lot 1	0.03	560-13160	36	Sunpark Hidden Creek Residence	-	20,309.00	-	20,309.00	0.06
	Pt. Lot 1	0.03	560-13157	37	Sunpark Hidden Creek Residence	-	31,915.00	-	31,915.00	0.06
	Pt. Lot 1	0.03	560-12965	38	Sunpark Hidden Creek Residence	-	38,963.00	4.00	38,967.00	0.06
	Pt. Lot 1	0.03	560-12962	39	Sunpark Hidden Creek Residence	-	35,067.00	4.00	35,071.00	0.06
	Pt. Lot 1	0.03	560-12959	40	Sunpark Hidden Creek Residence	-	52,600.00	4.00	52,604.00	0.06
	Pt. Lot 1	0.07	560-12956	41	Sunpark Hidden Creek Residence	-	68,185.00	9.00	68,194.00	0.14
	Pt. Lot 1	0.04	560-13145	42	Sunpark Hidden Creek Residence	-	34,816.00	-	34,816.00	0.08
	Pt. Lot 1	0.03	560-13148	43	Sunpark Hidden Creek Residence	-	21,760.00	-	21,760.00	0.06
	Pt. Lot 1	0.03	560-13151	44	Sunpark Hidden Creek Residence	-	26,112.00	-	26,112.00	0.06
	Pt. Lot 1	0.03	560-13154	45	Sunpark Hidden Creek Residence	11,998.00	31,915.00	-	43,913.00	0.06
	Pt. Lot 1	0.04	560-12968	46	Sunpark Hidden Creek Residence	-	19,481.00	5.00	19,486.00	0.08
	Pt. Lot 1	0.04	560-12971	47	Sunpark Hidden Creek Residence	-	29,222.00	5.00	29,227.00	0.08
	Pt. Lot 1	0.04	560-12974	48	Sunpark Hidden Creek Residence	-	35,067.00	5.00	35,072.00	0.08
	Pt. Lot 1	0.04	560-12977	49	Sunpark Hidden Creek Residence	-	27,274.00	5.00	27,279.00	0.08
	Pt. Lot 1	0.04	560-12980	50	Sunpark Hidden Creek Residence	-	29,222.00	5.00	29,227.00	0.08
	Pt. Lot 1	0.04	560-12983	51	Sunpark Hidden Creek Residence	-	25,326.00	5.00	25,331.00	0.08
	Pt. Lot 1	0.04	560-12986	52	Y. & P. Cooper	-	19,481.00	5.00	19,486.00	0.08
	Pt. Lot 1	0.04	560-12989	53	Sunpark Hidden Creek Residence	-	9,741.00	5.00	9,746.00	0.08
	Pt. Lot 1	0.03	560-12992	54	M. & B. St. Louis	-	-	11.00	11.00	0.06
	Pt. Lot 1	0.03	560-12995	55	Sunpark Hidden Creek Residence	-	-	11.00	11.00	0.06
	Pt. Lot 1	0.03	560-12998	56	Sunpark Hidden Creek Residence	-	-	11.00	11.00	0.06
	Pt. Lot 1	0.03	560-13001	57	Sunpark Hidden Creek Residence	-	-	11.00	11.00	0.06
	Pt. Lot 1	0.03	560-13004	58	Sunpark Hidden Creek Residence	-	-	11.00	11.00	0.06
	Pt. Lot 1	0.03	560-13007	59	Sunpark Hidden Creek Residence	-	-	11.00	11.00	0.06
	Pt. Lot 1	0.03	560-13010	60	Sunpark Hidden Creek Residence	-	-	11.00	11.00	0.06
	Pt. Lot 1	0.02	560-13013	61	Sunpark Hidden Creek Residence	-	-	7.00	7.00	0.04
	Pt. Lot 1	0.03	560-13055	62	Sunpark Hidden Creek Residence	-	-	11.00	11.00	0.06
	Pt. Lot 1	0.03	560-13052	63	Sunpark Hidden Creek Residence	-	-	11.00	11.00	0.06
	Pt. Lot 1	0.03	560-13049	64	Sunpark Hidden Creek Residence	-	-	11.00	11.00	0.06
	Pt. Lot 1	0.03	560-13046	65	Sunpark Hidden Creek Residence	-	-	11.00	11.00	0.06

Conc.	Lot or Part	Affected Hect.	Roll No.	O.I.N	Owner	Sp. Benefit	Benefit	Outlet	Total	Equiv. Ha
11	Pt. Lot 1	0.03	560-13043	66	Sunpark Hidden Creek Residence	-	-	11.00	11.00	0.06
	Pt. Lot 1	0.03	560-13040	67	Sunpark Hidden Creek Residence	-	-	11.00	11.00	0.06
	Pt. Lot 1	0.03	560-13037	68	Sunpark Hidden Creek Residence	-	-	11.00	11.00	0.06
	Pt. Lot 1	0.04	560-13034	69	Sunpark Hidden Creek Residence	-	-	15.00	15.00	0.08
	Pt. Lot 1	4.82	560-07701		McGregor Development Corp	-	-	1,795.00	1,795.00	9.64
	Pt. Lot 1	0.19	560-07210	4	557 Grondin Apartments Inc.	-	-	71.00	71.00	0.38
	Pt. Lot 1	0.13	560-07220	5	G. & T. Wright	-	-	48.00	48.00	0.26
	Pt. Lot 1	0.09	560-07225	6	S. Teskey	-	-	34.00	34.00	0.18
	Pt. Lot 1	0.20	560-07230	7	S. & R. Kotyk	-	-	74.00	74.00	0.40
	Pt. Lot 1	12.07	560-005		M. & R. Billingsley	-	-	3,372.00	3,372.00	18.11
	Pt. Lot 2	11.98	560-073		1266095 Ontario Limited	-	-	3,347.00	3,347.00	17.97
	Pt. Lot 2	2.87	560-00020	8	Conservation Authority Exreg	-	-	1,603.00	1,603.00	8.61
	Pt. Lot 2	0.07	560-00450		J. & C. Renaud	-	-	26.00	26.00	0.14
	Pt. Lot 2 & Lot 3	1.60	560-00030		Conservation Authority Exreg	-	-	894.00	894.00	4.80
	Pt. Lot 2 & Lot 3	41.19	560-002		Wildwood Golf & RV Resort	-	-	11,506.00	11,506.00	61.79
	Pt. Lot 3	4.04	560-003		Wildwood Golf & RV Resort	-	-	1,129.00	1,129.00	6.06
	Pt. Lot 3	0.23	560-00290		J. & V. Lucier	-	-	86.00	86.00	0.46
	Pt. Lot 4	0.31	560-12450	9	M. & S. Stephenson	-	-	115.00	115.00	0.62
	Pt. Lot 4	0.61	560-12605		L. & S. Stankovich	-	-	227.00	227.00	1.22
	Pt. Lot 4	0.44	560-12610		E. Grondin	-	-	164.00	164.00	0.88
	Pt. Lot 4	0.41	560-127		K. Mclean	-	-	153.00	153.00	0.82
	Pt. Lots 1, 2, 3, 4	6.59	560-00040		Essex Region Conservation Foundation	-	-	3,682.00	3,682.00	19.77
Total Non-Agricultural Lands						11,998.00	621,736.00	33,878.00	667,612.00	183.88
<b>Public Roads</b>										
	11th Concession Road	4.33			Town of Eseex	-	-	3,228.00	3,228.00	17.32
	12th Concession Road	1.47			Town of Eseex	-	-	1,095.00	1,095.00	5.88
	Walker Road	1.34			County of Essex	-	-	998.00	998.00	5.36
Total Public Roads						-	-	5,321.00	5,321.00	28.56
<b>Private Roads</b>										
	Parkside Drive	0.24			Essex Vacant Land Condominium Corp. No. 163	59,866.00	35,067.00	179.00	95,112.00	0.96
	Cedar Crescent	0.05			Essex Vacant Land Condominium Corp. No. 163	-	-	37.00	37.00	0.20
	Oak Court	0.09			Essex Vacant Land Condominium Corp. No. 163	-	-	67.00	67.00	0.36
	Maple Drive	0.19			Essex Vacant Land Condominium Corp. No. 163	-	-	142.00	142.00	0.76
Total Private Roads						59,866.00	35,067.00	425.00	95,358.00	2.28

Conc.	Lot or Part	Affected Hect.	Roll No.	O.I.N	Owner	Sp. Benefit	Benefit	Outlet	Total	Equiv. Ha
<b>Utilities</b>										
	Hydro				Hydro One Networks	5,893.00	-	-	5,893.00	-
	Gas				Enbridge Pipelines	5,893.00	-	-	5,893.00	-
	Telephone				Bell Canada	5,893.00	-	-	5,893.00	-
	Water				Essex Vacant Land Condominium Corp. No. 163	5,893.00	-	-	5,893.00	-
	Cable				Cogeco	5,893.00	-	-	5,893.00	-
					<b>Total Utilities</b>	<b>29,465.00</b>	<b>-</b>	<b>-</b>	<b>29,465.00</b>	<b>-</b>
<b>OVERALL ASSESSMENT BREAKDOWN</b>										
					Total Agricultural Lands	-	-	29,504.00	29,504.00	158.43
					Total Non-Agricultural Lands	11,998.00	621,736.00	33,878.00	667,612.00	183.88
					Total Public Roads	-	-	5,321.00	5,321.00	28.56
					Total Private Roads	59,866.00	35,067.00	425.00	95,358.00	2.28
					Total Public Utilities	29,465.00	-	-	29,465.00	-
	<b>Total Area</b>	<b>269.52</b>			<b>Total Assessment</b>	<b>101,329.00</b>	<b>656,803.00</b>	<b>69,128.00</b>	<b>827,260.00</b>	<b>373.15</b>

Brousseau-Grondin Drain  
Town of Essex  
May 28, 2026

## **SPECIFICATION OF WORK**

### **1. Scope of Work**

The work includes the replacement of enclosed piped section in part of Lot 1, Concession 11 through Sunpark Hidden Creek Residences and developing future maintenance specifications for this portion of the drain in the Town of Essex.

### **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 successful tenderer 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 a traffic control plan shall be 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.

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

The Contractor shall be permitted to close Parkside Drive in order to complete the proposed work in the road allowance. The Contractor shall work with Sunpark Hidden Creek Residences to set up a safe & proper traffic control and detours for the duration of the work.

## **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 60 days.

## **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 shall be from Parkside Drive then along the length of the drainage works for both the replacement of the enclosed piped drain and future maintenance.

The working area outside the limits of Parkside Drive shall be identified on the drawings as the “limits of the working corridor”. It shall be 6 meters centered on the enclosed piped drain.

The working area for Parkside Drive shall be 15 meters centered on the enclosed drain. Access to the drain shall be from Parkside Drive then along the length of the drainage works for both the replacement of the enclosed piped drain and future maintenance.

### **8. Encroachment Removals**

A number of encroachments (sheds, decks, fences, etc.) were identified along the enclosed piped drain. Sunpark Hidden Creek Residences has agreed to work with the tenants to have everything removed prior to construction. The Engineer will mark out the proposed location of the new enclosed piped drain and the offset limits (6 meters centered on the drain).

If the Park or tenants fails to remove the encroachments outline above, then the contractor will do so at an hourly rate and this cost will be assessed against the property.

The following is a list of encroachments that shall be removed:

<b><u>Civic Address:</u></b>	<b><u>Fence:</u></b>	<b><u>Structure:</u></b>
1 Elm Court	25m	None
2 Elm Court	21m	None
3 Elm Court	20m	Shed & Shed Porch
4 Elm Court	8m	Deck over drain outlet
25 Cedar Crescent	5m	Deck over drain outlet
27 Cedar Crescent	20m	Shed and fire pit
29 Cedar Crescent	18m	Shed
31 Cedar Crescent	26m	Shed
33 Cedar Crescent	None	None
3 Maple Court	3m	None
5 Maple Court	None	None
7 Maple Court	3m	None
9 Maple Court	26m	None
11 Maple Court	None	Shed
13 Maple Court	None	Fire pit
4 Oak Court	26m	Sheds, Deck, & possibility the Air Conditioner
5 Oak Court	10m	None
6 Oak Court	18m	Sheds & Backyard Items

<b><u>Civic Address:</u></b>	<b><u>Fence:</u></b>	<b><u>Structure:</u></b>
7 Oak Court	26m	Sheds, Deck, & possibility the Air Conditioner

This list was developed during the survey and investigation. If additional encroachments are identified during the layout of the proposed new enclosed pipe, then they will be required to be removed. The air conditioners identified in the list for 4 Oak Court and 7 Oak Court do not have to be moved prior to construction. The contractor will attempt to support them in order to complete the work. If they need to be relocated then the Contractor will work with Park Management to have them relocated.

Once construction is completed, no permanent encroachments are permitted within the working area described as 6 meters centered on the drain. Any new fences, sheds, decks, etc. installed in the future shall be outside the working area. This area is required for future repair and maintenance of the drain.

#### **9. Enclosed Piped Drain (STA 0+000 to 0+220)**

The proposed enclosed piped drain shall be 220 meters of 1500mm diameter pipe and shall be installed in the same general location as the existing enclosed drain. The proposed pipe shall be installed to the elevation and to grade shown on the Profile.

The pipe shall be HDPE smooth wall pipe (320 kPa) CSA approved, bell and spigot from Station 0+000 to Station 0+072 and from Station 0+090 to 0+220. The section of the enclosed drain located within the road allowance for Parkside Drive shall be Sanitite HP pipe, CSA approved, bell and spigot.

At Station 0+108 a 1500mm diameter 22-degree HDPE elbow is required.

The existing enclosed pipe is 1500mm diameter CSP. It shall be removed entirely from the drain and disposed of offsite to a location determined by the contractor. Native material shall be reused for backfill above the springline of the pipe in the area upstream and downstream of Parkside Drive. Any excess material shall be disposed of offsite to a location determined by the contractor and shall form part of the removal cost for the existing pipe. The Contractor shall be responsible to comply with Excess Soils Regulations O. Reg 406/19. There is a section of the existing pipe from Station 0+057 to 0+067 under the garage at 1 Elm Court that cannot be removed. It shall be crushed at both ends and filled with flowable concrete. During construction if additional areas sections of pipe cannot be removed, the Contractor shall report this to the Engineer or Drainage Superintendent and they may have to be filled with concrete as well. Filling of any section of existing pipe shall be paid on a per meter basis.

For installation of the new proposed enclosed drain, the bottom of the excavation shall be excavated to the required depth with any over excavation backfilled with 19mm 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 culvert does not differ by more than 300 mm so that the pipe is not displaced. The pipe shall be backfilled from the springline to 100mm of finished grade with reused native material. The top 100mm shall be imported screen topsoil.

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

Any connections to the pipe found during connections shall be connected to the new pipe using an inserta tee and proper size HDPE pipe. If connections are sanitary in nature they shall be reported to the Engineer or Drainage Superintendent and not connected.

### 10. Catchbasins and Manhole

Structure	Station	Type (mm)	Top Elev. (m)	Outlet Pipe Elev. (m)	Inlet Pipe Elev. (m)
CB #1	0+028	300mmø HDPE/ PVC	182.89	N/A	N/A
MH #2	0+072	2400mmø CONC	183.19	180.69 (N) 1500mmø HDPE	180.695 (S) 1500mm Sanitite HP  Invert for the 300mmø TBD prior to building the MH

<b>Structure</b>	<b>Station</b>	<b>Type (mm)</b>	<b>Top Elev. (m)</b>	<b>Outlet Pipe Elev. (m)</b>	<b>Inlet Pipe Elev. (m)</b>
CB #3	0+147	300mmø HDPE/ PVC	182.82	N/A	N/A
CB #4	0+198	300mmø HDPE/ PVC	182.97	N/A	N/A

The catch basins shall be 300mm diameter HDPE or PVC pipe installed into the top of the 1500mm enclosed pipe drain using an inserta. The final elevation shall be set after the swale has been constructed to ensure that the elevation is set to match the swale. The catchbasins shall have a steel or cast-iron grate that is secured to the pipe using stainless steel brackets and bolts.

The manhole shall be 2400mm diameter concrete as per OPSS 701.013 complete with cast-iron frame and access ladder. The manhole shall be set on a layer of 19mm clearstone. The clearstone shall be extended up to the spring line of the inlet and outlet pipe connections. Connection to the manhole shall be concreted on both the inside and outside prior to backfilling. Any pipe shall not protrude more than 50mm inside the wall.

### **11. Brushing and Tree Removal**

The open portion of the Brousseau-Grondin Drain and the Walker Drain / Sucker Creek shall be brushed as required for the installation of the enclosed piped drain and rip rap. A mechanical grinder attached to an excavator shall be used for brush and tree removal. Any brush and trees too large to grind shall be close cut and disposed of offsite to a location determined by the Contractor.

Over the length of the enclosed drain there are large mature trees. These trees are directly over the existing pipe and shall be cut down with all brush and logs remove and disposed of offsite to a location determined by the Contractor. The stumps shall be grinded.

### **12. Inlet and Outlet Works**

The inlet and outlet of the enclosed piped drain shall have sloped endwalls consisting of rip rap quarry stone. Rip rap shall be made up of 150mm to 300mm quarry stone or approved equal. The area to receive the rip rap shall first be graded to allow the placement of the rip rap to a depth of 400mm below finished grade. After grading, a layer of filter fabric (Mirafi P150 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.

Rip rap installed at the inlet at the open portion of the Brousseau-Grondin drain shall be placed along the sides of the pipe and extend around to both drain banks. It shall be installed from the bottom of the drain to the top of bank. Existing rip rap may be reused and then it shall be topped with new rock.

Rip rap installed at the outlet to the Walker Drain / Sucker Creek shall be installed on both sides of the pipe for a distance of at least 1 meter and shall from the top of slope to the bottom of the drain and then across the bottom.

Both the inlet and outlet shall have a 1500mm Stainless Steel Inside Grate as supplied by Soleno, or approved equivalent. The grates shall be installed as per manufactured requirements.

### **13. Parkside Drive**

This item shall apply for all works completed within the road allowance for Parkside Drive from Station 0+072 to 0+090.

The contractor shall remove and dispose of the existing manhole, asphalt, curb and sidewalk as require to facilitate the removal of the existing 1500mm diameter CSP pipe and for the installed of the new 1500mm diameter enclosed pipe drain. All asphalt and concrete shall be sawcut prior to removal.

The contractor shall supply and install 1500mm diameter Sanitite HP pipe, CSA approved from the proposed manhole to just east of the 300mm storm pipe on the south side of Parkside Drive. The new proposed pipe shall be installed as per the plan and profile.

For installation of the new proposed enclosed drain, the bottom of the excavation shall be excavated to the required depth with any over excavation backfilled with 19mm 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 culvert does not differ by more than 300 mm so that the pipe is not displaced. The pipe shall be backfilled from the springline to 300mm of finished grade with granular "B" Type 2. 100% crushed Granular "A" shall be installed from the Granular "B" to within 100mm of finished grade as a base for the asphalt. Asphalt shall be placed in two lifts of 50mm HL3 and 50mm HL4.

The sidewalk and curb shall be installed to match existing using 30mpa concrete as per OPSS standards. The curb and sidewalk shall be bedded with 50mm of 100% crushed Granular "A". The concrete sidewalk shall be a minimum of 125mm thick.

#### **14. Restoration, Overland Swale, and Seeding**

After the enclosed piped drain has been installed and backfilled with native material an overland swale shall be constructed above the proposed enclosed covered drain of the area as per the profile, directing flows to the proposed catchbasins. Once the swale has been constructed it shall be topped with 100mm of screened topsoil and hydroseeded immediately following construction in accordance with the seed mixture, fertilizer and application rate as follow:

- Hydraulic mulch (2,999 kg/ha.) type "B" and water (52,700 litres/ha.) in accordance with OPSS 572 (hydroseed).

All other areas disturbed by construction as directed by the Engineer of Drainage Superintendent shall be returned to their pre-constructions state. Within the road right of way all areas where disturbed by construction, shall be topped with 100mm of screened topsoil and hydroseed with the swale.

If the hydroseed has not germinated, at the discretion of the Engineer or Drainage Superintendent, prior to the one-year maintenance period, the area shall be drilled seed.

#### **15. Concrete Driveway at 1 Elm Court (P)**

This item applies to the concrete driveway located at 1 Elm Court.

A section to the concrete driveway will have to be removed and reinstalled for the existing 1500mm CSP to be removed. This will be evaluated at the time of construction and be updated to the section of existing pipe being grouted.

If removed, the driveway shall be removed at existing cut sections, if possible. Any driveway sections shall be saw cut and removed carefully and disposed of offsite.

The driveway shall be replaced with new concrete driveway to match what was removed. The concrete shall be bedded with 50mm of 100% crushed Granular "A" and to match existing thickness to a minimum of 125mm thickness. All concrete shall be 30mpa. The concrete driveway shall be sawcut as required after curing.

## **16. Silt Fence**

The Contractor shall maintain a dry working area during construction. The Contractor shall install a silt fence downstream of the work area in the Walker Drain / Sucker Creek and upstream of the enclosed pipe drain in the Brousseau-Grondin Drain.

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.

## **17. Environmental Considerations**

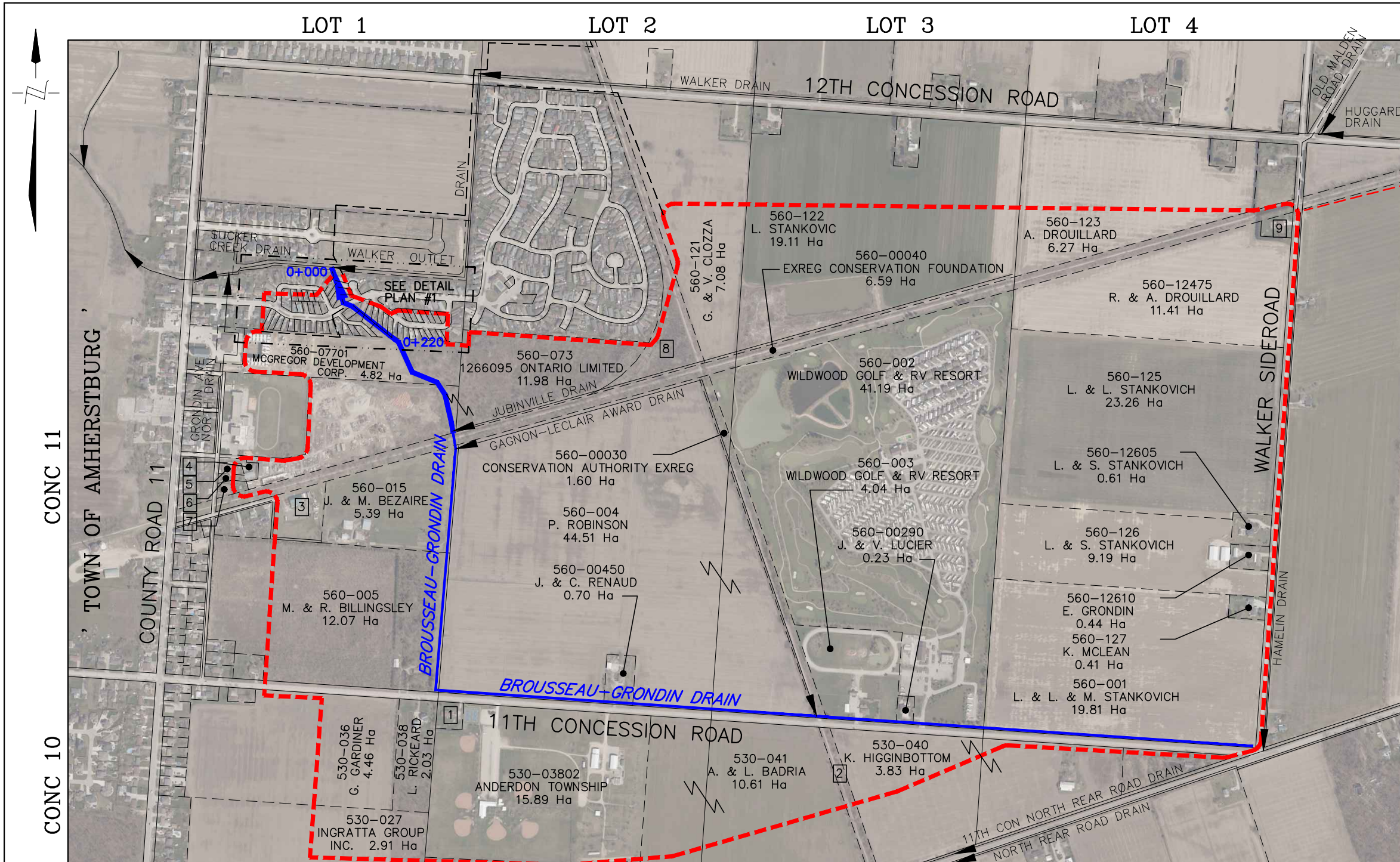
The Contractor shall take care to adhere to the following considerations.

- Dewatering maybe required during the installation of the enclosed piped drain. It is recommended that work be completed when flows are minimum. If pumping is required an earthen dam shall be installed at the upstream end and pumps shall be used to control upstream water flow.
- 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 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.

### **18. Benchmarks**

The benchmarks are based on geodetic elevations. 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.



**OWNER INDEX NUMBER**

1. 530-03801  
J. STERLING  
0.37 Ha
2. 530-00010  
CONSERVATION AUTHORITY EXREG  
0.70 Ha
3. 560-014  
J. BEZAIRE  
1.20 Ha
4. 560-07210  
557 GRONDIN APARTMENTS INC.  
0.19 Ha
5. 560-07220  
G. & T. WRIGHT  
0.13 Ha
6. 560-07225  
S. TESKEY  
0.09 Ha
7. 560-07230  
S. & R. KOTYK  
0.20 Ha
8. 560-00020  
CONSERVATION AUTHORITY EXREG  
2.87 Ha
9. 560-12450  
M. & S. STEPHENSON  
0.31 Ha



- LEGEND**
- - - DRAINAGE AREA
  - BROUSSEAU-GRONDIN DRAIN
  - MUNICIPAL DRAIN

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

DRAWING NAME: Brousseau-Grondin Drain Plan  
 PROJECT No. 2025-1754

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	FINAL REPORT	MAY 28, 2026	CS
D. MOORES				
DRAWN				
C. SAUNDERS				

SCALE 1:10,000  
 0 80 160 240m

**TOWN of ESSEX**  
**BROUSSEAU - GRONDIN DRAIN**  
**PLAN**

Last Updated: May 26, 2026



**LEGEND**

- Brousseau-Grondin Drain
- Municipal Drain
- Drainage Area

**LAND OWNER INDEX**

14. 560-13247 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	32. 560-12953 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	49. 560-12977 SUNPARK HIDDEN CREEK RESIDENCE 0.04 Ha	67. 560-13040 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha
15. 560-13244 D. PRIEUR 0.03 Ha	& SUNPARK MISC. MT 0.03 Ha	50. 560-12980 SUNPARK HIDDEN CREEK RESIDENCE 0.04 Ha	68. 560-13037 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha
16. 560-13241 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	33. 560-13169 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	51. 560-12983 SUNPARK HIDDEN CREEK RESIDENCE 0.04 Ha	69. 560-13034 SUNPARK HIDDEN CREEK RESIDENCE 0.04 Ha
17. 560-13238 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	34. 560-13166 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	52. 560-12986 Y. & P. COOPER 0.04 Ha	
18. 560-13235 SUNPARK HIDDEN CREEK RESIDENCE 0.04 Ha	35. 560-13163 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	53. 560-12989 SUNPARK HIDDEN CREEK RESIDENCE 0.04 Ha	
19. 560-13232 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	36. 560-13160 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	54. 560-12992 M. & B. ST. LOUIS 0.03 Ha	
20. 560-12917 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	37. 560-13157 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	55. 560-12995 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	
21. 560-12920 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	38. 560-12965 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	56. 560-12998 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	
22. 560-12923 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	39. 560-12962 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	57. 560-13001 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	
23. 560-12926 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	40. 560-12959 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	58. 560-13004 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	
24. 560-12929 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	41. 560-12956 SUNPARK HIDDEN CREEK RESIDENCE 0.07 Ha	59. 560-13007 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	
25. 560-12932 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	42. 560-13145 SUNPARK HIDDEN CREEK RESIDENCE 0.04 Ha	60. 560-13010 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	
26. 560-12935 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	43. 560-13148 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	61. 560-13013 SUNPARK HIDDEN CREEK RESIDENCE 0.02 Ha	
27. 560-12938 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	44. 560-13151 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	62. 560-13055 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	
28. 560-12941 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	45. 560-13154 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	63. 560-13052 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	
29. 560-12944 SUNPARK HIDDEN CREEK RESIDENCE 0.04 Ha	46. 560-12968 SUNPARK HIDDEN CREEK RESIDENCE 0.04 Ha	64. 560-13049 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	
30. 560-12947 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	47. 560-12971 SUNPARK HIDDEN CREEK RESIDENCE 0.04 Ha	65. 560-13046 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	
31. 560-12950 T. BARRETTE & J. DIEBEL 0.03 Ha	48. 560-12974 SUNPARK HIDDEN CREEK RESIDENCE 0.04 Ha	66. 560-13043 SUNPARK HIDDEN CREEK RESIDENCE 0.03 Ha	



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

DRAWING NAME:  
Brousseau-Grondin Drain Detail Plan

PROJECT No.  
2025-1754

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	FINAL REPORT	MAY 28, 2026	CS
D. MOORES				
DRAWN				
C. SAUNDERS				

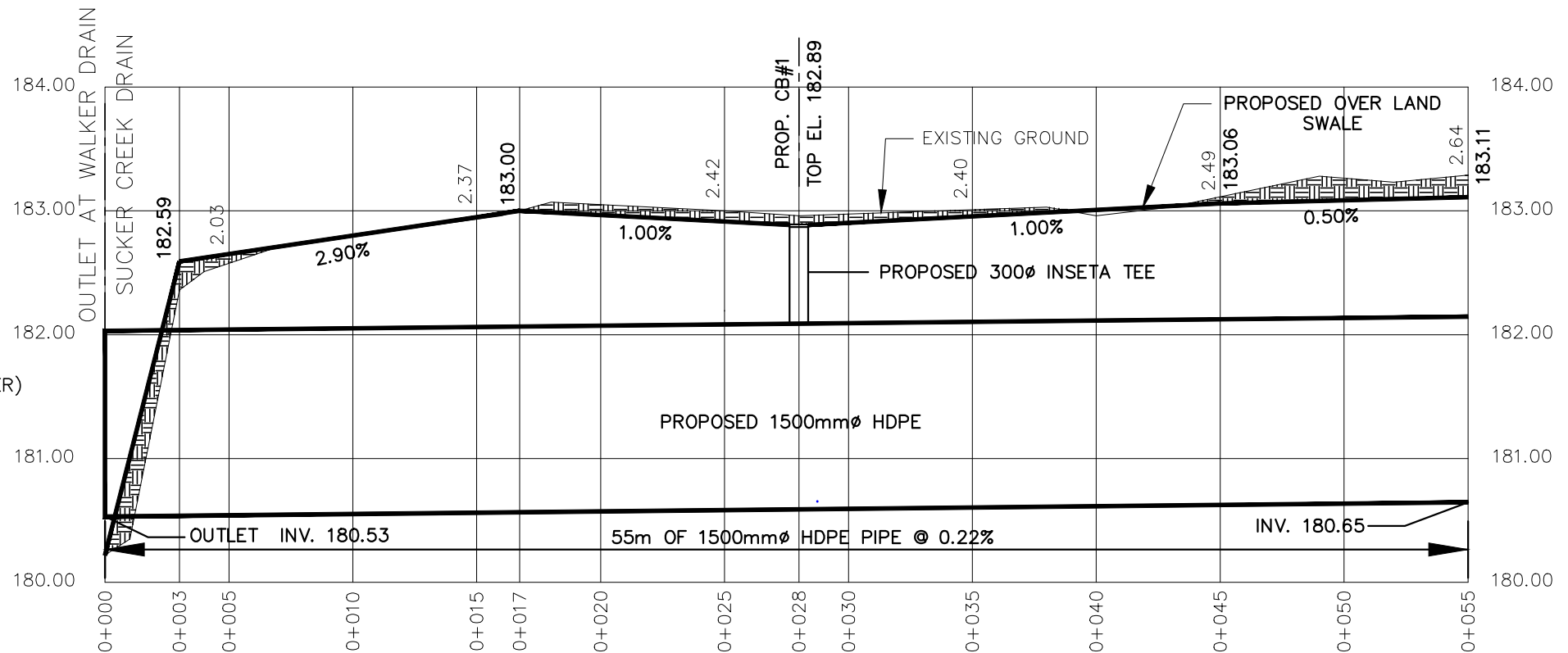
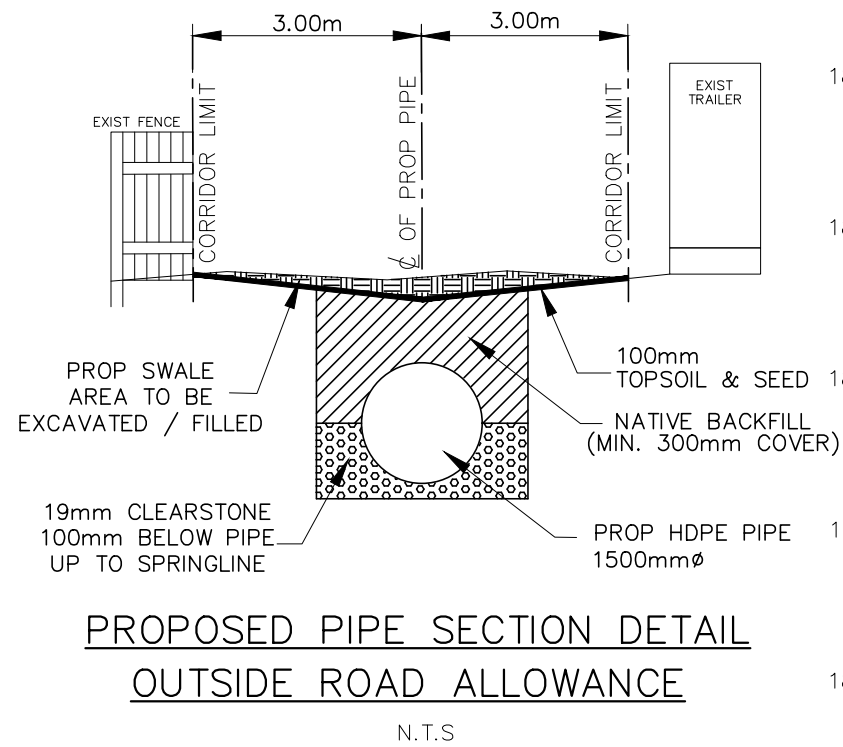
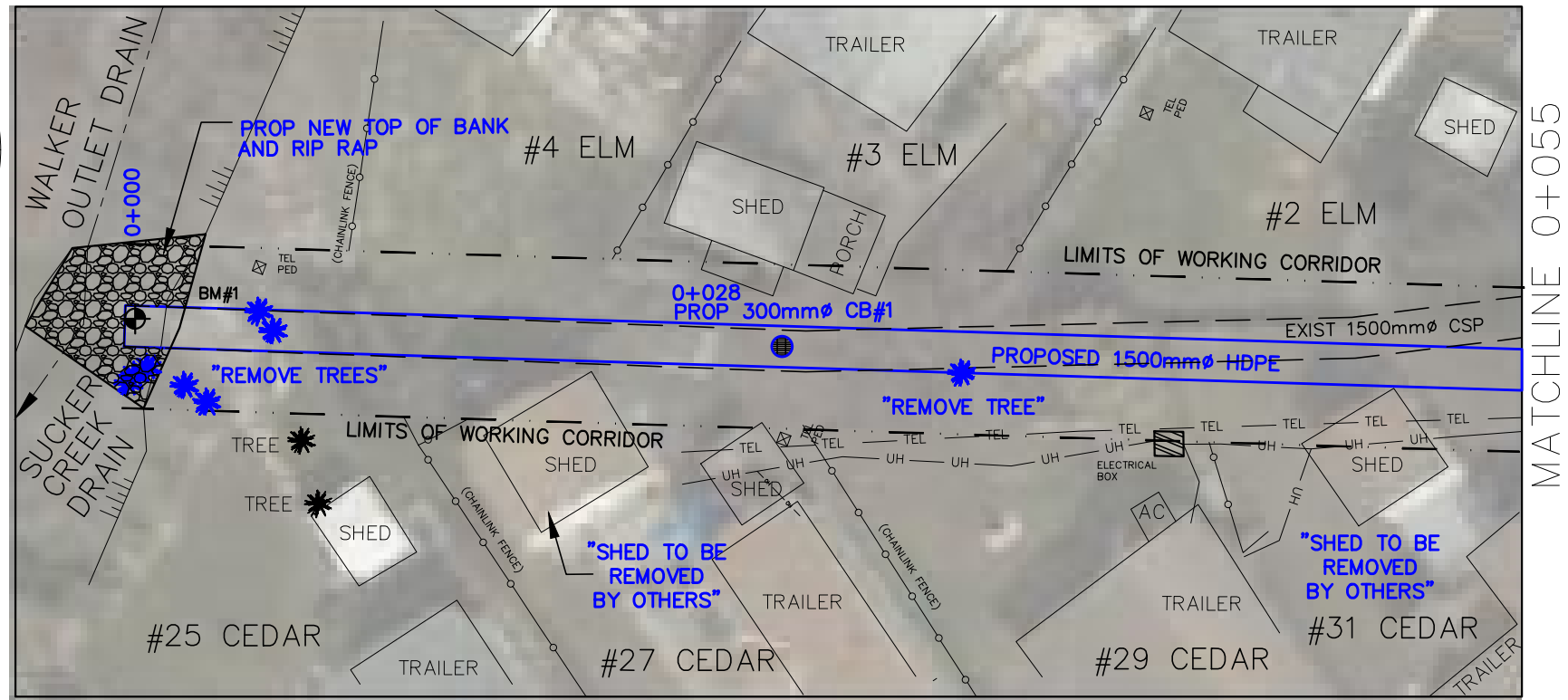
SCALE 1:2000

**TOWN of ESSEX**  
**BROUSSEAU - GRONDIN DRAIN**  
**DETAIL PLAN**

**2**  
**OF 6**

# GENERAL NOTES

1. BENCHMARK No.1 ELEV. 180.54  
INVERT OF EXISTING 1500 $\phi$  CSP  
OUTLETTING INTO SUCKER CREEK DRAIN.
2. NUMBERS ARE DEPTH FROM EXISTING  
GROUND TO INVERT OF PROP. PIPE.
3. WORKING CORRIDOR TO BE DEFINED  
AS 3.0m EITHER SIDE CENTERED ON  
THE PROP. PIPE.
4. ALL EXISTING STRUCTURES THAT  
INTERFERE WITH THE INSTALLATION  
OF THE PROP. PIPE WILL BE  
REMOVED BY OWNERS.
5. CONTRACTOR TO EXPOSE & VERIFY  
DEPTHS & LOCATION OF ALL UNDER  
GROUND UTILITIES & REPORT ANY  
DISCREPANCY TO THE ENGINEER.
6. DETAIL BELOW IS FOR THE PIPE  
INSTALLATION UPSTREAM & DOWNSTREAM  
OF PARKSIDE DRIVE. FULL GRANULAR  
BACKFILL REQUIRED FOR PARKSIDE DRIVE.



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

DRAWING NAME:  
Brousseau-Grondin Drain Plan & Profile 1

PROJECT No.  
2025-1754

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	FINAL REPORT	MAY 28, 2026	CS
D. MOORES				
DRAWN				
C. SAUNDERS				

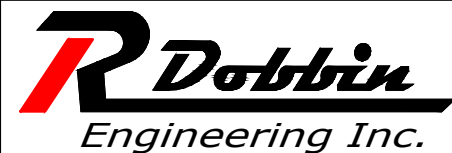
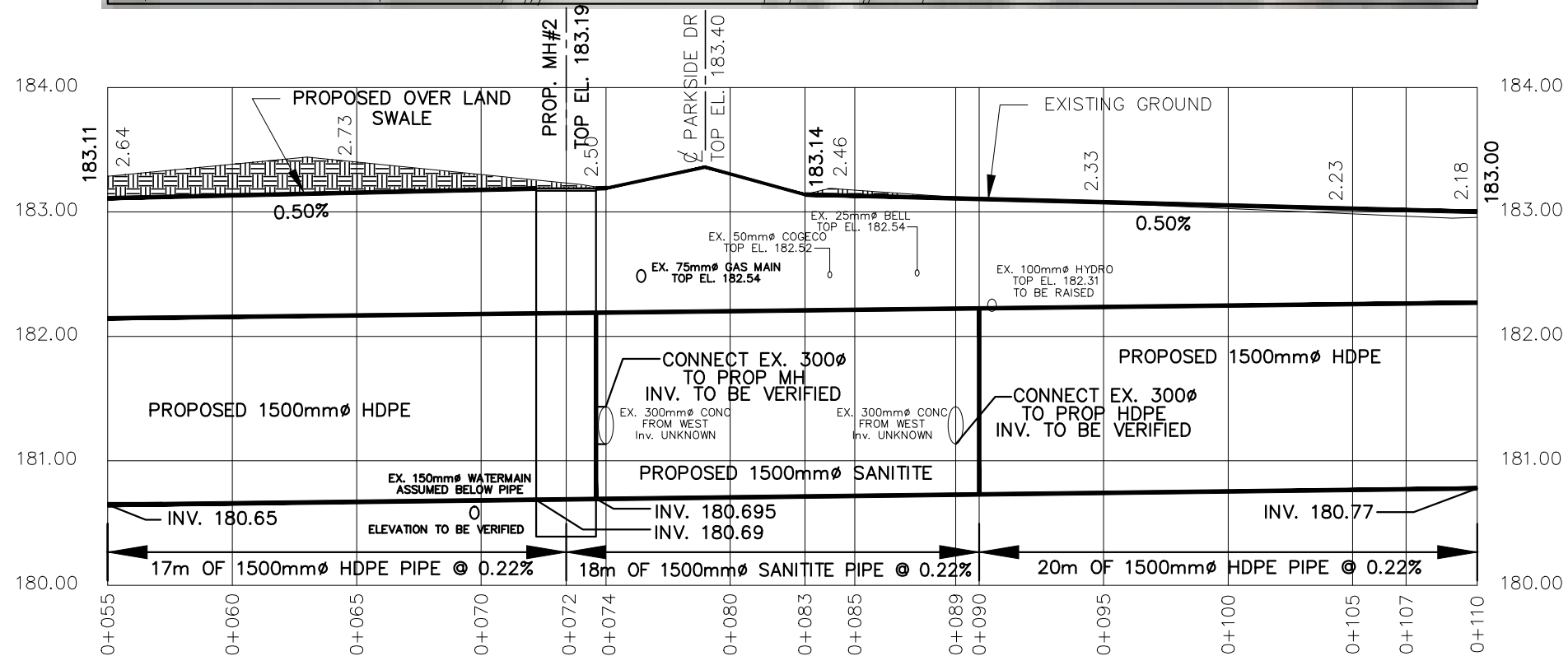
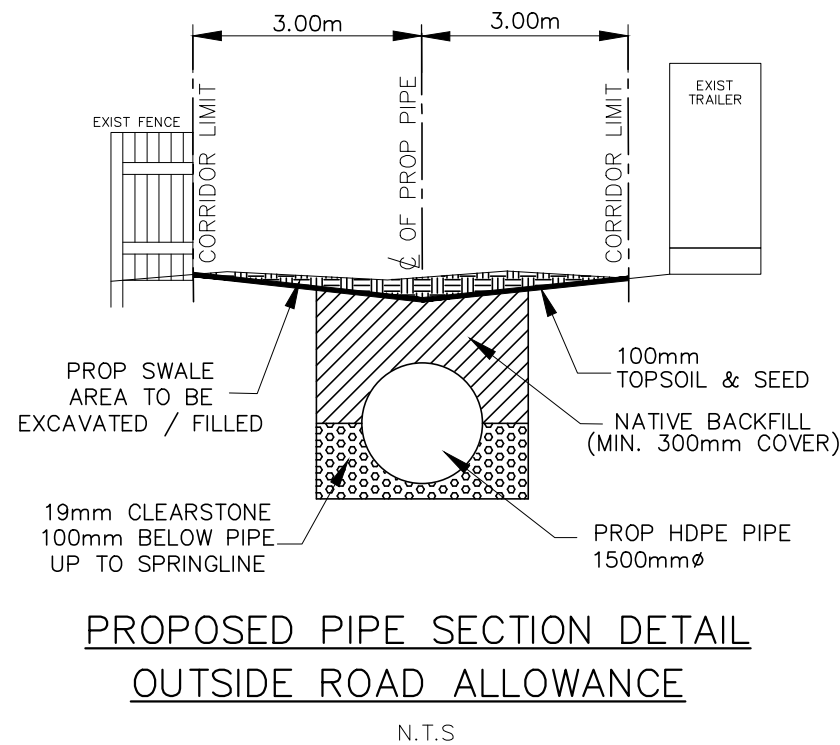
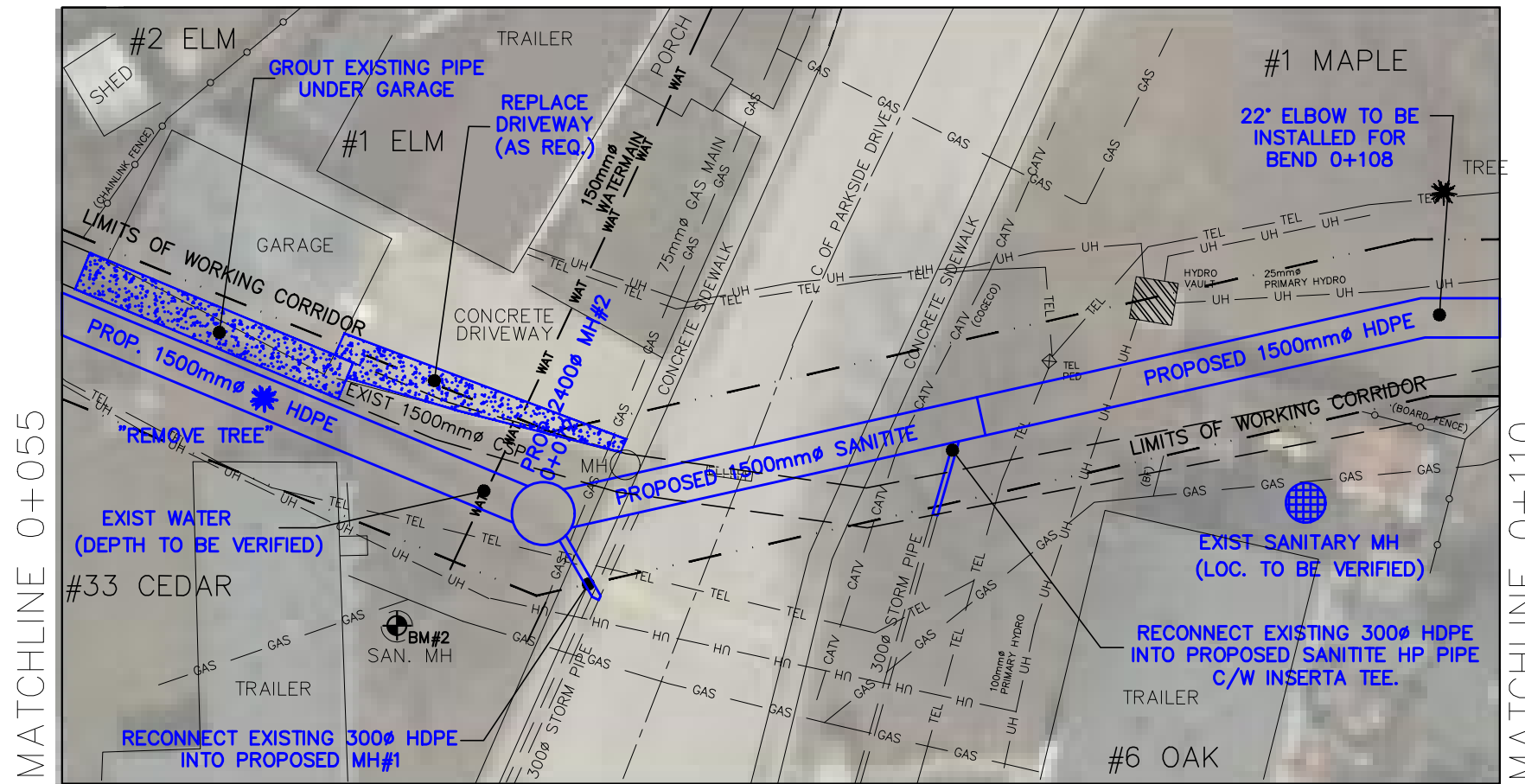
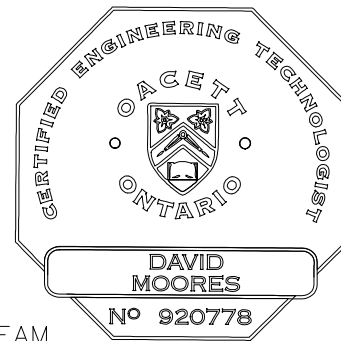
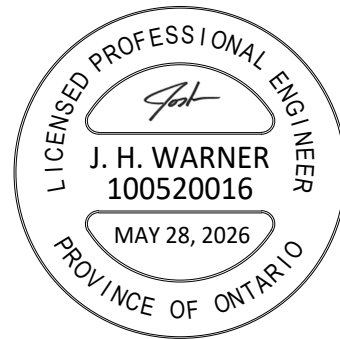
SCALE: 1:250  
0 2 4 6m

## TOWN of ESSEX BROUSSEAU - GRONDIN DRAIN PLAN & PROFILE

3  
OF 6

# GENERAL NOTES

1. BENCHMARK No.2 ELEV. 183.24  
TOP OF EXISTING SAN. MANHOLE  
LOCATED NEAR TRAILER ON  
33 CEDAR CRES.
2. NUMBERS ARE DEPTH FROM EXISTING  
GROUND TO INVERT OF PROP. PIPE.
3. WORKING CORRIDOR TO BE DEFINED  
AS 3.0m EITHER SIDE CENTERED ON  
THE PROP. PIPE.
4. ALL EXISTING STRUCTURES THAT  
INTERFERE WITH THE INSTALLATION  
OF THE PROP. PIPE WILL BE  
REMOVED BY OWNERS.
5. CONTRACTOR TO EXPOSE & VERIFY  
DEPTHS & LOCATION OF ALL UNDER  
GROUND UTILITIES & REPORT ANY  
DISCREPANCY TO THE ENGINEER.
6. DETAIL BELOW IS FOR THE PIPE  
INSTALLATION UPSTREAM & DOWNSTREAM  
OF PARKSIDE DRIVE. FULL GRANULAR  
BACKFILL REQUIRED FOR PARKSIDE DRIVE.



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

DRAWING NAME:  
Brousseau-Grondin Drain Plan & Profile 2

PROJECT No.  
2025-1754

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	FINAL REPORT	MAY 28, 2026	CS
D. MOORES				
DRAWN				
C. SAUNDERS				

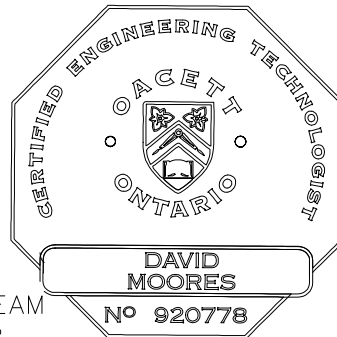
SCALE: 1:250  
0 2 4 6m

## TOWN of ESSEX BROUSSEAU - GRONDIN DRAIN PLAN & PROFILE

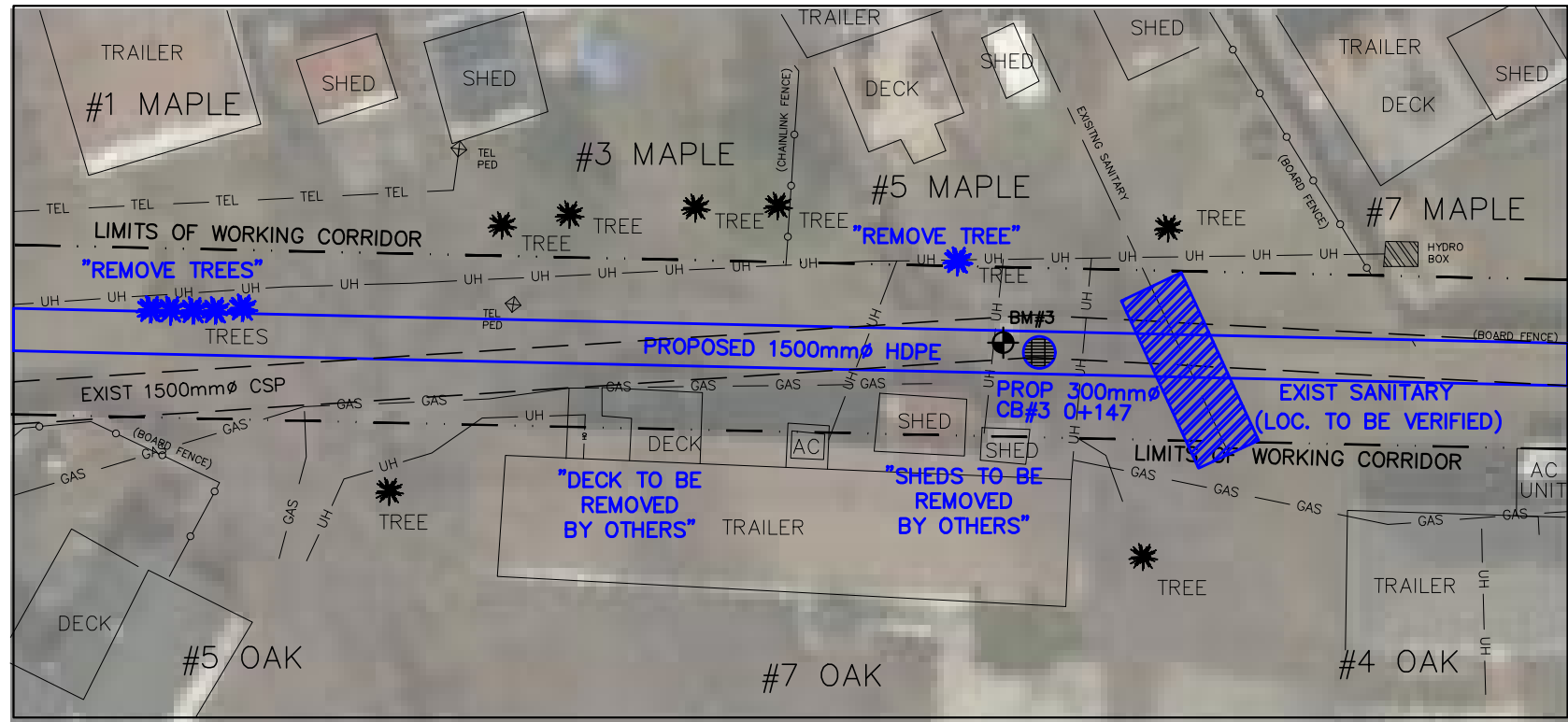
4  
OF 6

# GENERAL NOTES

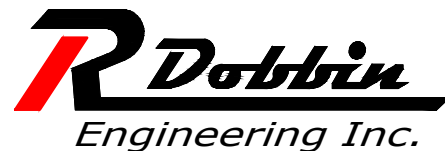
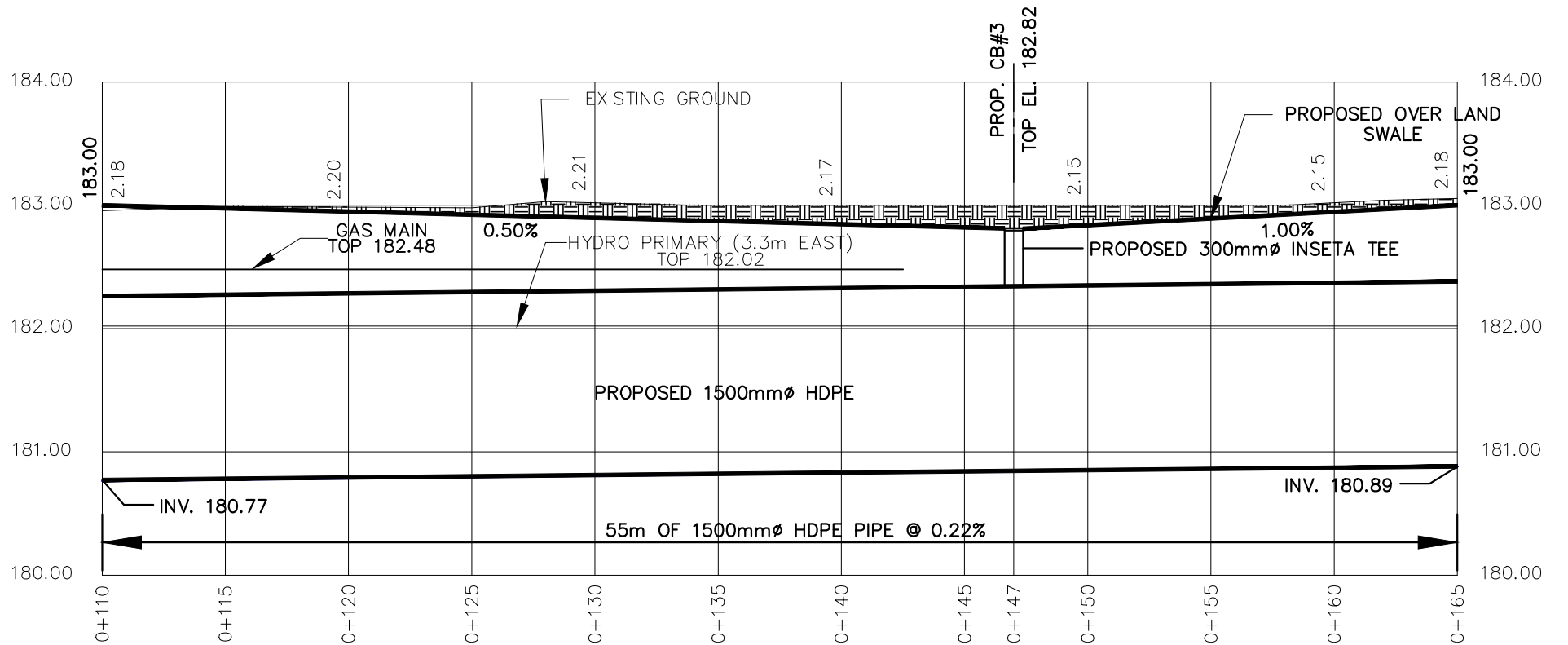
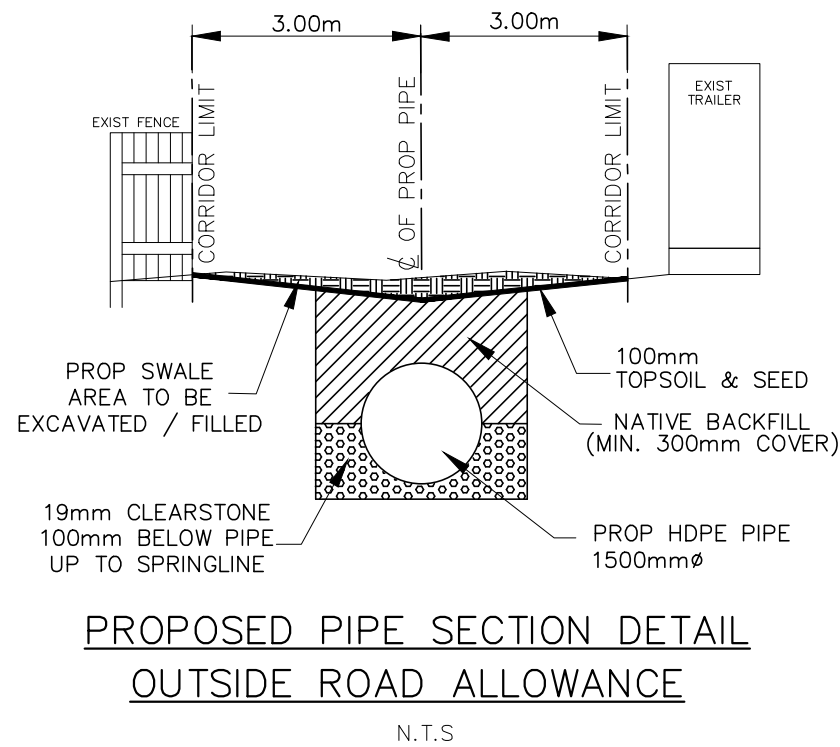
1. BENCHMARK No.3 ELEV. 182.98  
TOP OF EXISTING CATCHBASIN LOCATED IN THE REAR YARD OF 7 OAK COURT.
2. NUMBERS ARE DEPTH FROM EXISTING GROUND TO INVERT OF PROP. PIPE.
3. WORKING CORRIDOR TO BE DEFINED AS 3.0m EITHER SIDE CENTERED ON THE PROP. PIPE.
4. ALL EXISTING STRUCTURES THAT INTERFERE WITH THE INSTALLATION OF THE PROP. PIPE WILL BE REMOVED BY OWNERS.
5. CONTRACTOR TO EXPOSE & VERIFY DEPTHS & LOCATION OF ALL UNDER GROUND UTILITIES & REPORT ANY DISCREPANCY TO THE ENGINEER.
6. DETAIL BELOW IS FOR THE PIPE INSTALLATION UPSTREAM & DOWNSTREAM OF PARKSIDE DRIVE. FULL GRANULAR BACKFILL REQUIRED FOR PARKSIDE DRIVE.



MATCHLINE 0+110



MATCHLINE 0+165



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

DRAWING NAME:  
Brousseau-Grondin Drain Plan & Profile 3

PROJECT No.  
2025-1754

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED D. MOORES	1	DRAFT REPORT	MAY 28, 2026	CS
DRAWN C. SAUNDERS				

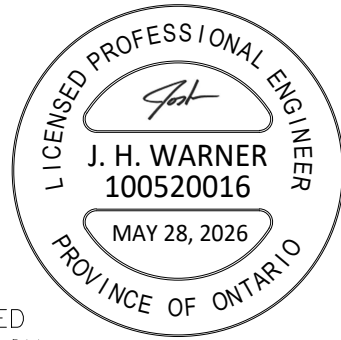
SCALE: 1:250  
0 2 4 6m

## TOWN of ESSEX BROUSSEAU - GRONDIN DRAIN PLAN & PROFILE

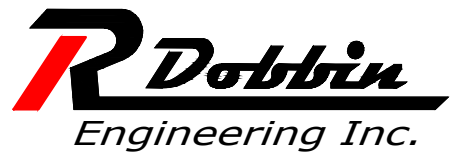
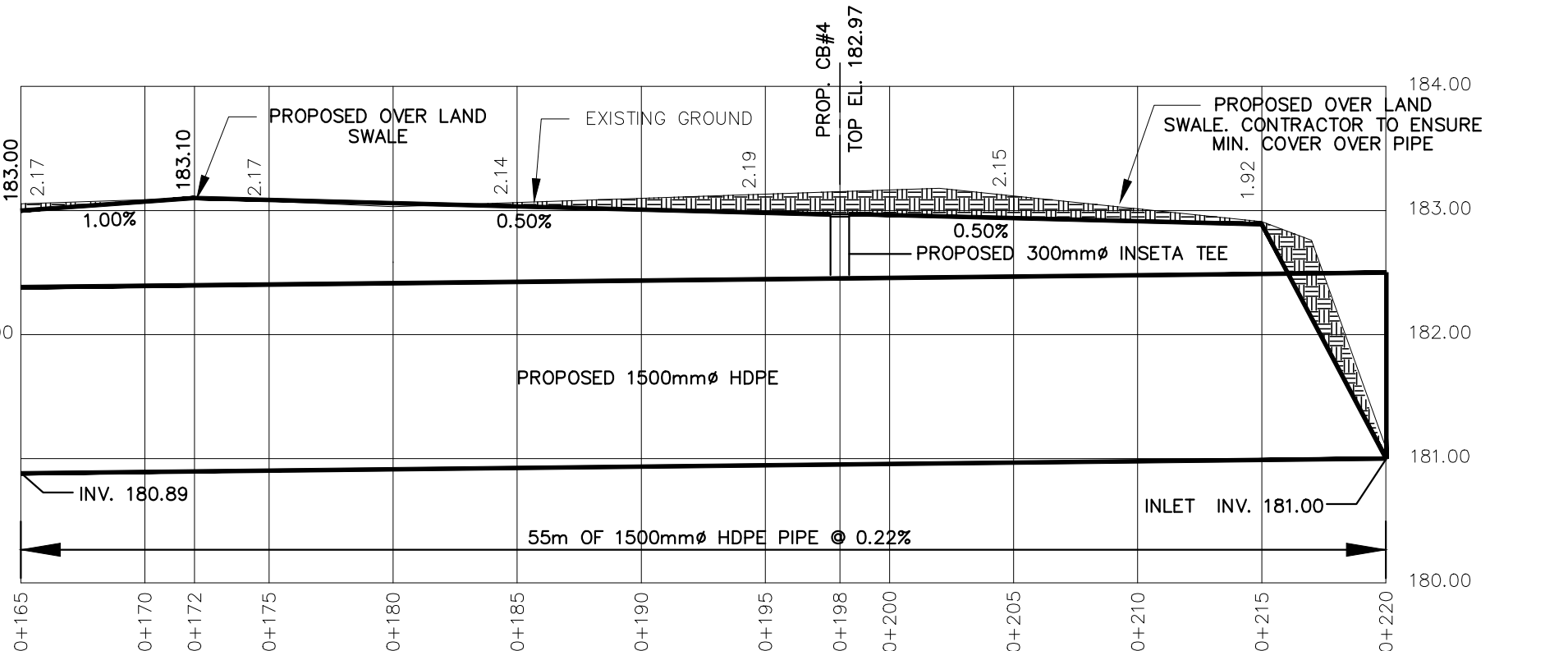
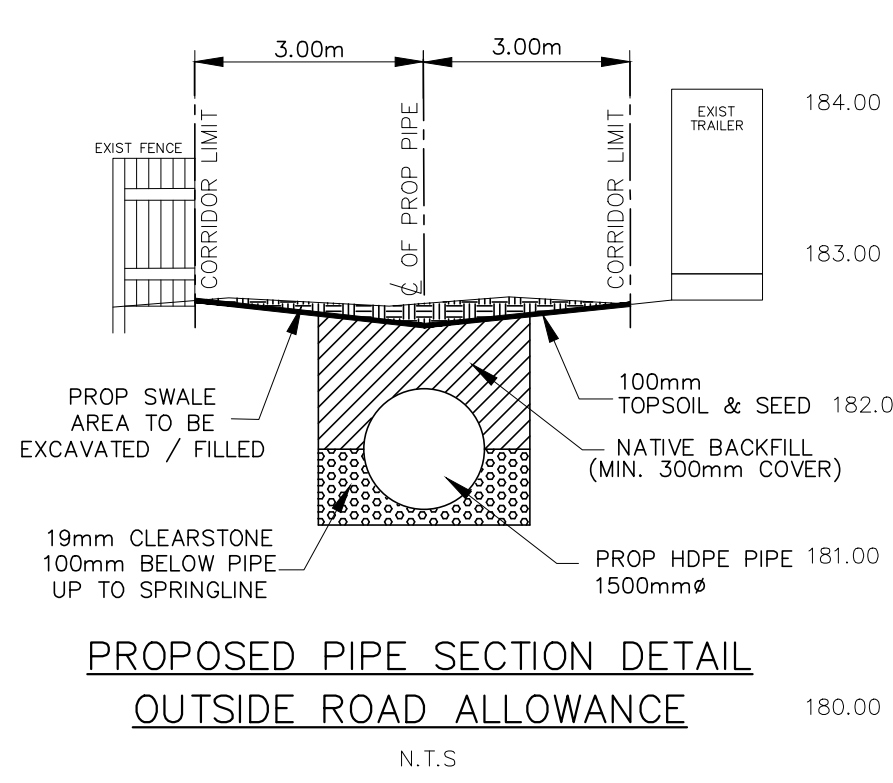
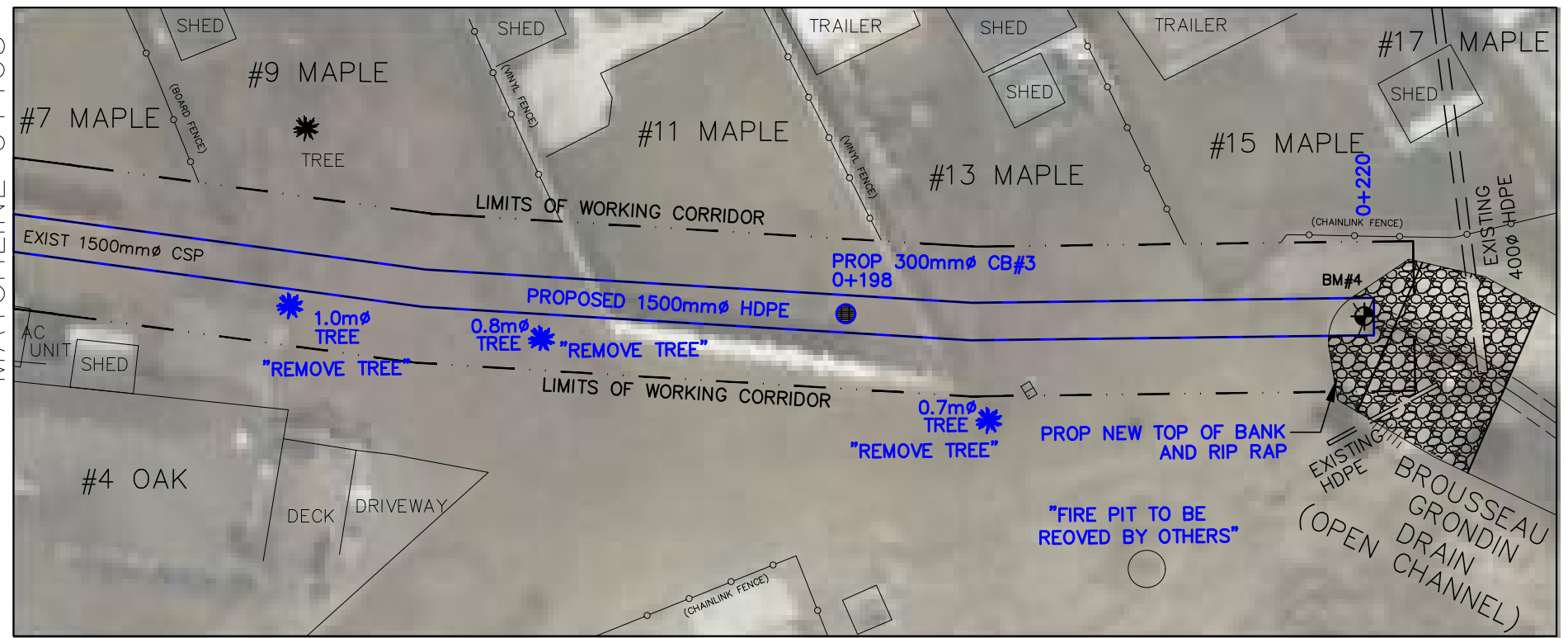
5  
OF 6

# GENERAL NOTES

1. BENCHMARK No.3 ELEV. 182.98  
TOP OF EXISTING CATCHBASIN  
LOCATED IN THE REAR YARD OF  
7 OAK COURT.
2. NUMBERS ARE DEPTH FROM  
EXISTING GROUND TO INVERT  
OF PROP. PIPE.
3. WORKING CORRIDOR TO BE DEFINED  
AS 3.0m EITHER SIDE CENTERED ON  
THE PROP. PIPE.
4. ALL EXISTING STRUCTURES THAT  
INTERFERE WITH THE INSTALLATION  
OF THE PROP. PIPE WILL BE  
REMOVED BY OWNERS.
5. CONTRACTOR TO EXPOSE &  
VERIFY DEPTHS & LOCATION OF  
ALL UNDER GROUND UTILITIES &  
REPORT ANY DISCREPANCY TO THE  
ENGINEER.
6. DETAIL BELOW IS FOR THE PIPE  
INSTALLATION UPSTREAM & DOWNSTREAM  
OF PARKSIDE DRIVE. FULL GRANULAR  
BACKFILL REQUIRED FOR PARKSIDE DRIVE.



MATCHLINE 0+165



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

APPROVED	NO.	REVISIONS	DATE	BY
J. WARNER				
CHECKED	1	DRAFT REPORT	MAY 28, 2026	CS
D. MOORES				
DRAWN				
C. SAUNDERS				

SCALE: 1:250  
0 2 4 6m

## TOWN of ESSEX BROUSSEAU - GRONDIN DRAIN PLAN & PROFILE

6  
OF 6

Last Updated: May 26, 2026

DRAWING NAME: Brousseau-Grondin Drain Plan & Profile 4  
PROJECT No. 2025-1754