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The Town of Plympton-Wyoming
546 Niagara Street
Wyoming, ON
N0N 1T0

January 9, 2026

Your Worship and Councillors:

Re: Barnes Drain (2025) & Associated Branch Drains

The Town of Plympton-Wyoming is improving a portion of the Barnes Drain 1943, reconstructing Thames Street (from Toronto Street 330m east), reconstructing Niagara Street (from Toronto Street 250m east) and reconstructing Main Street (from Toronto Street 120m east).

In accordance with your instructions, M. Gerrits Consulting Inc. has undertaken an examination of the Barnes Drain, with respect to extending a Thames Street Branch Drain, 40m west of the Barnes Drain and 53m east of the Barnes Drain, and extending Niagara Street Branch Drain, 42m west of the Barnes Drain and 60m east of the Barnes Drain.

Authorization Under the Drainage Act

This Engineer's Report has been prepared, under Sections 4 (1c) and Sections 78 (1) of the Drainage Act. The Thames Street Branch Drains and Niagara Street Branch Drains have been completed under Section 4 (1c) of the Drainage Act, as per the petition of the road authority, and the Barnes Drain improvement has been improved under Section 78 (1) of the Drainage Act, as per the recommendations of the Drainage Superintendent and instructions received from Council.

History

A detailed history of the Barnes Drain was documented in the "Drainage Needs Study for the Village of Wyoming" prepared by W. Bartlett, P.Eng. in 2001. The findings of this report were summarized by W. Bartlett, P.Eng. in the Barnes Drain Relocation and Improvement 2018 drain report, dated January 2019. A copy of the section of the report that documented the history of the Barnes Drain (Section 1.1, History), has been appended to this report.

In addition to the report prepared by W. Bartlett, dated January 2019, the following reports have been prepared for the Barnes Drain:

- W. G. McGeorge, C.E., prepared a report dated August 1943. The report was for the construction of the Barnes Drain.
- J. A. Monteith, P. Eng., prepared a report, dated June 1971. The report was for the installation of a new drain at the edge of the urban boundary, north of the rail line, and for deepening of the drain, south of the rail line.

- T. W. Graham, P. Eng., prepared a report, dated May 1989. The report was for the realignment of the Barnes Drain to the urban boundary, south of the rail line, and for realigning the Barnes Drain 1943 to the road allowances, north of the rail line.
- J. Warner, P.Eng., prepared a report, dated March 2025. The report was for incorporating the Radcliff – Silver Springs- Phase 1 drawings, prepared by R. Dobbin Engineering Inc. into a drain report. The report did not include the improvements made to the Barnes Drain 1943 as part of the development works on the lands, with the Area Roll Number ending with 383536000122622 (491 Main Street).

Onsite Meeting

An onsite meeting was held on December 16, 2025, at the Town of Plympton-Wyoming Municipal Offices. The following attended the meeting:

R. Tamming – Town of Plympton-Wyoming
J. Wilson − Town of Plympton-Wyoming
A. Morfin – B.M. Ross and Associates Ltd.
M. Gerrits – M. Gerrits Consulting Inc.
C. Joosten – Landowner
B. Latam – Landowner
E. Nolan – Landowner
V. Prudom – Landowner

The following is a brief summary of the meeting.

R. Tamming provided the meeting format, explained the process, provided an overview of the project and provided all present with an overview of the Drainage Act in urban areas.
M. Gerrits reviewed the draft report with landowners and explained that:

- The storm drainage portion of the project is being completed under the Drainage Act.
- Landowners are encouraged to familiarize themselves with the Drainage Act and with OMAFA Fact Sheets which are available online.
- The Barnes Drain (2025) and Associated Branch Drains extend from the Ontario Street road allowance, to the Silver Springs stormwater management facility. The drain is located in the Ontario Street, Thames Street, Niagara Street and Main Street Road allowances. The Barnes Branch Drain A is located between Niagara Street and Main Street.
- The Drainage Act can be compared to a user pay system. Landowners within the watershed may be responsible for the water generated on their lands, as it flows downstream. Landowners are assessed for benefit or outlet; in many cases, landowners may be assessed for both benefit and outlet.

- Benefit assessments can come in many forms, including the benefit of being able to utilize a drain for the drainage of front yards, rear yards, and road drainage.
- Outlet assessment deals with the conveyance of water through the drain. If water generated from a property flows through the drain, that property will be assessed for outlet. Outlet assessments are based on the amount of water each property contributes to the drain.
- Once the report is complete, there will be a Meeting to Consider the Report. At this meeting, the Engineer will present the report, and answer any technical questions.
- A Court of Revision will also be held approximately 30 days following the Meeting to Consider the Report. At this meeting, landowners, who feel their lands are improperly or unfairly assessed, can appeal their property's assessment. If the Court of Revision denies their appeal, landowners have the right to appeal to the Agriculture, Food and Rural Affairs Appeal Tribunal.
- B. Latam confirmed he installed the existing rear yard catchbasin on his lands, and that no other lands are connected to the basin.
- C. Joosten and V. Prudom had general construction questions with respect to the road and sidewalk designs. A. Morfin addressed these questions.
- V. Prudom requested B.M. Ross and Associates Ltd. provide a cost estimate to realign the Barnes Drain 1943 across her lands.

After the meeting, F. Brooks contacted M. Gerrits to discuss drainage on her lands. M. Gerrits informed F. Brooks that a meeting will be scheduled in 2026 to discuss drainage patterns on her lands.

A second meeting was held on January 8, 2026, at the Town of Plympton-Wyoming Municipal Offices. The following attended the meeting:

R. Tamming – Town of Plympton-Wyoming
J. Wilson – Town of Plympton-Wyoming
A. Morfin – B.M. Ross and Associates Ltd.
M. Gerrits – M. Gerrits Consulting Inc.
M. Borthwick – Landowner
F. Brooks – Landowner
V. Prudom – Landowner

The following is a brief summary of the meeting:

- M. Gerrits explained that the storm drainage portion of the project is being completed under the Drainage Act.
- M. Gerrits completed a brief review of the Drainage Act.
- A. Morfin reviewed the history of the Barnes Drain 1943 on the F. Brooks land.

- A. Morfin explained that when Ontario Street was reconstructed, an HDPE tile on the F. Brooks lands was connected to a new structure in the road allowance. The tile entered from the north but was not part of the Barnes Drain 1943.
- A. Morfin explained that the Barnes Drain 1943 is a clay tile with a significant amount of sediment in the lower portion of the tile.
- F. Brooks explained that she understood that when the Royaleigh was constructed, the Barnes Drain 1943 upstream of her lands was blocked.
- F. Brooks feels that since the Ontario Street reconstruction was completed, her lands are experiencing more standing water.
- A. Morfin explained that the new drain should provide a better outlet for the F. Brooks lands.
- F. Brooks requested A. Morfin meet her onsite to review the HDPE tile connection and rear yard catchbasin on her lands.
- A. Morfin explained that due to existing grading at 501 Niagara Street, the proposed drain will continue to encroach on the lands owned by M. Borthwick; however, since it is a closed drain with an overflow channel, the post construction conditions should be similar to the existing conditions.
- A. Morfin reviewed the proposed drain realignment on the V. Prudom lands. V. Prudom explained the difficulties of maintaining the existing Barnes Drain 1943 banks.
- After the meeting, M. Gerrits reviewed the realignment with V. Prudom, and it was decided to keep the existing drain on her lands.

Investigation

B.M. Ross and Associates Ltd. has been retained by the Town of Plympton-Wyoming to complete the following:

- Improvement of the Barnes Drain- Main Drain
- Reconstruction of Thames Street east of Toronto Street
- Reconstruction of Niagara Street east of Toronto Street

R. Dobbin Engineering Inc. completed the design of the closed drain on 491 Main Street, as part of the Radcliff – Silver Springs – Phase 1 development.

M. Gerrits Consulting Inc. completed a site visit on September 9, 2025, to review the B.M. Ross and Associates Ltd. plans, watershed map, and overall drainage patterns.

Design

B.M. Ross and Associates Ltd. has been retained by the Town of Plympton-Wyoming to complete the detail design of the roadworks and drainage works. All survey information, storm sewer designs, watershed plans, street reconstruction plans, street reconstruction profiles, and the estimate of cost, were provided by B.M. Ross and Associates Ltd., and are incorporated into this report.

R. Dobbin Engineering Inc. completed the design of the closed drain on 491 Main Street, as part of the Radcliff – Silver Springs – Phase 1 development. All survey information and storm sewer designs were provided on the Radcliff – Silver Springs- Phase 1, For Record Drawing 5 of 22, Revision 12, prepared by R. Dobbin Engineering Inc., and are incorporated into this report.

The proposed open drain improvements shall be designed to accommodate the 2-year design flow.

The open channel portion of the Barnes Drain (2025) Branch A Drain will be realigned between Station 4+126 and Station 4+087, to provide an access culvert within the road allowance. No work is proposed to be completed on the open channel between Station 4+100 and Station 4+056.

Recommendations

M. Gerrits Consulting Inc. recommends that a new drain report be prepared for a drainage works to be known as the Barnes Drain (2025) and Associated Branch Drains. The report includes the following:

- Barnes Drain (2025) Main Drain - Incorporate the existing storm drain within the Ontario Street Road allowance between Station 0+313 and Station 0+330 into this report.
- Incorporate the appended Special Provisions titled “Barnes Drain (2025) and Associated Branch Drains” and drawings 1 of 8, 2 of 8, 4 of 8, 5 of 8, 6 of 8, and 7 of 8 titled “Town of Plympton-Wyoming, Mun. Barnes Drain Replacement, Thames St. East Reconstruction, Niagara St East Reconstruction”, Revision 3, prepared by B.M. Ross and Associates Ltd., dated January 2026; and the Radcliffe – Silver Springs – Phase 1, drawing 5 of 22, Revisions 12, prepared by R. Dobbin Engineering Inc., dated May 2011, into this report for the following sections of the drain.
  - Barnes Drain (2025) - Station 0+330 to Station 0+011
  - Barnes Drain (2025) - Station 1+051 to Station 1+111
  - Barnes Drain (2025) Branch A Drain – Station 4+000 to Station 4+148
  - Barnes Drain (2025) Thames Street East Branch Drain - Station 2+180 to Station 2+233
  - Barnes Drain (2025) Thames Street West Branch Drain - Station 2+140 to Station 2+180
  - Barnes Drain (2025) Niagara Street East Branch Drain - Station 3+185 to Station 3+245
  - Barnes Drain (2025) Niagara Street West Branch Drain - Station 3+143 to Station 3+185

- The section of Barnes Drain 1943 between Ontario Street and Main Street, shall be abandoned and replaced with the Barnes Drain (2025) and Barnes Drain (2025) Branch A Drain. Any sections of the Barnes Drain 1943 which are located on private property, between the south limit of the Ontario Street road allowance and Main Street road allowance, which are not removed as part of construction, will become a private drain.
- Provide future maintenance specifications for the drain.
- Provide future maintenance specifications for the drain.
- Prepare Schedules of Maintenance for the drain.
- Future land use changes will be subject to any applicable Section 65 changes.

Drain Classification

The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), Agricultural mapping, and the 2004 St. Clair Regional Conservation Authority (SCRCA) classification mapping, have not currently rated the Barnes Drain.

Approvals

All construction will be completed in accordance with the Department of Fisheries and Oceans (DFO) regulations, and the applicable Conservation Authority permits.

Estimate of Cost

It is recommended that the work be carried out in accordance with the accompanying specification of work and profile, that form a part of this report. An Estimate of Cost has been prepared in the amount of $544,654, which includes engineering fees, but does not include work beyond the preparation of the report, such as inspection during construction.

A plan has been prepared, which shows the location of the work, and the approximate drainage area. Profiles have been prepared, which show the depths and grades of the proposed work.

Assessment

As per Section 21 of the Drainage Act, a Schedule of Assessment for the lands and roads affected by the Barnes Drain (2025) and Associated Branch Drains has been prepared.

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 the drainage works as an outlet, for which the drainage works are 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 (Section 23-1). The assessment for outlet shall be

based on the volume and the rate of flow of the water artificially caused to flow into the drainage works, from the lands and roads liable for such assessments. Outlet assessments are generally based on equivalent hectares (Eq. Ha) which are determined by the land use. Typical Ha to Eq. ha ratio are listed below:

Agricultural Lands – 1 Ha = 1Eq. Ha
Residential Lands – 1 Ha = 1.5-2.0 Eq. Ha
Gravel Roads – 1 Ha = 3 Eq. Ha
Paved Roads – 1 Ha = 4 -6 Eq. Ha
Subsurface Drainage − 1Ha = 0.5 Eq. Ha
Surface Drainage − 1Ha = 0.5 Eq. Ha

If, from any land or road, water is artificially caused by any means to flow upon and injure any other land or road, the land or road from which the water is caused to flow, may be assessed for injuring liability with respect to a drainage works, to relieve the injury so caused to such other land or road (Section 23-2).

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

Assessments may be made against any Public Utility or Road Authority, as per Section 26 of the Drainage Act, for any increased cost for locating, special backfill or construction, or for the removal or relocation of any of its facilities or plants, that may be necessary for the construction or maintenance of the drainage works. Items to be assessed under Section 26 shall be tendered separately, and the Utility or Road Authority shall be assessed the actual construction costs, plus the associated overhead and engineering costs (20% of the construction costs). Section 26 assessments are detailed in Table 1 as follows:

Description		Item		Quantity	Unit	Total Cost ($)	Fixed Cost ($)	Special Benefit Cost ($)	Engineering (20%) ($)	Net H.S.T. (1.76%) ($)	Total Special Benefit ($)
Thames Street East Branch	200 mm PVC DR35 catchbasin leads	1	i)	9	m	$ 2,025	-	$ 2,025	$ 405	$ 43	$ 2,473
	600 mm x 600 mm (OPSD 705.010)	2	a)	2	Ea.	$ 5,300	-	$ 5,300	$ 1,060	$ 112	$ 6,472
											$ 8,945
Thames Street West Branch	200 mm PVC DR35 catchbasin leads	1	i)	9.0	m	$ 2,025	-	$ 2,025	$ 405	$ 43	$ 2,473
	150 mm PVC DR28 catchbasin leads	1	j)	9.0	m	$ 1,800	-	$ 1,800	$ 360	$ 38	$ 2,198
	600 mm x 600 mm (OPSD 705.010)	2	a)	3	Ea.	$ 7,950	-	$ 7,950	$ 1,590	$ 168	$ 9,708
											$ 14,379
Niagara Steet East Branch	250 mm PVC DR35 catchbasin leads	1	h)	8.5	m	$ 2,125	-	$ 2,125	$ 425	$ 45	$ 2,595
	600 mm x 1450 mm (OPSD 705.020)	2	a)	2	Ea.	$ 7,300	-	$ 7,300	$ 1,460	$ 154	$ 8,914
											$ 11,509
Main Drain	525 mm Concrete 65-D municipal drain	1	e)	10	m	$ 4,250	250.00	$ 4,000	$ 800	$ 84	$ 4,884
	750 mm Concrete 65-D municipal drain	1	a)	166	m	$99,600	63,600	$ 36,000	$ 7,200	$ 760	$ 43,960
	200 mm PVC DR35 catchbasin leads	22	m	22	m	$ 4,950	-	$ 4,950	$ 990	$ 105	$ 6,045
	600 mm x 600 mm (OPSD 705.010)	2	a)	5	Ea.	$13,250	-	$ 13,250	$ 2,650	$ 280	$ 16,180
											$ 71,069
											$ 105,902

All final costs included in the cost estimate of this report, except the special benefits as identified above, shall be pro-rated based on the Schedule of Assessment.

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

- The drain has been assessed with 61% of the cost less any Section 26 assessments, as a benefit assessment, and 39% of the cost as an outlet assessment, based on equivalent hectares. A benefit assessment of $2,800 has been assessed to all private properties abutting and connecting to the drain regardless of the number of connections. The assessment includes the cost associated with a storm service connection, from the landowner's lot line to the drain.
- The additional cost to work within the road allowance, has been assessed as a Section 26 assessment to the affected road authority.
- The cost to work around utilities, has not been assessed as a Section 26 assessment to the affected utility, as they will form part of the road works costs, and not the drain costs.

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 drainage works. This shall be considered an allowance for right-of-way. Section 29 allowances will be provided to landowners for compensation for an the lands where proposed work extends beyond the lands owned by the Town of Plympton-Wyoming. Section 29 allowances are based on a land value of $24,700.00 per acre ($61,048.00 per hectare).

Under Section 30 of the Drainage Act, the Engineer shall determine the amount to be paid to persons entitled 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. Section 30 allowances will be provided under this report to any lands that are disturbed outside of the existing drain working corridor. Section 30 allowances for yard disturbance are based on $5,500.00 per hectare.

Under Section 31 of the Drainage Act, where an existing drain that was not constructed on requisition or petition under this Act or any predecessor of this Act, is incorporated in whole or in part in a drainage works, the engineer in the report shall estimate and allow in money to the owner of such drain or part the value to the drainage works of such drain or part, and shall include such sum in the estimate of the cost of the construction, improvement, repair or maintenance of the drainage works. Section 31 allowances will be provided under this report, for the incorporation of the closed drain that was installed on the lands at 491 Main Street, as part of the Silver Springs development into this report. Section 31 allowances are $2,800, and are based on the benefit assessment levied against the landowner.

Table of Allowances

Description	Roll No.	Owner	Section 29	Section 30	Section 31	Total
Ex. Barnes Branch Drain	383536000122622	B. Luloff	-	-	2,800	2,800
Ex. Rear Yard Catch Basin	383536000118850	B. & J. Latam		50		50
Ditch realingment	383536000122400	H.E.A.R. Solutions Heating and Cooling	238	131		369
					Total Allowances	$ 3,219

Access and Working Area

Access to the drain shall be gained from road allowances, when possible, along existing private lanes, fence lines, property lines, and the drain. Access to the working area along the private lanes, property lines and fence lines, shall be restricted to a width of 6m. The primary access for the work and for the future repair and maintenance of the drain will be from Thames Street, Niagara Street and Main Street. In addition to the road allowances, the additional access and working areas for the work and for the future repair and maintenance of the drain have been summarized below:

The access and working area for the drain is as follows:

- Station 0+330 to Station 0+313 – Ontario Street road allowance.
- Station 0+313 to Station 0+231 – Alley (Town of Plympton-Wyoming).
- Station 0+231 to Station 0+211 – Thames Street road allowance.
- Station 0+211 to Station 0+0+174 – Alley (Town of Plympton-Wyoming).
- Station 0+174 – 2.5m on either side of the private rear yard catchbasin lead and 2.5 m on all sides of the rear yard catchbasin structure (for construction only)
- Station 0+174 to Station 0+166 – Alley (Town of Plympton-Wyoming).
- Station 0+116 to Station 0+126 – Alley (Town of Plympton-Wyoming) and a distance of 2.5m east of the centre line of the drain on the lands with the ARN ending with 383536000122400.
- Station 0+126 to Station 0+105 – Niagara Street road allowance.
- Station 0+105 to Station 0+020 – Alley (Town of Plympton-Wyoming).
- Station 0+20 to Station 0+011 – Main Street road allowance.
- Station 1+051to Station 1+111 – Main Street road allowance.
- Station 2+140 to Station 2+180 – Thames Street road allowance.
- Station 2+180 to Station 2+233 – Thames Street road allowance.
- Station 3+143 to Station 3+185 – Niagara Street road allowance.
- Station 3+185 to Station 3+245 – Niagara Street road allowance.
- Station 4+148 to Station 4+110 – Niagara Street road allowance and 2m south of the top of the open channel bank on the south side of the drain.

- Station 4+110 to Station 4+087 – From the west property limit to the centreline of the overflow route, and 2m east of the top of the open channel bank on the east side of the drain.
- Station 4+087 to Station 4+054 – 5m west of the top of the open channel bank on the west side of the drain, and 2m east of the top of the open channel bank on the east side of the drain.
- Station 04+054 to Station 4+050 – 3.5m on the north side of the closed drain, and 1.5m on the south side of the closed drain.
- Station 04+050 to Station 4+009 – 1.5m on the east side of the centreline of the drain, and 3.5m on the west side of the centreline of the closed drain.

Restrictions

Following construction, no trees or shrubs shall be planted, nor shall permanent structures be erected within the working area, without prior written permission of Council, unless otherwise specified in this report.

Attention is also drawn to Sections 80 and 82 of the Drainage Act, which refers to a landowner's responsibility regarding obstruction of a drainage works, the removal of obstructions in a drain, and the damage caused to a drain by an obstruction.

Maintenance

Upon completion of the work, the drainage works shall be repaired and maintained by the Town of Plympton-Wyoming, under the provisions of the Drainage Act, as per the applicable Schedule of Assessment for Maintenance enclosed in this report, until said maintenance assessment is varied, in accordance with the provisions of the Drainage Act as outlined below. The Schedules of Assessment for Maintenance are for the future maintenance of the Drain, and have been prepared based on a hypothetical maintenance cost of $10,000.

The drain between Station 4+009 and Station 4+050 is located in an existing +/- 3m easement on the west limit of the lands ending with the Area Roll Number ending with 383536000122622 (491 Main Street). The drain between Station 4+050 and Station 4+054 is located in an existing +/- 3m easement on the north limit of the 491 Main Street lands. The closed drain appears to be located in the centre of the easement. All additional costs required to repair, maintain or replace the drain, due to the proximity of the drain to adjacent structures, will be assessed to the landowner on which the drain is located on.

Future connections by a landowner or Road Authority, will be at the cost of the connecting landowner or Road Authority.

In the future, if the lands with the Area Roll number ending with 383536000122700, request an access culvert, the culvert size shall be a 450mm dia. culvert. At the direction of the drainage superintendent, a smaller culvert can be installed if the culvert is immediately downstream of the west property limit. The culvert installation and maintenance shall be assessed with 45% of the cost to the benefiting landowner and 55% of the cost as an outlet assessment to upstream lands based on equivalent hectares.

Maintenance costs are limited to the storm drain and private drain services, located within the road allowance, and does not include any necessary road reconstruction items, such as curb, granular materials, import fill, or pavement, which shall be assessed to the Road Authority as a Section 26 assessment. Maintenance of private services may be with trenchless technologies, or by conventional construction methods. Conventional construction methods shall include service piping and fittings. Future service maintenance costs shall be assessed with 50% of the cost to the benefiting landowner (s), and 50% of the cost to the Road Authority.

Yours truly,

Michael Gerrits, P. Eng.
M. Gerrits Consulting Inc.

Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

Barnes Drain (2025) & Associated Branch Drains
Cost Estimate - Summary

	Description		Amount
1	Barnes Drain (2025) - Main Drain	$	383,552
2	Barnes Drain (2025) - Barnes Branch A Drain	$	6,999
3	Barnes Drain (2025) - Niagara Street East Branch	$	48,753
4	Barnes Drain (2025) - Niagara Street West Branch	$	25,765
5	Barnes Drain (2025) - Thames Street East Branch	$	38,513
6	Barnes Drain (2025) - Thames Street West Branch	$	41,072
	Total Estimate	$	544,654

Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

Barnes Drain (2025) - Main Drain
Cost Estimate

Item	OPSS #	Description	Qty.	Unit	Price	Amount
1	401, 409, 410, 492, 517, 518	Supply, excavate for and place storm pipe sewers inlcuding bedding, native backfill and restoration				
		a) 750 mm Concrete 65-D municipal drain	166	m	$600	$99,600
		c) 675 mm Concrete 65-D municipal drain	104	m	$550	$57,200
		d) 600 mm Concrete 65-D municipal drain	90	m	$475	$42,750
		e) 525 mm Concrete 65-D municipal drain	10	m	$425	$4,250
		i) 200 mm PVC DR35 catchbasin leads	22	m	$225	$4,950
2	402, 407, 517, 518	Supply, excavate for, place and backfill cacthbasins and/or twin inlet catchbasins, including frames and grates				
		a) 600 mm x 600 mm (OPSD 705.010)	5	Ea.	$2,650	$13,250
3	402, 407, 517, 518	Supply, excavate for, place and backfill precast maintenance holes and maintenance holes catchbasins including frames and grates				
		b) 1500 mm manhole (701.011)	6	Ea.	$7,500	$45,000
4	410, 504	Reconnect existing drains and services (up to 250mm dia) (Provisional for repairs)	35	m	$100	$3,500
7	401, 410, 492, 517, 518	Supply, excavate for and place PVC SDR-28 storm service pipe including bedding, native backfill				
		a) 150 mm dia.	40	m	$180	$7,200
8	401, 410	Storm service cleanout	13	Ea.	$525	$6,825
9		Muncipal Alley restoration with topsoil and sod	1	L.S.	$30,000	$27,750
10		Muncipal Easement adjacent properties fences and other items that will need to be relocated or replaced (Allowance)	1	L.S.	$30,000	$30,000
					Subtotal	$342,275
					Miscellaneous	$17,116
					Allowances	$419
					Engineering	$17,116
					Net HST	$6,626
					Total Estimate	$383,552

** Note - Item numbering corresponds to the numbering used in the total project unit price table prepared by BM Ross and Associates Ltd.

Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

Barnes Drain (2025) - Barnes Branch A Drain
Cost Estimate

Item	OPSS #	Description	Qty.	Unit	Price	Amount
4	410, 504	Reconnect existing drains and services (up to 250mm dia) (Provisional for repairs)	15	m	$100	$1,500
9		Muncipal Alley restoration with topsoil and sod	0.08	L.S.	$30,000	$2,250
					Subtotal	$3,750
	** Note -	Item numbering corresponds to the numbering used in the total project unit price table prepared by BM Ross and Associates Ltd.			Miscellaneous	$188
					Allowances	$2,800
					Engineering	$188
					Net HST	$73
					Total Estimate	$6,999

Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

Barnes Drain (2025) - Niagara Street East Branch
Cost Estimate

Item	OPSS #		Description	Qty.	Unit	Price	Amount
1	401, 409, 410, 492, 517, 518		Supply, excavate for and place storm pipe sewers inlcuding bedding, native backfill and restoration				
		g)	300 mm PVC DR35 storm sewer	60	m	$300	$18,000
		h)	250 mm PVC DR35 catchbasin leads	8.5	m	$250	$2,125
2	402, 407, 517, 518		Supply, excavate for, place and backfill cacthbasins and/or twin inlet catchbasins, including frames and grates				
		a)	600 mm x 1450 mm (OPSD 705.020)	2	Ea.	$3,650	$7,300
3	402, 407, 517, 518		Supply, excavate for, place and backfill precast maintenance holes and maintenance holes catchbasins including frames and grates				
		a)	1200 mm manhole (701.010)	1	Ea.	$5,750	$5,750
7	401, 410, 492, 517, 518		Supply, excavate for and place PVC SDR-28 storm service pipe including bedding, native backfill				
		a)	150 mm dia.	46	m	$180	$8,280
8	401, 410		Storm service cleanout	4	Ea.	$525	$2,100
						Subtotal	$43,555
	** Note -		Item numbering corresponds to the numbering used in the total project unit price table prepared by BM Ross and			Miscellaneous	$2,178
						Engineering	$2,178
						Net HST	$842
						Total Estimate	$48,753

Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

Barnes Drain (2025) - Niagara Street West Branch
Cost Estimate

Item	OPSS #		Description	Qty.	Unit	Price	Amount
1	401, 409, 410, 492, 517, 518		Supply, excavate for and place storm pipe sewers inlcuding bedding, native backfill and restoration				
		g)	300 mm PVC DR35 storm sewer	41.5	m	$300	$12,450
3	402, 407, 517, 518		Supply, excavate for, place and backfill precast maintenance holes and maintenance holes catchbasins including frames and grates				
		a)	1200 mm manhole (701.010)	1	Ea.	$5,750	$5,750
7	401, 410, 492, 517, 518		Supply, excavate for and place PVC SDR-28 storm service pipe including bedding, native backfill				
		a)	150 mm dia.	18	m	$180	$3,240
8	401, 410		Storm service cleanout	3	Ea.	$525	$1,575
						Subtotal	$23,015
	** Note -		Item numbering corresponds to the numbering used in the total project unit price table prepared by BM Ross and			Miscellaneous	$1,152
						Engineering	$1,152
						Net HST	$446
						Total Estimate	$25,765

Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

Barnes Drain (2025) - Thames Street East Branch
Cost Estimate

Item	OPSS #		Description	Qty.	Unit	Price	Amount
1	401, 409, 410, 492, 517, 518		Supply, excavate for and place storm pipe sewers inlcuding bedding, native backfill and restoration				
		g)	300 mm PVC DR35 storm sewer	52	m	$300	$15,600
		i)	200 mm PVC DR35 catchbasin leads	9	m	$225	$2,025
2	402, 407, 517, 518		Supply, excavate for, place and backfill cacthbasins and/or twin inlet catchbasins, including frames and grates				
		a)	600 mm x 600 mm (OPSD 705.010)	2	Ea.	$2,650	$5,300
3	402, 407, 517, 518		Supply, excavate for, place and backfill precast maintenance holes and maintenance holes catchbasins including frames and grates				
		a)	1200 mm manhole (701.010)	1	Ea.	$5,750	$5,750
7	401, 410, 492, 517, 518		Supply, excavate for and place PVC SDR-28 storm service pipe including bedding, native backfill				
		a)	150 mm dia.	26	m	$180	$4,680
8	401, 410		Storm service cleanout	2	Ea.	$525	$1,050
						Subtotal	$34,405
	** Note -		Item numbering corresponds to the numbering used in the total project unit price table prepared by BM Ross and			Miscellaneous	$1,721
						Engineering	$1,721
						Net HST	$666
						Total Estimate	$38,513

Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

Barnes Drain (2025) - Thames Street West Branch
Cost Estimate

Item	OPSS #		Description	Qty.	Unit	Price	Amount
1	401, 409, 410, 492, 517, 518		Supply, excavate for and place storm pipe sewers inlcuding bedding, native backfill and restoration				
		g)	300 mm PVC DR35 storm sewer	40.5	m	$300	$12,150
		i)	200 mm PVC DR35 catchbasin leads	9	m	$225	$2,025
		j)	150 mm PVC DR28 catchbasin leads	9	m	$200	$1,800
2	402, 407, 517, 518		Supply, excavate for, place and backfill cacthbasins and/or twin inlet catchbasins, including frames and grates				
		a)	600 mm x 600 mm (OPSD 705.010)	3	Ea.	$2,650	$7,950
3	402, 407, 517, 518		Supply, excavate for, place and backfill precast maintenance holes and maintenance holes catchbasins including frames and grates				
		a)	1200 mm manhole (701.010)	1	Ea.	$5,750	$5,750
6	510	0	Remove existing storm sewer				
		a)	375/450mm dia. (or any size) all material except for AC pip	43	m	$55	$2,365
7	401, 410, 492, 517, 518		Supply, excavate for and place PVC SDR-28 storm service pipe including bedding, native backfill				
		a)	150 mm dia.	20	m	$180	$3,600
8	401, 410		Storm service cleanout	2	Ea.	$525	$1,050
						Subtotal	$36,690
	** Note -		Item numbering corresponds to the numbering used in the total project unit price table prepared by BM Ross and			Miscellaneous	$1,836
						Engineering	$1,836
						Net HST	$710
						Total Estimate	$41,072

Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

SCHEDULE OF ASSESSMENT FOR THE BARNES DRAIN (2025) - COMBINED SCHEDULE

Description	Aff. Hect. (Ha)	Roll No.	Landowner Identification Number	Owner	Address of Affected Lands	Special Benefit	Benefit ($)	Outlet ($)	Total ($)
Non-Agricultural Lands									
Con 2 Pt Lot 16	0.16	383536000122100	1-02	F. Brooks	497 Ontario Street	-	-	3,427	3,427
Con 2 Pl 2 Pt Lot 16 RP 25R7504 Pt 1	0.05	383536000122200	1-03	E. Koopman	493 Ontario Street	-	-	1,269	1,269
Con 2 Pt Lot 16 RP 25R7504 Pts 2 & 4 RP25R6191 Pt 1	0.10	383536000122300	1-04	Boelens Construction (1991)	492 Ontario Street	-	-	2,812	2,812
Pl 2 Blk M Lot 7 W Pt Lot 8	0.03	383536000119400	1-05	T. & D. & H. McEwen	506 Ontario Street	-	-	761	761
Pl 2 Blk M Lot 9 E Pt Lot 8	0.10	383536000119500	1-06	K. & D. Krumholtz	502 Ontario Street	-	2,800	2,433	5,233
Con 2 Pl 2 Pt Lot 16	0.14	383536000122302	1-07	T. & H. Moore	498 Ontario Street	-	2,800	3,194	5,994
Con 2 Pt Lot 16	0.14	383536000122301	1-08	D. Workman	496 Ontario Street	-	-	3,581	3,581
Pl 2 Blk M Lot 12	0.06	383536000119600	1-09	A. Gibbings & D. Beatty	503 Thames Street	-	2,800	2,409	5,209
Pl 2 Blk M Lots 10 & 11	0.09	383536000119501	1-10	J. & C. Towers	501 Thames Street	-	2,800	2,498	5,298
Con 2 Pt Lot 16 E of Blk M Pl 2	0.14	383536000122304	1-11	C. & M. Orrange	497 Thames Street	-	2,800	3,577	6,377
Con 2 Pt Lot 16	0.12	383536000122303	1-12	R. & T. Boelens	495 Thames Street	-	2,800	4,422	7,222
Pl 2 Blk T Lots 11 & 12, Pt Lot 10	0.18	383536000118800	2-01	D. Robb	506 Thames Street	-	2,800	4,826	7,626
Pl 2 Blk T Lots 13 & 14	0.10	383536000118850	2-02	B. & J. Latam	502 Thames Street	-	2,800	3,184	5,984
PL 657 Lot 2	0.10	383536000122307	2-03	W. & G. Smith	500 Thames Street	-	2,800	3,099	5,899
Pl 657 Lot 1	0.10	383536000122306	2-04	K. & R. & C. Wheeler	498 Thames Street	-	2,800	3,687	6,487
Con 2 Pt Lot 16	0.10	383536000122305	2-05	J. & R. White	496 Thames Street	-	2,800	3,724	6,524
Pl 2 Blk T Pt Lot 18 Pt Lot 17 RP 25R2078 Pt 2	0.08	383536000118908	2-06	D. & L. Kerr	505 Niagara Street	-	2,800	2,899	5,699
Pl 2 Blk T Pt Lot 16 Pt Lot 17 RP 25R2078 Pt 3	0.07	383536000118904	2-07	K. Helps	503 Niagara Street	-	2,800	2,627	5,427
Pl 2 Blk T Lot 15 E Pt Lot 16 RP 25R2078 Pt 4	0.07	383536000118900	2-08	K. Smith & A. Corbett	501 Niagara Street	-	2,800	2,015	4,815
Pl 657 Lot 3	0.13	383536000122400	2-09	H.E.A.R. Solutions Heating and Cooling	495 Niagara Street	-	2,800	3,604	6,404
PL 657 Lot 4	0.08	383536000122401	2-10	M. & M. Borthwick	493 Niagara Street	-	2,800	3,016	5,816
PL 657 Lot 5	0.07	383536000122402	2-11	H. & B. De Boer	491 Niagara Street	-	2,800	2,746	5,546
Con 2 Pt Lot 16 Plus R.O.W. RP 25R6067 PtS 2, 3 & 4	0.29	383536000122500	2-12	M. & L. Robb	489 Niagara Street	-	2,800	4,786	7,586

Description	Aff. Hect. (Ha)	Roll No.	Landowner Identification Number	Owner	Address of Affected Lands	Special Benefit	Benefit ($)	Outlet ($)	Total ($)
Pl 2 Blk U Lot 7 Pt Lots 6 & 8 RP 25R9775 Pt 1	0.13	83536000117900	3-01	C. Joosten & B. Haldenby	504 Niagara Street	-	2,800	4,446	7,246
Pl 2 Blk U Lot 9 Pt LOT 8 RP 25R9775 Pt 2	0.09	383536000117905	3-02	C. Joosten & B. Haldenby		-	2,800	1,266	4,066
Plympton Con 2 Pt Lot 16 RP 25R8856 Pt 1 RP 25R9559 Pt 1	0.27	83536000122705	3-03	V. Prudom	494 Niagara Street	-	2,800	4,858	7,658
Plympton Con 2 Pt Lot 16 RP 25R9559 Pt 2	0.19	383536000122700	3-04	V. Prudom & J. Riess		-	2,800	1,614	4,414
Plympton Con 2 Pt Lot 16 RP 25R10262 Pts 1 & 2	0.46	383536000122610	3-05	C. Charge	490 Niagara Street	-	2,800	1,696	4,496
Pl 2 Blk U Lots 17 - 18	0.13	383536000118000	3-06	E. & C. Nolan	503 Main Street	-	2,800	3,040	5,840
Plympton Con 2 Pt Lot 16 RP 25R11399 Pt 1 & 5	0.02	383536000122622	3-07	B. Luloff	491 Main Street	-	2,800	-	2,800
						-	70,000	87,516	157,516

Total Special Benefit	-
Total Benefit	70,000
Total Outlet	87,516
Total - Non-Agricultural Lands	157,516

Public Lands									
Ontario Street	0.21			Town of Plympton-Wyoming		4,884	-	42,434	47,318
Thames Street	0.44			Town of Plympton-Wyoming		23,324	20,531	41,674	85,529
Niagara Street	0.47			Town of Plympton-Wyoming		23,690	28,928	33,831	86,449
Main Street	0.06			Town of Plympton-Wyoming		43,960	5,790	2,126	51,876
Side Yard Alley (Erie St. - Ontario St.)	0.04			Town of Plympton-Wyoming		-	-	2,165	2,165
Side Yard Alley (Ontario St. - Thames St.)	0.04			Town of Plympton-Wyoming		10,044	16,762	1,249	28,055
Side Yard Alley (Thames St. - Niagara St.)	0.04			Town of Plympton-Wyoming		-	14,724	718	15,442
Side Yard Alley (Niagara St. - Main St.)	0.04			Town of Plympton-Wyoming		-	23,457	444	23,901
Rear Yard Alley (Ontario St. - Thames St.)	0.01			Town of Plympton-Wyoming		-	-	-	-
Rear Yard Alley (Thames St. - Niagara St.)	0.04			Town of Plympton-Wyoming		-	-	2	2
Rear Yard Alley (Niagara St. - Main St.)	0.01			Town of Plympton-Wyoming		-	-	-	-
McKay Park	0.28	383536000119900	1-01	Town of Plympton-Wyoming		-	-	46,401	46,401
						105,902	110,192	171,044	387,138

Total Special Benefit	105,902
Total Benefit	110,192
Total Outlet	171,044
Total - Public Lands	387,138

Total - Non-Agricultural Lands	157,516
Total - Public Lands	387,138
Total Assessment	$ 544,654

Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

SCHEDULE OF ASSESSMENT FOR THE BARNES DRAIN (2025) - MAIN DRAIN

Description	Aff. Hect. (Ha)	Roll No.	Landowner Identification Number	Owner	Address of Affected Lands	Special Benefit	Benefit ($)	Outlet ($)	Total ($)	Eq. Area (Ha)
Non-Agricultural Lands										
Con 2 Pt Lot 16	0.16	383536000122100	1-02	F. Brooks	497 Ontario Street	-	-	3,422	3,422	0.27
Con 2 Pl 2 Pt Lot 16 RP 25R7504 Pt 1	0.05	383536000122200	1-03	E. Koopman	493 Ontario Street	-	-	1,267	1,267	0.10
Con 2 Pt Lot 16 RP 25R7504 Pts 2 & 4 RP25R6191 Pt 1	0.10	383536000122300	1-04	Boelens Construction (1991)	492 Ontario Street	-	-	2,535	2,535	0.20
Pl 2 Blk M Lot 7 W Pt Lot 8	0.03	383536000119400	1-05	T. & D. & H. McEwen	506 Ontario Street	-	-	760	760	0.06
Pl 2 Blk M Lot 9 E Pt Lot 8	0.10	383536000119500	1-06	K. & D. Krumholtz	502 Ontario Street	-	2,800	2,429	5,229	0.19
Con 2 Pl 2 Pt Lot 16	0.14	383536000122302	1-07	T. & H. Moore	498 Ontario Street	-	2,800	3,189	5,989	0.25
Con 2 Pt Lot 16	0.14	383536000122301	1-08	D. Workman	496 Ontario Street	-	-	3,207	3,207	0.25
Pl 2 Blk M Lot 12	0.06	383536000119600	1-09	A. Gibbings & D. Beatty	503 Thames Street	-	-	1,620	1,620	0.13
Pl 2 Blk M Lots 10 & 11	0.09	383536000119501	1-10	J. & C. Towers	501 Thames Street	-	2,100	2,064	4,164	0.16
Con 2 Pt Lot 16 E of Blk M Pl 2	0.14	383536000122304	1-11	C. & M. Orrange	497 Thames Street	-	2,100	3,141	5,241	0.25
Con 2 Pt Lot 16	0.12	383536000122303	1-12	R. & T. Boelens	495 Thames Street	-	-	2,974	2,974	0.23
Pl 2 Blk T Lots 11 & 12, Pt Lot 10	0.18	383536000118800	2-01	D. Robb	506 Thames Street	-	-	3,245	3,245	0.26
Pl 2 Blk T Lots 13 & 14	0.10	383536000118850	2-02	B. & J. Latam	502 Thames Street	-	2,100	2,564	4,664	0.20
PL 657 Lot 2	0.10	383536000122307	2-03	W. & G. Smith	500 Thames Street	-	2,100	2,479	4,579	0.20
Pl 657 Lot 1	0.10	383536000122306	2-04	K. & R. & C. Wheeler	498 Thames Street	-	-	2,479	2,479	0.20
Con 2 Pt Lot 16	0.10	383536000122305	2-05	J. & R. White	496 Thames Street	-	-	2,504	2,504	0.20
Pl 2 Blk T Pt Lot 18 Pt Lot 17 RP 25R2078 Pt 2	0.08	383536000118908	2-06	D. & L. Kerr	505 Niagara Street	-	-	1,949	1,949	0.15
Pl 2 Blk T Pt Lot 16 Pt Lot 17 RP 25R2078 Pt 3	0.07	383536000118904	2-07	K. Helps	503 Niagara Street	-	-	1,766	1,766	0.14
Pl 2 Blk T Lot 15 E Pt Lot 16 RP 25R2078 Pt 4	0.07	383536000118900	2-08	K. Smith & A. Corbett	501 Niagara Street	-	2,100	1,766	3,866	0.14
Pl 657 Lot 3	0.13	383536000122400	2-09	H.E.A.R. Solutions Heating and Cooling	495 Niagara Street	-	2,100	2,984	5,084	0.24
PL 657 Lot 4	0.08	383536000122401	2-10	M. & M. Borthwick	493 Niagara Street	-	-	2,028	2,028	0.16
PL 657 Lot 5	0.07	383536000122402	2-11	H. & B. De Boer	491 Niagara Street	-	-	1,846	1,846	0.15
Con 2 Pt Lot 16 Plus R.O.W. RP 25R6067 PtS 2, 3 & 4	0.18	383536000122500	2-12	M. & L. Robb	489 Niagara Street	-	-	3,215	3,215	0.25
Pl 2 Blk U Lot 7 Pt Lots 6 & 8 RP 25R9775 Pt 1	0.13	83536000117900	3-01	C. Joosten & B. Haldenby	504 Niagara Street	-	-	3,041	3,041	0.24
Pl 2 Blk U Lot 9 Pt LOT 8 RP 25R9775 Pt 2	0.09	383536000117905	3-02	C. Joosten & B. Haldenby	lot with no address	-	2,100	1,141	3,241	0.09
Plympton Con 2 Pt Lot 16 RP 25R8856 Pt 1 RP 25R9559 Pt 1	0.27	83536000122705	3-03	V. Prudom	494 Niagara Street	-	2,100	4,851	6,951	0.38
Plympton Con 2 Pt Lot 16 RP 25R9559 Pt 2	0.12	383536000122700	3-04	V. Prudom & J. Riess	lot with no address	-	-	1,521	1,521	0.12
Plympton Con 2 Pt Lot 16 RP 25R10262 Pts 1 & 2	0.06	383536000122610	3-05	C. Charge	490 Niagara Street	-	-	950	950	0.08
Pl 2 Blk U Lots 17 - 18	0.13	383536000118000	3-06	E. & C. Nolan	503 Main Street	-	2,800	3,035	5,835	0.24
						-	25,200	69,972	95,172	

Total Special Benefit	-
Total Benefit	25,200
Total Outlet	69,972
Total - Non-Agricultural Lands	95,172

Description	Aff. Hect. (Ha)	Roll No.	Landowner Identification Number	Owner	Address of Affected Lands	Special Benefit	Benefit ($)	Outlet ($)	Total ($)	Eq. Area (Ha)
Public Lands										
Ontario Street	0.21			Town of Plympton-Wyoming		4,884	-	42,381	47,265	0.84
Thames Street	0.26			Town of Plympton-Wyoming		-	5,030	26,567	31,597	1.04
Niagara Street	0.26			Town of Plympton-Wyoming		12,181	13,764	15,765	41,710	1.04
Main Street	0.06			Town of Plympton-Wyoming		43,960	5,790	2,126	51,876	0.22
Side Yard Alley (Erie St. - Ontario St.)	0.04			Town of Plympton-Wyoming		-	-	2,162	2,162	0.04
Side Yard Alley (Ontario St. - Thames St.)	0.04			Town of Plympton-Wyoming		10,044	16,762	1,246	28,052	0.04
Side Yard Alley (Thames St. - Niagara St.)	0.04			Town of Plympton-Wyoming		-	14,724	717	15,441	0.04
Side Yard Alley (Niagara St. - Main St.)	0.04			Town of Plympton-Wyoming		-	23,457	444	23,901	0.04
Rear Yard Alley (Ontario St. - Thames St.)	0.01			Town of Plympton-Wyoming		-	-	-	-	0.01
Rear Yard Alley (Thames St. - Niagara St.)	0.04			Town of Plympton-Wyoming		-	-	-	-	
Rear Yard Alley (Niagara St. - Main St.)	0.01			Town of Plympton-Wyoming		-	-	-	-	
McKay Park	0.28	383536000119900	1-01	Town of Plympton-Wyoming		-	-	46,376	46,376	0.28
						71,069	79,527	137,784	288,380	

Total Special Benefit	71,069
Total Benefit	79,527
Total Outlet	137,784
Total - Public Lands	288,380

Total - Non-Agricultural Lands	95,172
Total - Public Lands	288,380
Total Assessment	$ 383,552

Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

SCHEDULE OF ASSESSMENT FOR THE BARNES DRAIN (2025) - BARNES BRANCH A DRAIN

Description	Aff. Hect. (Ha)	Roll No.	Landowner Identification Number	Owner	Address of Affected Lands	Special Benefit	Benefit ($)	Outlet ($)	Total ($)	Eq. Area (Ha)
Non-Agricultural Lands										
Con 2 Pt Lot 16	0.16	383536000122100	1-02	F. Brooks	497 Ontario Street	-	-	5	5	0.27
Con 2 Pl 2 Pt Lot 16 RP 25R7504 Pt 1	0.05	383536000122200	1-03	E. Koopman	493 Ontario Street	-	-	2	2	0.10
Con 2 Pt Lot 16 RP 25R7504 Pts 2 & 4 RP25R6191 Pt 1	0.10	383536000122300	1-04	Boelens Construction (1991)	492 Ontario Street	-	-	1	1	0.08
Pl 2 Blk M Lot 7 W Pt Lot 8	0.03	383536000119400	1-05	T. & D. & H. McEwen	506 Ontario Street	-	-	1	1	0.06
Pl 2 Blk M Lot 9 E Pt Lot 8	0.10	383536000119500	1-06	K. & D. Krumholtz	502 Ontario Street	-	-	4	4	0.19
Con 2 Pl 2 Pt Lot 16	0.14	383536000122302	1-07	T. & H. Moore	498 Ontario Street	-	-	5	5	0.25
Con 2 Pt Lot 16	0.14	383536000122301	1-08	D. Workman	496 Ontario Street	-	-	5	5	0.25
Pl 2 Blk M Lot 12	0.06	383536000119600	1-09	A. Gibbings & D. Beatty	503 Thames Street	-	-	2	2	0.13
Pl 2 Blk M Lots 10 & 11	0.09	383536000119501	1-10	J. & C. Towers	501 Thames Street	-	-	3	3	0.16
Con 2 Pt Lot 16 E of Blk M Pl 2	0.14	383536000122304	1-11	C. & M. Orrange	497 Thames Street	-	-	5	5	0.25
Con 2 Pt Lot 16	0.12	383536000122303	1-12	R. & T. Boelens	495 Thames Street	-	-	4	4	0.23
Pl 2 Blk T Lots 11 & 12, Pt Lot 10	0.18	383536000118800	2-01	D. Robb	506 Thames Street	-	-	5	5	0.26
Pl 2 Blk T Lots 13 & 14	0.10	383536000118850	2-02	B. & J. Latam	502 Thames Street	-	-	4	4	0.20
PL 657 Lot 2	0.10	383536000122307	2-03	W. & G. Smith	500 Thames Street	-	-	4	4	0.20
Pl 657 Lot 1	0.10	383536000122306	2-04	K. & R. & C. Wheeler	498 Thames Street	-	-	4	4	0.20
Con 2 Pt Lot 16	0.10	383536000122305	2-05	J. & R. White	496 Thames Street	-	-	4	4	0.20
Pl 2 Blk T Pt Lot 18 Pt Lot 17 RP 25R2078 Pt 2	0.08	383536000118908	2-06	D. & L. Kerr	505 Niagara Street	-	-	3	3	0.15
Pl 2 Blk T Pt Lot 16 Pt Lot 17 RP 25R2078 Pt 3	0.07	383536000118904	2-07	K. Helps	503 Niagara Street	-	-	3	3	0.14
Pl 2 Blk T Lot 15 E Pt Lot 16 RP 25R2078 Pt 4	0.07	383536000118900	2-08	K. Smith & A. Corbett	501 Niagara Street	-	-	3	3	0.14
Pl 657 Lot 3	0.13	383536000122400	2-09	H.E.A.R. Solutions Heating and Cooling	495 Niagara Street	-	-	4	4	0.24
PL 657 Lot 4	0.08	383536000122401	2-10	M. & M. Borthwick	493 Niagara Street	-	-	3	3	0.16
PL 657 Lot 5	0.07	383536000122402	2-11	H. & B. De Boer	491 Niagara Street	-	-	3	3	0.15
Con 2 Pt Lot 16 Plus R.O.W. RP 25R6067 PtS 2, 3 & 4	0.11	383536000122500	2-12	M. & L. Robb	489 Niagara Street	-	-	2	2	0.11
Pl 2 Blk U Lot 7 Pt Lots 6 & 8 RP 25R9775 Pt 1	0.13	83536000117900	3-01	C. Joosten & B. Haldenby	504 Niagara Street	-	-	5	5	0.24
Pl 2 Blk U Lot 9 Pt LOT 8 RP 25R9775 Pt 2	0.09	383536000117905	3-02	C. Joosten & B. Haldenby	lot with no address	-	-	2	2	0.09
Plympton Con 2 Pt Lot 16 RP 25R8856 Pt 1 RP 25R9559 Pt 1	0.27	83536000122705	3-03	V. Prudom	494 Niagara Street	-	700	7	707	0.38
Plympton Con 2 Pt Lot 16 RP 25R9559 Pt 2	0.08	383536000122700	3-04	V. Prudom & J. Riess	lot with no address	-	700	1	701	0.04
Plympton Con 2 Pt Lot 16 RP 25R10262 Pts 1 & 2	0.37	383536000122610	3-05	C. Charge	490 Niagara Street	-	2,100	7	2,107	0.37
	0.13	383536000118000	3-06	E. & C. Nolan	503 Main Street	-	-	5	5	0.24
Plympton Con 2 Pt Lot 16 RP 25R11399 Pt 1 & 5	0.02	383536000122622	3-07	B. Luloff	491 Main Street	-	2,800	-	2,800	0.01
						-	6,300	106	6,406	

Total Special Benefit	-
Total Benefit	6,300
Total Outlet	106
Total - Non-Agricultural Lands	6,406

Description	Aff. Hect. (Ha)	Roll No.	Landowner Identification Number	Owner	Address of Affected Lands	Special Benefit	Benefit ($)	Outlet ($)	Total ($)	Eq. Area (Ha)
Public Lands										
Ontario Street	0.21			Town of Plympton-Wyoming		-	-	53	53	0.84
Thames Street	0.44			Town of Plympton-Wyoming		-	-	114	114	1.76
Niagara Street	0.17			Town of Plympton-Wyoming		-	350	44	394	0.68
Side Yard Alley (Erie St. - Ontario St.)	0.04			Town of Plympton-Wyoming		-	-	3	3	0.04
Side Yard Alley (Ontario St. - Thames St.)	0.04			Town of Plympton-Wyoming		-	-	3	3	0.04
Side Yard Alley (Thames St. - Niagara St.)	0.04			Town of Plympton-Wyoming		-	-	2	2	0.04
Rear Yard Alley (Ontario St. - Thames St.)	0.01			Town of Plympton-Wyoming		-	-	-	-	0.01
Rear Yard Alley (Thames St. - Niagara St.)	0.04			Town of Plympton-Wyoming		-	-	2	2	0.04
Rear Yard Alley (Niagara St. - Main St.)	0.01			Town of Plympton-Wyoming		-	-	-	-	0.01
McKay Park	0.28	383536000119900	1-01	Town of Plympton-Wyoming		-	-	22	22	0.28
						-	350	243	593	

Total Special Benefit	-
Total Benefit	350
Total Outlet	243
Total - Public Lands	593

Total - Non-Agricultural Lands	6,406
Total - Public Lands	593
Total Assessment	$ 6,999

Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

SCHEDULE OF ASSESSMENT FOR THE BARNES DRAIN (2025) - NIAGARA STREET EAST BRANCH DRAIN

Description	Aff. Hect. (Ha)	Roll No.	Landowner Identification Number	Owner	Address of Affected Lands	Special Benefit	Benefit ($)	Outlet ($)	Total ($)	Eq. Area (Ha)
Non-Agricultural Lands										
Pl 657 Lot 3	0.05	383536000122400	2-09	H.E.A.R. Solutions Heating and Cooling	495 Niagara Street	-	700	616	1,316	0.10
PL 657 Lot 4	0.08	383536000122401	2-10	M. & M. Borthwick	493 Niagara Street	-	2,800	985	3,785	0.16
PL 657 Lot 5	0.07	383536000122402	2-11	H. & B. De Boer	491 Niagara Street	-	2,800	897	3,697	0.15
Con 2 Pt Lot 16 Plus R.O.W. RP 25R6067 PtS 2, 3 & 4	0.18	383536000122500	2-12	M. & L. Robb	489 Niagara Street	-	2,800	1,570	4,370	0.26
Plympton Con 2 Pt Lot 16 RP 25R9559 Pt 2	0.03	383536000122700	3-04	V. Prudom & J. Riess	lot with no address	-	2,100	92	2,192	0.02
Plympton Con 2 Pt Lot 16 RP 25R10262 Pts 1 & 2	0.06	383536000122610	3-05	C. Charge	490 Niagara Street	-	700	739	1,439	0.12
						-	11,900	4,899	16,799	

Total Special Benefit	-
Total Benefit	11,900
Total Outlet	4,899
Total - Non-Agricultural Lands	16,799

Public Lands										
Niagara Street	0.17			Town of Plympton-Wyoming		11,509	8,374	12,071	31,954	0.68
						11,509	8,374	12,071	31,954	

Total Special Benefit	11,509
Total Benefit	8,374
Total Outlet	12,071
Total - Public Lands	31,954

Total - Non-Agricultural Lands	16,799
Total - Public Lands	31,954
Total Assessment	$ 48,753

Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

SCHEDULE OF ASSESSMENT FOR THE BARNES DRAIN (2025) - NIAGARA STREET WEST BRANCH DRAIN

Description	Aff. Hect. (Ha)	Roll No.	Landowner Identification Number	Owner	Address of Affected Lands	Special Benefit	Benefit ($)	Outlet ($)	Total ($)	Eq. Area (Ha)
Non-Agricultural Lands										
Pl 2 Blk T Pt Lot 18 Pt Lot 17 RP 25R2078 Pt 2	0.08	383536000118908	2-06	D. & L. Kerr	505 Niagara Street	-	2,800	947	3,747	0.15
Pl 2 Blk T Pt Lot 16 Pt Lot 17 RP 25R2078 Pt 3	0.07	383536000118904	2-07	K. Helps	503 Niagara Street	-	2,800	858	3,658	0.14
Pl 2 Blk T Lot 15 E Pt Lot 16 RP 25R2078 Pt 4	0.02	383536000118900	2-08	K. Smith & A. Corbett	501 Niagara Street	-	700	246	946	0.04
Pl 2 Blk U Lot 7 Pt Lots 6 & 8 RP 25R9775 Pt 1	0.13	83536000117900	3-01	C. Joosten & B. Haldenby	504 Niagara Street	-	2,800	1,400	4,200	0.23
Pl 2 Blk U Lot 9 Pt LOT 8 RP 25R9775 Pt 2	0.02	383536000117905	3-02	C. Joosten & B. Haldenby	lot with no address	-	700	123	823	0.02
						-	9,800	3,574	13,374	
					Total Special Benefit	-				
					Total Benefit	9,800				
					Total Outlet	3,574				
					Total - Non-Agricultural Lands	13,374				
Public Lands										
Niagara Street	0.09			Town of Plympton-Wyoming		-	6,440	5,951	12,391	0.36
						-	6,440	5,951	12,391	
					Total Special Benefit	-				
					Total Benefit	6,440				
					Total Outlet	5,951				
					Total - Public Lands	12,391				
					Total - Non-Agricultural Lands	13,374				
					Total - Public Lands	12,391				
					Total Assessment	$ 25,765				

Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

SCHEDULE OF ASSESSMENT FOR THE BARNES DRAIN (2025) - THAMES STREET EAST BRANCH DRAIN

Description	Aff. Hect. (Ha)	Roll No.	Landowner Identification Number	Owner	Address of Affected Lands	Special Benefit	Benefit ($)	Outlet ($)	Total ($)	Eq. Area (Ha)
Non-Agricultural Lands										
Con 2 Pt Lot 16 RP 25R7504 Pts 2 & 4 RP25R6191 Pt 1	0.06	383536000122300	1-04	Boelens Construction (1991)	492 Ontario Street	-	-	277	277	0.05
Con 2 Pt Lot 16	0.06	383536000122301	1-08	D. Workman	496 Ontario Street	-	-	369	369	0.06
Con 2 Pt Lot 16 E of Blk M Pl 2	0.04	383536000122304	1-11	C. & M. Orrange	497 Thames Street	-	700	431	1,131	0.07
Con 2 Pt Lot 16	0.12	383536000122303	1-12	R. & T. Boelens	495 Thames Street	-	2,800	1,444	4,244	0.23
PL 657 Lot 2	0.05	383536000122307	2-03	W. & G. Smith	500 Thames Street	-	700	616	1,316	0.10
Pl 657 Lot 1	0.10	383536000122306	2-04	K. & R. & C. Wheeler	498 Thames Street	-	2,800	1,204	4,004	0.20
Con 2 Pt Lot 16	0.10	383536000122305	2-05	J. & R. White	496 Thames Street	-	2,800	1,216	4,016	0.20
						-	9,800	5,557	15,357	
					Total Special Benefit	-				
					Total Benefit	9,800				
					Total Outlet	5,557				
					Total - Non-Agricultural Lands	15,357				
Public Lands										
Thames Street	0.14			Town of Plympton-Wyoming		8,945	7,393	6,818	23,156	0.56
						8,945	7,393	6,818	23,156	
					Total Special Benefit	8,945				
					Total Benefit	7,393				
					Total Outlet	6,818				
					Total - Public Lands	23,156				
					Total - Non-Agricultural Lands	15,357				
					Total - Public Lands	23,156				
					Total Assessment	$ 38,513				

Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

SCHEDULE OF ASSESSMENT FOR THE BARNES DRAIN (2025) - THAMES STREET WEST BRANCH DRAIN

Description	Aff. Hect. (Ha)	Roll No.	Landowner Identification Number	Owner	Address of Affected Lands	Special Benefit	Benefit ($)	Outlet ($)	Total ($)	Eq. Area (Ha)
Non-Agricultural Lands										
Pl 2 Blk M Lot 12	0.06	383536000119600	1-09	A. Gibbings & D. Beatty	503 Thames Street	-	2,800	787	3,587	0.13
Pl 2 Blk M Lots 10 & 11	0.04	383536000119501	1-10	J. & C. Towers	501 Thames Street	-	700	431	1,131	0.07
Pl 2 Blk T Lots 11 & 12, Pt Lot 10	0.18	383536000118800	2-01	D. Robb	506 Thames Street	-	2,800	1,576	4,376	0.26
Pl 2 Blk T Lots 13 & 14	0.05	383536000118850	2-02	B. & J. Latam	502 Thames Street	-	700	616	1,316	0.10
						-	7,000	3,410	10,410	
					Total Special Benefit	-				
					Total Benefit	7,000				
					Total Outlet	3,410				
					Total - Non-Agricultural Lands	10,410				
Public Lands										
Thames Street	0.12			Town of Plympton-Wyoming		14,379	8,108	8,175	30,662	0.48
						14,379	8,108	8,175	30,662	
					Total Special Benefit	14,379				
					Total Benefit	8,108				
					Total Outlet	8,175				
					Total - Public Lands	30,662				
					Total - Non-Agricultural Lands	10,410				
					Total - Public Lands	30,662				
					Total Assessment	$ 41,072				

Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

SCHEDULE OF ASSESSMENT FOR MAINTNENANCE OF THE BARNES DRAIN (2025) - MAIN DRAIN

For maintaining the Barnes Drain (2025) - Main Drain, from Station 0+011 to Station 0+330 and Station 1+051 to Station 1+111. All private drain connections (PDC) within road allowances, shall be maintained as per the maintenance provisions set out in the drain costs. Road base and road restoration costs do not form part of the drain maintenance costs. The Schedule of Maintenance has been prepared, based on a hypothetical maintenance cost of $10,000.

Description	Aff. Hect. (Ha)	Roll No.	Landowner Identification Number	Owner	Address of Affected Lands	Benefit ($)	Outlet ($)	Total ($)	Eq. Area (Ha)
Non-Agricultural Lands									
Con 2 Pt Lot 16	0.16	383536000122100	1-02	F. Brooks	497 Ontario Street	-	89	89	0.27
Con 2 Pl 2 Pt Lot 16 RP 25R7504 Pt 1	0.05	383536000122200	1-03	E. Koopman	493 Ontario Street	-	33	33	0.10
Con 2 Pt Lot 16 RP 25R7504 Pts 2 & 4 RP25R6191 Pt 1	0.10	383536000122300	1-04	Boelens Construction (1991)	492 Ontario Street	-	65	65	0.20
Pl 2 Blk M Lot 7 W Pt Lot 8	0.03	383536000119400	1-05	T. & D. & H. McEwen	506 Ontario Street	-	20	20	0.06
Pl 2 Blk M Lot 9 E Pt Lot 8	0.10	383536000119500	1-06	K. & D. Krumholtz	502 Ontario Street	75	63	138	0.19
Con 2 Pl 2 Pt Lot 16	0.14	383536000122302	1-07	T. & H. Moore	498 Ontario Street	75	83	158	0.25
Con 2 Pt Lot 16	0.14	383536000122301	1-08	D. Workman	496 Ontario Street	-	83	83	0.25
Pl 2 Blk M Lot 12	0.06	383536000119600	1-09	A. Gibbings & D. Beatty	503 Thames Street	-	42	42	0.13
Pl 2 Blk M Lots 10 & 11	0.09	383536000119501	1-10	J. & C. Towers	501 Thames Street	55	54	109	0.16
Con 2 Pt Lot 16 E of Blk M Pl 2	0.14	383536000122304	1-11	C. & M. Orrange	497 Thames Street	55	83	138	0.25
Con 2 Pt Lot 16	0.12	383536000122303	1-12	R. & T. Boelens	495 Thames Street	-	78	78	0.23
Pl 2 Blk T Lots 11 & 12, Pt Lot 10	0.18	383536000118800	2-01	D. Robb	506 Thames Street	-	85	85	0.26
Pl 2 Blk T Lots 13 & 14	0.10	383536000118850	2-02	B. & J. Latam	502 Thames Street	55	65	120	0.20
PL 657 Lot 2	0.10	383536000122307	2-03	W. & G. Smith	500 Thames Street	55	65	120	0.20
Pl 657 Lot 1	0.10	383536000122306	2-04	K. & R. & C. Wheeler	498 Thames Street	-	65	65	0.20
Con 2 Pt Lot 16	0.10	383536000122305	2-05	J. & R. White	496 Thames Street	-	65	65	0.20
Pl 2 Blk T Pt Lot 18 Pt Lot 17 RP 25R2078 Pt 2	0.08	383536000118908	2-06	D. & L. Kerr	505 Niagara Street	-	51	51	0.15
Pl 2 Blk T Pt Lot 16 Pt Lot 17 RP 25R2078 Pt 3	0.07	383536000118904	2-07	K. Helps	503 Niagara Street	-	46	46	0.14
Pl 2 Blk T Lot 15 E Pt Lot 16 RP 25R2078 Pt 4	0.07	383536000118900	2-08	K. Smith & A. Corbett	501 Niagara Street	55	46	101	0.14
Pl 657 Lot 3	0.13	383536000122400	2-09	H.E.A.R. Solutions Heating and Cooling	495 Niagara Street	55	79	134	0.24
PL 657 Lot 4	0.08	383536000122401	2-10	M. & M. Borthwick	493 Niagara Street	-	54	54	0.16
PL 657 Lot 5	0.07	383536000122402	2-11	H. & B. De Boer	491 Niagara Street	-	51	51	0.15
Con 2 Pt Lot 16 Plus R.O.W. RP 25R6067 PtS 2, 3 & 4	0.18	383536000122500	2-12	M. & L. Robb	489 Niagara Street	-	83	83	0.25
Pl 2 Blk U Lot 7 Pt Lots 6 & 8 RP 25R9775 Pt 1	0.13	83536000117900	3-01	C. Joosten & B. Haldenby	504 Niagara Street	-	79	79	0.24
Pl 2 Blk U Lot 9 Pt LOT 8 RP 25R9775 Pt 2	0.09	383536000117905	3-02	C. Joosten & B. Haldenby	lot with no address	55	30	85	0.09
Plympton Con 2 Pt Lot 16 RP 25R8856 Pt 1 RP 25R9559 Pt 1	0.27	83536000122705	3-03	V. Prudom	494 Niagara Street	55	126	181	0.38
Plympton Con 2 Pt Lot 16 RP 25R9559 Pt 2	0.12	383536000122700	3-04	V. Prudom & J. Riess	lot with no address	-	40	40	0.12
Plympton Con 2 Pt Lot 16 RP 25R10262 Pts 1 & 2	0.06	383536000122610	3-05	C. Charge	490 Niagara Street	-	25	25	0.08
Pl 2 Blk U Lots 17 - 18	0.13	383536000118000	3-06	E. & C. Nolan	503 Main Street	75	79	154	0.24

Description	Aff. Hect. (Ha)	Roll No.	Landowner Identification Number	Owner	Address of Affected Lands	Benefit ($)	Outlet ($)	Total ($)	Eq. Area (Ha)
Public Lands	0.00								
Ontario Street	0.21			Town of Plympton-Wyoming		125	1,105	1,230	0.84
Thames Street	0.26			Town of Plympton-Wyoming		130	693	823	1.04
Niagara Street	0.26			Town of Plympton-Wyoming		675	411	1,086	1.04
Main Street	0.06			Town of Plympton-Wyoming		1,295	50	1,345	0.22
Side Yard Alley (Erie St. - Ontario St.)	0.04			Town of Plympton-Wyoming		-	57	57	0.04
Side Yard Alley (Ontario St. - Thames St.)	0.04			Town of Plympton-Wyoming		700	32	732	0.04
Side Yard Alley (Thames St. - Niagara St.)	0.04			Town of Plympton-Wyoming		385	19	404	0.04
Side Yard Alley (Niagara St. - Main St.)	0.04			Town of Plympton-Wyoming		610	12	622	0.04
McKay Park	0.28	383536000119900	1-01	Town of Plympton-Wyoming		-	1,209	1,209	0.28
						$ 4,585	$ 5,415	$ 10,000	

Total Maintenance Assessment - Main Drain $ 10,000

Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

SCHEDULE OF ASSESSMENT FOR MAINTNENANCE OF THE BARNES DRAIN (2025) - BARNES BRANCH A DRAIN

For maintaining the Barnes Drain (2025) - Branch A Drain, from Station 4+000 (Main Street) to Station 4+147 (CB14). Road base and road restoration costs do not form part of the drain maintenance costs. The Schedule of Maintenance has been prepared, based on a hypothetical maintenance cost of $10,000.

Description	Aff. Hect. (Ha)	Roll No.	Landowner Identification Number	Owner	Address of Affected Lands	Benefit ($)	Outlet ($)	Total ($)	Eq. Area (Ha)
Non-Agricultural Lands									
Con 2 Pt Lot 16	0.16	383536000122100	1-02	F. Brooks	497 Ontario Street	-	5	5	0.27
Con 2 Pl 2 Pt Lot 16 RP 25R7504 Pt 1	0.05	383536000122200	1-03	E. Koopman	493 Ontario Street	-	5	5	0.10
Con 2 Pt Lot 16 RP 25R7504 Pts 2 & 4 RP25R6191 Pt 1	0.10	383536000122300	1-04	Boelens Construction (1991)	492 Ontario Street	-	5	5	0.08
Pl 2 Blk M Lot 7 W Pt Lot 8	0.03	383536000119400	1-05	T. & D. & H. McEwen	506 Ontario Street	-	5	5	0.06
Pl 2 Blk M Lot 9 E Pt Lot 8	0.10	383536000119500	1-06	K. & D. Krumholtz	502 Ontario Street	-	5	5	0.19
Con 2 Pl 2 Pt Lot 16	0.14	383536000122302	1-07	T. & H. Moore	498 Ontario Street	-	5	5	0.25
Con 2 Pt Lot 16	0.14	383536000122301	1-08	D. Workman	496 Ontario Street	-	5	5	0.25
Pl 2 Blk M Lot 12	0.06	383536000119600	1-09	A. Gibbings & D. Beatty	503 Thames Street	-	5	5	0.13
Pl 2 Blk M Lots 10 & 11	0.09	383536000119501	1-10	J. & C. Towers	501 Thames Street	-	5	5	0.16
Con 2 Pt Lot 16 E of Blk M Pl 2	0.14	383536000122304	1-11	C. & M. Orrange	497 Thames Street	-	5	5	0.25
Con 2 Pt Lot 16	0.12	383536000122303	1-12	R. & T. Boelens	495 Thames Street	-	5	5	0.23
Pl 2 Blk T Lots 11 & 12, Pt Lot 10	0.18	383536000118800	2-01	D. Robb	506 Thames Street	-	5	5	0.26
Pl 2 Blk T Lots 13 & 14	0.10	383536000118850	2-02	B. & J. Latam	502 Thames Street	-	5	5	0.20
PL 657 Lot 2	0.10	383536000122307	2-03	W. & G. Smith	500 Thames Street	-	5	5	0.20
Pl 657 Lot 1	0.10	383536000122306	2-04	K. & R. & C. Wheeler	498 Thames Street	-	5	5	0.20
Con 2 Pt Lot 16	0.10	383536000122305	2-05	J. & R. White	496 Thames Street	-	5	5	0.20
Pl 2 Blk T Pt Lot 18 Pt Lot 17 RP 25R2078 Pt 2	0.08	383536000118908	2-06	D. & L. Kerr	505 Niagara Street	-	5	5	0.15
Pl 2 Blk T Pt Lot 16 Pt Lot 17 RP 25R2078 Pt 3	0.07	383536000118904	2-07	K. Helps	503 Niagara Street	-	5	5	0.14
Pl 2 Blk T Lot 15 E Pt Lot 16 RP 25R2078 Pt 4	0.07	383536000118900	2-08	K. Smith & A. Corbett	501 Niagara Street	-	5	5	0.14
Pl 657 Lot 3	0.13	383536000122400	2-09	H.E.A.R. Solutions Heating and Cooling	495 Niagara Street	-	5	5	0.24
PL 657 Lot 4	0.08	383536000122401	2-10	M. & M. Borthwick	493 Niagara Street	-	5	5	0.16
PL 657 Lot 5	0.07	383536000122402	2-11	H. & B. De Boer	491 Niagara Street	-	5	5	0.15
Con 2 Pt Lot 16 Plus R.O.W. RP 25R6067 PtS 2, 3 & 4	0.11	383536000122500	2-12	M. & L. Robb	489 Niagara Street	-	7	7	0.11
Pl 2 Blk U Lot 7 Pt Lots 6 & 8 RP 25R9775 Pt 1	0.13	83536000117900	3-01	C. Joosten & B. Haldenby	504 Niagara Street	-	5	5	0.24
Pl 2 Blk U Lot 9 Pt LOT 8 RP 25R9775 Pt 2	0.09	383536000117905	3-02	C. Joosten & B. Haldenby	lot with no address	-	5	5	0.09
Plympton Con 2 Pt Lot 16 RP 25R8856 Pt 1 RP 25R9559 Pt 1	0.27	83536000122705	3-03	V. Prudom	494 Niagara Street	1,000	9	1,009	0.38
Plympton Con 2 Pt Lot 16 RP 25R9559 Pt 2	0.08	383536000122700	3-04	V. Prudom & J. Riess	lot with no address	1,000	5	1,005	0.04
Plympton Con 2 Pt Lot 16 RP 25R10262 Pts 1 & 2	0.37	383536000122610	3-05	C. Charge	490 Niagara Street	3,000	9	3,009	0.37
	0.13	383536000118000	3-06	E. & C. Nolan	503 Main Street	-	5	5	0.24
Plympton Con 2 Pt Lot 16 RP 25R11399 Pt 1 & 5	0.02	383536000122622	3-07	B. Luloff	491 Main Street	4,000	-	4,000	0.01

Description	Aff. Hect. (Ha)	Roll No.	Landowner Identification Number	Owner	Address of Affected Lands	Benefit ($)	Outlet ($)	Total ($)	Eq. Area (Ha)
Public Lands									
Ontario Street	0.21			Town of Plympton-Wyoming		-	60	60	0.84
Thames Street	0.44			Town of Plympton-Wyoming		-	140	140	1.76
Niagara Street	0.17			Town of Plympton-Wyoming		550	50	600	0.68
Side Yard Alley (Erie St. - Ontario St.)	0.04			Town of Plympton-Wyoming		-	5	5	0.04
Side Yard Alley (Ontario St. - Thames St.)	0.04			Town of Plympton-Wyoming		-	5	5	0.04
Side Yard Alley (Thames St. - Niagara St.)	0.04			Town of Plympton-Wyoming		-	5	5	0.04
Rear Yard Alley (Ontario St. - Thames St.)	0.01			Town of Plympton-Wyoming		-	5	5	0.01
Rear Yard Alley (Thames St. - Niagara St.)	0.04			Town of Plympton-Wyoming		-	5	5	0.04
Rear Yard Alley (Niagara St. - Main St.)	0.01			Town of Plympton-Wyoming		-	5	5	0.01
McKay Park	0.28	383536000119900	1-01	Town of Plympton-Wyoming		-	15	15	0.28
						$ 9,550	$ 450	$ 10,000	

Total Maintenance Assessment - 1943 Drain and Barnes Branch A Drain $ 10,000

Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

SCHEDULE OF ASSESSMENT FOR MAINTNENANCE OF THE BARNES DRAIN (2025) - NIAGARA STREET EAST BRANCH DRAIN

For maintaining the Barnes Drain (2025) - Niagara Street East Branch Drain, from Station 3+185 to Station 3+245. All private drain connections (PDC) within road allowances shall be maintained as per the maintenance provisions set out in the drain costs. Road base and road restoration costs do not form part of the drain maintenance costs. The Schedule of Maintenance has been prepared, based on a hypothetical maintenance cost of $10,000.

Description	Aff. Hect. (Ha)	Roll No.	Landowner Identification Number	Owner	Address of Affected Lands	Benefit ($)	Outlet ($)	Total ($)	Eq. Area (Ha)
Non-Agricultural Lands									
Pl 657 Lot 3	0.05	383536000122400	2-09	H.E.A.R. Solutions Heating and Cooling	495 Niagara Street	145	125	270	0.10
PL 657 Lot 4	0.08	383536000122401	2-10	M. & M. Borthwick	493 Niagara Street	575	200	775	0.16
PL 657 Lot 5	0.07	383536000122402	2-11	H. & B. De Boer	491 Niagara Street	575	185	760	0.15
Con 2 Pt Lot 16 Plus R.O.W. RP 25R6067 PtS 2, 3 & 4	0.18	383536000122500	2-12	M. & L. Robb	489 Niagara Street	575	320	895	0.26
Plympton Con 2 Pt Lot 16 RP 25R9559 Pt 2	0.03	383536000122700	3-04	V. Prudom & J. Riess	lot with no address	430	20	450	0.02
Plympton Con 2 Pt Lot 16 RP 25R10262 Pts 1 & 2	0.06	383536000122610	3-05	C. Charge	490 Niagara Street	145	150	295	0.12
Public Lands									
Niagara Street	0.17			Town of Plympton-Wyoming		4,090	2,465	6,555	0.29
						$ 6,535	$ 3,465	$ 10,000	

Total Maintenance Assessment - Niagara Street East Branch Drain $ 10,000

Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

SCHEDULE OF ASSESSMENT FOR MAINTENANCE - BARNES DRAIN (2025) NIAGARA STREET WEST BRANCH DRAIN

For maintaining the Barnes Drain (2025) - Niagara Street West Branch Drain, from Station 3+185 to Station 3+143. All private drain connections (PDC) within road allowances shall be maintained as per the maintenance provisions set out in the drain. costs. Road base and road restoration costs do not form part of the drain maintenance costs. The Schedule of Maintenance has been prepared, based on a hypothetical maintenance cost of $10,000.

Description	Aff. Hect. (Ha)	Roll No.	Landowner Identification Number	Owner	Address of Affected Lands	Benefit ($)	Outlet ($)	Total ($)	Eq. Area (Ha)
Non-Agricultural Lands									
Pl 2 Blk T Pt Lot 18 Pt Lot 17 RP 25R2078 Pt 2	0.08	383536000118908	2-06	D. & L. Kerr	505 Niagara Street	1,090	370	1,460	0.15
Pl 2 Blk T Pt Lot 16 Pt Lot 17 RP 25R2078 Pt 3	0.07	383536000118904	2-07	K. Helps	503 Niagara Street	1,090	335	1,425	0.14
Pl 2 Blk T Lot 15 E Pt Lot 16 RP 25R2078 Pt 4	0.02	383536000118900	2-08	K. Smith & A. Corbett	501 Niagara Street	275	95	370	0.04
Pl 2 Blk U Lot 7 Pt Lots 6 & 8 RP 25R9775 Pt 1	0.13	83536000117900	3-01	C. Joosten & B. Haldenby	504 Niagara Street	1,090	545	1,635	0.23
Pl 2 Blk U Lot 9 Pt LOT 8 RP 25R9775 Pt 2	0.02	383536000117905	3-02	C. Joosten & B. Haldenby	lot with no address	275	50	325	0.02
Public Lands									
Niagara Street	0.09	0 0		Town of Plympton-Wyoming		2,515	2,270	4,785	0.08
						$ 6,335	$ 3,665	$ 10,000	

Total Maintenance Assessment - Niagara Street West Branch Drain $ 10,000

Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

SCHEDULE OF ASSESSMENT FOR MAINTENANCE - BARNES DRAIN (2025) THAMES STREET EAST BRANCH DRAIN

For maintaining the Barnes Drain (2025) - Thames Street East Branch Drain, from Station 2+180 to Station 2+233. All private drain connections (PDC) within road allowances shall be maintained as per the maintenance provisions set out in the drain costs. Road base and road restoration costs do not form part of the drain maintenance costs. The Schedule of Maintenance has been prepared, based on a hypothetical maintenance cost of $10,000.

Description	Aff. Hect. (Ha)	Roll No.	Landowner Identification Number	Owner	Address of Affected Lands	Benefit ($)	Outlet ($)	Total ($)	Eq. Area (Ha)
Non-Agricultural Lands									
Con 2 Pt Lot 16 RP 25R7504 Pts 2 & 4 RP25R6191 Pt 1	0.06	383536000122300	1-04	Boelens Construction (1991)	492 Ontario Street	-	75	75	0.05
Con 2 Pt Lot 16	0.06	383536000122301	1-08	D. Workman	496 Ontario Street	-	95	95	0.06
Con 2 Pt Lot 16 E of Blk M Pl 2	0.04	383536000122304	1-11	C. & M. Orrange	497 Thames Street	185	115	300	0.07
Con 2 Pt Lot 16	0.12	383536000122303	1-12	R. & T. Boelens	495 Thames Street	730	375	1,105	0.23
PL 657 Lot 2	0.05	383536000122307	2-03	W. & G. Smith	500 Thames Street	185	160	345	0.10
Pl 657 Lot 1	0.10	383536000122306	2-04	K. & R. & C. Wheeler	498 Thames Street	730	315	1,045	0.20
Con 2 Pt Lot 16	0.10	383536000122305	2-05	J. & R. White	496 Thames Street	730	320	1,050	0.20
Public Lands									
Thames Street	0.14			Town of Plympton-Wyoming		4,255	1,730	5,985	0.56
						$ 6,815	$ 3,185	$ 10,000	

Total Maintenance Assessment - Thames Street East Branch Drain $ 10,000

Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

SCHEDULE OF MAINTENANCE - BARNES DRAIN (2025) THAMES STREET WEST BRANCH DRAIN

For maintaining the Barnes Drain (2025) -Thames Street West Branch Drain, from Station 2+180 to Station 2+140. All private drain connections (PDC) within road allowances shall be maintained as per the maintenance provisions set out in the drain costs. Road base and road restoration costs do not form part of the drain maintenance costs. The Schedule of Maintenance has been prepared, based on a hypothetical maintenance cost of $10,000.

Description	Aff. Hect. (Ha)	Roll No.	Landowner Identification Number	Owner	Address of Affected Lands	Benefit ($)	Outlet ($)	Total ($)	Eq. Area (Ha)
Non-Agricultural Lands									
Pl 2 Blk M Lot 12	0.064	383536000119600	1-09	A. Gibbings & D. Beatty	503 Thames Street	685	195	880	0.13
Pl 2 Blk M Lots 10 & 11	0.04	383536000119501	1-10	J. & C. Towers	501 Thames Street	170	105	275	0.07
Pl 2 Blk T Lots 11 & 12, Pt Lot 10	0.182	383536000118800	2-01	D. Robb	506 Thames Street	685	410	1095	0.26
Pl 2 Blk T Lots 13 & 14	0.05	383536000118850	2-02	B. & J. Latam	502 Thames Street	170	150	320	0.10
Public Lands									
Thames Street	0.12			Town of Plympton-Wyoming		5,500	1,930	7430	0.48
						$ 7,210	$ 2,790	$ 10,000	

Total Maintenance Assessment - Thames Street West Branch Drain $ 10,000

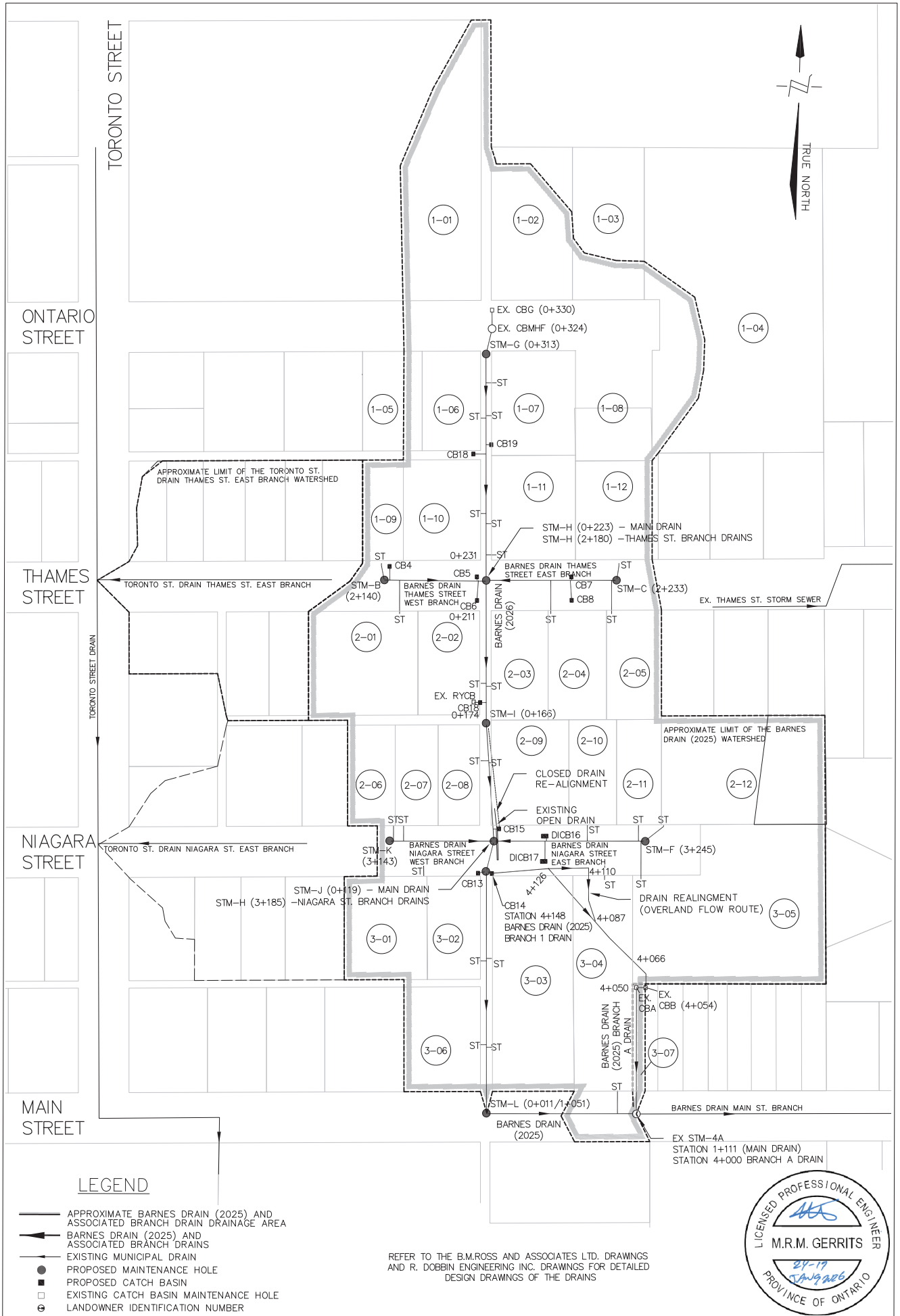
Barnes Drain (2025) & Associated Branch Drains
Town of Plympton-Wyoming
January 9, 2026

SPECIFICATION OF WORK

The specifications included in this report are to be read in conjunction with the appended Special Provisions titled “Barnes Drain (2025) and Associated Branch Drains” and drawings 1 of 8, 2 of 8, 4 of 8, 5 of 8, 6 of 8, and 7 of 8, titled “Town of Plympton-Wyoming, Mun. Barnes Drain Replacement, Thames St. East Reconstruction, Niagara St East Reconstruction”, Revision 3, prepared by B.M. Ross and Associates Ltd., dated January 2026; and, the For Record drawing titled “Radcliffe – Silver Springs – Phase 1, drawing 5 of 22, Revisions 12, prepared by R. Dobbin Engineering Inc., dated May 2011.

Plans and Specifications
These specifications shall apply and be a part of the Contract, along with the appended Special Provisions titled “Barnes Drain (2025) and Associated Branch Drains” and drawings 1 of 8, 2 of 8, 4 of 8, 5 of 8, 6 of 8, and 7 of 8, titled “Town of Plympton-Wyoming, Mun. Barnes Drain Replacement, Thames St. East Reconstruction, Niagara St East Reconstruction”, Revision 3, prepared by B.M. Ross and Associates Ltd., dated January 2026; and the For Record drawing titled “Radcliffe – Silver Springs – Phase 1, drawing 5 of 22, Revisions 12 prepared by R. Dobbin Engineering Inc., dated May 2011.

Any work not described in these specifications, shall be completed according to the Ontario Provincial Standard Specifications and Standard Drawings.



LEGEND

- APPROXIMATE BARNES DRAIN (2025) AND ASSOCIATED BRANCH DRAIN DRAINAGE AREA
- BARNES DRAIN (2025) AND ASSOCIATED BRANCH DRAINS
- EXISTING MUNICIPAL DRAIN
- PROPOSED MAINTENANCE HOLE
- PROPOSED CATCH BASIN
- EXISTING CATCH BASIN MAINTENANCE HOLE
- LANDOWNER IDENTIFICATION NUMBER

REFER TO THE B.M.ROSS AND ASSOCIATES LTD. DRAWINGS AND R. DOBBIN ENGINEERING INC. DRAWINGS FOR DETAILED DESIGN DRAWINGS OF THE DRAINS

LICENSED PROFESSIONAL ENGINEER
M.R.M. GERRITS
24-19
JAN 9 2026
PROVINCE OF ONTARIO

M. GERRITS CONSULTING INC.

BARNES DRAIN (2025) & ASSOCIATED BRANCH DRAINS

OVERALL PLAN

TOWN OF PLYMPTON–WYOMING

NO	REVISION	DATE
1	FOR REPORT	JANUARY 9, 2026

DRAWN	MG	SCALE	1:1250
CHECKED	EG	SHEET	1 OF 1
DATE	JANUARY 9, 2026		
PROJECT NO.	2024–19		

APPENDICIES

Appendix A – Barnes Drain 2019
W. Bartlett, P.Eng. – (Section 1.1, History of the 2001 Drainage Needs Study for the Village of Wyoming).

Appendix B - B.M. Ross and Associates Ltd. – Special Provisions titled "Barnes Drain (2025) and Associated Branch Drains" and drawings 1 of 8, 2 of 8, 4 of 8, 5 of 8, 6 of 8, and 7 of 8, titled "Town of Plympton-Wyoming, Mun. Barnes Drain Replacement, Thames St. East Reconstruction, Niagara St East Reconstruction", Revision 3

Appendix C - R. Dobbin Engineering Inc. - Radcliffe – Silver Springs – Phase 1 Drawing

APPENDIX A

Barnes Drain 2019
W. Bartlett, P.Eng. - Section 1.1, History of the 2001 Drainage Needs Study for the Village of Wyoming.

1.0 History, and Preliminary Considerations

1.1 History:

The Barnes Drain has an extensive history serving the northeast quadrant of the Village of Wyoming and the agricultural lands in Lots 16 and 17, Concessions 2 and 3. A plan prepared by John Jones, O.L.S. in 1895 shows a drainage works known as the Hill Drain which appears to have been the original drain which is now known as the Robertson-Parker Drain. There are indications that a drainage works known as the Hill Award Drain which was a predecessor to the Barnes Drain, may have originally been a branch to the Hill Drain, however in 1906 under a report by F.W. Flater, O.L.S., C.E. which established the Robertson-Parker Drain, the plan indicates that the Hill Award Drain had its outlet into the head of the Stonehouse Drain east of Brooke Street.

The "Drainage Needs Study for the Village of Wyoming (W.J. Bartlett, P. Eng., January 12, 2001)" provides the following information on the history of the Barnes Drain:

"The Barnes Drain is located on the east side of the built-up area of the Village, generally commencing at Confederation Line and flowing southerly into the head of the Stonehouse Drain at Brooke Street. The Barnes Drain serves a watershed area of approximately 114 acres, and is the direct outlet for the King-Hancock Drain and the Scott Drain. The Barnes Drain was originally constructed under authority of the Drainage Act in 1943. It was intended as an improvement to an existing open drain (Hill Award Drain) along the east side of the Village. The 1943 drain consisted of 6" to 10" diameter field tile installed in the bottom of the existing open drain, and was designed for agricultural standards.

In 1971, in conjunction with a deepening and improvement of the Stonehouse Drain, the portion of the Barnes Drain located south of the C.N.R. was reconstructed. This section was replaced in approximately the same location as the original, and consisted of 14" and 16" concrete tile. A new subsurface crossing of the C.N.R. was also constructed at this time. Under the same drainage report, it was noted that the upper section of the Barnes Drain located between Confederation Line and the C.N.R., lacked cover, was interfered with by urban type buildings, and had no suitable crossing at the C.N.R. As a result, a new drain consisting of 8" and 10" diameter field tile, was constructed along the westerly limits of the rural lands in Plympton Township, to cut off subdrainage from these lands, northerly to its junction with the King-Hancock Drain. The open and tiled portion

of the 1943 drain located north of the C.N.R. was left to serve the subdrainage of the lands within the Village.

In 1982, a report was prepared under the Drainage Act to reconstruct and improve the Barnes Drain from Erie Street downstream to the east end of Brooke Street. This reconstruction was to be to an urban design standard of approximately a one year storm, and consisted of 460mm (18") to 915mm (36") concrete sewer pipe. It was intended to replace the 1943 tile and open ditch drain which remained north of the C.N.R. It appears that the 1982 drainage report did not proceed to construction, although portions of the proposed works were subsequently completed by the Village and private developers.

A further drainage report prepared in 1989, provided for the realignment and extension of the Barnes Drain, and the filling and abandonment of the upper portion of the Stonehouse Drain, north of Brooke Street. This downstream extension of the Barnes Drain appears to have been designed to an urban standard of approximately a one year storm. This report further stated that a private developer had reconstructed a portion of the Barnes Drain to urban standards, and the report provided allowances to incorporate the works into the system. Unfortunately, the report failed to adequately describe the extent of the reconstructed portion which was being incorporated. As a result, although it is apparent in the field that some reconstruction of the Barnes Drain has taken place, the available reports and municipal records cannot identify the pipe sizes, grades, or capacities of the reconstructed portions. An analysis of the design capacity of the Barnes Drain system, and projection of its ability to service new development, are not possible based upon the available information. Extensive field investigation will be necessary to determine the current capacities, and such investigations are beyond the scope of this study.

The culvert under the CNR tracks that was part of the original Hill Award Drain presently still exists and it provides surface drainage for the watershed area north of the tracks. The open drain south of the tracks is generally out of repair and as a result, surface ponding occurs in this area.

As part of the 1971 report, a branch to the Barnes Drain was constructed under the authority of the Drainage Act, on the agricultural lands on the east side of the Village, north of the C.N.R. The purpose of this drain was to intercept agricultural sub-drainage which previously had drained westerly, into the urban areas. Through the interception of the subdrainage, this drain was designed to reduce the loading on the Barnes Drain which was located further west, in the urban area.

In addition to the subdrainage from the agricultural lands, this drain also extended north to intercept the King-Hancock Drain. The Barnes Drain (1971) consists of 8" to 16" field tile and outlets at the north limit of the C.N.R., into the urban portion of the Barnes Drain.

The Barnes Drain (1971) was designed solely as an interceptor tile for agricultural drainage. It does not have adequate capacity to provide outlet for new development, and its construction materials and depth are not suitable for urban areas. If development of these lands is proposed in the future, a new, improved outlet will be required."

The Drainage Needs Study also provides information on the King-Hancock Drain:

"The King-Hancock Drain commences at the north limit of Confederation Line in Lot 17, Concession 2, Plympton Township and flows southwesterly into the Village, to its outlet into the Barnes Drain. It was originally constructed under the authority of the Drainage Act in 1929, and the upper portion at Confederation Line was re-routed in 1944. In 1971, its outlet was improved through the construction of a branch to the Barnes Drain, which intercepted the King-Hancock Drain and re-routed it's flow southerly.

The King-Hancock Drain consists of 6" and 7" diameter field tile, which was considered adequate for the agricultural standards of the time. By today's standards, the King-Hancock Drain is considered to be undersized for agricultural purposes."

APPENDIX B

B.M. Ross and Associates Ltd. – Special Provisions titled “Barnes Drain (2025) and Associated Branch Drains” and drawings 1 of 8, 2 of 8, 4 of 8, 5 of 8, 6 of 8, and 7 of 8, titled “Town of Plympton-Wyoming, Mun. Barnes Drain Replacement, Thames St. East Reconstruction, Niagara St East Reconstruction”, Revision 3

BARNES DRAIN (2025) AND ASSOCIATED BRANCH DRAINS
SPECIAL PROVISIONS

SUPPLY, EXCAVATE FOR, PLACE AND BACKFILL STORM PIPE SEWERS

For the unit price bid, the Contractor shall supply all labour, equipment and materials for the complete installation and testing-of the storm sewers in accordance with OPSS.MUNI 401 – Construction Specification for Trenching, Backfilling, and Compacting; OPSS.MUNI.410 Construction Specification for Pipe Sewer Installation in Open Cut; and as indicated on the contract drawings. The sizes of the sewers as well as the backfill material are as noted on the Form of Tender and on the contract drawing.

Pipe Material

OPSS 410.05 materials is amended to accept the following pipe material for storm sewers:

(a) Concrete Sewer Pipe (Rigid)
- 150 mm to njhh250 mm non-reinforced Class 3 – CSA certified to A257.1
- 300 mm or greater reinforced Pipe Class 65D (min) or as specified in the tender form – CSA certified to A257.2

(b) Polyvinyl Chloride (PVC) Pipe (Flexible)
- Class SDR 35 or Class V (320 kPa)
- Annular ribbed profile for ribbed pipe
- 200mm to 375mm Inclusive Class SDR35 or Class V (320kPa)

(c) Catch Basins Laterals Polyvinyl Chloride (PVC) Pipe (Flexible)
- 150mm to 250mm as specified in the Form of Tender – CSA Certified SDR35

If pipe material selected differs from that specified in the Form of Tender, the Contractor shall, upon request, supply the Contract Administrator with proof of CSA certification for both the pipe and the elastomeric gaskets, all at the expense of the Contractor.

Watertight Lateral Connection

HDPE, PVC Mains 450mm dia or less
- Factory manufactured tees.

HDPE and PVC Mains 525mm dia or greater
- Inserta Tee® Fittings in general conformance with to ASTM D3034, F1336 and F477.

Concrete Main, lateral connections up to 250mm dia
- Core Bell Adapter Couplings for sewer laterals from 100mm to 250mm in size.

Table 1: Watertight Lateral Connections

Main Line Sewer	Lateral Diameter	Main Line Pipe Material		
		HDPE	PVC	Concrete

Up to 450mm dia	100mm to 250mm dia	Manufactured Tee	Manufactured Tee	Core Bell Adapter
Greater than 525mm dia	100mm to 250mm dia	Inserta-Tee	Inserta-Tee	Core Bell Adapter

Storm Sewer Watertight Lateral Connection – General
The storm sewer tee, fitting or adapter shall include all required pipe coring, bends, fittings, and couplers required to connect the lateral sewer pipe required. The manufactured tee, fitting or adapter shall be installed as per manufacturer's recommendations. Care shall be taken to avoid installation of the PVC hub into the rubber gasket, beyond the painted alignment markings, which may restrict the passage of a mandrel through the pipe.

Storm Sewer Outlet Grate

- Steel CSA G40.21 M-300W, Hot Dipped galvanized G-164M after fabrication
- Welding shall conform to CSA W47.1 & CSA W59 Latest Edition
- Welding surfaces remain as welded 6mm Fill all around

Repair Coupling Dissimilar Materials (100mm to 375mm - Concrete, Clay, Steel, HDPE, PVC excl Ribbed PVC)

- Fernco Flexible Coupling

Repair Coupling – Dissimilar Materials (450mm dia and greater and all Ribbed PVC sizes)

- MarMac Dissimilar Pipe Couplers (DP Couplers)

Repair Coupling – HDPE to HDPE, HDPE to CSP (450mm to 900mm)

- Water-Tight, Gasketed, Bell-Bell Coupler

Filter Fabric

- Filter wrap (non-woven type) such as Terrafix 270R or approved equivalent

Construction

For pipes with a nominal pipe diameter of 900mm or less, the trench shall allow for a minimum side clearance of 300mm.

For pipes with a nominal pipe diameter greater than 900mm, the trench shall allow for a minimum side clearance of 500mm.

Rigid Pipe – Bedding

Bedding shall be Class B as per OPSD 802.030, 802.031, 802.032, 802.033 or 802.034 for rigid pipe and whichever soil type is applicable.

The minimum bedding depth, below the pipe, shall be 0.15 x diameter of the pipe. In no case shall the bedding depth be less than 150mm or greater than 300mm.

Bedding material shall be Granular A.

Bedding shall be placed in uniform layers not exceeding 200 mm in thickness, loose measurement, and compacted to a minimum of 95% of the S.P.M.D.D. before a subsequent layer is placed.

Rigid Pipe - Cover

Cover material shall be approved granular material or select native granular material to a minimum of 300 mm above the top of pipe.

Cover shall be placed in uniform layers not exceeding 200 mm in thickness, loose measurement, and compacted to a minimum of 95% of the S.P.M.D.D. before a subsequent layer is placed.

Flexible Pipe - Embedment

Embedment shall be as per OPSD 802.010, 802.013, or 802.014 for **flexible pipe** and whichever soil type is applicable.

The minimum bedding depth, below the pipe, shall be 150mm.

Bedding material shall be Granular A.

Embedment shall be placed in uniform layers not exceeding 200 mm in thickness, loose measurement, and compacted to a minimum of 95% of the S.P.M.D.D. before a subsequent layer is placed.

Rigid Pipe and Flexible Pipe - Backfill

Backfill shall be as specified in the Form of Tender.

- If select native material is specified, backfill shall be compacted to a minimum of 95% of the S.P.M.D.D.. Backfill beneath areas to be developed as pavements shall be compacted to 98% S.P.M.D.D. for 1.0m below the granular roadbed.
- If granular material is specified, it shall be compacted to a minimum of 100% of the S.P.M.D.D.

OPSS 401.07.10.05 Backfill, has been amended as follows:
Backfill material shall be placed in uniform layers not exceeding 300mm in thickness, loose measurement, for the full width of the trench and each layer shall be compacted to the specified density before a subsequent layer is placed.

Power operated tractors or rolling equipment shall not be used for compacting until backfill material has been placed to a minimum of 900mm above the crown of the pipe.

The unit price bid shall include the cost of all granular bedding, embedment cover material and the backfilling noted herein.

All excavated material not required for backfill shall be disposed as outlined under the General SP – Management of Excess Materials. The cost of this work shall be included in the unit price bid of sewer.

Should the Contractor decide to use stone bedding to assist with trench stabilization it shall be at the Contractor's expense and the stone bedding material must be completely wrapped with a filter wrap (non-woven type). Edges of the filter wrap must be overlapped 300mm minimum with no gaps for fines to migrate. It is also to be noted that the use of stone may result in settlements; as such, the Contractor shall assume all risk in its use. Clear stone material which is not completely wrapped in approved filter wrap material will not be permitted for this project.

OPSS.MUNI 410.07.12 – Pipe Installation has been amended with the addition of the following:

410.07.12.01-General

Pipe shall be laid within the following horizontal alignment and vertical grade tolerances:

1. All pipe sections, within a sewer run, shall have positive slope towards the outlet.
2. Maximum vertical and horizontal alignments shall not exceed manufacturer's allowable deflections.
3. Maximum vertical and horizontal joint deflections shall not exceed manufacturers allowable deflections.
4. Should the installed grade deviate by more than 10% of the indicated installation grade, the sewer shall be re-laid.
5. Passing of a mandrel test does not supersede the need to be in compliance with the grade tolerances.

Installation of Repair Coupling

The selection of a pipe coupler is dependent upon the pipe materials and the diameters of the pipe to be coupled together. The Contractor shall refer to the Materials list in this Special Provision for the approved pipe couplers for this project.

In all cases, the ends of each pipe to be coupled, shall be clean and free of debris. The coupler shall be installed as per the manufacturer's recommendations.

Care shall also be taken to vertically align the pipes so that the invert of the upstream pipe section matches or is slightly above the invert of the downstream pipe section.

For pipe diameters 375mm or less, the Contractor shall carefully compact the granular around the pipe to provide vertical and lateral support of the joint.

For pipe diameters greater than 375mm dia., a concrete collar shall be poured around the entire pipe joint to provide vertical and lateral support to the joint. The collar shall be a minimum of 150mm thick under the pipe joint

Compaction – General
Compaction shall be as per OPSS.MUNI 501 – Construction Specification for Compacting. The type of compaction equipment used shall be suited to the material to be compacted, degree of compaction required, and space available. Selection of compaction equipment shall be determined by the Contractor with a list of the proposed equipment being submitted at the pre-construction meeting.

Trench widths shall be sufficiently wide enough, but no greater than necessary, to ensure working room to properly and safely place and compact haunching and other embedment materials. The space between the pipe and trench wall must be wider than the compaction equipment used in the pipe zone.

In pipe trenches, to 900mm above the crown of the pipe, small, hand-held or walk-behind compactors are required, not only to preclude damage to the pipe, but to ensure thorough compaction in the confined areas around the pipe and along the trench wall.

Power operated tractors or rolling equipment shall not be used for compacting until backfill material has been placed to a minimum of 900mm above the crown of the pipe.

All costs of compaction and water used for compaction shall be included in the unit price for sewer.

Removing Existing Sewers, Watermains and Minor Structures
The unit price bid shall include the cost of removing existing sewers, watermains, or minor structures encountered in the trench excavation where applicable.

Disposal of existing sewers, watermains and/or minor structures shall be as outlined under the General SP- Management of Excess Materials.

Abandoning Sewers
The unit price bid shall include the cost of plugging up, by means of brick and mortar and to the satisfaction of the Contract Administrator, certain existing sewers or drains that are to be abandoned due to being intercepted by the installation of new sewer(s).

Connect To Existing
The Contractor shall make all connections to new and existing catch basins, maintenance holes, culverts or sewers (regardless of pipe material) in a manner set out in the contract drawings or as determined by the Contract Administrator at the time of construction.

The Contractor shall fill the void between the sewer pipe and the concrete structure with grout. The grout shall be trowelled smooth on both the inside and the outside of the structure.

Connections between new sewers and existing sewers to be made using a manufactured repair coupling.

Upon completion of the connection to the structure, the floor of the structures shall be cleaned out by the Contractor.

Break Into and Connect To Existing Structures
The Contractor shall saw cut or core an opening in the existing catch basins, maintenance hole, large enough to insert the sewer pipe, in a manner set out in the contract drawings or as determined by the Contract Administrator at the time of construction.

The Contractor shall fill the void between the sewer pipe and the concrete structure with grout. The grout shall be trowelled smooth on both the inside and the outside of the structure.

Upon completion of the connection, the floor of the structures shall be cleaned out by the Contractor.

Maintenance of Flow
The Contractor shall provide for the maintenance of flow in all sewers and maintenance holes at all times.

Management of Excess Materials
Management of excess materials shall be as outlined under the General Special Provision - Management of Excess Materials.

Restoration
Restoration shall be as outlined under General SP - Restoration.

Inspection and Testing

OPSS.MUNI 410.07.16 – Field Testing has been amended with the addition/clarification as follows:
410.07.16.02 - Prequalification Leakage Tests are not a requirement when sewers are active.

410.07.16.03 - Infiltration Tests are not a requirement when sewers are active.

410.07.16.04 - Exfiltration Tests are not a requirement when sewers are active.

410.07.16.05 – Deflection testing **shall** be performed on all pipe sewers constructed using flexible pipe.

Included in the unit price bid for the sewer, the Contractor shall supply all labour, equipment and materials to flush, clean and perform mandrel deflection testing on the sewers as per OPSS 438.MUNI - Construction Specification for Mandrel Deflection Inspections as well as OPSS 411.MUNI-Construction Specification for the Cleaning and Flushing of Culverts, Wall Drains, Pipe Sewers, Catch Basins, Maintenance Holes, Ditch Inlets, and Oil/Grit Separators.

The deflection testing device shall be pulled manually through the pipe **not sooner than 30 Days after the completion of backfilling (unless authorized by the Contract Administrator) and installation of service connections and shall be before placement of asphalt or concrete.**

410.07.16.06 Closed-Circuit Television (CCTV) Inspection Pipe sewers **shall** be performed on all sewers and services.

Included in the unit price bid for the sewer, the Contractor shall supply all labour, equipment and materials to flush, clean and perform a high quality, CCTV inspection of the sewers complete with a digital submission of the video and report as per OPSS 409.MUNI – Construction Specification for Closed-Circuit Television (CCTV) Inspection of Pipelines as well as OPSS 411.MUNI Construction Specification for the Cleaning and Flushing of Culverts, Wall Drains, Pipe Sewers, Catch Basins, Maintenance Holes, Ditch Inlets, and Oil/Grit Separators.

The CCTV inspection shall be performed **not sooner than 30 Days after the completion of backfilling (unless authorized by the Contract Administrator) and installation of service connections and shall be before placement of asphalt or concrete.**

Should deficiencies be identified upon review of the camera inspection video or a failed deflection test, the deficiencies shall be promptly corrected and re-inspected with CCTV inspection. All costs associated with the correction of the deficiencies, restoration and additional CCTV inspections shall be borne by the Contractor.

Measurement for Payment
410.09 Measurement for Payment has been amended as follows:

410.09.01.01 Pipe Sewers
Measurement of pipe sewers shall be by length in metres along the horizontal centreline length of the pipe from the centre of one drainage structure to the centre of another drainage structure or outlet end of the pipe sewer. Included in the lineal metres of sewer, are any service tees.

When bends are used on concrete sewers, the measurement for the pipe sewer shall include the length of the bend.

If there is a pay item for a pipe bend, a count shall be made of the number of bends used.

There will be no measurement for the dewatering.

Basis of Payment

410.10 Basis of Payment

Payment at the Contract price for sewer pipe shall be full compensation for all labour, equipment, and material required to supply and install the gravity sewers, bends, tees, grates etc.

Payment at the Contract price for Connect to Existing Sewers shall be full compensation for all labour, equipment, and material required to make the connection.

Payment at the Contract price for the Breaking Into Existing Structures shall be full compensation for all labour, equipment, and material required to do the work.

No additional payment will be made for dewatering. Should dewatering be required, the Contract price for the installation of pipe sewers, shall include full compensation for all labour, equipment, and material to do the dewatering.

The unit price bid for the storm sewers, shall include all costs for labour, equipment and materials to perform the dewatering.

The unit price bid shall include all labour, equipment, and material to do the deflection testing and the CCTV investigation.

SUPPLY, EXCAVATE FOR, PLACE AND BACKFILL CATCH BASINS

For the unit price bid, the Contractor shall supply all labour, equipment and materials for the complete installation of the structures as indicated on the contract drawings and in accordance with OPSS.MUNI 407. The sizes of the structures are as noted on the Form of Tender and on the contract drawing.

The Contractor shall excavate to the required grade, supply the necessary granular bedding and backfill and compact the material in accordance with OPSS.MUNI 402.

The Contractor shall supply and install frame and grates as listed on the contract drawings to the grade established at the time of construction. Adjustment of the frame and grate to grade shall be achieved using precast concrete adjustment. The contractor shall place caulking or approved alternative between each adjustment unit. The contractor shall include the cost of connecting new basins to existing sewers as determined at the time of construction.

Design and Submissions Required

407.04.01 Submission Requirements shall be amended with the following addition:
c) Working Drawings for all precast structures shall be submitted no later than 10 Business Days prior to construction. Contractors shall note that the review of the working drawings may take some time depending on the volume of drawings submitted. Contractors are advised to prioritize the working drawing submissions, with the highest priority being submitted first. Contractor claims for loss time due to working drawing review will not be considered.

d) The Contractor shall confirm in writing to the Contract Administrator that the means of connecting sewers to the maintenance holes is appropriate for the materials being used and for the site conditions.

As noted in **GC 3.02. Working Drawings**
04. The Contract Administrator's review shall be to check for conformity to the design concept and for general arrangement only and such review shall not relieve the Contractor of responsibility for errors or omissions in the Working Drawings or of responsibility for meeting all requirements of the Contract Documents, unless a deviation on the Working Drawings has been approved in writing by the Contract Administrator.

Parging

The adjustment units will be grouted into place by means of an approved mortar mix and shall be parged inside and outside at the top of each structure where the adjustment unit is placed and the underside of frame after final adjustment.

The outside of the adjustment units shall be completely wrapped with Denso LT Tape/Denso Paste. The Denso material shall completely cover the adjustment units and overlap onto the frame and concrete structure. All Denso products shall be applied as per the Manufacturer's recommendations.

Compaction shall be as per OPSS.MUNI 501 – Construction Specification for Compacting. The type of compaction equipment used shall be suited to the material to be compacted, degree of compaction required, and space available. Selection of compaction equipment shall be determined by the Contractor with a list of the proposed equipment being submitted at the pre-construction meeting.

Payment for the structure shall be 80% of the unit price for the installation and the remaining 20% of the unit price upon completion of parging and removal of debris from the bottom of the structure.

When the surface course of asphalt is to be placed at a later date, the unit price bid shall also include ramping of the structure, and the installation of 50 mm diameter PVC drains as per BMROSS Standard Drawing 702. The installation of the 50 mm dia. drain shall be done prior to or during the concrete curb installation, if applicable.

SUPPLY, EXCAVATE FOR, PLACE AND BACKFILL PRECAST MAINTENANCE HOLES AND MAINTENANCE HOLE-CATCH BASINS, INCLUDING FRAMES AND GRATES

For the unit price bid, the Contractor shall supply all labour, equipment and materials for the complete installation of the structures and in accordance with OPSS.MUNI 407. The sizes of the structures are as noted on the Form of Tender and on the contract drawing.

Design and Submissions Required

407.04.01 Submission Requirements shall be amended with the following addition:

c) Working Drawings for all precast structures shall be submitted no later than 10 Business Days prior to construction. Contractors shall note that the review of the working drawings may take some time depending on the volume of drawings submitted. Contractors are advised to prioritize the working drawing submissions, with the highest priority being submitted first. Contractor claims for loss time due to working drawing review will not be considered.

d) The Contractor shall confirm in writing to the Contract Administrator that the means of connecting sewers to the maintenance holes is appropriate for the materials being used and for the site conditions.

As noted in **GC 3.02. Working Drawings**
04. The Contract Administrator's review shall be to check for conformity to the design concept and for general arrangement only and such review shall not relieve the Contractor of responsibility for errors or omissions in the Working Drawings or of responsibility for meeting all requirements of the Contract Documents, unless a deviation on the Working Drawings has been approved in writing by the Contract Administrator.

The Contractor shall excavate to the required grade, supply the necessary granular bedding and backfill and compact the material in accordance with OPSS.MUNI 402.

Steel reinforcement shall be according to OPSS.MUNI.1440. Steel reinforcement for precast concrete components shall be:

a) Steel bars, 400MPa minimum yield strength
b) Welded steel wire, 500 MPa minimum yield strength
c) Welded deformed steel wire, 500 MPA minimum yield strength

The Contractor shall supply and install frames and grates as listed on the drawings to the grade established at the time of construction. Adjustment of the frame and grate to grade shall be achieved using precast concrete adjustment. The contractor shall place caulking or approved alternative between each adjustment unit. The Contractor shall supply ladder rungs and all materials to make all connections to existing sewers.

Also, when required, included in the unit price bid, the Contractor shall include the benching of all storm maintenance holes designated, as per OPSD 701.021.

Where new maintenance holes are to be constructed on existing sewers, the Contractor will be required to maintain the sewage flow by either piping through the maintenance hole location or providing by-pass pumping around the maintenance hole site. Prior to the commencement of work, the Contract Administrator shall approve the method proposed by the Contractor for maintaining flow.

The Contractor shall confirm in writing to the Contract Administrator that the means of connecting storm sewers to the storm manholes is appropriate for the materials being used and for the site conditions.

Waterproofing – Adjustment Units
The outside of the precast adjustment units shall be completely wrapped with a waterproofing membrane. The waterproofing membrane shall completely cover the adjustment units and overlap onto the frame and concrete structure. The waterproof membrane shall be Mel-Rol or approved equivalent for the maintenance hole joints and shall be a minimum of 300mm wide, extending a minimum of 150mm above and below each joint. The Contractor shall ensure that the concrete surface is cleaned and the manufacturer recommended primer is applied prior to installing the waterproofing membrane.

Installation shall be as per BMROSS Standard Drawing 720 – Waterproofing Membrane - Storm and Sanitary Structures and the membrane manufacturers recommendations.

Parging

The precast adjustment units will be grouted into place by means of an approved mortar mix and shall be parged inside and outside at the top of each structure where the adjustment unit is placed and the underside of frame after final adjustment.

The outside of the precast adjustment units shall be completely wrapped with Denso LT Tape/Denso Paste. The Denso material shall completely cover the adjustment units and overlap onto the frame and concrete structure. All Denso products shall be applied as per the Manufacturer's recommendations.

Compaction shall be as per OPSS.MUNI 501 – Construction Specification for Compacting. The type of compaction equipment used shall be suited to the material to be compacted, degree of compaction required, and space available. Selection of compaction equipment shall be determined by the Contractor with a list of the proposed equipment being submitted at the pre-construction meeting.

Payment for the structure shall be 80% of the unit price for the installation and 20% of unit price upon completion of parging, removal of debris from the bottom of the structure and benching when applicable.

RECONNECT EXISTING DRAINS AND SERVICES (up to 250 mm dia.)

For the unit price bid, the Contractor shall supply all labour, equipment and material to excavate for, supply and install, reconnect and backfill all existing drains and/or services encountered at the time of construction. All connections shall be made with approved couplings (Fernco or equivalent).
Payment under this item will only be paid when it is determined by the Contract Administrator that the work is required to:

- Relocate drains and services that conflict with the sewer and/or watermain in horizontal or vertical alignment.
- Repair any drains and services encountered that have not been shown on the drawings.

The Contractor is responsible for replacing all other broken or damaged drains and services encountered in the excavation.

Pipe Material

Pipe material for repairs shall be PVC SDR-28 for 100 mm – 150 mm diameter and PVC SDR-35 for 200 mm – 250 mm diameter.

Bedding, Embedment and Backfill

Embedment shall be as per OPSD 802.010, OPSD 802.013 or 802.014 for flexible pipe and whichever soil type is applicable.

Embedment material shall be Granular A to 300 mm (min) above the top of the pipe.

SUPPLY AND PLACE 150 mm FILTER WRAPPED PERFORATED SUBDRAIN INCLUDING EXCAVATION

For the unit price bid, the Contractor shall excavate for, supply and install the subdrain, including filter wrap (non-woven type) Class 1 with a Filter Opening Size (FOS) of 130-100 µm as indicated on the contract drawings or to the limits established by the Contract Administrator at the time of construction.

The supply and backfilling of granular backfill shall be paid for with the granular item for the roadbed.

Pipe Material

OPSS 405.05 Materials is amended to accept the following material for pipe subdrains.

(a) Perforated, corrugated high density polyethylene subdrain with 210kPa pipe stifness for continuous subdrains behind the curb.
(b) Polyethylene Big "O" Boss 2000 or equivalent for maintenance holes subdrains. Installation as per OPSD.809.010 (6m length).

The filter wrap geotextile shall be in accordance with OPSS 1860.

The maximum stone size for the granular backfill shall be 50 mm dia.

REMOVE EXISTING STORM SEWER

For the unit price bid the Contractor shall supply all labour, equipment and materials to remove and backfill existing storm sewers as indicated on the contract drawings and as determined by the Contract Administrator at the time of construction.

The unit price bid shall also include the granular backfill material. Backfill to be compacted to a minimum dry density of 100%. Payment of this item will only be made where the existing sewer being removed is outside of the excavated trench for the other proposed works in the opinion of the Contract Administrator.

Excavated material and storm sewer pipe shall be managed by the Contractor with the cost of this work being included in the unit price bid.

REMOVAL OF EXISTING CULVERTS

For the unit price bid, the Contractor shall supply all labour, equipment and materials required to remove, including excavation and backfill for culverts across the roadway or entrances as shown on the plans or identified by the Contract Administrator at the time of construction. All work shall be done in accordance with OPSS.MUNI.421.

Excavated material and concrete shall be disposed of as outlined under the General SP - Management of Excess Materials.

All culvert material type including Corrugated Steel Pipe shall become the property of the Contractor and shall be disposed of outside the contract limits.

INSTALLATION OF STORM SERVICES

For the unit price bid, the Contractor shall supply all labour, equipment and materials for the complete installation of the storm services as indicated on the contract drawings. The sizes of the services are as noted on the Form of Tender. The unit price bid shall also include the cost of the main line service tee and end cap required for each service.

Service tees for use with flexible mainline sewer pipe shall be factory manufactured tees. Service tees for use with rigid mainline sewer to be factory installed “Inserta” tees or approved equal. Insterta tees to be the same diameter or larger than the servicing piping. All required reducers shall be included in the unit price bid for this item.

The service connections shall be as per OPSD 1006.010 for sewer service connections for main pipe sewer.

Pipe Material

Pipe material for storm sewer services shall be polyvinyl chloride (PVC) SDR-28 green colour.

Bedding and Backfill

Bedding and cover shall be as per OPSD 1006.010 for service connections. Backfill shall be as noted on the Form of Tender.

Bedding and embedment material shall be Granular A. Cover material shall be approved granular material or select native granular material to 300 mm above the top of pipe. Bedding, embedment and cover shall be placed in uniform layers not exceeding 200 mm in thickness, loose measurement, and compacted to 95% of the maximum dry density before a subsequent layer is placed.

Backfill of storm service under the road platform shall match mainline storm sewer backfill material. Backfill beyond the road platform shall be as specified in the Form of Tender. If select native material is specified, it shall be compacted to a minimum dry density of 95%. If granular material is specified, it shall be compacted to a minimum dry density of 100%. Backfill shall be placed in uniform layers not exceeding 300 mm in thickness for the full width of the trench and compacted to the specified density before a subsequent layer is placed.

All excavated material not required for backfill shall be disposed as outlined under the General SP – Management of Excess Materials. The cost of this work shall be included in the unit price bid.

Should the Contractor decide to use stone bedding to assist with trench stabilization it shall be at the Contractor's expense. It is also to be noted that the use of stone may result in settlement of the installed piping; as such, the Contractor shall assume all risk in its use.

Compaction shall be as per OPSS.MUNI 501 – Construction Specification for Compacting. The type of compaction equipment used shall be suited to the material to be compacted, degree of compaction required, and space available. Selection of compaction equipment shall be determined by the Contractor with a list of the proposed equipment being submitted at the pre-construction meeting.

All bedding, embedment, cover and backfill materials shall be placed in layers prior to compacting in accordance with OPSS.MUNI 401.07.10.

Installation of Services

For the unit price bid, the Contractor shall include the cost of connecting to existing storm services with the approved fittings and material to make the connection (Fernco or equivalent). The unit price bid shall include all restoration outside the limits of the grading operations of the road reconstruction part of the project, when applicable.

All services to vacant lots or previously unserviced lots, shall include an end cap and the ends of all services shall be marked by a 50 mm x 100 mm wood post extending from the service to 300 mm above the surface of the ground with the top section painted fluorescent green. The post shall be supplied and placed by the Contractor.

Closed Circuit Television Inspection of Pipelines

All work shall be in accordance with OPSS 409-Construction Specification for Closed-Circuit Television Inspection of Pipelines. The unit price bid for the service installation shall include the cost of the CCTV inspection.

The Contractor will engage a Closed Circuit Television Inspection Contractor and co-ordinate the work to have it completed prior to **achieving substantial performance** for the contract.

The General Contractor will be responsible for hiring the Closed Circuit Television Inspection Contractor directly; however, the Closed Circuit Television inspection work will be carried out to the satisfaction of, the Contract Administrator.

Should deficiencies be identified upon review of the camera inspection video, the deficiencies shall be promptly corrected and a re-inspected with CCTV inspection. All costs associated with the CCTV inspections shall be borne by the Contractor.

Restoration

Restoration shall be as outlined under General SP - Restoration.

STORM SEWER SERVICE CLEANOUT

For the unit price bid, the Contractor shall supply all labour and materials for the complete installation of service cleanouts as shown on the BMROSS Standard Drawing 1000C.

Cleanouts located within a lawn area, shall have a 100 mm diameter, cast iron, MCO #DF44 c/w solvent weld bushing or approved equivalent. Adaptors to be provided as required.

Cleanouts located within driveways or sidewalks, shall have a cast iron, 100 mm diameter, Sigma Corporation Model No. VB-SCO4L cover or approved equivalent that meets H20 Loading Standards. Adaptors to be provided as required.

Each cleanout, for a vacant lot or previously unserviced lot, shall be clearly marked with a minimum of 2.0 m of 50 x 100 wooden post. Each cleanout for an occupied property shall be terminated with the cover flush to the surrounding surface.

Basis of Payment

Payment shall be as follows:

- 80% for all piping
- 20% for the installation of the cleanout cap to finish grade

NOTES:
1. WATERMAIN AND SEWERS INSTALLED IN PARALLEL TO HAVE A MINIMUM SEPARATION FROM OF 2.5m HORIZONTAL FROM PIPE EDGE TO PIPE EDGE. FOR CROSSING LOCATIONS WATERMAINS SHALL PASS OVER SEWERS. WHERE WATERMAIN MUST PASS UNDER SEWER TO ACHIEVE FROST PROTECTION 0.5m VERTICAL SEPARATION IS REQUIRED.
2. CONTRACTOR TO VERIFY THE EXACT LOCATION AND INVERT ELEVATION OF EXISTING UNDERGROUND SERVICES AND UTILITIES PRIOR TO STARTING CONSTRUCTION.
3. CONTRACTOR SHALL FULLY PROTECT AND SUPPORT UTILITIES, POLES, SEWERS, WATERMAINS AND SERVICES DURING CONSTRUCTION.
4. NO WATER SERVICE COUPLERS WILL BE PERMITTED BETWEEN MAIN STOP AND CURB STOP.
5. PROPOSED WATER SERVICE SIZES ARE 25mm CTS PEX PIPE UNLESS NOTED OTHERWISE AND TO BE INSTALLED USING OPEN CUT TRENCHES UNLESS NOTED OTHERWISE.
6. ENBRIDGE WILL DEFLECT SECTIONS OF GASMAIN AND SERVICES WHERE THESE ARE IDENTIFIED TO BE IN CONFLICT WITH THE INSTALLATION OF THE BARNES DRAIN AND STORM SEWERS. WORK IS SCHEDULE TO BEGIN IN APRIL 2026 AND IS TO BE COMPLETED BY EARLY MAY 2026.

EXISTING C.B. DATA

No.	Station	O/S	Material	Info
CB-138	2+060.60	RT	CONC	REMOVE
CBMH-1	2+063.60	LT	CONC	REMOVE

PROPOSED C.B. DATA

No.	Station	O/S	Desc.	Grate	T/Grate
DCB1	2+073.50	LT	705.020	400.020	214.475
DCB2	2+073.50	RT	705.020	400.020	214.475
CB3	2+120.00	LT	705.010	400.020	215.150
CB4	2+142.30	LT	705.010	400.020	214.900

PROPOSED C.B. LEADS DATA

No.	Size	Type	Class	Length
DCB1	250mm	PVC	DR35	1.0m
DCB2	250mm	PVC	DR35	7.5m
CB3	150mm	PVC	DR28	5.0m
CB4	150mm	PVC	DR28	5.0m

EXISTING STORM M.H. DATA

No.	Station	O/S	Material	Info
STM-17	2+017.70	RT	CONC	KEEP

PROPOSED STORM M.H. DATA

No.	Station	O/S	Desc.	Grate	T/Grate
STM-A	2+120.00	LT	701.010	401.010	215.410
STM-B	2+140.00	LT	701.010	401.010	215.265

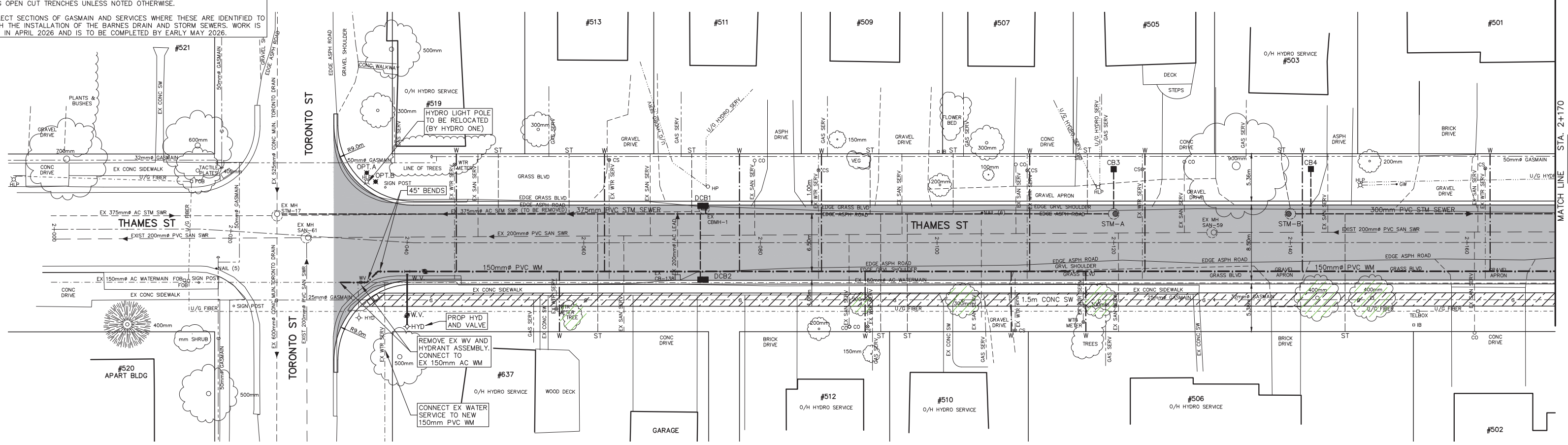
*ALL STORM MH's TO BE BENCHED

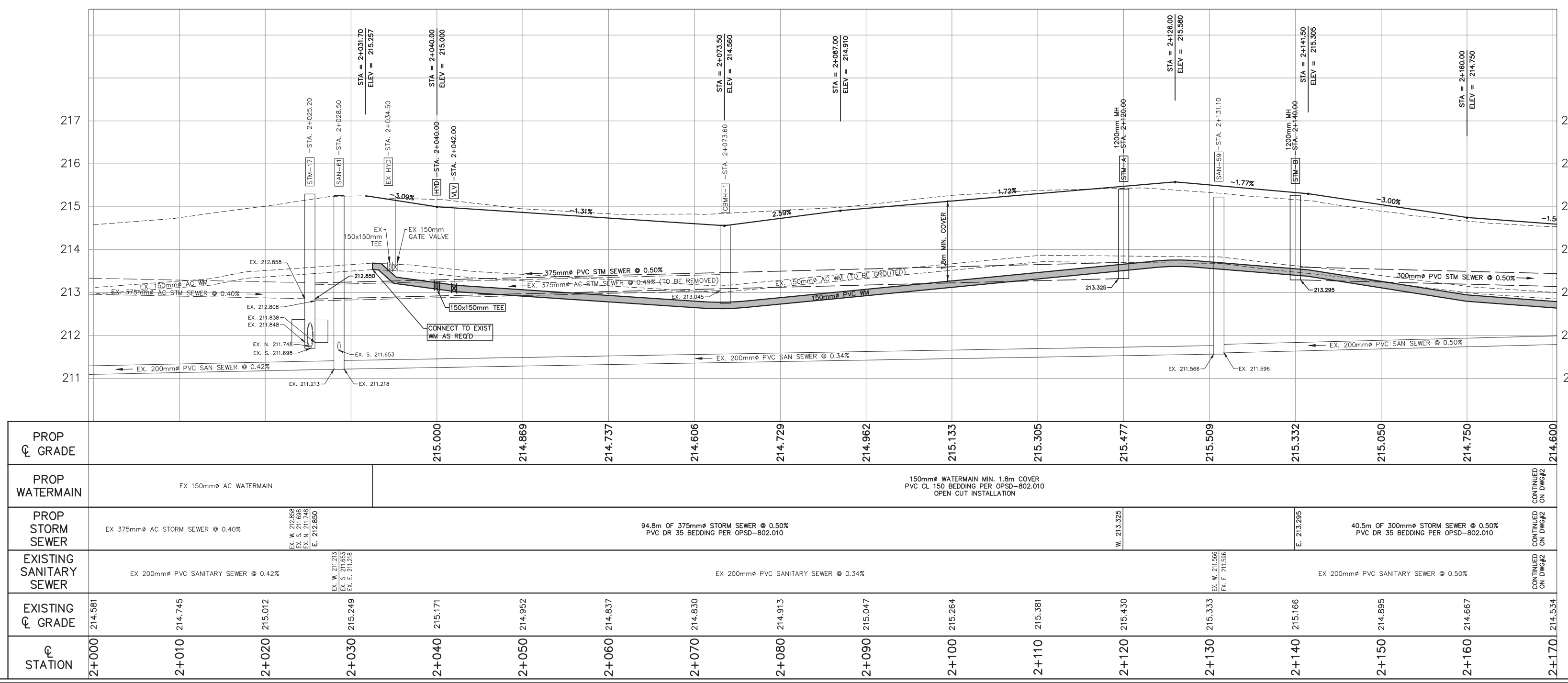
EXISTING STORM SEWER DATA

No. to No.	Size	Type	Length	Info
STM-17 - CBMH-1	375mm	AC	48.0m	REMOVE

PROPOSED STORM SEWER DATA

No. to No.	Size	Type	Class	Length
STM-17 - STM-A	375mm	PVC	DR35	94.8m
STM-B - STM-H	300mm	PVC	DR35	40.5m





LEGEND

SEWERS, SANITARY or STORM
MANHOLE and CATCHBASIN
WATERMAIN, FIRE HYDRANT
GASMAIN
UNDERGROUND TELEPHONE
UNDERGROUND HYDRO
UNDERGROUND T.V. CABLE
UTILITY POLES
TREE REMOVAL AND GRUBBING
REPLACE CONCRETE SIDEWALK
REPLACE CONCRETE DRIVEWAYS
REPLACE BRICK DRIVEWAYS
PLACE HOT MIX ASPHALT (ROADS 40mm HL-3 & 50mm HL-4 HOT MIX) (DRIVEWAYS 50mm HL-3 HOT MIX MISC.)

1:50
1:250

N

NOTE

The locations of existing underground utilities are shown in an approximate way only and have not been independently verified by the owner or its representative. The contractor shall determine the exact location of all existing utilities before commencing work and agrees to be fully responsible for any damages which might be occasioned by the contractor's failure to exactly locate and preserve any and all underground utilities.

BENCHMARK INFORMATION

B.M. Elev. 215.558
Top spindle of fire hydrant located in the south boulevard between Mun#486 and #488 Thames St.

B.M. Elev. 215.580
Top spindle of fire hydrant located at the south-east corner of the intersection between Thames St and Toronto St.

Design By: T.G.M. Checked By: A.E.M.

LICENSED PROFESSIONAL ENGINEER JAN/08/2026 A.R. ESTRADA MORFIN 100221004 PROVINCE OF ONTARIO

No.	DATE	REVISION
1	FEB-24	ISSUED FOR MEETING #1
2	JUL-25	ISSUED FOR REVIEW
3	JAN-26	ISSUED FOR DRAINAGE ACT

BMROSS
engineering better communities

Goderich | Mount Forest | Sarnia

The Town of Plympton-Wyoming

Town of Plympton-Wyoming (Wyoming)

Thames St East Reconstruction Thames Street

Plan and Profile from Sta. 2+000 to Sta. 2+170

Project No. 23245

Scale (24x36)
Horizontal : 1:250
Vertical : 1:50

Drawing No. 1 of 8

EXISTING C.B. DATA				
No.	Station	O/S	Material	Info
IPCB-1	2+184.50	RT	CONC	REMOVE
IPCB-2	2+204.90	LT	CONC	REMOVE
CB-163	2+252.40	LT	CONC	KEEP
CB-125	2+252.40	RT	CONC	KEEP
CB-164	2+252.40	LT	CONC	KEEP
CB-124	2+252.40	RT	CONC	KEEP

PROPOSED C.B. DATA					
No.	Station	O/S	Desc.	Grate	T/Grate
CB5	2+177.00	LT	705.010	400.020	214.410
CB6	2+177.00	RT	705.010	400.020	214.410
CB7	2+214.50	LT	705.010	400.020	214.192
CB8	2+214.50	RT	705.010	400.020	214.192

PROPOSED C.B. LEADS DATA				
No.	Size	Type	Class	Length
CB5	200mm	PVC	DR35	1.0m
CB6	200mm	PVC	DR35	7.5m
CB7	200mm	PVC	DR28	1.0m
CB8	200mm	PVC	DR28	7.5m

EXISTING STORM M.H. DATA				
No.	Station	O/S	Material	Info
STM-367	2+249.30	RT	CONC	KEEP
STM-381	2+309.90	RT	CONC	KEEP
STM-8A	2+312.60	RT	CONC	KEEP
STM-8	2+319.20	LT	CONC	KEEP

PROPOSED STORM M.H. DATA					
No.	Station	O/S	Desc.	Grate	T/Grate
STM-H	2+180.50	LT	701.011	401.010	214.380
STM-C	2+232.50	LT	701.010	401.010	214.300

*ALL STORM MH's TO BE BENCHED

EXISTING STORM SEWER DATA				
No. to No.	Size	Type	Length	Info
CULVERT	450mm	CSP	14.0m	REMOVE
ALLEY - STM-367	200mm	CONC	48.0m	GROUT
STM-367 - STM-381	375mm	CONC	60.0m	KEEP
STM-381 - STM-8A	375mm	CONC	2.0m	KEEP
STM-8A - STM-8	375mm	CONC	11.0m	KEEP

PROPOSED STORM SEWER DATA				
No. to No.	Size	Type	Class	Length
STM-B - STM-H	300mm	PVC	DR35	40.5m
STM-C - STM-H	375mm	PVC	DR35	52.0m

NOTES:

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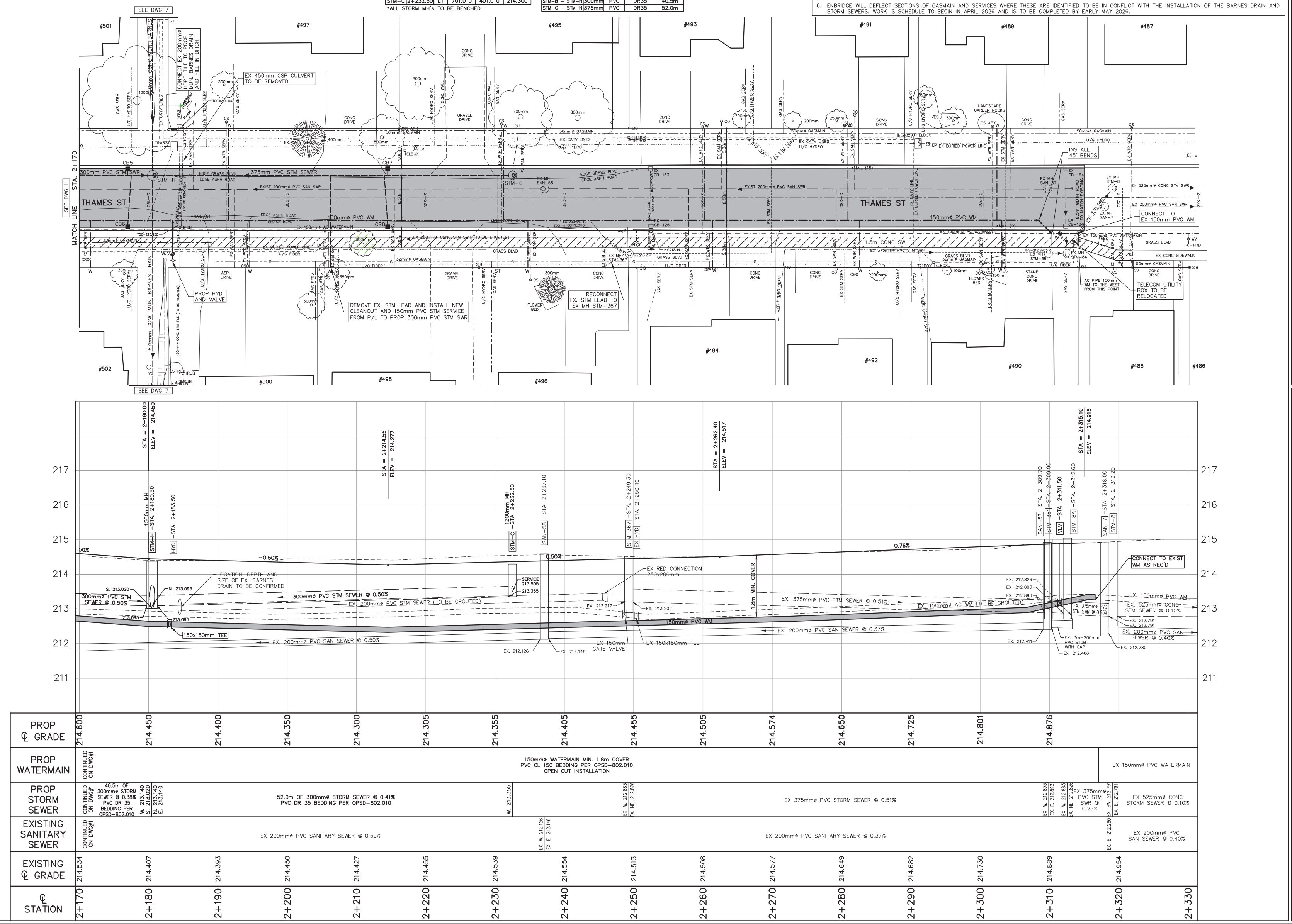

LEGEND

SAN. or STM. — SEWERS, SANITARY or STORM
MH. CB. — MANHOLE and CATCHBASIN
W — WATERMAIN, FIRE HYDRANT
G — GASMAIN
T — UNDERGROUND TELEPHONE
H — UNDERGROUND HYDRO
TV — UNDERGROUND T.V. CABLE
H B T H-B LP — UTILITY POLES
TREE REMOVAL AND GRUBBING
REPLACE CONCRETE SIDEWALK
REPLACE CONCRETE DRIVEWAYS
REPLACE BRICK DRIVEWAYS
PLACE HOT MIX ASPHALT (ROADS 40mm HL-3 & 50mm HL-4 HOT MIX) (DRIVEWAYS 50mm HL-3 HOT MIX MISC.)

1:50 — 1m 0 1m 2m
1:250 — 5m 0 5m 10m

N

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BENCHMARK INFORMATION

B.M. Elev. 216.084
Top spindle of fire hydrant located in the south boulevard between Mun#486 and #488 Thames St.

B.M. Elev. 215.580
Top spindle of fire hydrant located in the south boulevard between Mun#494 and #496 Thames St.

Design By: T.G.M. Checked By: A.E.M.

LICENSED PROFESSIONAL ENGINEER JAN-09-2026 A.R. ESTRADA MORFIN 100221004 PROVINCE OF ONTARIO

No.	DATE	REVISION
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BMROSS engineering better communities

Goderich | Mount Forest | Sarnia

The Town Of PLYMPTON-WYOMING

Town of Plympton-Wyoming (Wyoming)

Thames St East Reconstruction Thames Street

Plan and Profile from Sta. 2+170 to Sta. 2+330

Project No. 23245

Scale (24x36)
Horizontal : 1:250
Vertical : 1:50

Drawing No. 2 of 8

NOTES:

1. WATERMAIN AND SEWERS INSTALLED IN PARALLEL TO HAVE A MINIMUM SEPARATION FROM OF 2.5m HORIZONTAL FROM PIPE EDGE TO PIPE EDGE. FOR CROSSING LOCATIONS WATERMAINS SHALL PASS OVER SEWERS. WHERE WATERMAIN MUST PASS UNDER SEWER TO ACHIEVE FROST PROTECTION 0.5m VERTICAL SEPARATION IS REQUIRED.
2. CONTRACTOR TO VERIFY THE EXACT LOCATION AND INVERT ELEVATION OF EXISTING UNDERGROUND SERVICES AND UTILITIES PRIOR TO STARTING CONSTRUCTION.
3. CONTRACTOR SHALL FULLY PROTECT AND SUPPORT UTILITIES, POLES, SEWERS, WATERMAINS AND SERVICES DURING CONSTRUCTION.
4. NO WATER SERVICE COUPLERS WILL BE PERMITTED BETWEEN MAIN STOP AND CURB STOP.
5. PROPOSED WATER SERVICE SIZES ARE 25mm CTS PEX PIPE UNLESS NOTED OTHERWISE AND TO BE INSTALLED USING OPEN CUT TRENCHES UNLESS NOTED OTHERWISE.
6. ENBRIDGE WILL DEFLECT SECTIONS OF GASMAIN AND SERVICES WHERE THESE ARE IDENTIFIED TO BE IN CONFLICT WITH THE INSTALLATION OF THE BARNES DRAIN AND STORM SEWERS. WORK IS SCHEDULE TO BEGIN IN APRIL 2026 AND IS TO BE COMPLETED BY EARLY MAY 2026.

EXISTING C.B. DATA				
No.	Station	O/S	Material	Info
PCB-3	3+181.60	BLVD	CONC	REMOVE

PROPOSED C.B. DATA					
No.	Station	O/S	Desc.	Grate	T/Grate
CB13	3+178.20	BLVD	705.010	400.020	213.500
CB14	3+183.70	BLVD	705.010	400.020	213.250
CB15	3+186.80	BLVD	705.010	400.020	213.600
DCB16	3+205.00	LT	705.020	400.020	213.680
DCB17	3+205.00	RT	705.020	400.020	213.680

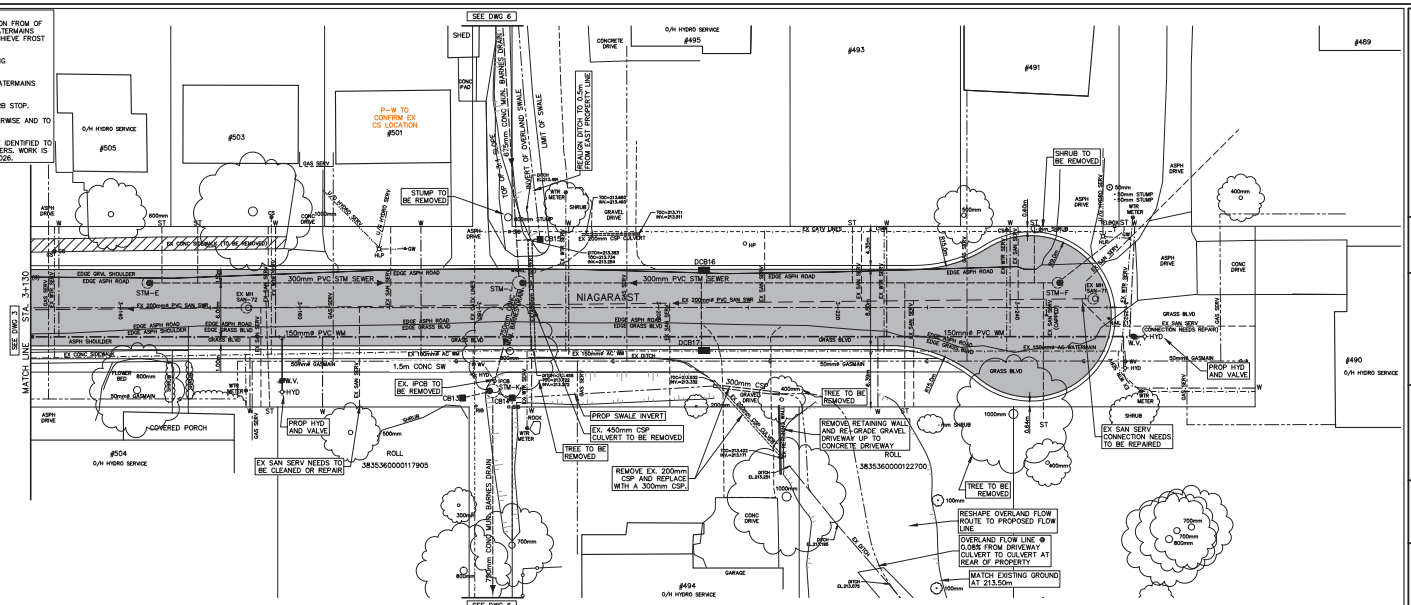
PROPOSED C.B. LEADS DATA				
No.	Size	Type	Class	Length
CB13	200mm	PVC	DR35	2.5m
CB14	200mm	PVC	DR35	1.5m
CB15	200mm	PVC	DR35	2.5m
DCB16	250mm	PVC	DR35	1.5m
DCB17	250mm	PVC	DR35	7.0m

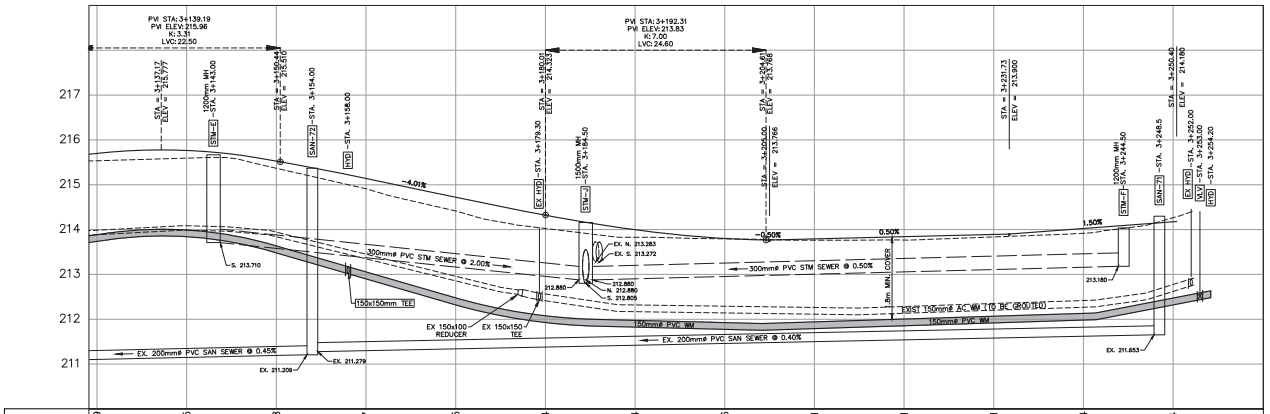
PROPOSED STORM M.H. DATA					
No.	Station	O/S	Desc.	Grate	T/Grate
STM-E	3+143.00	LT	701.010	401.010	215.670
STM-J	3+181.50	LT	701.011	401.010	214.160
STM-F	3+245.50	LT	701.010	401.010	214.035
STM-K	3+181.50	BLVD	701.010	401.010	214.230

*ALL STORM MH's TO BE BENCHED

EXISTING STORM SEWER DATA				
No. to No.	Size	Type	Length	Info
CULVERT 1	450mm	CSP	12.5m	REMOVE
CULVERT 2	200mm	CSP	6.5m	REMOVE
CULVERT 3	200mm	CSP	11.5m	REMOVE

PROPOSED STORM SEWER DATA				
No. to No.	Size	Type	Class	Length
STM-E – STM-J	300mm	PVC	DR35	41.5m
STM-F – STM-J	300mm	PVC	DR35	60.0m
STM-J – STM-K	750mm	CONC	DR35	12.0m





PROP ℄ GRADE	215.699	215.765	215.528	215.127	214.725	214.324	213.994	213.806	213.791	213.841	213.891	214.024	214.174
PROP WATERMAIN	CONTINUED ON DWG #3	150mmø WATERMAIN MIN. 1.8m COVER PVC CL 150 BEDDING PER OPSD-802.010 OPEN CUT INSTALLATION											
PROP STORM SEWER		E. 213.710	41.5m OF 300mmø STORM SEWER @ 2.00% PVC DR 35 BEDDING PER OPSD-802.010			W. 212.880 W. 212.880 W. 212.805	60.0m OF 300mmø STORM SEWER @ 0.50% PVC DR 35 BEDDING PER OPSD-802.010			W. 213.180			
EXISTING SANITARY SEWER	CONTINUED ON DWG #3	EX 200mmø PVC SANITARY SEWER @ 0.45%	EX. S. 211.209 EX. E. 211.279	EX 200mmø PVC SANITARY SEWER @ 0.40%								EX. W. 211.653	
EXISTING ℄ GRADE	215.535	215.593	215.368	214.910	214.415	214.025	213.829	213.794	213.763	213.767	213.836	213.917	214.264
℄ STATION	3+130	3+140	3+150	3+160	3+170	3+180	3+190	3+200	3+210	3+220	3+230	3+240	3+250

LEGEND

SAN or STM — SEWERS, SANITARY or STORM
MANHOLE and CATCHBASIN
WATERMAIN — FIRE HYDRANT
GASMAIN
UNDERGROUND TELEPHONE
UNDERGROUND HYDRO
UNDERGROUND T.V. CABLE
UTILITY POLES
TREE REMOVAL AND GRUBBING
REPLACE CONCRETE SIDEWALK
REPLACE CONCRETE DRIVEWAYS
REPLACE BRICK DRIVEWAYS
PLACE HOT MIX ASPHALT (ROADS 40mm HL-4 & 50mm HL-4 HOT MIX) (DRIVEWAYS 50mm HL-3 HOT MIX MISC.)

1:50 — 1m 0 1m 2m
1:250 — 5m 0 5m 10m

N

NOTE

The locations of existing underground utilities are shown in an approximate way only and have not been independently verified by the owner or its representative. The contractor shall determine the exact location of all existing utilities before commencing work and agrees to be fully responsible for any damages which might be occasioned by the contractor's failure to exactly locate and preserve any and all underground utilities.

BENCHMARK INFORMATION

B.M. Elev. 214.702
Top spindle of fire hydrant located in the south boulevard near Mun#494 Niagara St.

B.M. Elev. 215.548
Top spindle of fire hydrant located at the the east end of the road near Mun. #490 Niagara St.

Design By: T.G.M. Checked By: A.E.M.

LICENSED PROFESSIONAL ENGINEER — A.R. ESTRADA MEDINA — 100221904 — PROVINCE OF ONTARIO

No.	DATE	REVISION
1	FEB-24	ISSUED FOR MEETING #1
2	JUL-25	ISSUED FOR REVIEW
3	JAN-26	ISSUED FOR DRAINAGE ACT

BMROSS engineering better communities

Goderich | Mount Forest | Sarnia

The Town Of PLYMPTON-WYOMING

Town of Plympton-Wyoming (Wyoming)

Niagara St East Reconstruction
Niagara Street

Plan and Profile from Sta. 3+130 to Sta. 3+250

Project No. 23245

Scale (24x36)
Horizontal : 1:250
Vertical : 1:50

Drawing No. 4 of 8

NOTES:

1. CONTRACTOR TO VERIFY THE EXACT LOCATION AND INVERT ELEVATION OF EXISTING UNDERGROUND SERVICES AND UTILITIES PRIOR TO STARTING CONSTRUCTION.
2. CONTRACTOR SHALL FULLY PROTECT AND SUPPORT UTILITIES, POLES, SEWERS, WATERMAINS AND SERVICES DURING CONSTRUCTION.
3. ENBRIDGE WILL DEFLECT SECTIONS OF GASMAIN AND SERVICES WHERE THESE ARE IDENTIFIED TO BE IN CONFLICT WITH THE INSTALLATION OF THE BARNES DRAIN AND STORM SEWERS. WORK IS SCHEDULE TO BEGIN IN APRIL 2026 AND IS TO BE COMPLETED BY EARLY MAY 2026.
4. ACCORDING TO RECORDS, THE GAP BETWEEN THE BOTTOM OF THE NEW 750mm STM CONC (1m EXTERIOR PIPE DIAMETER) AND TOP OF 100mm PE FM PIPE WOULD BE SUFFICIENT. IF AFTER EXPOSING THE FORCEMAIN IT IS ENCOUNTERED THAT IT WILL BE IN CONFLICT WITH THE PATH OF THE BARNES DRAIN, THEN THE 100mm PE FORCEMAIN WILL HAVE TO BE DEFLECTED UNDER THE 750mm CONC PIPE WITH A MIN. CLEARANCE OF 0.2m

EXISTING STORM M.H. DATA

No.	Station	O/S	Material	Info
STM-241	1+011.50	RT	CONC	KEEP
STM-44	1+109.10	RT	CONC	KEEP

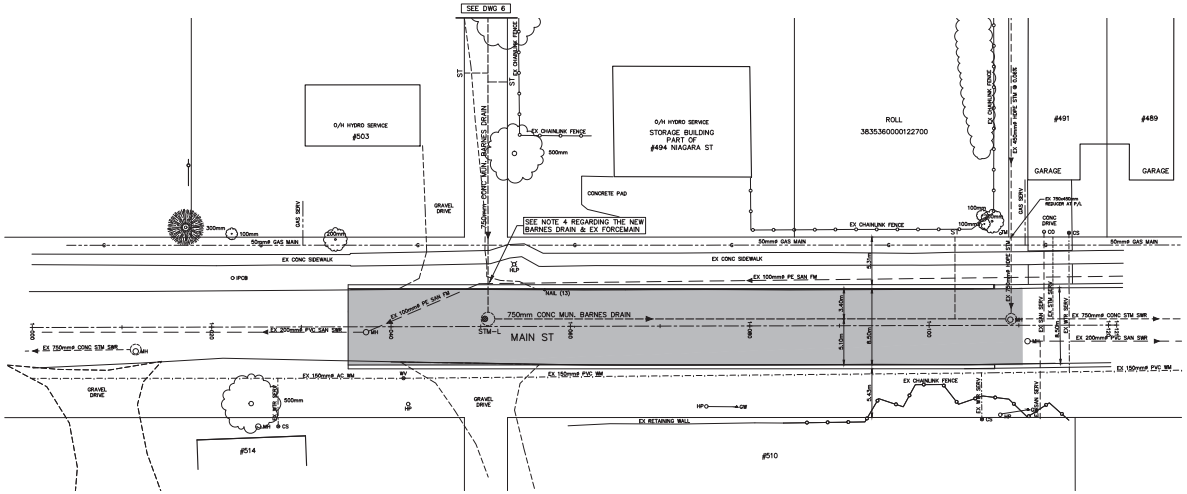
PROPOSED STORM M.H. DATA

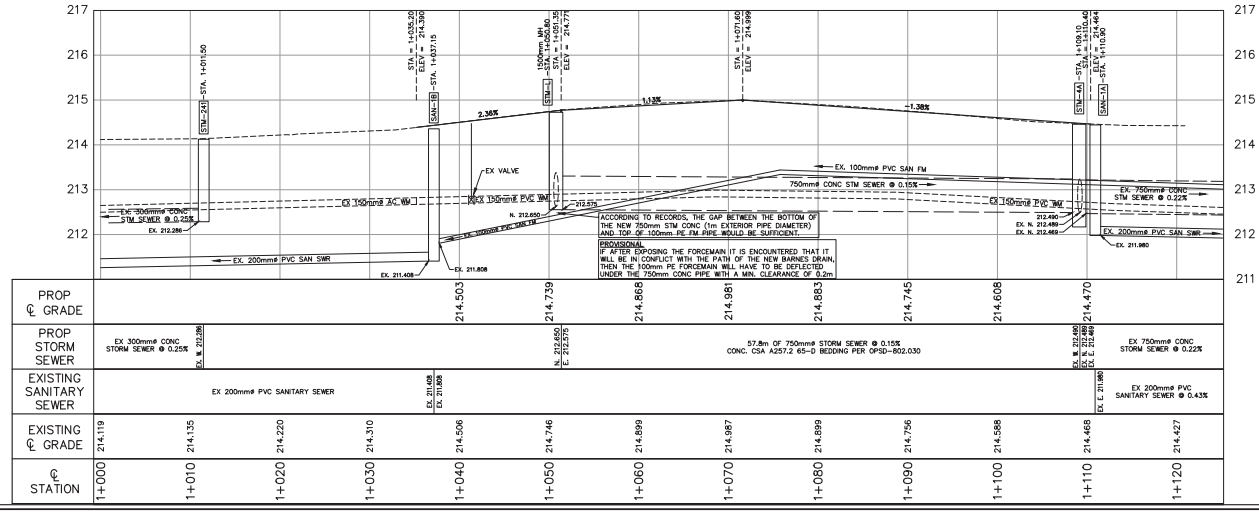
No.	Station	O/S	Desc.	Grate	T/Grate
STM-L	1+050.80	LT	701.011	401.010	214.725

*ALL STORM MH's TO BE BENCHED

PROPOSED STORM SEWER DATA

No. to No.	Size	Type	Class	Length
STM-L – STM-44	750mm	CONC	65-D	57.8m





PROP ℄ GRADE					214.503	214.739	214.860	214.981	214.883	214.745	214.608	214.470
PROP STORM SEWER	EX 300mm# CONC STORM SEWER @ 0.25% EX. N. 212.286					N. 212.650 E. 212.575	57.8m OF 750mm# STORM SEWER @ 0.15% CONC. CSA A257.2 65-D BEDDING PER OPSD-802.030				EX. N. 212.490 EX. E. 212.489	EX 750mm# CONC STORM SEWER @ 0.22%
EXISTING SANITARY SEWER	EX 200mm# PVC SANITARY SEWER			EX. 211.408 EX. 211.808								EX. E. 211.980 EX 200mm# PVC SANITARY SEWER @ 0.43%
EXISTING ℄ GRADE	214.119	214.135	214.220	214.310	214.506	214.746	214.899	214.987	214.899	214.756	214.588	214.468	214.427
℄ STATION	1+000	1+010	1+020	1+030	1+040	1+050	1+060	1+070	1+080	1+090	1+100	1+110	1+120

LEGEND

- SEWERS, SANITARY or STORM
- MANHOLE and CATCHBASIN
- WATERMAIN, FIRE HYDRANT
- GASMAIN
- UNDERGROUND TELEPHONE
- UNDERGROUND HYDRO
- UNDERGROUND T.V. CABLE
- UTILITY POLES
- TREE REMOVAL AND GRUBBING
- REPLACE CONCRETE SIDEWALK
- REPLACE CONCRETE DRIVEWAYS
- REPLACE BRICK DRIVEWAYS
- PLACE HOT MIX ASPHALT (ROADS 40mm HL-3 & 50mm HL-4 HOT MIX) (DRIVEWAYS 50mm HL-3 HOT MIX MISC.)

1:50 1m 0 1m 2m

1:250 5m 0 5m 10m

N

NOTE

The locations of existing underground utilities are shown in an approximate way only and have not been independently verified by the owner or its representative. The contractor shall determine the exact location of all existing utilities before commencing work and agrees to be fully responsible for any damages which might be occasioned by the contractor's failure to exactly locate and preserve any and all underground utilities.

BENCHMARK INFORMATION

B.M. Elev. 214784
Nail on north edge of the road and east of the Municipal Easement.

Design By: T.G.M. Checked By: A.E.M.

LICENSED PROFESSIONAL ENGINEER A.R. ESTHER MURPH 100221004 PROVINCE OF ONTARIO

No.	DATE	REVISION
1	FEB-24	ISSUED FOR MEETING #1
2	JUL-25	ISSUED FOR REVIEW
3	DEC-26	ISSUED FOR DRAINAGE ACT

BMROSS engineering better communities

Goderich | Mount Forest | Sarnia

The Town Of PLYMPTON-WYOMING

Town of Plympton-Wyoming (Wyoming)

Barnes Mun. Drain Replacement Main Street

Plan and Profile from Sta. 1+000 to Sta. 1+120

Project No. 23245

Scale (24x36)
Horizontal : 1:250
Vertical : 1:50

Drawing No. 5 of 8

NOTES:

1. CONTRACTOR TO VERIFY THE EXACT LOCATION AND INVERT ELEVATION OF EXISTING UNDERGROUND SERVICES AND UTILITIES PRIOR TO STARTING CONSTRUCTION.
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3. ENBRIDGE WILL DEFLECT SECTIONS OF GASMAIN AND SERVICES WHERE THESE ARE IDENTIFIED TO BE IN CONFLICT WITH THE INSTALLATION OF THE BARNES DRAIN AND STORM SEWERS. WORK IS SCHEDULE TO BEGIN IN APRIL 2026 AND IS TO BE COMPLETED BY EARLY MAY 2026.
4. ACCORDING TO RECORDS, THE GAP BETWEEN THE BOTTOM OF THE NEW 750mm STM CONC (1m EXTERIOR PIPE DIAMETER) AND TOP OF 100mm PE FM PIPE WOULD BE SUFFICIENT. IF AFTER EXPOSING THE FORCEMAIN IT IS ENCOUNTERED THAT IT WILL BE IN CONFLICT WITH THE PATH OF THE NEW BARNES DRAIN, THEN THE 100mm PE FORCEMAIN WILL HAVE TO BE DEFLECTED UNDER THE 750mm CONC PIPE WITH A MIN. CLEARANCE OF 0.2m

PROPOSED C.B. DATA

No.	Station	O/S	Desc.	Grate	T/Grate
CB13	0+106.5	LT	705.010	400.020	213.500
CB14	0+106.5	RT	705.010	400.020	213.250
CB15	0+124.2	RT	705.010	400.020	213.600

PROPOSED C.B. LEADS DATA

No.	Size	Type	Class	Length
CB13	200mm	PVC	DR35	2.5m
CB14	200mm	PVC	DR35	1.5m
CB15	200mm	PVC	DR35	2.5m

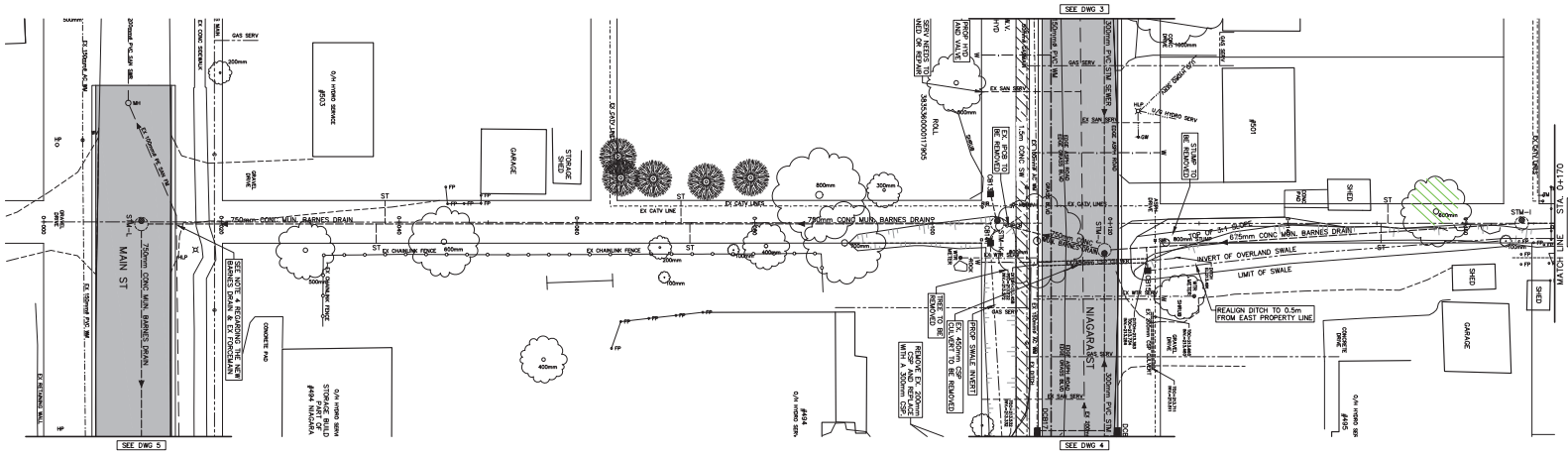
PROPOSED STORM M.H. DATA

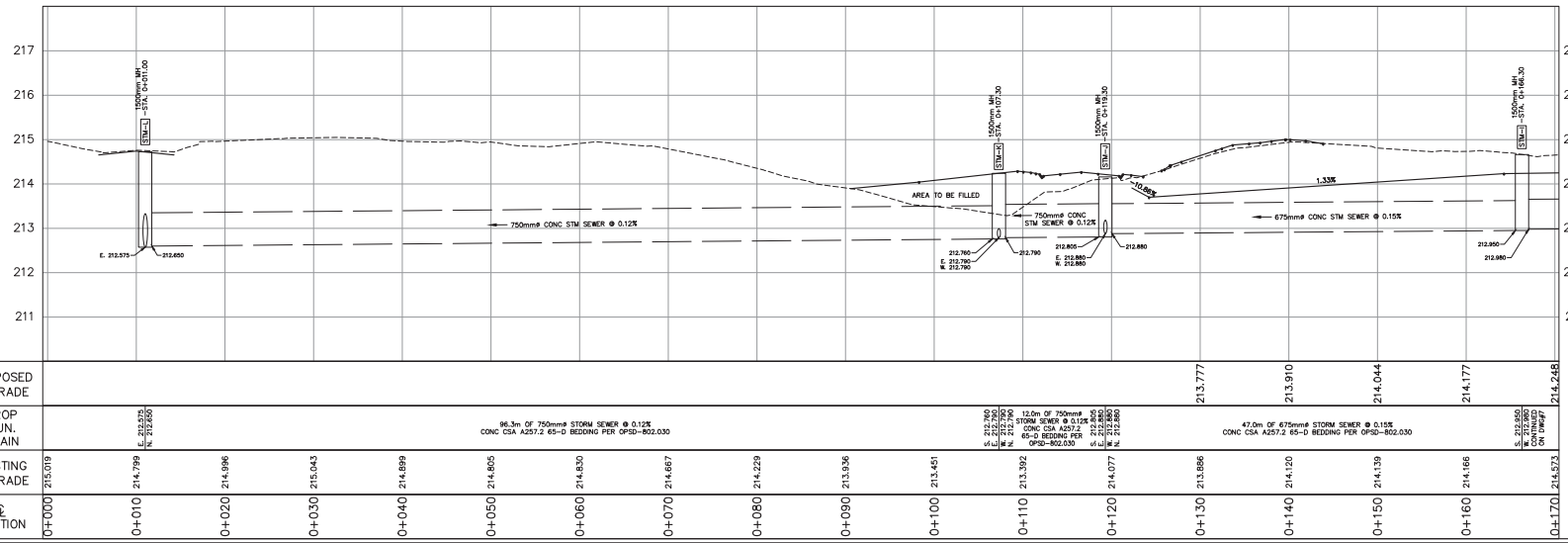
No.	Station	O/S	Desc.	Grate	T/Grate
STM–L	0+011.00	CT	701.011	401.010	214.725
STM–K	0+107.30	CT	701.011	401.010	214.230
STM–J	0+119.30	RT	701.011	401.010	214.160
STM–I	0+166.30	CT	701.011	401.010	214.660

*ALL STORM MH's TO BE BENCHED

PROPOSED STORM SEWER DATA

No. to No.	Size	Type	Class	Length
STM–L – STM–K	750mm	CONC	65–D	96.3m
STM–K – STM–J	750mm	CONC	65–D	12.0m
STM–J – STM–I	675mm	CONC	65–D	47.0m





LEGEND

SAN. or STM. — SEWERS, SANITARY or STORM
MANHOLE and CATCHBASIN
WATERMAIN — FIRE HYDRANT
GASMAIN
UNDERGROUND TELEPHONE
UNDERGROUND HYDRO
UNDERGROUND T.V. CABLE
UTILITY POLES
TREE REMOVAL AND GRUBBING
REPLACE CONCRETE SIDEWALK
REPLACE CONCRETE DRIVEWAYS
REPLACE BRICK DRIVEWAYS
PLACE HOT MIX ASPHALT (ROADS 40mm HL-3 & 50mm HL-4 HOT MIX) (DRIVEWAYS 50mm HL-3 HOT MIX MISC.)

1:50 — 1m 0 1m 2m
1:250 — 5m 0 5m 10m

N

NOTE

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BENCHMARK INFORMATION

B.M. Elev. 214.838
Top spindle of fire hydrant located in the south boulevard near Mun#494 Niagara St.

B.M. Elev. 215.549
Top spindle of fire hydrant located at the the east end of the road near Mun. #490 Niagara St.

Design By: T.G.M. Checked By: A.E.M.

LICENSED PROFESSIONAL ENGINEER — A.R. ESTRADA MORFIN — 100227084 — PROVINCE OF ONTARIO

No.	DATE	REVISION
1	FEB-24	ISSUED FOR MEETING #1
2	JUL-25	ISSUED FOR REVIEW
3	DEC-26	ISSUED FOR DRAINAGE ACT

BMROSS engineering better communities

Goderich | Mount Forest | Sarnia

The Town Of PLYMPTON-WYOMING

Town of Plympton-Wyoming (Wyoming)

Mun. Barnes Drain Replacement Municipal Easement

Plan and Profile from Sta. 0+000 to Sta. 0+170

Project No. 23245

Scale (24x36)
Horizontal : 1:250
Vertical : 1:50

Drawing No. 6 of 8

NOTES:
1. CONTRACTOR TO VERIFY THE EXACT LOCATION AND INVERT ELEVATION OF EXISTING UNDERGROUND SERVICES AND UTILITIES PRIOR TO STARTING CONSTRUCTION.
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3. ENBRIDGE WILL DEFLECT SECTIONS OF GASMAIN AND SERVICES WHERE THESE ARE IDENTIFIED TO BE IN CONFLICT WITH THE INSTALLATION OF THE BARNES DRAIN AND STORM SEWERS. WORK IS SCHEDULE TO BEGIN IN APRIL 2026 AND IS TO BE COMPLETED BY EARLY MAY 2026.

EXISTING C.B. DATA

No.	Station	O/S	Material	Info
RYCB	0+175.40	LT	HDPE	KEEP
CB-138	0+332.70	RT	HDPE	KEEP

PROPOSED C.B. DATA

No.	Station	O/S	Desc.	Grate	T/Grate
CB18	0+175.40	LT	705.010	400.020	214.600
CB19	0+373.10	LT	705.010	400.020	213.975
CB20	0+376.90	RT	705.010	400.020	214.050

PROPOSED C.B. LEADS DATA

No.	Size	Type	Class	Length
CB18	200mm	PVC	DR35	2.0m
CB19	200mm	PVC	DR35	5.0m
CB20	200mm	PVC	DR35	2.0m

EXISTING STORM M.H. DATA

No.	Station	O/S	Material	Info
CBMH-3	0+323.50	RT	CONC	KEEP
CBMH-4	0+330.50	RT	CONC	KEEP

PROPOSED STORM M.H. DATA

No.	Station	O/S	Desc.	Grate	T/Grate
STM-H	0+222.90	CT	701.011	401.010	214.360
STM-G	0+312.90	CT	701.011	401.010	214.400

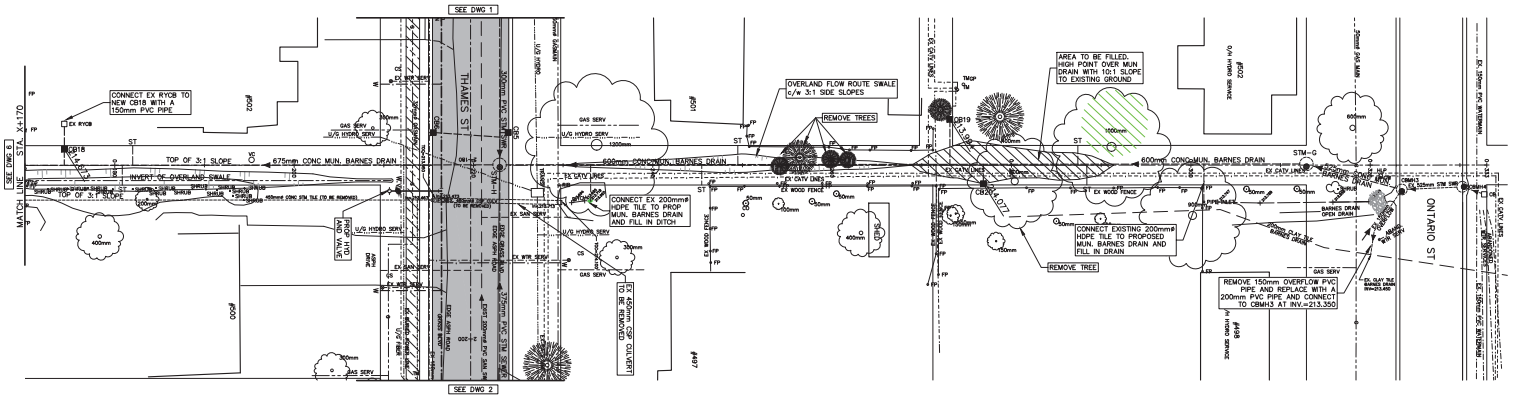
*ALL STORM MH's TO BE BENCHED

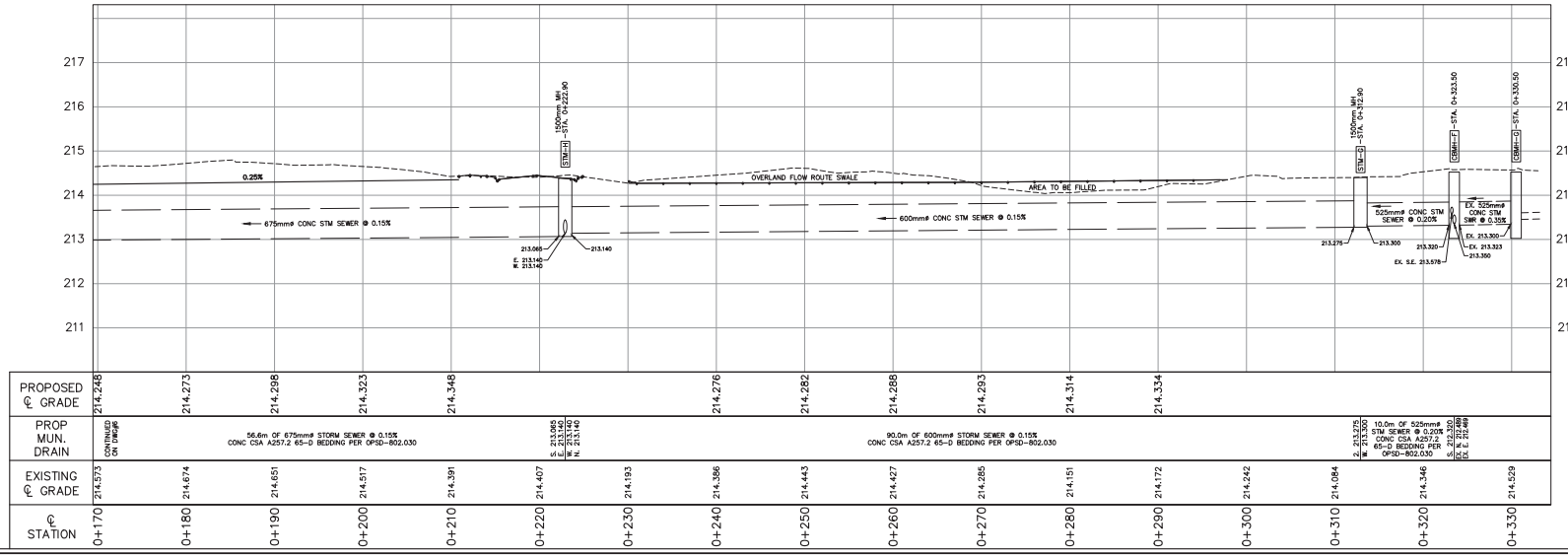
EXISTING STORM SEWER DATA

No. to No.	Size	Type	Length	Info
CBMH-3 - CBMH-4	525mm	PVC	7.0m	KEEP

PROPOSED STORM SEWER DATA

No. to No.	Size	Type	Class	Length
STM-I - STM-H	675mm	CONC	65-D	56.6m
STM-H - STM-G	600mm	CONC	65-D	90.0m
STM-G - CBMH-3	525mm	CONC	65-D	10.0m





LEGEND

SAN or STM — SEWERS, SANITARY or STORM
MANHOLE and CATCHBASIN
WATERMAIN — FIRE HYDRANT
GASMAIN
UNDERGROUND TELEPHONE
UNDERGROUND HYDRO
UNDERGROUND T.V. CABLE
UTILITY POLES
TREE REMOVAL AND GRUBBING
REPLACE CONCRETE SIDEWALK
REPLACE CONCRETE DRIVEWAYS
REPLACE BRICK DRIVEWAYS
PLACE HOT MIX ASPHALT (ROADS 40mm HL-3 & 50mm HL-4 HOT MIX) (DRIVEWAYS 50mm HL-3 HOT MIX MISC.)

1:50 — 1m 0 1m 2m
1:250 — 5m 0 5m 10m

N

NOTE

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BENCHMARK INFORMATION

B.M. Elev. 216.084
Top spindle of fire hydrant located in the south boulevard between Mun#486 and #488 Thames St.

B.M. Elev. 215.580
Top spindle of fire hydrant located in the south boulevard between Mun#494 and #496 Thames St.

Design By: T.G.M. Checked By: A.E.M.

LICENSED PROFESSIONAL ENGINEER — JAN-09-2026 — A.R. ESTRADA-MORFIN — 100221604 — PROVINCE OF ONTARIO

No.	DATE	REVISION
1	FEB-24	ISSUED FOR MEETING #1
2	JUL-25	ISSUED FOR REVIEW
3	JAN-26	ISSUED FOR DRAINAGE ACT

BM ROSS engineering better communities
Goderich | Mount Forest | Sarnia

The Town Of PLYMPTON-WYOMING

Town of Plympton-Wyoming (Wyoming)

Mun. Barnes Drain Replacement Municipal Easement

Plan and Profile from Sta. 0+170 to Sta. 0+330

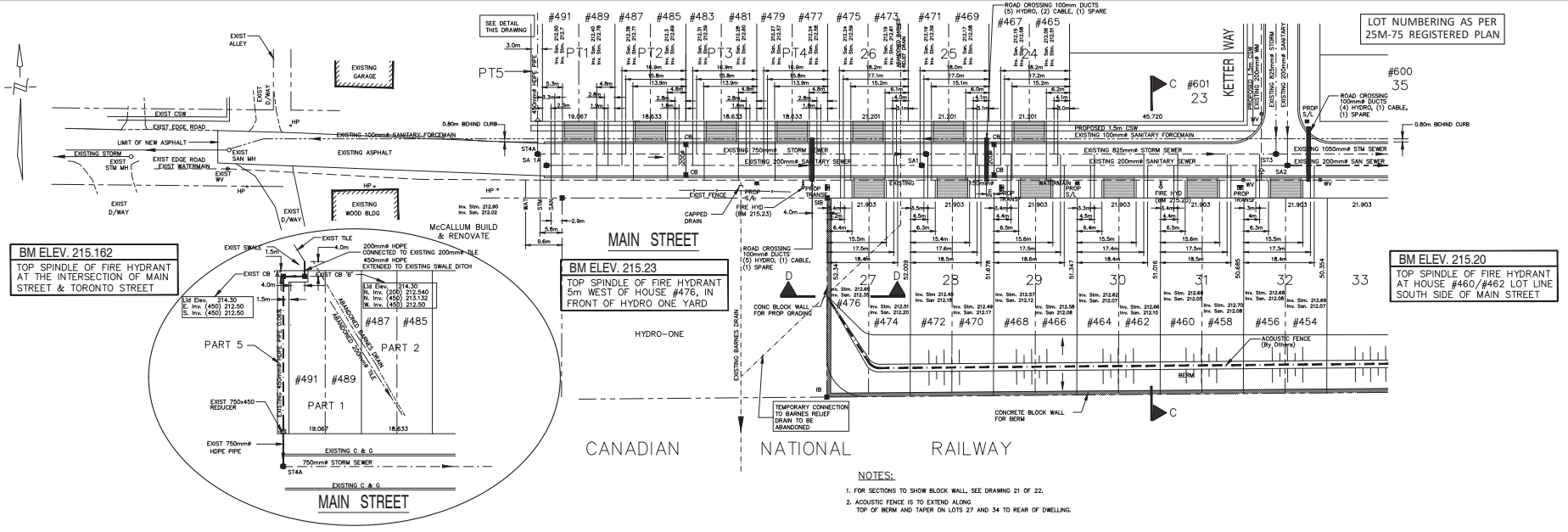
Project No. 23245

Scale (24x36)
Horizontal : 1:250
Vertical : 1:50

Drawing No. 7 of 8

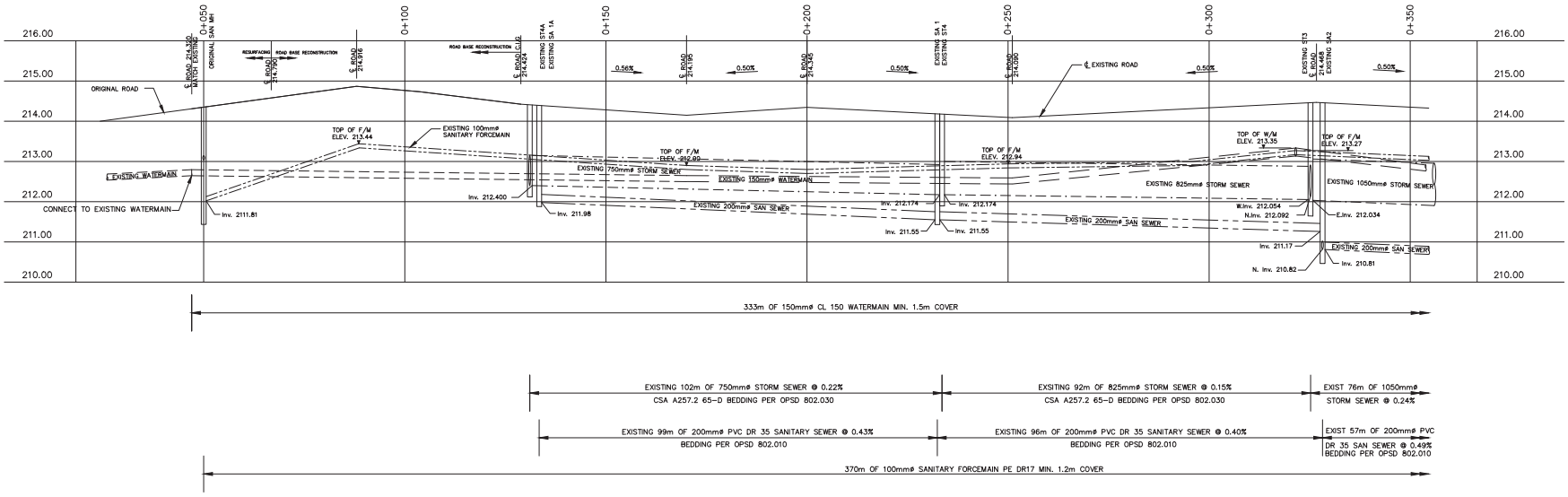
APPENDIX C

Dobbin Engineering Inc. - Radcliffe – Silver Springs – Phase 1 Drawing



NOTES:

1. FOR SECTIONS TO SHOW BLOCK WALL, SEE DRAWING 21 OF 22.
2. ACOUSTIC FENCE IS TO EXTEND ALONG TOP OF BERM AND TAPER ON LOTS 27 AND 34 TO REAR OF DWELLING.



333m OF 150mmø CL 150 WATERMAIN MIN. 1.5m COVER

EXISTING 102m OF 750mmø STORM SEWER @ 0.22% — CSA A257.2 65-D BEDDING PER OPSD 802.030

EXSISTING 92m OF 825mmø STORM SEWER @ 0.15% — CSA A257.2 65-D BEDDING PER OPSD 802.030

EXIST 76m OF 1050mmø STORM SEWER @ 0.24%

EXISTING 99m OF 200mmø PVC DR 35 SANITARY SEWER @ 0.43% — BEDDING PER OPSD 802.010

EXISTING 96m OF 200mmø PVC DR 35 SANITARY SEWER @ 0.40% — BEDDING PER OPSD 802.010

EXIST 57m OF 200mmø PVC DR 35 SAN SEWER @ 0.49% BEDDING PER OPSD 802.010

370m OF 100mmø SANITARY FORCEMAIN PE DR17 MIN. 1.2m COVER

SCALE : 1: 500
HORIZONTAL 0 5 10 15m
VERTICAL 0 1 2 3

STAMP

LICENSED PROFESSIONAL ENGINEER — May 27/20 — L.K. GRAHAM, JR. — PROVINCE OF ONTARIO

R. Dobbin Engineering Inc.

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

No.	REVISION	BY	DATE
12	RECORD DRAWING MAY 27	K.G.	MAY 2020
11	UPDATED WEST ROAD EXTENSION	K.G.	AUG 2019
10	UPDATED LOT 1 STORM DIVERSION	K.G.	AUG 2019
9	GENERAL & HYDRO UPDATES JULY 21	K.G.	JULY 2019
8	FOR CONSTRUCTION JUNE 25	K.G.	JUNE 2019
7	UPDATED LEGAL & SERVICING	K.G.	JUNE 2019
6	FOR TENDER MARCH 8	K.G.	MARCH 2019

DESIGN: R. DOBBIN
DRAWN: B. VAN RUITENBURG
CHECKED: K. GRAHAM
DATE: MAY 2011

RADCLIFFE - SILVER SPRINGS - PHASE 1

WYOMING, ONTARIO

PLAN & PROFILE OF EXISTING SERVICING ON MAIN STREET STATION 0+050 – 0+350

PROJECT NO. 2012-254

DRAWING NO: 5 OF 22

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