

BRAAKSMA DRAIN EXTENSION & BRANCH NO. 4

Town of Plympton-Wyoming



**SPRIET
ASSOCIATES**
ENGINEERS & ARCHITECTS
155 York Street
London, Ontario N6A 1A8
Tel. (519) 672-4100
Fax (519) 433-9351
Email: mail@spriet.on.ca
www.spriet.on.ca

London, Ontario
June 10, 2024

BRAAKSMA DRAIN EXTENSION & BRANCH NO. 4

Town of Plympton-Wyoming

To the Mayor and Council of
The Town of Plympton-Wyoming

Mayor and Council:

We are pleased to present our report on the extension of the Braaksma Municipal Drain and Branch No. 4 serving parts of Lots 20 to 21, Front Concession in the Town of Plympton-Wyoming.

AUTHORIZATION

This report was prepared pursuant to Section 4 of the Drainage Act. Instructions were received from your Municipality with respect to a motion of Council. The work was initiated by a petition signed by the owners whose lands contain over 60 percent of the area requiring drainage and the Road Authority.

DRAINAGE AREA

The total watershed area as described above contains approximately 18.7 hectares. The area requiring drainage for the Braaksma Drain Extension is described as the road known as Queen Street, from Bonnie Doone Road west to Lakeshore Road. The area requiring drainage for the Branch No. 4 is described as the lands located in part of Lot 20, Front Concession, owned by Saul Farms Ltd. (Roll No. 20-258) south of Queen Street.

HISTORY

The Braaksma Drain was last reconstructed pursuant to a report submitted by J. M. Spriet, P. Eng., dated September 17, 2019 and consisted of the reconstruction of the Braaksma Drain from Lake Huron west along, and parallel to, Queen Street for a total length of 1,379 lineal meters. The works also consisted of the incorporation of three branch drains. In total 2,500 lineal meters of 300mm to 1050mm diameter H.D.P.E. pipe, were constructed and/or incorporated under this report.

EXISTING DRAINAGE CONDITIONS

A site meeting was held with respect to the project and through later discussions the owners reported the following:



EXISTING DRAINAGE CONDITIONS (cont'd)

- that the landowner, Saul Farms Ltd. (Roll No. 20-258), indicated that his lands were serviced by a private drain crossing Queen Street and connected to the Braaksma Drain and are petitioning for a legal and sufficient outlet for their lands
- that the Road Authority for the Town of Plympton-Wyoming indicated that the intersection of Queen Street and Bonnie Doone Road is currently serviced by a private drain connected to the Braaksma Drain and they would like a legal outlet for this portion of Queen Street
- that the Drainage Superintendent indicated that they had recently flushed the private drain due to complaints of standing water at the intersection and found this drain was in poor condition
- that the landowner, Saul Farms Ltd. (Roll No. 20-624-01), inquired as to the possibility of extending the drain to his lands located north of the intersection as they are currently serviced by a private tile connected to the above existing private drain

A field investigation and survey were completed. Upon reviewing our findings we note the following:

- that the private drain currently servicing the lands south of Queen Street is undersized
- that the intersection of Queen Street and Bonnie Doone Road are serviced by a private tile of unknown size which is connected to the Braaksma Drain. Further lands and roads tributary to this intersection are currently not assessed into the drain and should be assessed
- that the Queen Street road allowance on the north side of the paved road is congested with utilities prohibiting the construction of any drain in the road allowance

Preliminary design, cost estimates, and assessments were prepared and informal public meetings were held to review the findings and preliminary proposals. Further input and requests were provided by the affected owners at that time and at later dates. Based on the proposed design it was decided to proceed with the petitions.

DESIGN CONSIDERATIONS

The Drainage Coefficient method contained in the "DRAINAGE GUIDE FOR ONTARIO", Publication 29 by the Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA) is typically used to design municipal drains. The Drainage Coefficient defines a depth of water that can be removed in a 24-hour period and is expressed in millimetres per 24 hours. The coefficient used to design this drain with respect to capacity was 38mm per 24 hrs.

We would like to point out that there have been no indications of any adverse soil conditions. It should be noted that no formal soil investigation has been made, with this information being provided by the owners.

DESIGN CONSIDERATIONS (cont'd)

The proposed design and report have been generally completed using the "GUIDE FOR ENGINEERS WORKING UNDER THE DRAINAGE ACT IN ONTARIO" OMAFRA Publication 852.

RECOMMENDATIONS

We are therefore recommending the following:

- that the Braaksma Drain be extended easterly as a closed drain through the lands of Southside Property Management (Roll No. 20-620) to the east side of the Bonnie Doone Road allowance for a total length of 108 meters
- that the Branch Drain, to be referred to as Branch No. 4, be constructed from the Main Drain within the lands of Southside Property Management (Roll No. 20-620) south across Queen Street to just within the lands of Saul Farms Ltd. (Roll No. 20-258) for a total length of 30 meters
- that both road crossings on the Extension and Branch be constructed by open cut due to the presence of numerous utilities in the area
- that catchbasins be installed along the course of the drain to alleviate surface flows and ponding
- that lands and roads east of Bonnie Doone Road be assessed into the Braaksma Drain in accordance with the previous report

ENVIRONMENTAL CONSIDERATIONS AND MITIGATION MEASURES

There are no significant wetlands or sensitive areas within the affected watershed area or along the route of the drains. The proposed construction of the Braaksma Drain Extension and Branch 4 includes surface inlets which greatly help reduce the overland surface flows and any subsequent erosion. A temporary flow check of silt fencing is to be installed in the ditch downstream of the tile outlet for the duration of the construction.

SUMMARY OF PROPOSED WORK

The proposed work consists of approximately 138 lineal meters of 200mm (8") to 375mm (15") diameter tile and HDPE sewer pipe, including related appurtenances.

SCHEDULES

Four schedules are attached hereto and form part of this report, being Schedule 'A' - Allowances, Schedule 'B' - Cost Estimate, Schedule 'C' - Assessment for Construction, and Schedule 'D' - Assessment for Maintenance.

Schedule 'A' - Allowances. In accordance with Sections 29 and 30 of the Drainage Act, allowances are provided for right-of-way and damages to lands and crops along the route of the drain as defined below.



SCHEDULES (cont'd)

Schedule 'B' - Cost Estimate. This schedule provides for a detailed cost estimate of the proposed work which is in the amount of \$77,300.00. This estimate includes engineering and administrative costs associated with this project.

Schedule 'C' - Assessment for Construction. This schedule outlines the distribution of the total estimated cost of construction over the roads and lands which are involved.

Schedule 'D' - Assessment for Maintenance. In accordance with Section 38 of the Drainage Act, this schedule outlines the distribution of future repair and/or maintenance costs for portions of, or the entire drainage works.

Drawing No. 1, Job No. 222207, and specifications form part of this report. They show and describe in detail the location and extent of the work to be done and the lands which are affected.

ALLOWANCES

DAMAGES: Section 30 of the Drainage Act provides for the compensation to landowners along the drain for damages to lands and crops caused by the construction of the drain. The amount granted is based on \$3,613.00/ha. for closed drain installed with wheel machine. This base rate is multiplied by the hectares derived from the working widths shown on the plans and the applicable lengths.

RIGHT-OF-WAY Section 29 of the Drainage Act provides for an allowance to the owners whose land must be used for the construction, repair, or future maintenance of a drainage works.

For tile drains where the owners will be able to continue to use the land, the allowance provides for the right to enter upon such lands, and at various times for the purpose of inspecting such drain, removing obstructions, and making repairs. Also, the allowance provides for the restrictions imposed on those lands to protect the right-of-way from obstruction or derogation. The amount granted for right-of-way on tile drains is based on a percentage of the value of the land designated for future maintenance. Therefore, the amount granted is based on \$6,670.00/ha. through cropped lands. This value is multiplied by the hectares derived from the width granted for future maintenance and the applicable lengths.

ASSESSMENT DEFINITIONS

In accordance with the Drainage Act, lands that make use of a drainage works are liable for assessment for part of the cost of constructing and maintaining the system. These liabilities are known as benefit, outlet liability and special benefit liability as set out under Sections 22, 23, 24 and 26 of the Act.

BENEFIT as defined in the Drainage Act means the advantages to any lands, roads, buildings or other structures from the construction, improvement, repair, or maintenance of a drainage works such as will result in a higher market value, increased crop production, improved appearance, better control of surface or sub-surface water, or any other advantages relating to the betterment of lands, roads, buildings, or other structures.



ASSESSMENT DEFINITIONS (cont'd)

OUTLET liability is assessed to lands or roads that may make use of a drainage works as an outlet either directly or indirectly through the medium of any other drainage works or of a swale, ravine, creek, or watercourse.

In addition, a Public Utility or Road Authority shall be assessed for and pay all the increased cost to a drainage works due to the construction and operation of the Public Utility or Road Authority. This may be shown as either benefit or special assessment.

ASSESSMENT

A modified "Todgham Method" was used to calculate the assessments shown on Schedule 'C'- Assessment for Construction. This entailed breaking down the costs of the drain into sections along its route. Special Assessments were then extracted from each section.

The remainder is then separated into Benefit and Outlet costs. The Benefit cost is distributed to those properties receiving benefit as defined under "Assessment Definitions", with such properties usually being located along or close to the route of the drain. The Outlet Costs are distributed to all properties within the watershed area of that section on an adjusted basis. The areas are adjusted for location along that section, and relative run-off rates. Due to their different relative run-off rates roads have been assessed for outlet at higher rates than cleared farmlands.

The actual cost of the work involving this report, with the exception of Special Assessments, is to be assessed on a pro-rata basis against the lands and roads liable for assessment for benefit, outlet, and for special assessments as shown in detail below and on Schedule 'C' - Assessment for Construction. The Special Assessments shall be levied as noted in the Section "Special Assessment".

Furthermore, the following lands and roads shall be Assessed a buy-in charge in accordance with Section 65(3) of the Act as they now outlet into the Braaksma Drain. They shall be assessed the following:

Queen Street	\$ 210.00
Bonnie Doone Road	\$1,790.00
J. & L. Gryner (Roll No. 20-618-01)	\$1,350.00
Saul Farms Ltd. (Roll No. 20-624-01)	\$ 900.00

SPECIAL ASSESSMENT

In accordance with Section 26 of the Drainage Act, Special Assessments have been made against the Town of Plympton-Wyoming being the increased cost to the drainage work for installing HDPE pipe across their road allowance on the Main Drain and Branch No. 4, due to the construction and operation of Bonnie Doone Road and Queen Street. The Special Assessment shall be made up of the actual cost of this work and both the final and estimated values of the Special Assessment are to be calculated as follows:



SPECIAL ASSESSMENT (cont'd)

Main Drain	Cost of Work	Less Equivalent Drain Cost (Fixed)	Plus Administration Cost	Plus Interest & Net H.S.T.	Special Assessment
Bonnie Doone Road 250mm diameter	\$15,500.00	\$1,360.00	\$2,250.00	\$410.00	\$16,800.00
Branch 4 Queen Street 375mm diameter	\$16,000.00	\$1,360.00	\$3,250.00	\$450.00	\$18,340.00

The above special assessments shall not apply for future maintenance purposes.

If any additional work is required to the drainage works due to the existence of buried utilities such as gas pipelines, communications cables, etc. or if any of the utilities require relocation or repair then the extra costs incurred shall be borne by the utility involved in accordance with the provisions of Section 26 of the Drainage Act.

GRANTS

In accordance with the provisions of Section 85 of the Drainage Act, a grant **may** be available for assessments against privately owned parcels of land which are used for agricultural purposes and eligible for the Farm Property Class Tax rate. Section 88 of the Drainage Act directs the Municipality to make application for this grant upon certification of completion of this drain. The Municipality will then deduct the grant from the assessments prior to collecting the final assessments.

MAINTENANCE

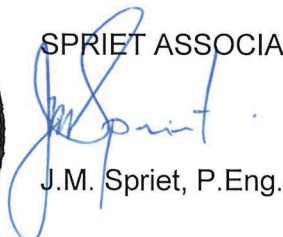
Upon completion of construction, all owners are hereby made aware of Sections 80 and 82 of the Drainage Act which forbid the obstruction of or damage or injury to a municipal drain.

After completion the Braaksma Drain shall be maintained by the Town of Plympton-Wyoming at the expense of all upstream lands and roads assessed in Schedule 'D' - Assessment for Maintenance and in the same relative proportions until such time as the assessment is changed under the Drainage Act.

Special Assessments shall **not** be pro-rated for future maintenance purposes.

Respectfully submitted,

SPRIET ASSOCIATES LONDON LIMITED



J.M. Spriet, P.Eng.



JMS:bv

SCHEDULE 'A' - ALLOWANCES

BRAAKSMA DRAIN EXTENSION & BRANCH No. 4**Town of Plympton-Wyoming**

In accordance with Sections 29 and 30 of the Drainage Act, we determine the allowances payable to owners entitled thereto as follows:

<u>CONCESSION</u>	<u>LOT</u>	<u>ROLL NUMBER (Owner)</u>	<u>Section 29 Right-of-Way</u>	<u>Section 30 Damages</u>	<u>TOTALS</u>
MAIN DRAIN					
Front	Pt. 21	20-618-01 (J. & L. Gryner)	\$ 40.00	\$ 30.00	\$ 70.00
Front	Pt. 21	20-620 (Southside Property Management)	510.00	410.00	920.00
Total Allowances			\$ 550.00	\$ 440.00	\$ 990.00
TOTAL ALLOWANCES ON THE MAIN DRAIN					\$ 990.00
BRANCH No. 4					
Front	Pt. 20	20-258 (Saul Farms Ltd)	\$ 40.00	\$ 30.00	\$ 70.00
Front	Pt. 21	20-620 (Southside Property Management)	30.00	20.00	50.00
Total Allowances			\$ 70.00	\$ 50.00	\$ 120.00
TOTAL ALLOWANCES ON THE BRANCH No. 4					\$ 120.00
TOTAL ALLOWANCES ON THE BRAAKSMA DRAIN EXTENSION & BRANCH No. 4					\$ 1,110.00

BRAAKSMA DRAIN EXTENSION & BRANCH No. 4**Town of Plympton-Wyoming**

We have made an estimate of the cost of the proposed work which is outlined in detail as follows:

MAIN DRAIN EXTENSION

Installation of the following H.D.P.E. pipe, including supply and installation of bedding and backfill materials

92 meters of 250mm dia. H.D.P.E. pipe	\$	5,500.00
Supply of the above listed pipe	\$	2,800.00
16 meters of 250mm dia. H.D.P.E. pipe		
Supply	\$	500.00
Installation under Bonnie Doone Road by open cut	\$	7,500.00
Restoration of Asphalt Surface with 40mm - HL3	\$	7,500.00
Supply and install one 600mm x 600mm standard catchbasin including ditching, grate and removal of existing	\$	2,500.00
Exposing and locating existing tile drains and utilities	\$	2,000.00
Tile connections and contingencies	\$	1,600.00
Allowances under Sections 29 & 30 of the Drainage Act	\$	990.00

BRANCH No. 4

Installation of the following H.D.P.E. pipe, including supply and installation of bedding and backfill materials

15 meters of 375mm dia. H.D.P.E. pipe	\$	900.00
Supply of the above listed pipe	\$	1,000.00
15 meters of 375mm dia. H.D.P.E. pipe		
Supply	\$	1,000.00
Installation under Queen Street by open cut	\$	7,500.00
Restoration of Asphalt Surface with 40mm - HL3	\$	7,500.00
Supply and install two 600mm x 600mm ditch inlet catchbasin including ditching, grate and any required prefabricated fittings	\$	5,000.00
Exposing and locating existing tile drains and utilities	\$	2,000.00
Tile connections and contingencies	\$	1,400.00
Allowances under Sections 29 & 30 of the Drainage Act	\$	120.00

SCHEDULE 'B' - COST ESTIMATE (cont'd)

**BRAAKSMA DRAIN EXTENSION & BRANCH No. 4
Town of Plympton-Wyoming****ADMINISTRATION**

Interest and Net Harmonized Sales Tax	\$ 2,930.00
Survey, Plan and Final Report	\$ 11,900.00
Expenses	\$ 1,190.00
Supervision and Final Inspection	\$ <u>3,970.00</u>
TOTAL ESTIMATED COST	\$ <u>77,300.00</u>

SCHEDULE 'C' - ASSESSMENT FOR CONSTRUCTION

BRAAKSMA DRAIN EXTENSION & BRANCH No. 4

Town of Plympton-Wyoming

Job No. 222207

June 10, 2024

* = *Non-agricultural*

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	BENEFIT	OUTLET	TOTAL
MAIN DRAIN EXTENSION						
Front	Pt. 21	1.20	20-624-01 (Saul Farms Ltd)	\$	\$ 2,283.00	\$ 2,283.00
Front	Pt. 21	0.90	20-618-01 (J. & L. Gryner)	1,950.00	3,425.00	5,375.00
Front	Pt. 21	0.01	20-620 (Southside Property Management)	3,230.00		3,230.00
TOTAL ASSESSMENT ON LANDS				\$ 5,180.00	\$ 5,708.00	\$ 10,888.00
Bonnie Doone Road	0.34		Town of Plympton-Wyoming	\$ 2,990.00	\$ 4,529.00	\$ 7,519.00
Queen Street	0.04		Town of Plympton-Wyoming	7,990.00	533.00	8,523.00
TOTAL ASSESSMENT ON ROADS				\$ 10,980.00	\$ 5,062.00	\$ 16,042.00
SPECIAL ASSESSMENT against the Town of Plympton-Wyoming for the increased cost of installing 250mm dia. H.D.P.E. pipe across Bonnie Doone Road by open cut						\$ 16,800.00
TOTAL ASSESSMENT ON THE MAIN DRAIN EXTENSION						\$ 43,730.00
BRANCH No. 4						
Front	Pt. 20	15.90	20-258 (Saul Farms Ltd)	\$	\$ 5,996.00	\$ 5,996.00
TOTAL ASSESSMENT ON LANDS				\$	\$ 5,996.00	\$ 5,996.00
Queen Street	0.30		Town of Plympton-Wyoming	\$ 8,810.00	\$ 424.00	\$ 9,234.00
TOTAL ASSESSMENT ON ROADS				\$ 8,810.00	\$ 424.00	\$ 9,234.00
SPECIAL ASSESSMENT against the Town of Plympton-Wyoming for the increased cost of installing 200mm dia. H.D.P.E. pipe across Queen Street by open cut						\$ 18,340.00
TOTAL ASSESSMENT ON THE BRANCH No. 4						\$ 33,570.00
TOTAL ASSESSMENT ON THE BRAAKSMA DRAIN EXTENSION & BRANCH No. 4						\$ 77,300.00

SCHEDULE 'D' - ASSESSMENT FOR MAINTENANCE

BRAAKSMA DRAIN EXTENSION & BRANCH No. 4

Town of Plympton-Wyoming

Job No. 222207

June 10, 2024

CON.	LOT	HECTARES AFFECTED	ROLL No. (OWNER)	PERCENTAGE OF MAINTENANCE COST
MAIN DRAIN EXTENSION				
Front	Pt. 21	1.2	20-624-01 (Saul Farms Ltd)	8.5 %
Front	Pt. 21	0.9	20-618-01 (J. & L. Gryner)	20.0
Front	Pt. 21	0.0	20-620 (Southside Property Management)	12.0
				=====
TOTAL ASSESSMENT ON LANDS				40.5 %
				=====
Bonnie Doone Road		0.3	Town of Plympton-Wyoming	27.9 %
Queen Street		0.0	Town of Plympton-Wyoming	31.6 %
				=====
TOTAL ASSESSMENT ON ROADS				59.5 %
				=====
TOTAL ASSESSMENT FOR MAINTENANCE ON THE MAIN DRAIN				<u>100.0 %</u>
BRANCH No. 4				
Front	Pt. 20	15.9	20-258 (Saul Farms Ltd)	22.7 %
				=====
TOTAL ASSESSMENT ON LANDS				22.7 %
				=====
Queen Street		0.3	Town of Plympton-Wyoming	77.3 %
				=====
TOTAL ASSESSMENT ON ROADS				77.3 %
				=====
TOTAL ASSESSMENT FOR MAINTENANCE ON THE MAIN DRAIN				<u>100.0 %</u>

SCHEDULE OF NET ASSESSMENT

BRAAKSMA DRAIN EXTENSION & BRANCH No. 4

Town of Plympton-Wyoming

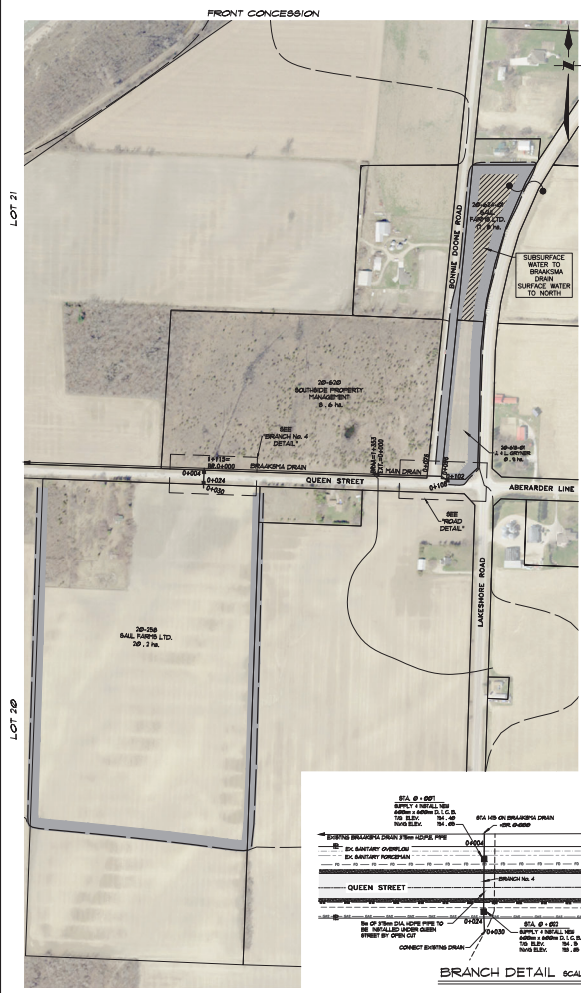
(FOR INFORMATION PURPOSES ONLY)

Job No. 222207

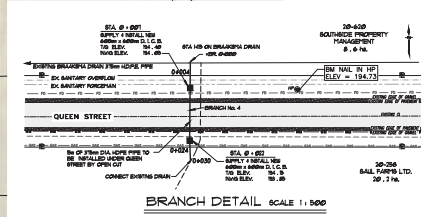
June 10, 2024

* = Non-agricultural

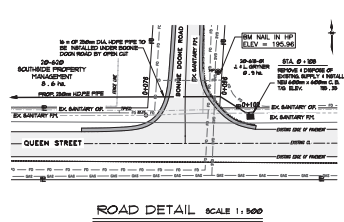
ROLL NUMBER (OWNER)	TOTAL ASSESSMENT	GRANT	ALLOWANCES	APPROX. NET
20-624-01 (Saul Farms Ltd)	\$ 2,283.00	\$ 761.00	\$	\$ 1,522.00
Buy in to Ex. Braaksma Drain Section 65(3)	900.00			900.00
20-618-01 (J. & L. Gryner)	5,375.00	1,792.00	70.00	3,513.00
Buy in to Ex. Braaksma Drain Section 65(3)	1,350.00			1,350.00
20-620 (Southside Property Management)	3,230.00		970.00	2,260.00
20-258 (Saul Farms Ltd)	5,996.00	1,999.00	70.00	3,927.00
* Bonnie Doone Road	\$ 7,519.00		\$	\$ 7,519.00
* Special Assessment	16,800.00			16,800.00
Buy in to Ex. Braaksma Drain Section 65(3)	1,790.00			1,790.00
* Queen Street	17,757.00			17,757.00
* Special Assessment	18,340.00			18,340.00
Buy in to Ex. Braaksma Drain Section 65(3)	210.00			210.00
TOTALS	\$ 81,550.00	\$ 4,552.00	\$ 1,110.00	\$ 75,888.00



WATERSHED PLAN SCALE 1:2,500



BRANCH DETAIL SCALE 1:500



ROAD DETAIL SCALE 1:500

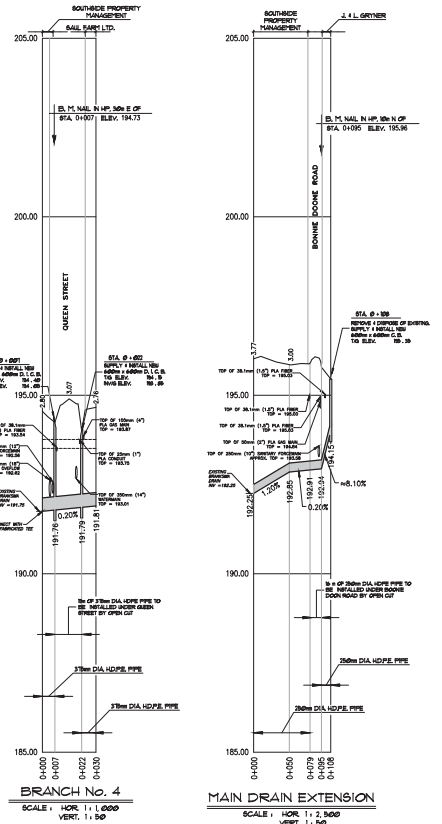
PLAN LEGEND

- PROPOSED DRAINAGE AREA
- IMPROVED DRAINAGE AREA
- IMPROVED OR EXISTING WATERWAY
- EXISTING MAJOR DRAINAGE WATERWAY
- EXISTING MINOR DRAINAGE WATERWAY
- EXISTING OR PROPOSED OPEN CUT
- EXISTING OR PROPOSED ROAD
- EXISTING OR PROPOSED PROPERTY BOUNDARY
- EXISTING OR PROPOSED ASBERARDER LINE

- ROAD OPEN CUT CROSSINGS NOTES**
- 1/ MARK ALL EDGES
 - 2/ ROAD SURFACE TO BE RECORDED WITH 30mm of H.L.4
 - 3/ ROAD BASE SHALL CONSIST OF FINISH OF 30mm GRANULAR 'A' AND FINISH OF 30mm OF GRANULAR 'B'
 - 4/ ONE LANE OF TRAFFIC AT ALL TIMES IN ACCORDANCE WITH BOOK 1
 - 5/ CONTRACTOR TO GIVE ROAD SUPERINTENDENT 48 HOUR NOTICE BEFORE OPEN CUT BEGINS

GENERAL NOTES

- IF OUR SPECIFICATIONS DATED JANUARY 2009 APPLY TO THIS PROJECT:
- 1/ THE DRAINAGE AREA AVAILABLE TO THE CONTRACTOR TO CONSTRUCT THE BRAAKSMA DRAIN SHALL CONSIST OF THOSE LOTS IMMEDIATELY ADJACENT TO THE DRAIN AND CONNECTIONS AND SHALL NOT EXCEED THE FOLLOWING APPROXIMATE SIZES:
 - a) 2 lots
 - b) 3 lots
 - c) 4 lots
 - 2/ ALL OWNERS ALONG THE COURSE OF THE DRAIN SHALL MAKE AN ACCESS ROUTE FROM THE DRAINAGE ROAD TO THE DRAIN LOCATION AVAILABLE TO THE CONTRACTOR TO THE SURFACE OF THIS ROUTE SHALL NOT EXCEED 8 METERS. THE ACCESS ROUTE SHALL ALSO APPLY TO THE EXISTING ROAD FOR PURPOSES OF THESE MAINTENANCE SHALL BE 2M.
 - 3/ ALL UTILITIES TO BE LOCATED AND EXPOSED PRIOR TO CONSTRUCTION SO THAT THE NEW TILE GRABES CAN BE COMPARED. IF THERE IS A CONFLICT IN ELEVATION BETWEEN THE PROPOSED DRAIN AND THE UTILITY, THE ENGINEER TO BE NOTIFIED IMMEDIATELY.
 - 4/ CONTRACTOR TO NOTIFY ALL UTILITIES 7 HOURS PRIOR TO HIS SCHEDULED TIME FOR STARTING THE ABOVE WORK.
 - 5/ THE COST FOR THIS WORK SHALL BE INCLUDED IN THE BIDDING ON THE BASIS OF WORK AND NO EXTRA PAYMENT SHALL BE MADE TO THE CONTRACTOR, EXCEPT IF ROAD RECONSTRUCTION IS REQUIRED.
 - 6/ ALL TRENCHES, BODIES, BRUNS, ETC. TO BE CLEARED AND GRABBED IN ACCORDANCE WITH SECTION 8.1 AND C.1 IN THE SPECIFICATIONS.
 - 7/ REP-IMP TO BE APPLIED AND INSTALLED IN ACCORDANCE WITH SECTION 8.1 IN THE SPECIFICATIONS.
 - 8/ CONTRACTOR TO ARRANGE A PRE-CONSTRUCTION MEETING WITH THE ENGINEER, DRAINAGE SUPERINTENDENT AND THE AFFECTED OWNERS. ALL PARTIES SHALL RECEIVE 48 HOURS NOTICE TO THE MEETING.
- CLOSED PORTIONS**
- 1/ ALL CONCRETE AND PLASTIC TILE AND PIPE TO CONFORM TO SECTION C.1 IN THE SPECIFICATIONS.
 - 2/ ALL CONCRETE AND PLASTIC TILE AND PIPE TO BE UNWRAPPED WITH GEOTEXTILE IN ACCORDANCE WITH SECTION C.1 IN THE SPECIFICATIONS.
 - 3/ NO CONSTRUCTION EQUIPMENT OR MATERIAL SHALL CROSS OVER THE FORMERLY BACKFILLED TRENCH UNLESS APPROVED BY THE ENGINEER.
 - 4/ ALL TRENCHES SHALL BE PROTECTED WITH APPROVED SAFETY BARRIERS AND SIGNAGE. ALL TRENCHES SHALL BE PROTECTED WITH APPROVED SAFETY BARRIERS AND SIGNAGE. ALL TRENCHES SHALL BE PROTECTED WITH APPROVED SAFETY BARRIERS AND SIGNAGE.
 - 5/ ALL TRENCHES SHALL BE PROTECTED WITH APPROVED SAFETY BARRIERS AND SIGNAGE. ALL TRENCHES SHALL BE PROTECTED WITH APPROVED SAFETY BARRIERS AND SIGNAGE.
 - 6/ ALL TRENCHES SHALL BE PROTECTED WITH APPROVED SAFETY BARRIERS AND SIGNAGE. ALL TRENCHES SHALL BE PROTECTED WITH APPROVED SAFETY BARRIERS AND SIGNAGE.
 - 7/ ALL TRENCHES SHALL BE PROTECTED WITH APPROVED SAFETY BARRIERS AND SIGNAGE. ALL TRENCHES SHALL BE PROTECTED WITH APPROVED SAFETY BARRIERS AND SIGNAGE.
 - 8/ ALL TRENCHES SHALL BE PROTECTED WITH APPROVED SAFETY BARRIERS AND SIGNAGE. ALL TRENCHES SHALL BE PROTECTED WITH APPROVED SAFETY BARRIERS AND SIGNAGE.



BRANCH No. 4 SCALE: HORIZ. 1:1,000 VERT. 1:50
MAIN DRAIN EXTENSION SCALE: HORIZ. 1:2,500 VERT. 1:50

BRAAKSMA DRAIN EXTENSION & BRANCH No. 4
Town of Plympton-Wyoming

Drainage Superintendent: ELIZABETH CUTTING
515-845-2555

NO.	REVISIONS	DATE

Drawn By: J.M. Filed By: J.M. JOB NO: 2222-01
 Date: 10/20/2024 GPM 1 of 1
 PLAN, PROFILES, DETAILS 4 NOTED

SPRIET ASSOCIATES LIMITED
CONSULTING ENGINEERS
1000 10th Street, Suite 100, Lethbridge, Alberta T1J 1P2, Canada