

BROOKS DRAIN

Maintenance Schedule

Geographic Township of Colchester South



TOWN OF ESSEX
33 Talbot Street South
ESSEX, Ontario N8M 1A8
519-776-7336

Rood Engineering Inc.

Consulting Engineers

9 Nelson Street

Leamington, Ontario N8H 1G6

519-322-1621

Project REI2020D026

2021-12-21

December 21st, 2021

Mayor and Municipal Council
Corporation of the Town of Essex
33 Talbot Street South
Essex, Ontario
N8M 1A8

Mayor Snively and Members of Council:

BROOKS DRAIN
Updated Maintenance Schedule of Assessment
Geographic Township of Colchester South
Project RE12020D026
Town of Essex, County of Essex

I. INTRODUCTION

In accordance with the instructions received from you by letter of September 28th, 2020, from your Clerk, Legal and Legislative Services, Robert Auger, we have proceeded with an Engineer's Report to review the existing drainage works and the drainage area served by the Brooks Drain. This investigation was initiated by a resolution passed by Council to prepare a new maintenance schedule report including the variation of the assessment on the Brooks Drain so that the cost of future maintenance works on this drain may be more fairly assessed. The Brooks Drain runs along the west side of Drummond Road north of the 4th Concession Road with 8 culverts crossing over it. The drain continues across the 4th Concession Road at Bridge 9, then turns east going along the south side of the 4th Concession Road across the south part of Drummond Road at Bridge 10 and past Bridge 11 to a point just west of the midpoint of Lot 6, Concession 3. The Branch of Brooks Drain then extends southerly from the drain to a point just north of the 3rd Concession Road. This investigation, our instructions, and this maintenance schedule report are in accordance with Section 76 of the "Drainage Act, R.S.O. 1990, Chapter D.17, as amended 2010".

The Town of Essex is proposing to undertake maintenance work on the Brooks Drain. Land boundary and drainage changes, new owners, and updated provisions for bridge maintenance cost sharing have arisen, such that a variation of the current Schedule of Assessment is necessary in order to properly distribute the cost of maintenance on this drain to all affected landowners. This variation in assessment establishes a Maintenance Schedule of Assessment which shall provide a basis for levying any future maintenance costs for work to both the open drain and the

bridges. Bridge cost sharing will be established and outlined in the report for use in establishing assessment of the costs when conducting future maintenance to an access bridge.

II. DRAINAGE HISTORY

The Brooks Drain is located within the Town of Essex. The drainage basin served by the Brooks Drain consists of approximately 155.237 hectares (383.60 acres). The Brooks Drain runs along the west side of Drummond Road north of the 4th Concession Road to the Long Marsh Drain with 8 culverts crossing over it, along with extension to the east of Drummond Road along the south side of the 4th Concession Road. At the upper east end of the Brooks Drain, the 1948 drainage report by C.G.R. Armstrong provided for the Branch of Brooks Drain that extends southerly from the 4th Concession Road to its head approximately 5 metres north of the 3rd Concession Road. The Gore Little Drain and Branch of Brooks Drain flow into the Brooks Drain from south of the 4th Concession Road.

A review of the Town drainage records indicates that the last major work of repair and improvement to the Brooks Drain was completed under the Engineer's Report dated May 25th, 1990 as prepared by Nick J. Peralta, P.Eng., and the Engineer's Report dated May 17th, 1968 report by C.G.R. Armstrong, P.Eng. consisting of repair and improvement to the Brooks Drain. The 1990 report provided allowances to the affected Owners for damages to lands and crops and included provisions for improvements to the drain, including excavation of the open portions, upgrades to the existing bridge culverts, and ancillary work. No further works of repair and improvement of the drain by way of an Engineer's Report have been completed since the 1990 report. A bridge report was prepared by Nick Peralta dated October 30th, 1998 for the Ennis parcel.

III. INVESTIGATIONS, ON-SITE MEETING AND FINDINGS

After reviewing all of the available drainage information and documentation provided by the Drainage Superintendent, we arranged with Town staff to schedule an on-site meeting for October 19th, 2020. The following people were in attendance at said meeting: Mike Munger, Felix Weigt-Bienzle (Drainage Board), Percy Dufour (Drainage Board), Tanya Tuzlova (Drainage Clerk), Lindsay Dean (Drainage Superintendent), and Gerard Rood (Rood Engineering).

Introductions were done by Lindsay Dean, and she outlined that the purpose of the on-site meeting was to explain that the Town needs to carry out maintenance on the drain. From the Town review of the existing drainage report it appears that the necessary work to improve the drain would unfairly assess the affected lands due to severances, lot changes, missing lots, and lack of proper sharing for bridge work, and accordingly the Town has appointed the Engineer to

prepare an updated Maintenance Schedule of Assessment for the maintenance work that is to be completed.

In response to an owner question about the scheduling of the work, Lindsay responded that this would be governed by the requests that are received and the time required for completion of the drainage report and processing of same pursuant to the Drainage Act. She noted that this could take several months to complete.

The report will address any subdividing of lands that have occurred, pursuant to Section 65, and the report will proceed with variation of assessments as per Section 76 of the of the "Drainage Act R.S.O. 1990, Chapter D.17, as amended 2010". Several participants asked about how fees are calculated. Mr. Rood explained how drainage assessments are established pursuant to the Drainage Act. This information is included in **Appendix "REI-D"** of this report as outlined in the Ontario Ministry of Agricultural, Food and Rural Affairs (O.M.A.F.R.A.) Factsheet "Understanding Drainage Assessments".

The report will provide an updated Maintenance Schedule of Assessment along with provisions for sharing cost of work to access bridges along the course of the drainage system. Assessment for maintenance work depends on where the work is done and who is involved, generally being the adjacent and upstream landowners. The assessment for access bridges is not broken out in the old report and the old schedule therefore does not follow the current practice of cost sharing. The current practice is that work to bridges would be a recurring cost for the upkeep and maintenance of each of the structures shared between the bridge owner and upstream lands including roads where affected.

Any required work to the drain will be carried out as a maintenance project and not a capital project. The owners were advised that public meetings will be scheduled and notices for same will be sent out, along with a copy of the Drainage Report and updated Maintenance Schedule of Assessment. The owners were also told that they may contact either the Drainage Superintendent or the Engineer, if any questions arise in the interim.

Based on our investigations and the information obtained at the on-site meeting, we have established the following. The Town appears to be satisfied that maintenance work to the Brooks Drain can be completed using the current drainage report plans and specifications. To properly assess the cost of any maintenance works completed, the Town requires an updated Maintenance Schedule of Assessment to fairly allocate the costs to the affected lands and roads, accounting for the changes in ownership and parcels that have occurred since the last drainage report, and information on cost sharing of work needed to any bridges.

IV. RECOMMENDATIONS

In order to properly assess any maintenance works to the Brooks Drain it will be necessary to vary the Schedule of Assessment dated May 25th, 1990, within the current governing Engineer's Report prepared by Nick J. Peralta, P.Eng. We recommend that the current Maintenance Schedule of Assessment be varied and same has been prepared and provided within this report.

In order to establish the new Schedule of Assessment for the Brooks Drain, a value of \$10,000.00 has been utilized as a basis for the future cost sharing of maintenance works. This amount was distributed amongst the lands and roads affected within the watershed. The amount utilized in the Maintenance Schedule of Assessment does not authorize expenditure of this amount but only provides an arbitrary value for the purpose of establishing a relative distribution of cost amongst the property owners and roads affected by the maintenance work based on the actual costs of the maintenance works.

Furthermore, in order that a mechanism exists by which the Town can undertake maintenance works on the existing access bridges, we recommend that the attached schedule be utilized. We would also recommend that the access bridges presently found in the drain, for which the maintenance costs are to be shared with the upstream lands and roads within the watershed, be maintained by the Town and that said maintenance would include works to the bridge culvert, bedding, backfill and end treatment. When concrete or asphalt driveway surfaces over these bridge culverts require removal as part of the maintenance works, these surfaces shall be repaired or replaced as part of the work. Likewise, if any fencing, gate, decorative walls, guard rails or special features exist that will be impacted by the maintenance work, they are also to be removed and restored or replaced as part of the bridge maintenance work. However, the cost of the supply and installation of any surface material other than granular "A" material, and the cost of the removal and restoration or replacement, if necessary, of any special features, shall be totally assessed to the benefiting adjoining owner served by said access bridge.

We would also recommend that all engineering costs and expenses related to the preparation, distribution, and consideration of this report be included as an expense to the drainage works and that the estimated value of \$19,800.00 is to be assessed in the same proportions as set out in the new Maintenance Schedule of Assessment for the Brooks Drain, attached herein.

V. DRAWINGS

Also attached to this report and included in **Appendix "REI-E"**, are drawings which consists of a plan showing the Brooks Drain, key plan, and lists of names with roll numbers. They illustrate the location of the drain, the location of all existing access bridge structures along the drain, the

names of the affected landowners, as well as the approximate limit of the watershed for the Brooks Drain.

VI. ASSESSMENT SCHEDULE AND MAINTENANCE WORKS

We have prepared a Maintenance Schedule of Assessment to be utilized for assessing costs against the affected lands and roads for any future maintenance works conducted to the Brooks Drain and same has been attached herein. The assessment proportions as outlined within the Maintenance Schedule of Assessment has been established on the basis of an assumed future maintenance cost of \$10,000.00, and it should be understood that the maintenance charges outlined in the attached Maintenance Schedule of Assessment should not be made until such time that maintenance works have been conducted and expended. Therefore, for the purposes of future maintenance on the entire length of the drain, all costs shall be levied against the lands and roads within the watershed in accordance with the attached Maintenance Schedule of Assessment. The physical dimensions which control the extent of maintenance works permitted on this drain shall be limited to that which has been set out in the May 25th, 1990 report, specifications, and plans prepared by Nick J. Peralta, P.Eng., and the previous May 17th, 1968 report by C.G.R. Armstrong, P.Eng., or any subsequent bridge reports and current regulations that are applicable.

When any works of maintenance are required to the existing access bridges, the following provisions with respect to cost sharing shall apply as set out in the Table below. In said table the bridge class has been noted as: “G” - grantable assessment for qualified affected parcels and “NG” - non-grantable assessment.

BROOKS DRAIN BRIDGE COST SHARING

| <u>Plan ID No.</u> | <u>Bridge No.</u> | <u>Roll No.</u> | <u>Owners</u> | <u>Class</u> | <u>% to Abutting Owners</u> | <u>% to Upstream Owners</u> |
|--------------------|-------------------|---------------------|--|--------------|-----------------------------|-----------------------------|
| | 9 | 4th Concession Road | Town of Essex | NG | 98.0% | 2.0% |
| 1. | 1 | 740-01800 | Dorothy Esnault | NG | 36.5% | 63.5% |
| 2. | 2 | 740-01900 | Carl Wilson | NG | 37.6% | 62.4% |
| 3. | 3 | 740-02100 | Ethelda Wilson, Melissa & Nathanael Morgan | NG | 39.6% | 60.4% |

Report – Brooks Drain
Updated Maintenance Schedule
Town of Essex - REI2020D026

2021-12-21

| | | | | | | |
|-----|----|------------------|------------------------|----|-------|-------|
| 4. | 4 | 740-02200 | Ellwood Wilson | NG | 42.0% | 58.0% |
| 5. | 5 | 740-02201 | Steven Ennis | NG | 44.0% | 56.0% |
| 6. | 6 | 740-02202 | Anthony & Helena Ennis | NG | 48.3% | 51.7% |
| 7. | 7 | 740-02203 | David & Susan Ennis | NG | 47.4% | 52.6% |
| 8. | 8 | 740-02204 | Timothy Ennis | NG | 49.0% | 51.0% |
| | 10 | Drummond Road | Town of Essex | NG | 98.0% | 2.0% |
| 24. | 11 | 780-05600 | Paul & Kata Cipkar | G | 56.2% | 43.8% |

Should any works or maintenance be required to the existing access bridges, the cost will be shared as noted in the above table based on maintaining the existing bridge top width. The share indicated for the Owner shall be assessed as a Benefit to the bridge Owner and the remaining cost share shall be assessed as an Outlet Liability against the lands and roads within the watershed lying upstream of said access bridge and shall be assessed in the same proportions as the Outlet assessments shown in the Maintenance Schedule of Assessment established and included herein. Pursuant to Section 26 of the Drainage Act, the Road Authority is responsible for all increase in cost to the drainage works due to the existence of their roadway. This requirement has been reflected in the above Table related to sharing of future maintenance costs for the access bridges. This provision shall apply to the 4th Concession Road and Drummond Road crossings for the Town of Essex.

Where a bridge structure has increased top width beyond the standard 6.10 metre (20.0 ft.) top width, all of the increased costs resulting from same are assessed 100% to the Owner as provided for in the cost sharing set out in the Bridge Cost Sharing Table above. We recommend that the bridge structures as identified herein, be maintained in the future as part of the drainage works. We would also recommend that the bridges, for which the maintenance costs are to be shared with the upstream lands and roads within the watershed, be maintained by the Town and that said maintenance would include works to the bridge culvert, bedding, backfill and end treatment. Should concrete, asphalt, or other decorative driveway surfaces over these bridge culverts require removal as part of the maintenance works, these surfaces shall also be repaired or replaced as part of the works. Likewise, if any fencing, gate, decorative walls, guardrails, or other special features exist that will be impacted by the maintenance work, they are also to be removed and restored or replaced as part of the bridge maintenance work. However, the cost of the supply and installation of any surface materials other than Granular "A" material and the cost of removal

and restoration or replacement, if necessary, of any special features, shall be totally assessed to the benefiting adjoining Owner(s) served by said access bridge.

Should an owner request a wider top width during bridge maintenance, we recommend that the tender document include special items. To assist with accurately assessing the future maintenance costs, we recommend that the tender for the works include the following items:

- a) An item for the cost to repair and improve the standard 6.1 metre top width of the bridge including all backfill and end treatment costs and increasing the pipe size to the next available size to allow for embedment to 10% of the pipe height where necessary
- b) An item for the cost to provide any extra length of pipe including extra backfill material costs and installation costs for the additional length
- c) An item for the cost of removing and reinstalling or replacing any special features

Item a) costs shall be shared on the basis shown in the table above and shared as outlined above. Items b) and c) shall be assessed to the Owner(s) of the parcel served by the access bridge with no cost sharing to the upstream lands and roads.

The Maintenance Schedule of Assessment included herein has been developed on the basis of an estimated cost of \$10,000.00. The actual cost of maintenance work on the drain shall be assessed against the lands and roads in the same relative proportions as shown therein, subject to any future variations that may be made under the authority of the "Drainage Act R.S.O. 1990, Chapter D.17, as amended 2010".

VII. GRANTS

On September 22nd, 2005, the Ontario Ministry of Agriculture, Food and Rural Affairs (O.M.A.F.R.A.) issued Administrative Policies for the Agricultural Drainage Infrastructure Program (A.D.I.P.). This program has re-instated financial assistance for eligible costs of construction and maintenance to assessed lands pursuant to the Drainage Act. Sections 85 to 90 of the Drainage Act allow the Minister to provide grants for various activities under said Act. Sections 85 to 87 make it very clear that grants are provided at the discretion of the Minister. Based on the current A.D.I.P. Policies, "lands used for agricultural purposes" may be eligible for a grant in the amount of 1/3 of their total assessment. The new policies define "lands used for agricultural purposes" as those lands eligible for the "Farm Property Class Tax Rate". The Municipal Clerk has provided this information to the Engineer from the current property tax roll. Properties that meet the criteria for "lands used for agricultural purposes" are shown in the attached assessment schedule under the heading "**5. PRIVATELY OWNED AGRICULTURAL LANDS (grantable)**" and are expected to be eligible for the 1/3 grant from O.M.A.F.R.A. for any assessments that are made for future maintenance works that are conducted on the drain or bridges. It should be noted that the costs

Report – Brooks Drain
Updated Maintenance Schedule
Town of Essex - REI2020D026

2021-12-21

for preparation of this drainage report under Section 76 of the Drainage Act is not eligible for grants pursuant to the Drainage Act.

We recommend that an application for grants be made by the Town of Essex, on completion of any maintenance work, to the Ontario Ministry of Agriculture, Food and Rural Affairs (O.M.A.F.R.A.) in accordance with Section 88 of the "Drainage Act R.S.O. 1990, Chapter D.17, as amended 2010", for the available grants.

The above provisions for the future maintenance of any access bridge outlined within this report, and any future replacement, repair, and improvement of any access bridge, and for drain maintenance, shall remain as aforesaid until otherwise determined under the provisions of the "Drainage Act, R.S.O. 1990, Chapter D.17 as amended 2010".

All of which is respectfully submitted.

Rood Engineering Inc.



Gerard Rood, P.Eng.

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att.

Rood Engineering Inc.

Consulting Engineers

9 Nelson Street

LEAMINGTON, Ontario N8H 1G6



MAINTENANCE SCHEDULE OF ASSESSMENT

BROOKS DRAIN

Town of Essex

3. MUNICIPAL LANDS:

| Tax Roll No. | Con. or Plan No. | Lot or Part of Lot | Acres Owned | Acres Afft'd | Hectares Afft'd | Owner's Name | Value of Benefit | Value of Outlet | Value of Special Benefit | TOTAL VALUE |
|--------------------------------------|------------------|---------------------|-------------|--------------|-----------------|---------------|--------------------|--------------------|--------------------------|--------------------|
| | | Drummond Road | | 7.70 | 3.115 | Town of Essex | \$ 605.00 | \$ 632.00 | \$ - | \$ 1,237.00 |
| | | 4th Concession Road | | 5.20 | 2.103 | Town of Essex | \$ 408.00 | \$ 506.00 | \$ - | \$ 914.00 |
| | | 3rd Concession Road | | 1.17 | 0.473 | Town of Essex | \$ 92.00 | \$ 102.00 | \$ - | \$ 194.00 |
| Total on Municipal Lands..... | | | | | | | \$ 1,105.00 | \$ 1,240.00 | \$ - | \$ 2,345.00 |

4. PRIVATELY OWNED - NON-AGRICULTURAL LANDS:

| Tax Roll No. | Con. or Plan No. | Lot or Part of Lot | Acres Owned | Acres Afft'd | Hectares Afft'd | Owner's Name | Value of Benefit | Value of Outlet | Value of Special Benefit | TOTAL VALUE |
|--------------|------------------|--------------------|-------------|--------------|-----------------|--|------------------|-----------------|--------------------------|-------------|
| 740-01800 | 4 | 5 | 2.56 | 0.30 | 0.121 | Dorothy Esnault | \$ 12.00 | \$ 7.00 | \$ - | \$ 19.00 |
| 740-01900 | 4 | 5 | 1.26 | 0.30 | 0.121 | Carl Wilson | \$ 12.00 | \$ 9.00 | \$ - | \$ 21.00 |
| 740-02100 | 4 | 5 | 7.67 | 3.47 | 1.404 | Ethelda Wilson, Melissa & Nathanael Morgan | \$ 136.00 | \$ 48.00 | \$ - | \$ 184.00 |
| 740-02200 | 4 | 5 | 3.32 | 3.32 | 1.344 | Ellwood Wilson | \$ 130.00 | \$ 76.00 | \$ - | \$ 206.00 |
| 740-02201 | 4 | 5 | 3.34 | 3.34 | 1.352 | Steven Ennis | \$ 131.00 | \$ 81.00 | \$ - | \$ 212.00 |
| 740-02202 | 4 | 5 | 2.22 | 2.22 | 0.898 | Anthony & Helena Ennis | \$ 87.00 | \$ 64.00 | \$ - | \$ 151.00 |
| 740-02203 | 4 | 5 | 1.76 | 1.76 | 0.712 | David & Susan Ennis | \$ 69.00 | \$ 61.00 | \$ - | \$ 130.00 |
| 740-02204 | 4 | 5 | 1.24 | 1.24 | 0.502 | Timothy Ennis | \$ 49.00 | \$ 48.00 | \$ - | \$ 97.00 |
| 740-02300 | 4 | 5 | 2.49 | 2.49 | 1.008 | Timothy Ennis | \$ 98.00 | \$ 82.00 | \$ - | \$ 180.00 |
| 740-02302 | 4 | 5 | 1.48 | 1.48 | 0.599 | Daniel Boivin | \$ 58.00 | \$ 60.00 | \$ - | \$ 118.00 |
| 740-02400 | 4 | 5 | 4.98 | 4.98 | 2.015 | Michael Quedzuweit & Kelly Parent | \$ 196.00 | \$ 125.00 | \$ - | \$ 321.00 |

| Tax Roll No. | Con. or Plan No. | Lot or Part of Lot | Acres Owned | Acres Afft'd | Hectares Afft'd | Owner's Name | Value of Benefit | Value of Outlet | Value of Special Benefit | TOTAL VALUE |
|---|------------------|--------------------|-------------|--------------|-----------------|------------------------|--------------------|------------------|--------------------------|--------------------|
| 740-03200 | 3 | 5 | 1.76 | 1.76 | 0.712 | Janet & Michael Munger | \$ 69.00 | \$ 94.00 | \$ - | \$ 163.00 |
| 740-03290 | 3 | 5 | 1.50 | 1.50 | 0.607 | Brenda Munger | \$ 59.00 | \$ 76.00 | \$ - | \$ 135.00 |
| 740-03500 | 3 | 5 | 0.22 | 0.22 | 0.089 | Richard Miskovsky | \$ - | \$ 15.00 | \$ - | \$ 15.00 |
| 780-01300 | 3 | 6 | 1.00 | 1.00 | 0.405 | Donald & Hazel Baylis | \$ - | \$ 46.00 | \$ - | \$ 46.00 |
| 780-01400 | 3 | 6 | 1.00 | 1.00 | 0.405 | Janet Crosby | \$ - | \$ 46.00 | \$ - | \$ 46.00 |
| 780-05700 | 3 | 6 | 1.02 | 1.02 | 0.413 | Randall Gignac | \$ 40.00 | \$ 55.00 | \$ - | \$ 95.00 |
| Total on Privately Owned - Non-Agricultural Lands..... | | | | | | | \$ 1,146.00 | \$ 993.00 | \$ - | \$ 2,139.00 |

5. PRIVATELY OWNED - AGRICULTURAL LANDS (grantable):

| Tax Roll No. | Con. or Plan No. | Lot or Part of Lot | Acres Owned | Acres Afft'd | Hectares Afft'd | Owner's Name | Value of Benefit | Value of Outlet | Value of Special Benefit | TOTAL VALUE |
|---|------------------|--------------------|-------------|---------------|-----------------|------------------------------------|--------------------|--------------------|--------------------------|---------------------|
| 740-03202 | 3 | 5 | 42.73 | 42.73 | 17.293 | Salter Farms Limited | \$ 336.00 | \$ 895.00 | \$ - | \$ 1,231.00 |
| 740-03300 | 3 | 5 | 47.42 | 47.42 | 19.191 | George Salter | \$ 373.00 | \$ 840.00 | \$ - | \$ 1,213.00 |
| 740-03400 | 3 | 5 | 20.29 | 20.29 | 8.211 | Kata Cipkar | \$ - | \$ 322.00 | \$ - | \$ 322.00 |
| 740-03600 | 3 | 5 | 29.87 | 29.87 | 12.088 | Richard & Anne Miskovsky | \$ - | \$ 474.00 | \$ - | \$ 474.00 |
| 740-03700 | 3 | 5 | 50.30 | 50.30 | 20.356 | Stephen Zavaros | \$ - | \$ 974.00 | \$ - | \$ 974.00 |
| 780-01200 | 3 | 6 | 17.80 | 17.80 | 7.204 | Marllon & Heather Baylis | \$ - | \$ 332.00 | \$ - | \$ 332.00 |
| 780-01500 | 3 | 6 | 19.64 | 19.64 | 7.948 | Matthew Hennin & Christina Bezaire | \$ 154.00 | \$ 333.00 | \$ - | \$ 487.00 |
| 780-05600 | 3 | 6 | 18.52 | 18.52 | 7.495 | Kata Cipkar | \$ 146.00 | \$ 337.00 | \$ - | \$ 483.00 |
| Total on Privately Owned - Agricultural Lands (grantable)..... | | | | | | | \$ 1,009.00 | \$ 4,507.00 | \$ - | \$ 5,516.00 |
| TOTAL ASSESSMENT | | | | 292.03 | 118.18 | | \$ 3,260.00 | \$ 6,740.00 | \$ - | \$ 10,000.00 |

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1 Hectare = 2.471 Acres
Project No. REI2020D026
December 21st, 2021

APPENDIX "REI-D"

**Ontario**Ministry of Agriculture,
Food and Rural Affairs**AGRICULTURAL
ENGINEERING**

UNDERSTANDING DRAINAGE ASSESSMENTS

Agriculture and Rural Division
(Reprinted March 1997)

The *Drainage Act* provides a legal procedure by which an "area requiring drainage" may have an outlet drain constructed to dispose of excess water.

The drainage work is initiated by interested individuals within an "area requiring drainage" who will benefit from the construction of the drain. A petition form, obtained from the municipal clerk, is signed by interested landowners. In order to be valid or sufficient, the petition must be signed by the majority of the owners in the "area requiring drainage" or by owners that represent at least 60% of the lands in this area. The "area requiring drainage" is usually described by lot and concession, or other legal land description. By taking this action, it is presumed that the owners signing the petition have made a decision that the drain will be of benefit to them and that the probable cost will be lower than the anticipated benefits. The initial benefit-cost decision is made at this point by the landowners, not the engineer or Council.

The petition is presented to and considered by Council. If the petition represents a proper "area requiring drainage", that is a real drainage basin, and appears to be valid, the Council may decide to proceed. Council then notifies each of the petitioners of this decision as well as any other municipality affected and the local Conservation Authority and the Ministry of Natural Resources.

Council then appoints an engineer. The engineer is an employee of Council, hired to design this specific drain. Under *The Drainage Act*, Section 9(2), the engineer is required to hold an on-site meeting to determine (1) the area requiring drainage, (2) if the petition is valid, (3) the drainage needs of the area. The engineer is then required "to make an examination of the area requiring drainage as described in the petition and to prepare a report which shall include:

- (a) plans, profiles and specifications of the drainage works;
- (b) a description of the area requiring drainage;
- (c) an estimate of the total cost thereof;
- (d) an assessment of the amount or proportion of the cost of the works to be assessed against every parcel of land and road for benefit, outlet liability and injuring liability;

- (e) allowances, if any, to be paid to the owners of land affected by the drainage works and
- (f) such other matters as are provided for under this Act."

The engineer's report is presented to Council, who then notifies all persons assessed and calls a special meeting where the report is considered. General objections to the report may be raised at this time. At this meeting signatures may be added or removed from the petition and this determines if the project will continue. Unresolved problems, depending on the subject, may be appealed to the Court of Revision, the Ontario Drainage Tribunal or the Drainage Referee. Details on appeal procedures may be found in *The Drainage Act** or in Ontario Ministry of Agriculture, Food and Rural Affairs Factsheet, Drainage Legislation.

The engineer's report includes two important items:

1. The estimated cost of the work — No matter how individual assessments are arrived at, this total estimated cost must always be equal to the total amount assessed, otherwise the work cannot proceed.
2. The assessment liability — This may be spread over several pages if an owner owns several parcels of land and if there are branch drains. It may be summarized.

Let us examine the obligations regarding this assessment.

RESPONSIBILITIES UNDER COMMON LAW

A natural watercourse is defined generally as a stream of water which flows along a defined channel, with bed and banks, for a sufficient time to give it substantial existence. This may include streams that dry up periodically.

**The Drainage Act may be found in the Revised Statutes of Ontario 1980, Chapter 126, available in most public libraries. Individual copies may be purchased from the Ontario Government Bookstore, 1-800-668-9938.*

A riparian landowner (owner of lands that abut upon a natural watercourse) has the right to drain his or her lands into the natural stream, but may not bring water in from another watershed. He or she can collect water in ditches and drains and discharge it into the watercourse even though it results in an increase in volume and rate of flow.

Where a natural watercourse becomes a part of a drain, it is no longer a natural watercourse. When this occurs, the riparian rights, as described earlier, are lost.

Surface water not flowing in a natural watercourse (i.e. not having discernible bed and banks) has no right of drainage. An owner of lower land may, at his or her own choice, either allow the water from higher land to flow over it or by dams or banks, keep such water off his or her property. No owner has the right to collect such surface water by ditches or drains and discharge it on lands of another. He or she has a responsibility to take this water to a sufficient outlet, i.e., a natural watercourse or a drain constructed under *The Drainage Act*.

Since there is no right to drain surface water, the owner of each parcel of land in the watershed is generally assessed for "outlet liability". In other words, his or her Common Law liability is removed by paying for the increased size or cost of the drain due to the volume of water which is discharged from his or her property, even though the drain may not provide a direct outlet for this water. The authority for this liability is set out in Section 23(1).

Since, through Common Law, a landowner is also liable for any damage he or she may cause from water which he or she collects in drains and discharges on other land without a sufficient outlet, he or she may be assessed for relief from such "injuring liability" if the new drain serves as an outlet for his or her drains and prevents this injury from occurring. The authority for this liability is set out in Section 23(2).

Injuring liability is frequently difficult to distinguish from outlet liability, consequently many engineers' reports do not contain such an item.

The assessment for outlet liability and injuring liability is based on the volume and rate of flow of the water artificially caused to flow from an owner's property. Generally, the assessment is based upon a unit value per hectare. Owners at higher elevations on a watershed may have a higher unit charge than those owners near the outlet since the water from their land makes use of a greater length of drain. A difference may be made in the unit outlet charge due to varying types of soil or land use, or the distance to the drain.

RESPONSIBILITY UNDER THE DRAINAGE ACT

In addition to the Common Law responsibility, an owner may also be assessed for benefit.

Benefit will vary between different lands, according to their differences of elevation, quantity of water to be drained from each, distance of undrained land from the course of the proposed ditch, and the presence or absence of existing drains, and other like factors.

To consider whether a parcel of land will receive any benefit from the construction, it is proper to consider whether any enhanced financial value will accrue to it as a result of the drain construction. This may occur through the increased productive power of the land or by rendering it more salable and at a better price, or by preventing water from entering on to it.

If the proposed drainage works can be of no possible benefit to the owner, or is of no commercial or agricultural value, the Act does not authorize a contribution for benefit.

Sometimes, an owner has an undeveloped area that he or she intends to leave in this condition. The owner may feel that he or she should not be assessed since the drain will be of no benefit. However, the property could change hands and the new owner might want to drain and develop it. It is with this in mind that the engineer must make an assessment, regardless of the present owner's intentions.

It is the duty of the engineer to determine whether or not a parcel of land will benefit from the project. When appealing a benefit assessment, the landowner must prove that the land does not benefit from the drain.

An owner has no responsibility for work done upstream from his or her property unless the work provides a benefit by "cutting off" a harmful flow of water across the property.

In some instances, a "special benefit assessment" may be levied against the property. This value usually represents the difference in cost between that which was originally designed and the increased level of design requested by a landowner. Examples include a closed or tile drain where open ditches would ordinarily suffice, or the construction of ponds beside the drain, or other special requests by a landowner specifically for this benefit. The authority for this liability is set out in Section 24.

ENGINEER'S REPORT

The Engineer's report should contain a plan and profile of the drain, as well as details on the drain design and the assessment schedule.

The plan shows the location of drains and the limits of the watershed. The profile shows ground elevations along the drain and the present and proposed drain bottom. The specifications give details on how the drain is to be constructed.

The Schedule of Assessment contains several columns. The first group contains the names of owners with a description of each parcel of land assessed.

The hectarage shown in the schedule for which an owner is assessed is only approximate. No survey is made to accurately establish the watershed boundary or farm areas. Any minor error in hectarage assessed is not a valid basis for appeal nor does it greatly affect the assessment. The other columns in the Schedule set forth the assessment liability for each drain and/or branch drain. These values are only estimates. The final value will not be known until the construction work is finished. The assessment will then be prorated to recover the actual cost.

Allowances to lands injured by the work are set out in a separate schedule by the engineer as authorized in Sections 29 to 33 of *The Drainage Act*.

Damage to crops during construction and disposal of waste material will vary depending on the time of year that the work is constructed. Crop damage due to spreading the spoil on the banks is based on a decreasing yearly loss of crop over several years. All or part of the cost of access bridges from a public road to the property may be assessed to the property owner.

Farm bridges are constructed as a part of the work. In certain circumstances a severance allowance may be paid instead of building the bridge. The allowance will depend upon the value of the land severed, or the cost of the bridge that would be required. The cost, or part of the cost of farm bridges or the severance allowance may be assessed across the property.

Where private drains are incorporated into the new drain, a nominal allowance may be paid based on any saving that may result from using the private drain. These allowances may not be included in the Summary of Assessments but are usually shown in a separate Schedule of Allowances.

RELEVANT OMAFRA FACTSHEETS

Drainage Legislation.

This Factsheet was authored by **Sid Vander Veen**, P.Eng., Resources Management Branch.

POD

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APPENDIX "REI-E"

WATERSHED PLAN

OF THE
BROOKS DRAIN

(Geographic Township of Colchester South)

IN THE
TOWN OF ESSEX

IN THE
COUNTY OF ESSEX • ONTARIO

Gerard Rod
GERARD ROD, P.ENG.



**ROOD
ENGINEERING
INC.**

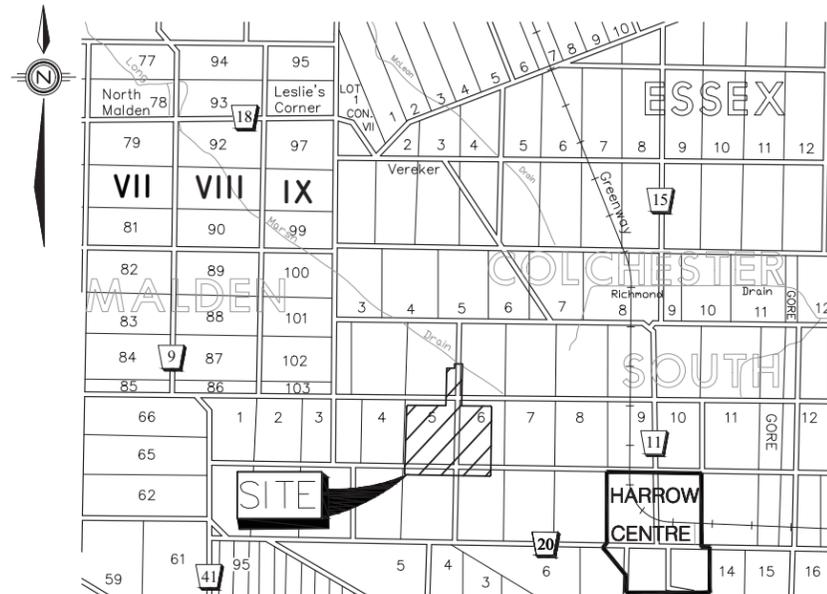
CONSULTING ENGINEERS
Leamington, Ontario
519-322-1621

TOWN OF ESSEX
MAYOR: Larry Snively
CLERK: Robert Auger
DRAINAGE SUPERINTENDENT: Lindsay Dean, B.Sc.

BENCHMARKS:

- TOP CENTERLINE WEST CURB BRIDGE OVER LONG MARSH DRAIN AT DRUMMOND ROAD.
ELEV. = 187.255m
- TOP OF FH NUT, LOCATED APPROXIMATELY 30 METRES WEST OF MN 3280 HOUSE, EAST OF DRUMMOND ROAD.
ELEV. = 188.127m

DATE: December 21st, 2021

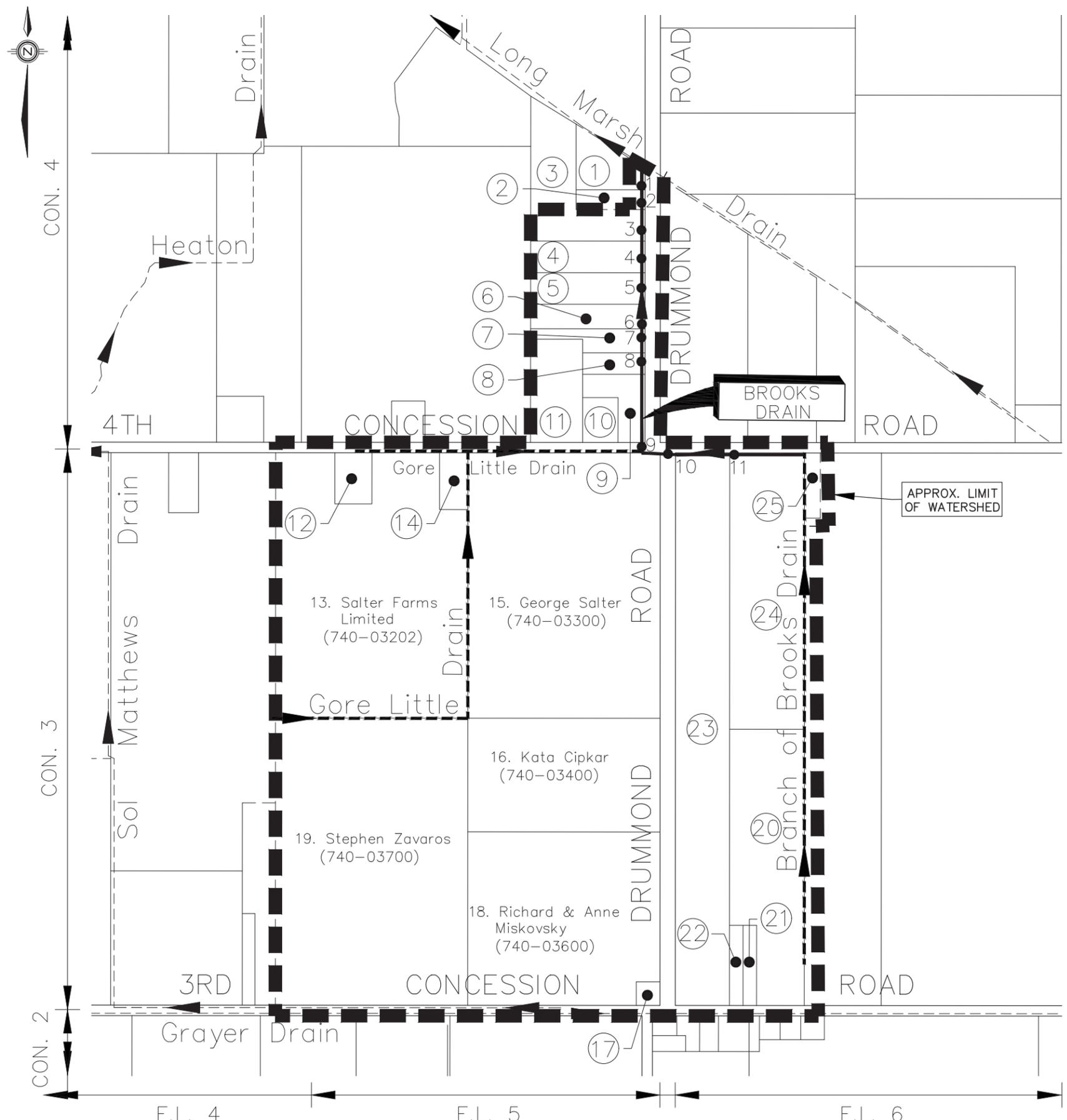


KEY PLAN

Scale = 1:40,000

ROLL INFORMATION:

| No. | Roll No. | Owner/s |
|-----|-----------|--|
| 1 | 740-01800 | Dorothy Esnault (MN 4111) |
| 2 | 740-01900 | Carl Wilson (MN 4105) |
| 3 | 740-02100 | Ethelda Wilson, Melissa & Nathanael Morgan (MN 4093) |
| 4 | 740-02200 | Ellwood Wilson (MN 4075) |
| 5 | 740-02201 | Steven Ennis (MN 4059) |
| 6 | 740-02202 | Anthony & Helena Ennis (MN 4047) |
| 7 | 740-02203 | David & Susan Ennis (MN 4037) |
| 8 | 740-02204 | Timothy Ennis |
| 9 | 740-02300 | Timothy Ennis |
| 10 | 740-02302 | Daniel Boivin (MN 4290) |
| 11 | 740-02400 | Michael Quedzuweit & Kelly Parent (MN 4268) |
| 12 | 740-03200 | Janet & Michael Munger (MN 4231) |
| 14 | 740-03290 | Brenda Munger (MN 4241) |
| 17 | 740-03500 | Richard Miskovsky |
| 20 | 780-01200 | Marllon & Heather Baylis (MN 3310) |
| 21 | 780-01300 | Donald & Hazel Baylis MN (3306) |
| 22 | 780-01400 | Janet Crosby (MN 3304) |
| 23 | 780-01500 | Matthew Hennin & Christina Bezaire (MN 3280) |
| 24 | 780-05600 | Kata Cipkar |
| 25 | 780-05700 | Randall Gignac |



●1 BRIDGE LOCATION ID

WATERSHED PLAN

Scale = 1:4000

THESE PLANS HAVE BEEN REDUCED AND THE SCALE THEREFORE VARIES. FULL SCALE PLANS MAY BE VIEWED AT THE MUNICIPAL OFFICE.