ENGINEERING REPORT

for the

GLENNY DRAIN 2017

Town of Fort Erie

(Geographic Townships of Bertie and Willoughby)

Region of Niagara

Date: November 17, 2017

File No. 05-182

SMART ASSOCIATES LIMITED
Kitchener Sudbury

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GLENNY DRAIN 2017

Town of Fort Erie

1.0 EXECUTIVE SUMMARY

This is a drainage report pursuant to Section 78 of the Drainage Act, RSO 1990. It is in accordance with a Town of Fort Erie By-Law 180-05/resolution dated October 11, 2005, appointing K. Smart Associates Limited to update the existing Engineer's Report (including repairs and improvements) for the Glenny Municipal Drain. The existing Glenny Drain requires repairs and improvements and also new schedules of assessment for future maintenance.

The primary purpose of this report is to provide for repairs and improvements of the Glenny Drain in Lot 17, Concession BF (Willoughby Twp) and in Lots 10 to 13, Concession 7 and Lots 13 to 16, Concession 8 (Bertie Twp) in the Town of Fort Erie. The secondary purpose is to define the limits of the drain relative to the existing reports and to prepare new Schedules of Assessment for Future Maintenance.

The work involved with this report follows the Drainage Act process, which has involved an on-site meeting, review of the site, undertaking of survey and design, and the preparation of a report to include plans and profiles, drawings, specifications, cost estimate, assessment and future maintenance schedules, and description of the work.

The estimated cost of this project is $398,870.

The construction work in this report consists of 4,305m of open ditch work (1,425m Glenny Drain North, 1,556m Glenny Drain South, 867m C.N.R. Branch, 343m Q.E.W. Branch and 114m College Branch).
The total length of the Glenny Drain 2017 for future maintenance purposes is 5,204m of open ditch (1,920m Glenny Drain North, 1,960m Glenny Drain South, 867m C.N.R. Branch, 343m Q.E.W. Branch and 114m College Branch).
The watershed served is approximately 427.6 hectares (1,056.6 acres) (131.2 ha Glenny Drain North and 296.4 ha Glenny Drain South).

The estimated costs are to be assessed out in accordance with Schedule A (Schedule of Assessments). Schedule B (Schedule of Assessments for Future Maintenance) is to be used to assess out future maintenance costs as outlined in the "Maintenance" section of this report. Schedule C (Schedule for Actual Cost Bylaw) has data that summarizes all estimated gross assessments and indicates the estimated net assessments after deducting possible available grants and allowances where applicable.

Appendix A illustrates the calculations of the assessments outlined in Schedule A.

2.0 BACKGROUND

Requests for maintenance had been received by the Town from several landowners.
On October 11, 2005, K. Smart Associates Limited was appointed by By-Law 180-05/resolution of the Town of Fort Erie, to update the existing Engineer's Report for the Glenny Municipal Drain pursuant to Section 78 of the Drainage Act, RSO 1990. Also, it was requested that new Schedules of Assessments for Future Maintenance be prepared.

The required on-site meeting was held for the landowners and agencies on April 4, 2006. A questionnaire and explanatory note from the Engineer had been mailed out to the landowners along with the on-site meeting notice.

A thorough survey was conducted along the entire route of the existing drain including its branches. Preliminary design work, including cost estimates and assessment schedules and drawings, occurred after the survey work had been completed.

On September 29, 2016, a second meeting was held with the landowners and agencies to discuss the possible repairs and improvements. The watershed and design were finalized and the site was further examined, then the drawings, cost estimate, special provisions, and the assessment schedules were finalized and the report and future maintenance schedules were prepared and are herein being submitted.

3.0 DRAINAGE HISTORY

The Glenny Drain was first constructed in accordance with a report by George Ross dated April 25, 1917, and consisted of the Main Drain and the Kline Outlet, both of which were an open ditch. The Main Drain was 11,920' (3,633m) in length and was a continuous drain, having continuous grade, from the outlet in Black Creek in Lot 18, Concession BF (Willoughby Township) upstream to the head of the drain in Lot 11, Concession 7 (Bertie Township) and the Kline Outlet was 1,465' (446m±) in length.

In 1942 the Glenny Drain was improved in accordance with a report by R. Blake Erwin, O.L.S., BA.Sc (By-Law No. 1368) dated December 9, 1942. In the 1942 report, the improvements to the drain were necessitated by the proposed construction of the Q.E.W.

The improvements in 1942 consisted of deepening and making a change to the flow direction of the Main Drain ditch so that it split at the north end of the proposed culvert across the Q.E.W. in Lot 14, Concession 8, Bertie Twp and it flowed northerly from here to an outlet in the Black Creek. A small portion of the Main Drain would then flow southerly to the Lot 13-14 Line in Concession 8 and then westerly along the Kline Outlet to outlet into Beaver Creek. The remainder of the Main Drain in Bertie Twp flowed from its top end in Lot 11, Concession 7 northerly to the Kline Outlet at the Lot 13-14 Line. The Kline Outlet also continued easterly to the west side of Concession 7-8 Road (now Ridgemount Road). Also, the C.N.R. Branch was constructed and was 2,745' (837m±) in length of open ditch. It commenced in the Main Drain in the middle part of Lot 12, Concession 7 (Bertie Twp) and continued southerly across Lots 10 to 12 and ended at the north side of the C.N.R. There were to be new road culverts constructed on the Main Drain, one at the Concession 7-8 Road (now Ridgemount Road) crossing and one at the Lot 12-13 Road (now Eagle Street) crossing. Both culverts were to be 8' (2.4m) wide x 4' (1.2m) high x 24' (7.3m) long creosoted wood culverts. No other culverts were to be constructed and the profiles for the drain did not show any other culverts (road or laneway).

Since the improvements of the 1942 report, the Q.E.W. was constructed and numerous laneway and road culverts have been constructed/installed along the Main Drain and Branches. Also, the location of the lower portion of the C.N.R. Branch has been changed since the 1942 report, as it now runs easterly along the Lot 11-12 Line in Concession 7 to outlet into the Main Drain on the south/west side of the Q.E.W. Also since 1942 many properties have been split and severances (small lots) have occurred.

Some of the ditches were last cleaned out in 1986±.

The north portion of the Glenny Drain (Main Drain) outlets into Black Creek. The south portion of the Glenny Drain (Kline Outlet) outlets into Beaver Creek. Beaver Creek outlets into Black Creek.

4.0 INVESTIGATION

4.1 Statutory Meeting

On April 11, 2006, the required on-site meeting was conducted. All landowners believed to be in the watershed plus the Town of Fort Erie and the Niagara Peninsula Conservation Authority were notified. Several landowners and the Fort Erie Drainage Superintendent, Brett Ruck, were also in attendance. The following is a summary of the comments made during the meeting:

G. & C. Nigh (Roll No. 137-00)
Has no drainage problems, and does not want any ditch work to be done on Kline outlet.
Some cleaning work on Kline outlet was done 25-30 years ago.

S. & M. Wright (Roll No. 116-00) & K. Sherk (Roll No. 117-00)
Satisfied with the condition of the existing ditch but have some erosion problem, both owners agreed to conduct a site visit with John Kuntze to review this problem closely.

D. & G. Carlesso (Roll No. 091-00)
Ask about the statement and organizational issue.

R. Howard (Roll No. 264-00)
Has no concern about the condition of an existing drain.

B. & P. Ort (Roll No. 267-00)
Has a problem with existing 900mm dia. CSP culvert (rusted and tends to collapse), possibly undersized. Want to replace culvert ASAP (possible this summer).

G. Poulsen (Roll No. 151-00)
Has a problem with drainage of her land, think that cleaning of the ditch is a good idea.

S. Overholt (Roll No. 088-00)
Has no current drainage problem, some cleaning work has been done 20 years ago.

J., B. & G. Curtis (Roll No. 084-00)
Has no current drainage problems, there is some trouble with the C.N.R. culvert.

A. & B. Mueller (Roll No. 089-00)
Do not think that any work should be done.

K. White (Roll No. 143-00), F. & I. Clarkson (Roll No. 141-00), J. & J. Rossiter (Roll No. 142-00)
Have some problems with roadside ditch along College Road, recently this ditch was cleaned out on the south side, but owners think that cleaning work should be done on the north side. This question was addressed to Brett Ruck (Drainage Superintendent).

C. & T. Brown (Roll No. 131-01)
Has a problem with the outlet of water from his property.

M. Dolbeau & M. Laroche (Roll No. 083-01)
Has concerns with drainage. The east end of the property is always wet. Some drainage work should be done

T. & J. Laur (Roll No. 075-00)
Has a question about the watershed. He said that there is no culvert under Bowen road. This issue should be clarified during a site visit of John Kuntze.

General
Mr Nigh stated that there is no culvert under College road on Kline outlet. Brett Ruck thinks that it would be a good idea to put in a culvert. This issue to be reviewed during a site visit.

The other owners within the watershed area were either not present at the on-site meeting or did not have any comments at that time.

4.2 Watershed Description
The Glenny Drain watershed is predominantly agricultural and bush lands. The perimeter watershed for the Glenny Drain was established in the engineering report of 1942 and it was corrected/modified by examination of OBM topographic plans, current digital topographic information and by field investigations. The Glenny Drain watershed was divided into two portions: the Glenny Drain North which outlets into Black Creek in Lot 18, BF Concession (Willoughby Twp) and Glenny Drain South which outlets into Beaver Creek in Lot 13, Concession 8 (Bertie Twp). The Glenny Drain has common watershed with the Miller's Creek Drain. Field examinations were made by Neal Morris, P.Eng. in the fall of 2015 and in the summer of 2016 to determine the intermediate/interval watersheds and to finalize the location of the perimeter watersheds for the Glenny Drain and all of its Branches. Also, it was determined that there is a culvert across Bowen Road which brings in waters from the area as noted south of the road.

4.3 Soil Conditions
The Region of Niagara Soils Map for this area indicates that the soils adjacent to this drain are mainly reddish-hued lacustrine heavy clay and silty clay over clay loam till with some stones. These soils should not present significant construction difficulty but pockets of poor soil conditions may be experienced, especially if groundwater levels are high at the time of construction.

4.4 Site Examinations and Surveys
All of the Glenny Drain, Main Drain and branches are open ditches and were examined and profile and cross-section surveys were completed throughout. The Main Drain was surveyed from its outlet in Black Creek to a "breaking point" (split) at the south side of the Q.E.W. to the Kline Outlet, and from the Kline Outlet from its outlet in Beaver Creek to the south/west side of College Road. The remainder of the Main Drain was surveyed from the Kline Outlet to the upstream end of the Main Drain on Sumner Road. The C.N.R. Branch, from Main Glenny Drain to upstream end at the north side of the C.N.R. tracks was surveyed. All along Glenny Drain, Main Drain there is a good fall to ensure sufficient outlet. However, there is a spot on the property of A. Bernice (268-01) where there is a "pool" of water with the ditch bottom level lower than general drain slope. It was noted that only deepening and general cleaning (brushing) and removing obstructions be required on the drain/branches. A path was cleared 20 years ago. Aerial photos and satellite images were reviewed, however, the existing channels were difficult to see due to heavy brush/trees along the channels (ditches).

On April 4, 2007, the Kline Outlet (Branch) was inspected by John Kuntze and Brett Ruck (Drainage Superintendent) to determine drainage required for Ridgemont Road/College Road north of the Q.E.W.

5.0 AUTHORITY FOR REPORT
As per the appointment of October 11, 2005, this report is being prepared in accordance with Section 78 of the Drainage Act for improvements to the existing drain. Section 78 of the Drainage Act identifies repair and improvement of an existing drain as an appropriate project under a Section 78 report. Since the Glenny Drain was previously constructed by bylaw under the Drainage Act and since it has been determined from the on-site meeting discussion and site examination, that the existing Glenny Drain does require repair and improvement (cleanout and brushing, etc.), and new/updated

future maintenance schedules, this report is properly authorized under Section 78 of the Drainage Act.

6.0 MEETINGS

On April 4 and 12, 2007, meetings were held with several landowners along Switch Road.

On September 29, 2016, a second (informal) meeting was conducted by the Neal Morris, P.Eng. the Engineer from K. Smart Associates Limited. All landowners in the watershed of the Glenny Drain were notified along with the Town of Fort Erie, the MTO and the Niagara Peninsula Conservation Authority. The purpose of the second meeting was to review the findings and proposed drainage works with the landowners including the estimated costs and preliminary assessments for the proposed work.

The Engineer explained the Drainage Act process, the proposed work and the assessment schedule.

Mr Nigh (Roll No. 20028-137-00) wished to do the clearing work (brushing) on his own property.

Mr Sanderson (Roll No. 40055-263-00) had concerns about the work on his property. The Engineer met him on-site and explained the work required on his property.

7.0 DESIGN CONSIDERATIONS

i) Sizing

This report has followed the sizing recommendations of the Drainage Guide for Ontario.

The open ditches have been reviewed, including the ditches being deepened. They have the capacity to convey a 2-year storm event. This is a customary event for open channel design on Municipal Drains serving an agricultural (rural) watershed. All Town road crossings (culverts) have sufficient capacity and seem to satisfy a 10-year storm. The Q.E.W. crossing (culvert) on Glenny Drain South satisfies greater than a 100-year storm. For residential and farm laneway (access) crossings (culverts) a 5-year storm was sufficient. To estimate, the Rationale method was used to determine the flows. The IDF information was obtained from the MTO IDF mapping tool.

ii) Sufficient Outlet

The proposed construction work recommended in this report is within the existing Glenny Drain watershed. The Glenny Drain North outlets into Black Creek and the Glenny Drain South outlets into Beaver Creek which outlets into Black Creek. Black Creek is a natural watercourse with a water level regulated by the Niagara River in this location. While the properties at the outlet are in the Black Creek 100-year floodplain, the Glenny Drain which is approximately 1% of the area of Black Creek, does not significantly increase the flooding risk.
The Beaver Creek is currently a municipal drain and is a sufficient outlet for the Glenny Drain South. Therefore it is deemed that the Beaver Creek and Black Creek provide a sufficient outlet for the Glenny Drain.

8.0 RECOMMENDED WORK

The following is a description of the proposed renaming of the drain(s) and branches, recommended work for construction and also describes what the drain and culverts are for future maintenance purposes for the Glenny Drain 2017.

a) Proposed Renaming of Glenny Drain and Branches

In this 2017 report, the existing Glenny Drain and Branches will be renamed as follows:

- The portion of the former Main Drain from the outlet into Black Creek in Lot 18, Concession BF Sea (Willoughby Twp) upstream to the north side of the Q.E.W. culvert in Lot 14, Concession 8 (Bertie Twp) will now be known as the Glenny Drain North.
- The portion of the former Main Drain from the south side of the Q.E.W. culvert in Lot 14, Concession 8 (Bertie Twp) to the former Kline Outlet will now be known as the Q.E.W. Branch
- The portion of the former Kline Outlet from the Main Drain westerly to the outlet into Beaver Creek will now be part of the Glenny Drain South.
- The remainder of the former Main Drain upstream to its head in Lot 7, Concession 7 (Bertie Twp) will also now be part of the Glenny Drain South.
- The remainder of the former Kline Outlet east of the former Main Drain will now be known as the College Branch.
- The C.N.R. Branch will still be known as the C.N.R. Branch.

These will all now be part of the Glenny Drain 2017. The Glenny Drain 2017, therefore, consists of the Glenny Drain North, Glenny Drain South, Q.E.W. Branch, C.N.R. Branch and College Branch.

b) Description of Drain

Note: All ditches to have a 0.3m wide x 0.3m deep notch (low flow ditch) in the ditch bottom. It is a possibility that some landowners may do the power brushing work along the drain on their properties. If such is done by them, the Drainage Superintendent and the Engineer must be informed prior to the work being done and the work is to be done in accordance with the special provisions and specifications and site-specific notes (Special Provisions) of this report and before the Contractor has begun construction. The landowner will be credited for such work at the Engineer's estimate.

Sta.	**Description**

i) Glenny Drain North

K. Sherk (Roll No. 40055- 117-00)

000 to 093	- Existing 93m ditch to remain - No work required at this time. - For future maintenance, ditch to have 1.8m wide bottom and 2:1 side slopes
082 to 088	- Existing 6m length of 1075mm dia. concrete sewer pipe (bell and spigot) laneway culvert to remain. No work required at this time.

Switch Road (Town of Fort Erie)

093 to 107	- Existing 14m ditch to remain - No work required at this time. - For future maintenance, ditch to have 1.8m wide bottom and 2:1 side slopes
107 to 114.2	- Existing 2.75m wide x 1.26m high x 7.2m long concrete road culvert with footings to remain. No work required at this time.
114.2 to 117	- Existing 2.8m ditch to remain - No work required at this time. - For future maintenance, ditch to have 1.8m wide bottom and 2:1 side slopes
115	- Construct Newbury weir/riffles.

B., D., M. & S. Arthur & M. Dilapo (Roll No. 40055-061-00)

117 to 188	- Existing 71m ditch to remain - No work required at this time. - For future maintenance, ditch to have 1.8m wide bottom and 2:1 side slopes

A. Beam (Roll No. 40055-268 -01)

188 to 483	- Existing 295m ditch to remain - No work required at this time.

- For future maintenance, ditch to have 1.8m wide bottom and 2:1 side slopes

270.5 to 278.8 - Existing private twin (2) 8.3m lengths of concrete/CSP laneway culverts. One 500mm dia. and one 600mm dia. to remain. They are to be maintained by the owner.

417 - Existing private 0.3m wide steel beam footbridge is not part of the drain. It is the responsibility of the landowner to maintain such.

441 to 447.2 - Existing twin (2) 6.2m lengths of 800mm dia. CSP's laneway culverts in poor shape (warped) to remain. No work required at this time.

473 - Caution: Electrical wire crosses under the ditch.

478 - Existing private 900mm dia. concrete overflow pipe, which outlets from the existing private pond to the east, into the ditch to remain. The concrete pipe and pond are not part of the drain. They are to be maintained by the landowner.

W. Grimm (Roll No. 40055-267-00)

483 to 495
- Existing 12m ditch to remain
- No work required at this time.
- For future maintenance, ditch to have 1.8m wide bottom and 2:1 side slopes

495 - Construct temporary straw bale dam/sediment trap

495 to 570
- 75m of half-bottom cleanout on the east side
- For future maintenance, ditch to have 1.5m wide bottom and 2:1 side slopes
- 75m of power brushing (10m width on the east side)
- East bank to be seeded (2m side).
- Place/level spoil on east side

555 - Existing private 1.2m wide x 5m long wood footbridge is not part of the drain. It is the responsibility of the landowner to maintain such.

517 - Place 5m² of riprap at a low run (swale) from the east.

570 - Place 5m² of riprap at 100mm (4") clay tile outlet from the west.

R. Howard (Roll No. 40055-264-00)

570 to 630
- 60m of half-bottom cleanout on the east side
- For future maintenance ditch to have 1.5m wide bottom and 2:1 side slopes
- 60m of power brushing (10m width on the east side)
- East bank to be seeded (2m side).
- Place/level spoil on the east side.

S. Sanderson & G. Melvin (Roll No. 40055-263-00)

630 to 779
- 149m of half-bottom cleanout on the east side
- For future maintenance ditch to have 1.5m wide bottom and 2:1 side slopes
- 149m of power brushing (10m width on the east side)
- East bank to be seeded (2m side).
- Place/level spoil on the east side.

677 - Place 5m² of riprap at a low run (swale) from the east

678 to 700 - Existing private pond located to the west to remain. It is not part of the drain. It is to be maintained by the landowner.

748 - Place 5m² of riprap at a low run (swale) from the east.

770 to 777.5 - Existing 7.5m length of 900mm dia. CSP laneway culvert to remain. No work required at this time.

Stevens Bancorp Inc. (Roll No. 40055-262-00)

779 to 843
- 64m of half-bottom cleanout on the east side
- For future maintenance ditch to have 1.5m wide bottom and 2:1 side slopes
- 64m of power brushing (10m width on the east side)
- East bank to be seeded (2m side).
- Place/level spoil on the east side.

Townline Road (Town of Fort Erie)

843 to 848
- 5m of half-bottom cleanout on the east side
- For future maintenance ditch to have 1.5m wide bottom and 2:1 side slopes
- Spoil to be hauled away and disposed of

848 to 863.5
- Existing 2.5m wide x 1.0m high x 15.5m long concrete road culvert with footings to remain. Clean through bottom
- Spoil to be hauled away and disposed of.

863.5 to 877
- 13.5m of half-bottom cleanout
- For future maintenance ditch to have 1.5m wide bottom and 2:1 side slopes
- Spoil to be hauled away and disposed of

872 - Construct Newbury weir/riffles.

A. Kittel (Roll No. 20028-150-00)

877 to 1+161
- 284m of a half-bottom cleanout
- For future maintenance ditch to have 1.5m wide bottom and 2:1 side slopes
- 284m of power brushing (10m width on the east side)
- East bank to be seeded (2m side).
- Place/level spoil on the east side.

895 - Place 5m² of riprap at a low run (swale) from the west

919 - Place 5m² of riprap at a low run (swale) from the east.

G. Poulsen (Roll No. 20028-151-00)

1+161 to 1+335
- 174m of half-bottom cleanout on east side
- For future maintenance ditch to have 1.5m wide bottom and 2:1 side slopes
- 174m of power brushing (10m width on the east side)
- East bank to be seeded (2m side).
- Place/level spoil on the east side.

1+335 - Place 5m² of riprap at a low run (swale) from the east.

P. Band & F. Cohen (Roll No. 20028-147-00)

1+335 to 1+800
- 465m of half-bottom cleanout on east side
- For future maintenance ditch to have 1.5m wide bottom and 2:1 side slopes
- 465m of power brushing (10m width on the east side)
- East bank to be seeded (2m side).
- Place/level spoil on the east side.

1+354, 1+439 & 1+552 - Place 15m² of riprap at low runs (swales) from the west (5m² at each location)

1+375, 1+453, 1+528, 1+630 & 1+660 - Place 25m² of riprap at low runs (swales) from the east (5m² at each location)

1+631 to 1+636 - Existing private dilapidated old wood bridge (size unknown) to be removed by the owner. Not part of the drain.

1+798 - Locate and protect buried Bell line, if necessary

Q.E.W. (M.T.O.)

1+800 to 1+920
- 120m of half-bottom cleanout on east side
- For future maintenance ditch to have 1.5m wide bottom and 2:1 side slopes
- 120m of power brushing (10m width on the east side)
- East bank to be seeded (2m side).
- Spoil to be hauled away and disposed of

1+920 to 1+975 - Existing ditch and 2.45m wide x 0.95m high x 42m long concrete culvert with footings across Q.E.W. to remain. Not part of the drain. It will be the responsibility of the MTO to maintain them.

The Glenny Drain North exists from Sta. 000 to 1+920. Upstream of Sta. 1+920 is not part of the drain.

ii) Glenny Drain South

G. & C. Nigh (Roll No. 20028-137-00) (South) / Jukic Group Ltd. (Roll No. 20028-145-00) (North)

000 to 332
- Existing 332m ditch to remain.
- No work required at this time.
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes

330± - Construct Newbury weir/riffles.

O. Leon (Roll No. 20028-136-00) (East) / G. & C. Nigh (Roll No. 20028-137-00) (West)

332 to 568
- 236m of half-bottom cleanout on the east side
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes
- 236m of power brushing (10m width on the east side)
- East bank to be seeded (2m side).
- Place/level spoil on east side

460 to 464 - Remove and dispose of existing stone drop structure

505± - Existing private pond located 23m south/west (on G. & C. Nigh property) to remain. It is not part of the drain. It is to be maintained by the landowner.

College Road (Town of Fort Erie)

568 to 571.5
- 3.5m of a half-bottom cleanout
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes
- Spoil to be hauled away and disposed of.

571.5 to 605.5
- Existing 3.65m wide x 1.2m high x 34m long concrete road culvert with footings to remain. Clean through the bottom.
- Spoil to be hauled away and disposed of

605.5 to 608
- 2.5m of half-bottom cleanout
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes
- Spoil to be hauled away and disposed of.

607± - Construct Newbury weir/riffles.

Town of Fort Erie (Roll No. 20028-136-01)

608 to 650
- 42m of half-bottom cleanout on the east side
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes
- 42m of power brushing (10m width on the east side)
- East bank to be seeded (2m side).
- Place/level spoil on east side

Ridgemount Road (Town of Fort Erie)

650 to 655
- 5m of a half-bottom cleanout
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes
- Spoil to be hauled away and disposed of.

655 to 685.6
- Existing 3.65m wide x 1.2m high x 30.6m long concrete road culvert with footings to remain. Clean through the bottom.
- Spoil to be hauled away and disposed of.

B. & I. Bryant (Roll No. 20028-092-00)

685.6 to 912
- 226m of half-bottom cleanout on west side
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes
- 226m of power brushing (10m width on the west side)
- West bank to be seeded (2m side).
- Place/level spoil on west side

705 - Locate and protect buried Bell line if necessary.

769 - Place 5m² of riprap at a low run (swale) from the north/east

815 - Existing private 1.5m wide wood footbridge is not part of the drain. It is the responsibility of the landowner to maintain such.

Eagle Street (Town of Fort Erie)

912 to 927.7
- 15.7m of a half-bottom cleanout
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes
- Spoil to be hauled away and disposed of.

925 - Locate and protect 150mm (6”) Bell casing crossing ditch, if necessary.

927.7 to 943.6
- Existing 2.45m wide (3.06m wide on skew) x 1.2m high x 15.9m long concrete road culvert with footings to remain. Clean through bottom
- Spoil to be hauled away and disposed of.

943.6 to 949
- 5.4m of half-bottom cleanout
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes
- Spoil to be hauled away and disposed of.

946 - Construct Newbury weir/riffles.

S. Singh (Roll No. 20028-088-00)

949 to 1+354
- 405m of half-bottom cleanout on the west side
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes
- 405m of power brushing (10m width on the west side)
- West bank to be seeded (2m side).
- Place/level spoil on west side

994 & 1+197 - Place 10m² of riprap at low runs (swales) from the west (5m² at each location)

Jukic Group Ltd. (Roll No. 20028-087-00) (West) / Q.E.W. (M.T.O.) (East)

1+354 to 1+582
- 228m of half-bottom cleanout on west side
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes
- 228m of power brushing (10m width on the west side)
- West bank to be seeded (2m side).
- Place/level spoil on west side

1+354
- Place 5m² of riprap at low run (swale) from the east

1+384
- Locate and protect buried Bell line, if necessary.

1+424
- Place 5m² of riprap at a low run (swale) from the west.

1+575
- Construct Newbury weir/riffles.

1+582 to 1+590
- 8m of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 8m of power brushing (10m width on the south side)
- South bank to be seeded (2m side).
- Place/level spoil on south side

Q.E.W. (M.T.O.)

1+590 to 1+615
- Existing 25m ditch to remain.
- No work required at this time
- For future maintenance, ditch to have 1.2m wide bottom and 2:1 side slopes

1+615 to 1+662
- Existing 2.4m wide x 0.9m high x 47m long concrete culvert with footings across Q.E.W. to remain. No work required at this time.

1+662 to 1+758
- 96m of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 96m of power brushing (10m width on the east side)
- East bank to be seeded (2m side).
- Spoil to be hauled away and disposed of.

1+669
- Place 5m² of riprap at ditch outlet from the north.

J. Elliot (Roll No. 20028-086-00) (North) / M.T.O. (Roll No. 20028-085-00) (South)

1+758 to 1+916
- 158m of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 158m of power brushing (10m width on the north side)
- North bank to be seeded (1m side).
- Place/level spoil on north side

1+914
- Locate and protect buried Bell line, if necessary.

M.T.O. (Roll No. 20028-085-00) (West) / Sumner Road (Unopened) (Town of Fort Erie) (East)

1+916 to 1+960
- 44 of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 44m of power brushing (10m width) on the west side
- West bank to be seeded (1m side).
- Place/level spoil on west side

1+933
- Locate and protect buried Bell line, if necessary.

The Glenny Drain South exists from Sta. 000 to 1+960. Upstream of Sta. 1+960 is a road ditch that is not part of the drain.

iii) Q.E.W. Branch

Jukic Group Ltd. (Roll No. 20028-145-00)

000 - Place 5m² of riprap at ditch outlet

000 to 213
- 213m of ditch bottom cleanout (including removal of obstructions (branches, etc.) at Sta. 005±)
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 213m of power brushing (10m width on the east side)
- East bank to be seeded (1m side).
- Place/level spoil on east side

019 - Place 5m² of riprap at a low run (swale) from the east

130 - Place 5m² of riprap at a low run (swale) from the west

College Road (Town of Fort Erie)

213 to 219.8
- 6.8m of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- Spoil to be hauled away and disposed of.

219.8 to 242
- Existing 2.5m wide x 0.9m high x 22.2m long concrete road culvert with footings to remain. Clean through the bottom.
- Spoil to be hauled away and disposed of.

Q.E.W. (M.T.O.) (East) / College Road (Town of Fort Erie) (West)

242 to 343
- 101m of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 101m of power brushing (10m width) on the west side
- West bank to be seeded (1m side).
- Spoil to be hauled away and disposed of.

The Q.E.W. Branch exists from Sta. 000 to 343. Upstream of Sta. 343 is not part of the drain.

iv) C.N.R. Branch

J., T. & G. Curtis (Roll No. 20028-084-00) (South) / Jukic Group Ltd. (Roll No. 20028-087-00) (North)

000 - Place 5m² of riprap at ditch outlet

000 to 210
- 210m of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 210m of power brushing (10m width on the south side)
- South bank to be seeded (2m side).
- Place/level spoil on south side

015 & 060 - Place 10m² of riprap at low runs (swales) from the south (5m² at each location)

031 - Place 5m² of riprap at a low run (swale) from the north

J., T. & G. Curtis (Roll No. 20028-084-00)

210 to 390
- 180m of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 180m of power brushing (10m width on south/east side)
- South/east bank to be seeded (2m side).
- Place/level spoil on south/east side

310 - Place 5m² of riprap at a low run (swale) from the north/west.

325 - Place 5m² of riprap at a low run (swale) from the south/east

J., T. & G. Curtis (Roll No. 20028-084-00) (East) / M. Dolbeau & M. Laroche (Roll No. 20028-083-01) (West)

390 to 694
- 304m of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 304m of power brushing (10m width on the east side)
- East bank to be seeded (2m side).
- Place/level spoil on east side

425 & 465 - Place 10m² of riprap at low runs (swales) from the east (5m² at each location)

C.P.R. (Roll No. 047-996)

694 to 698.5
- 4.5m of ditch bottom cleanout
- For future maintenance, ditch to have 1.2m wide bottom and 2:1 side slopes
- Spoil to be hauled away and disposed of

698.5 to 715.5
- Existing 17m length of 900mm dia. steel smooth wall pipe railway culvert to remain. Clean through the culvert.
- Spoil to be hauled away and disposed of.

715.5 to 738
- 22.5m of ditch bottom cleanout
- For future maintenance, ditch to have 1.2m wide bottom and 2:1 side slopes
- Banks to be seeded (2m sides).
- Spoil to be hauled away and disposed of

731 - Construct Newbury weir/riffles.

J., T. & G. Curtis (Roll No. 20028-084-00)

738 to 867
- 129m of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 129m of power brushing (10m width on the east side)
- East bank to be seeded (2m side).
- Place/level spoil on east side

The C.N.R. Branch exists from Sta. 000 to 867. Upstream of Sta. 867 is not part of the drain.

v) College Branch

O. Leon (Roll No. 20028-136-00) (south) / Jukic Group Ltd. (Roll No. 20028-145-00) (North)

000 - Place 5m² of riprap at ditch outlet

000 to 114
- 114m of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 114m of power brushing (10m width on the south side)
- South bank to be seeded (2m side).
- Place/level spoil on south side

084 - Place 5m² of riprap at a low run (swale) from the south.

The College Branch exists from Sta. 000 to 114. Upstream of Sta. 114 is not part of the drain.

c) Culverts

The plans and profiles from the 1917 and 1942 drainage reports showed only a few laneway and road culverts along the length of the Glenny Drain and its branches. The following table identifies all existing access (laneway) and road culverts that are now part of the Glenny Drain 2017 and are to be maintained as per the maintenance provisions in this report.

Costs for maintenance/replacement of culverts identified in the table below as "Drain" shall be split 50% to the owner of the culvert and the remainder to the upstream lands and roads as outlet assessment.

Maintenance/replacement costs of culverts identified as "Private" are the responsibility of the owner using the culvert if such culvert remains. If culverts smaller than the minimum recommended size are installed at a later date, such culverts will be deemed an obstruction to the drain and removed at the landowner's expense. Recommended lengths for culverts are 9m residential access and 12m farm access. Road culverts are to match existing lengths.

Access to Roll Number	Stations	Culvert Maintenance Responsibility	Existing Length (m)	Existing Size (mm) and Condition	Minimum Recommended Size (mm dia.)
i) Glenny Drain North					
40055-117-00	082 to 088	Drain	6	1075mm dia. concrete pipe (bell and spigot) in good condition	1050mm HDPE
Switch Road (Town of Fort Erie)	107 to 114.2	Drain	7.2	2.75m wide x 1.26m high concrete culvert with footings in good condition	2.75m x 1.26m box culvert
40055-061-00	117 to 118	--	--	No existing culvert	1200mm CSP
40055-268-01	270.5 to 278.8	Private	8.3	Twin (2) concrete/ CSP laneway culverts (1-500mm dia. and 1-600mm dia.) in good condition	1200mm CSP
40055-268-01	441 to 447.2	Drain	6.2	Twin (2) 800mm dia. CSP's in poor condition (warped)	1200mm CSP
40055-267-00	483 to 570	--	--	No existing culvert	1200mm CSP
40055-264-00	570 to 630	--	--	No existing culvert	1200mm CSP
40055-263-00	770 to 777.5	Drain	7.5	900mm dia. CSP in good condition	1200mm CSP
40055-262-00	779 to 843	--	--	No existing culvert	1200mm CSP
Townline Road (Town of Fort Erie)	848 to 863.5	Drain	15.5	2.5m wide x 1.0m high concrete culvert with footings in good condition	2.5m x 1.0m concrete box culvert
20028-150-00	877 to 1+161	--	--	No existing culvert	1000mm CSP
20028-151-00	1+161 to 1+335	--	--	No existing culvert	900mm CSP
20028-147-00	1+631 to 1+636	Private	5	Dilapidated old wood bridge (size unknown)	900mm CSP
Q.E.W. (MTO)	1+800 to 1+920	--	--	No existing culvert	A culvert is not required
ii) Glenny Drain South					
20228-137-00/ 20028-145-00	000 to 332	--	--	No existing culvert	1800mm CSP
20028-136-00/ 20028-137-00	332 to 568	--	--	No existing culvert	1800mm CSP
College Road (Town of Fort Erie)	571.5 to 605.5	Drain	34	3.65m wide x 1.2m high concrete culvert with footings in good condition	3.65m x 1.2m concrete box culvert
20028-136-01	608 to 650±	--	--	No existing culvert	1800mm CSP

Access to Roll Number	Stations	Culvert Maintenance Responsibility	Existing Length (m)	Existing Size (mm) and Condition	Minimum Recommended Size (mm dia.)
Ridgemount Road (Town of Fort Erie)	655 to 685.6	Drain	30.6	3.65m wide x 1.2m high concrete culvert with footings in good condition	3.65m x 1.2m concrete box culvert
20028-092-00	685 to 912	--	--	No existing culvert	1800mm CSP
Eagle Street (Town of Fort Erie)	927.7 to 943.6	Drain	15.9	2.45m wide (3.06m on skew) x 1.2m high concrete culvert with footings in good condition	2.45m x 1.2m concrete box culvert
20028-088-00	949 to 1+354	--	--	No existing culvert	1800mm CSP
20088-087-00	1+354 to 1+590	--	--	No existing culvert	1800mm CSP
Q.E.W. (MTO)	1+615 to 1+662	Drain	47	2.4m wide x 0.9m high concrete culvert with footings in good condition	2.4m x 0.9m concrete box culvert
20028-086-00/ 20028-085-00	1+758 to 1+916	--	--	No existing culvert	1400mm CSP
20028-085-00/ Sumner Road	1+916 to 1+960	--	--	No existing culvert	1400mm CSP
iii) Q.E.W. Branch					
20028-145-00	000 to 213	--	--	No existing culvert	900mm CSP
College Road (Town of Fort Erie)	219.8 to 242	Drain	22.2	2.5m wide x 0.9m high concrete culvert with footings in good condition	1200mm CSP
College Road/ Q.E.W. (MTO)	257 to 343	--	--	No existing culvert	A culvert is not required
iv) C.N.R. Branch					
20028-084-00/ 20028-087-00	000 to 390	--	--	No existing culvert	1200mm CSP
20028-084-00/ 20028-083-01	390 to 694	--	--	No existing culvert	1200mm CSP
007-996 (C.P.R.)	698.5 to 715.5	Municipal	17	900mm dia. steel smooth wall pipe in good condition	900mm HDPE
20028-084-00	738 to 867	--		No existing culvert	900mm CSP
v) College Branch					
20028-136-00/ 20028-145-00	000 to 114	--	--	No existing culvert	600mm CSP

9.0 ENVIRONMENTAL CONSIDERATIONS

Contact was made with the Niagara Peninsula Conservation Authority (NPCA), the Ministry of Natural Resources and Forestry (MNRF) and Fisheries and Oceans Canada (DFO) to determine any existence of Species at Risk within the watershed. There are Grass Pickerel and River Redhorse present in the system. Responses from the DFO have indicated that the proposed work should be confined to a half-bottom cleanout and brushing and slope work on one bank, the other bank and half of the channel would be untouched. They requested that instead of rock sediment traps they should be changed to Newbury weirs/riffles.

The primary environmental concern in the design process was to minimize impacts to Beaver Creek Drain and Black Creek. The Glenny Drain 2017 outlets into both of these creeks. It is expected, by limiting the work in the existing open channel to half-bottom cleanout and power brushing (clearing) on one side only and by implementing temporary and permanent erosion control measures (such as Newbury weirs/riffles) and installing riprap on erosion-prone areas, that erosion and sedimentation will be controlled and/or minimized.

An application to work in water has been sent to DFO.

A copy of this report including specifications will be submitted to the NPCA and MNRF for review and approval.

The Niagara Peninsula Conservation Authority was notified of the on-site, second meetings conducted on the drain and an on-site review with NPCA staff of the proposed works and did not have any objections to the cleanout and brushing work proposed.

10.0 CONSTRUCTION CONSIDERATIONS

10.1 Environmental/Ministry Permits and Utilities

a) Environmental/Ministry Permits

The following agencies have been notified of the project:

- Applications to DFO and MNRF have been submitted in regards to Species at Risk dated November 2, 2016.
- NPCA, MNRF and DFO have been notified in regards to working in water, watercourse alterations and associated permits
- NPCA and MNRF have been notified in regards to the Wetlands alternative work and associated permits

An Encroachment Permit application will be required from the M.T.O. for the work proposed in the Q.E.W. right-of-way. No other applications should be required for this work other than possibly to the DFO. An application will be made if required.

b) Utilities

The locations at which utilities can be expected could be along the roads that are being crossed. There are hydro poles and possible overhead hydro lines existing along the roads and possibly underground Bell fibreoptics lines as well. Locates have not been done but should be completed prior to construction.

The Contractor is to contact all landowners along the proposed work/drain routes to determine the existence of any underground or overhead utilities on private properties prior to construction.

The Contractor will be required to have utilities located before undertaking work.

If any owner knows of any public or private underground utilities in the vicinity of the proposed drain cleanout, they should make the Engineer, Drainage Superintendent and Contractor aware of such prior to construction.

10.2 Warranty of Works

There shall be a 1 year warranty period on all completed construction work. The 1-year warranty will commence on the date of the completion certificate. Should any portions of the constructed work require corrective work up to the end of the 1 year warranty period, the Engineer may authorize bank stabilization (riprap, erosion control mats, etc.), re-sloping of banks and/or stone check dams (Newbury weirs/riffles) as necessary. The costs for such will be assessed against the overall assessment schedule. The Engineer and Municipality may also elect to do such repairs as maintenance work under the Drainage Superintendent if time and financing allow. If any areas require corrective work as the result of construction deficiencies such will be attended to as part of the contract.

10.3 Privacy of Lands

Even though a Municipal Drain exists across lands of the various landowners, there still is no right of one landowner to enter onto another landowner's lands. Only the Engineer (Engineer's assistant and survey/inspection crew) appointed by the Town as part of the work with respect to this report, and the

appropriate municipal representative (Drainage Superintendent) as part of his or her maintenance of the drain, plus the selected Town approved Contractors for construction and future maintenance of the drain, have the right to enter onto privately owned lands of others.

10.4 Construction Scheduling

Construction cannot commence until after the statutory requirements of the Drainage Act have been satisfied. If there are no appeals after the Court of Revision, construction could commence, weather permitting, approximately 10 days after the date of the Court of Revision. Appeals under the procedures in the Drainage Act could result in a later starting date for construction, as no construction can commence until all appeals are settled. No construction can take place until all necessary permits have been obtained through the MTO/NPCA/MNRF/DFO as required.

The Engineer may supervise the construction of the drain and may conduct at least two meetings with the Contractor and landowners affected by construction: one at the commencement and one at the completion of construction. The contract for construction of the drain will be awarded by public tender. Unless construction commencement and completion dates are requested prior to the tender call, the Contractor will specify in the tender the starting and completion dates for construction.

10.5 Alignment of Drains

All drains shall be constructed/maintained generally to the alignment as noted on the plans and as dictated by the Site-Specific Notes section in the Special Provisions. Existing fences near boundaries between properties shall be deemed to be in the proper location of the boundary unless otherwise noted by the affected landowners. In the absence of fences, or other properly marked and located legal boundaries, the drains shall be located more or less on the lands as noted in the plans and specific notes without the benefit of a legal survey to confirm property lines.

Construction/maintenance shall follow the location as specified in the plans, wherever practicable. The drain location roughly follows the location of the drain.

Should the owners require a more precise location for the drains in relation to their property line, or if there is a dispute about the location of any property line, it is recommended that the owners establish their legal property boundaries at their expense.

10.6 Working Corridor and Right of Way

The Contractor shall be allowed to operate his equipment within a working corridor as defined in the General Notes on the drawings and also in Sections 400.4 and 400.5 of the attached Standard Specifications for Construction of Drains. Each landowner along the drain is required to provide the Contractor and the Municipality with reasonable access to the drain on the property for both construction and maintenance.

11.0 DRAWINGS

i) Drain Location and Watershed Plans

The location of the Glenny Drain 2017 and the affected properties are shown on Drawing No. 1 included with this report. The heavy solid line indicates the location of the drain. The numbers adjacent to this line are station numbers which indicate in meters the distance along the drain. The heavy broken (dashed) line indicates the approximate watershed boundary for the drain and the thin broken (dashed) lines indicate the approximate intermediate (sub) watersheds for the intervals. The plan also shows other existing drains adjacent to the Glenny Drain 2017 watershed, property boundaries, Town assessment roll numbers and hectares affected for each property and road for each drain/branch/ interval. Drawing No. 2 is a plan enlargement of a portion of the Glenny Drain North.

ii) Profiles and Other Drawings

The profiles for the Glenny Drain 2017 are on Drawings No. 3 to 6. The profiles show the depth and grade for proposed work and/or for future maintenance. The upper thin solid line represents the existing ground (bank) level along the ditch. The lower thin broken (dashed) line represents the existing ditch bottom. The lower heavy solid line indicates the grade for the ditch bottom cleanout and for future maintenance. The lower heavy broken (dashed) line is the grade for future maintenance where no work is being done now. Drawing 5 also contains the typical details. Drawings 7 to 11 contain the typical cross-sections for the existing ditch(es) to be maintained and for the proposed ditch excavation/cleanout. Drawings 12 to 15 contain the Special Provisions (Construction Notes).

12.0 COST ESTIMATE

The cost estimate on this project has five components - the Allowances made to the owners having work on their properties, the Construction Cost Estimate (including contingency items), the Engineering Cost Estimate, the estimate of the Construction Supervision and Eligible Administration costs and Net HST (1.76%) costs) and an Estimated Cost Summary. These are set out in detail as follows:

12.1 Allowances

i) Section 29

Section 29 of the Drainage Act provides for the payment of allowances for right-of-way (R-O-W) to landowners who have a portion of a new drain on their property that has not been constructed pursuant to a previous report. This allowance compensates the owners for the land to accommodate the drain (right-of-way), access routes to the drain and for right-of-way alongside the drain for construction and maintenance purposes. There are no Section 29 allowances to private lands as these were provided for in the 1942 report.

ii) Section 30

Section 30 of the Drainage Act provides for payment of allowances to landowners where the lands are used for the construction of the drain. These allowances compensate the owners for damages caused by the construction equipment and for the placement of the drain including the piling and the levelling of excavated materials. Allowances were also made for access routes.

The allowance for damages to lands is based on common crop yields and historical crop prices compiled by OMAFRA for the area. A fair representative annual crop value has been arrived at using a 3-year composite average for the latest available crop statistics. The damage allowance rate is a form of compensation to account for both the immediate crop damage plus reduced productivity of the land for several years thereafter, caused by the work.

Section 30 (Damages) allowance are provided in accordance with the following rates as shown in the table below. There is a minimum amount of $100 for damage allowances and a minimum fence removal of 20m. The widths and amounts of each property for damages are shown in the Table of Allowances as shown below.

Type of Land	Crop Value
Cultivated Lands	$ 5,000/ha
Bush (Forest) and low lands	$ 2,000/ha

Fence Type	Value
Old farm fences	$ 5/m
New farm fences	$ 10/m
High tension or ornamental fences	$ 30/m

iii) General

In accordance with Section 62(3) of the Drainage Act RSO 1990, the allowances shown may be deducted from the final assessments levied. A net payment to the owner would only be made when the allowance is greater than the final assessment. The allowances are a fixed amount and are not adjusted at the conclusion of construction. Allowances can only be changed if the report is modified prior to the adoption of the report by bylaw or in accordance with the Drainage Act procedures that deal with changing the scope of work after the bylaw is passed.

iv) Table of Allowances

The allowances payable to the owners entitled thereto on this project are therefore as follows.

Con	Lot	Roll No.	Owner	Damages (Section 30) ($)	Width (m)
i) GLENNY DRAIN NORTH					
		(20028-)	(Bertie Twp)		
8	Pt 15	147-00	P. Band & F. Cohen	2,300	10
8	Pt 16	150-00	A. Kittel	1,400	10
8	Pt 16	151-00	G. Poulsen	900	10
		(40055)-	(Willoughby Twp)		
Adj Cross	Pts 15,16&21	262-00	Stevens Bancorp Inc.	300	10
Adj Cross	Pt 21	263-00	S. Sanderson & G. Melvin	700	10
Adj Cross	Pt 22	264-00	R. Howard	300	10
Adj Cross	Pt 22	267-00	W. Grimm	400	10
			Sub Total:	6,300	
ii) GLENNY DRAIN SOUTH					
		(20028-)	(Bertie Twp)		
7	Pt 11	085-00	M.T.O.	1,000	10
7	Pt 12	086-00	J. Elliot	400	5
7	Pt 12	087-00	Jukic Group Ltd.	1,200	10
7	Pt 12	088-00	S. Singh	2,000	10
7	Pt 13	092-00	B. & I. Bryant	1,100	10
8	Pt 13	136-00	O. Leon	1,200	10
8	Pt 13	136-01	Town of Fort Erie	200	10
8	Pt 13	137-00	G. & C. Nigh	700	10
8	Pt 14	145-00	Jukic Group Ltd.	100	10
			Sub Total:	7,900	
iii) Q.E.W. BRANCH					
		(20028-)	(Bertie Twp)		
8	Pt 14	145-00	Jukic Group Ltd.	1,100	10
			Sub Total:	1,100	
iv) C.N.R. BRANCH					
		(20028-)	(Bertie Twp)		
7	Pt 10, 11	083-01	M. Dolbeau & M. Laroche	800	5
7	Pts 9 to 11	084-00	J., T. & G. Curtis	4,100	10
7	Pt 12	087-00	Jukic Group Ltd.	500	5
7	Pt 10	047-996	C.P.R.	100	10
			Sub Total:	5,500	
v) COLLEGE BRANCH					
		(20028-)	(Bertie Twp)		
8	Pt 13	136-00	O. Leon	600	10
8	Pt 14	145-00	Jukic Group Ltd.	300	5
			Sub Total:	900	
			TOTAL ALLOWANCES:	**$ 21,700**	

Note:
The Townships noted above are in the Town of Fort Erie.

12.2 Construction Cost Estimate

The estimated cost for Labour, Equipment and Materials to construct the proposed drain is outlined in detail in the following section. The cost estimate is formatted to comply with the Region of Niagara Standard Contract Document. The final cost of drain construction cannot be established until the construction is completed. The Contractor is to supply all labour, equipment and materials to construct the following:

Item No.	Stations	Description	Unit	Quantity	Unit Price	Total Cost
i) Glenny Drain North						
1.	115	Construct Newbury weir/riffles	each	1	$ 1,200	$ 1,200
2.	495	Construct temporary straw bale dam/sediment trap	each	1	300	300
3.	495 to 843	Half-bottom cleanout, 1.5m wide bottom, 2:1 side slopes including levelling on east side	m	348	20	7,000
4.	495 to 843	Power Brushing 10m width (10m width on east side)	m²	3,480	2	7,000
5.	495 to 843	Seeding of east bank (2m side)	m²	1,392	1	1,400
6.	517, 570, 677 & 748	5m² of riprap at each location	m²	20	45	900
7.	843 to 877	Clean through road culvert and ditches at each end (Townline Road) including hauling away spoil	m	34	40	1,400
8.	872	Construct Newbury weir/riffles	each	1	1,200	1,200
9.	877 to 1+800	Half-bottom cleanout, 1.5m wide bottom, 2:1 side slopes including levelling on east side	m	923	20	18,500
10.	877 to 1+800	Power Brushing 10m width (10m width on east side)	m²	9,230	2	18,500
11.	877 to 1+800	Seeding of east bank (2m side)	m²	1,846	1	1,800
12.	895, 919, 1+335, 1+354, 1+375, 1+439, 1+453, 1+528, 1+552, 1+630 & 1+660	5m² of riprap at each location	m²	55	45	2,500
13.	1+800 to 1+920	Half-bottom cleanout, 1.5m wide bottom, 2:1 side slopes including hauling away spoil	m	120	30	3,600
14.	1+800 to 1+920	Power Brushing (10m width on east side)	m²	1,200	2	2,400
15.	1+800 to 1+920	Seeding of east bank (2m side)	m²	240	1	200
		Sub Total Part i):				**$ 67,900**
ii) Glenny Drain South						
16.	330±	Construct Newbury weir/riffles	each	1	1,200	1,200
17.	332 to 568	Half-bottom cleanout, 2.1m wide bottom, 2:1 side slopes including levelling on east side	m	236	20	4,700
18.	332 to 568	Power Brushing (10m width on east side)	m²	2360	3	7,200
19.	332 to 568	Seeding of east bank (2m side)	m²	1205	1	1,200
20.	460 to 464	Remove and dispose of existing stone drop structure	each	1	500	500
21.	568 to 608	Clean through road culvert and ditches at each end (College Road) including hauling away spoil	m	40	40	1,600
22.	608 to 650	Half-bottom cleanout, 2.1m wide bottom, 2:1 side slopes including levelling on east side	m	42	20	800
23.	608 to 650	Power Brushing (10m width on east side)	m²	420	2	800
24.	608 to 650	Seeding of east bank (2m side)	m²	168	1	200

Item No.	Stations	Description	Unit	Quantity	Unit Price	Total Cost
25.	650 to 685	Clean through road culvert and ditches at each end (Ridgemount Road) including hauling away spoil	m	35	40	1,400
26.	685 to 912	Half-bottom cleanout, 2.1m wide bottom, 2:1 side slopes including levelling on west side	m	227	20	4,500
27.	685 to 912	Power Brushing (10m width on west side)	m²	2270	2	4,500
28.	685 to 912	Seeding of west bank (2m side)	m²	908	1	900
29.	912 to 949	Clean through road culvert and ditches at each end (Eagle Street) including hauling away spoil	m	37	40	1,500
30.	949 to 1+129	Half-bottom cleanout, 2.1m wide bottom, 2:1 side slopes including levelling on west side	m	180	20	3,600
31.	949 to 1+129	Power Brushing (10m width on west side)	m²	1800	2	3,600
32.	949 to 1+129	Seeding of west bank (2m side)	m²	360	1	400
33.	769 & 994	Place 5m² of riprap at each location	m²	10	45	500
34.	607± & 946	Construct Newbury weir/riffles at each location	each	2	1200	2,400
35.	1+129 to 1+582	Half-bottom cleanout, 2.1m wide bottom, 2:1 side slopes including levelling on west side	m	453	20	9,100
36.	1+129 to 1+582	Power Brushing (10m width on west side)	m²	4,530	2	9,100
37.	1+129 to 1+582	Seeding of west bank (2m side)	m²	906	1	900
38.	1+197, 1+354, & 1+424	Place 5m² of riprap at each location	m²	15	45	700
39.	1+575	Construct Newbury weir/riffles	each	1	1,200	1,200
40.	1+582 to 1+590	Bottom cleanout, 1.2m wide bottom, 2:1 side slopes including levelling on south side	m	8	20	200
41.	1+582 to 1+590	Power Brushing (10m width on south side)	m²	80	2	200
42.	1+582 to 1+590	Seeding of south bank (2m side)	m²	16	1	100
43.	1+590 to 1+662	No Work Required. Existing ditch and highway culvert to remain	-----	0	0	0
44.	1+662 to 1+758	Bottom cleanout, 1.2m wide bottom, 2:1 side slopes including hauling away spoil	m	96	30	2,900
45.	1+662 to 1+758	Power Brushing (10m width on east side)	m²	960	2	1,900
46.	1+662 to 1+758	Seeding of east bank (2m side)	m²	192	1	200
47.	1+669	Place 5m² of riprap	m²	5	45	200
48.	1+758 to 1+960	Bottom cleanout, 1.2m wide bottom, 2:1 side slopes including levelling on north/west side	m	202	20	4,000
49.	1+758 to 1+916	Power Brushing (10m width on north side)	m²	2,370	2	4,700
50.	1+916 to 1+960	Power Brushing (10m width on west side)	m²	440	2	900
51.	1+758 to 1+960	Seeding north/west bank (1m side)	m²	202	1	200
		Sub Total Part ii):				**$ 78,000**
iii) Q.E.W. BRANCH						
52.	000 to 213	Bottom cleanout, 1.5m wide bottom, 2:1 side slopes including levelling on east side	m	213	20	4,300
53.	000 to 213	Power Brushing (10m width on east side)	m²	2,130	2	4,300
54.	000 to 213	Seeding of east bank (1m side)	m²	213	1	200
55.	213 to 242	Clean through road culvert and ditches at each end (College Road) including hauling away spoil	m	29	40	1,200
56.	242 to 343	Bottom cleanout, 1.5m wide bottom, 2:1 side slopes including hauling away spoil	m	101	30	3,000
57.	242 to 343	Power Brushing (10m width on west side)	m²	1,010	2	2,000
58.	242 to 343	Seeding of west bank (2m side)	m²	202	1	200

Item No.	Stations	Description	Unit	Quantity	Unit Price	Total Cost
59.	000, 019 & 130	Place 5m² of riprap at each location	m²	15	45	700
		Sub Total Part iii):				**$ 15,900**
iv) C.N.R. BRANCH						
60.	000 to 694	Bottom cleanout, 1.2m wide bottom, 2:1 side slopes including levelling on south side	m	694	20	13,900
61.	000 to 210	Power Brushing (10m width on south side)	m²	3,150	2	6,300
62.	210 to 390	Power Brushing (10m width on south/east side)	m²	1,800	2	3,600
63.	390 to 694	Power Brushing (10m width on east side)	m²	4,560	2	9,100
64.	000 to 694	Seeding of south/east bank (2m side)	m²	1,388	1	1,400
65.	000, 015, 031, 060, 310, 325, 425, & 465	Place 5m² of riprap at each location	m²	40	44	1,800
66.	694 to 716	Bottom cleanout and clean through railway culvert (C.P.R.) including hauling away spoil	m	22	40	900
67.	716 to 867	Bottom cleanout, 1.2m wide bottom, 2:1 side slopes including levelling on east side	m	151	20	3,000
68.	731	Construct Newbury weir/riffles	Each	1	1,200	1,200
69.	738 to 867	Power Brushing (10m width on east side)	m²	1,290	2	2,600
70.	716 to 867	Seeding of east bank (2m side)	m²	1,510	1	1,500
		Sub Total Part iv):				**$ 45,300**
v) COLLEGE BRANCH						
71.	000 to 114	Bottom cleanout, 1.2m wide bottom, 2:1 side slopes including levelling on south side	m	114	20	2,300
72.	000 to 114	Power Brushing (10m width on south side)	m²	1,710	2	3,400
73.	000 to 114	Seeding of south bank (2m side)	m²	342	1	300
74.	000 & 084	Place 5m² of riprap at each location	m²	10	45	500
		Sub Total Part v):				**$ 6,500**
		Sub Total Parts i) to v):				**$213,600**
vi) PROVISIONAL ITEMS (CONTINGENCY ALLOWANCES)						
75.		Additional 10m² of riprap on filter underlay at erosion areas or where required	m²	10	45	450
76.		Lump sum for miscellaneous	L.S.			20,750
		Sub Total Part vi):				**$ 21,200**
		TOTAL CONSTRUCTION COST ESTIMATE Parts i) to vi):				**$234,800** *

Notes:

1. *There is no work required at this time on the Glenny Drain North from Sta. 000 to 495 except as noted at Sta. 115.*
2. *There is no work required at this time on the Glenny Drain South from Sta. 000 to 332± except as noted at Sta. 330±.*
3. *L.S. – Lump Sum*
4. *It is a possibility that some landowners may do the brushing work along the drain on their properties. If such is done by them, the Drainage Superintendent and the Engineer must be informed prior to the work being done and the work is to be done in accordance with the special provisions and specifications of this report and before the Contractor has begun construction. The landowner will be credited for such work at the Engineer's estimate.*

12.3 Engineering Cost Estimate

i) Report Preparation

For work related to gathering of background information, preparing for and attending on-site meeting, field survey including GPS survey, fly levels and cross-sections, preparing profiles and cross-sections, drain design, conducting discussions with affected landowners and agencies, cost estimates, reviewing past reports, reviewing watersheds, preparing for and attending an informal (second) and other meetings, preparing assessment schedules, preparing future maintenance schedules, report writing and typing, completing the drawings and special provisions, and preparing for and attending the Consideration of Report and Court of Revision meetings.

	Project Initiation	$ 1,800
	First Meeting	5,500
	Field Investigation	25,500
	Design	16,200
	Schedule	4,000
	Second Meeting	5,500
	Environmental Consultation	6,700
	Revise Design	7,800
	Prepare Report	7,000
	Preparing for and attending Consideration of Report Meeting	1,500
**	Preparing for and attending Court of Revision Meeting	1,500
	TOTAL ENGINEERING COST ESTIMATE:	**$ 83,000 ***

** *Cost is for a maximum of 4 appeals. Additional appeals will increase this cost. If the Engineer is not required at this meeting, then this item will be deleted.*

The cost for report preparation is usually not altered at the conclusion of a project unless the report is referred back or the report is appealed to the Drainage Tribunal, which would involve additional costs. The amounts shown for meetings are estimates.

12.4 Construction Supervision and Eligible Administration Cost Estimate

i) Construction Supervision

For work to prepare tender documents, review tenders submitted and contract award, attend pre-construction meeting, periodic construction inspection, payments, do a final inspection, post-construction follow-up, and prepare or assist in preparing the OMAFRA grant application.

Create Niagara Standard Tenders and Review Tender bids	8,000
Inspection	28,500
Contract Administration	3,000
Final Inspection	2,500
Final paper work	3,000
Total Construction Supervision Estimate:	**$ 45,000 ***

The estimate shown for Construction Supervision is based on past experience and assumes good construction conditions and a Contractor who completes the construction in an efficient manner. The final (actual) cost for construction supervision will vary as per the actual time spent during the construction stage, plus disbursements.

ii) Eligible Administration Cost Estimate

Section 73 of the Drainage Act indicates that specific administrative costs incurred by the municipality in carrying out the Drainage Act process are eligible as a cost of the drain. Section 73(1) lists the following eligible costs: the *cost of any application, reference or appeal and the cost of temporary financing*. Sections 73(2) and 73(3) indicate that costs of elected and staff personnel are not eligible.

This administration cost estimate may not be adequate to cover any legal or engineering costs incurred by or assessed to the municipality should the project be appealed beyond the Court of Revision though such costs may form part of the final drain cost.

The OMAFRA Agricultural Drainage Infrastructure Program (ADIP) policies (applicable where the provincial grant is made) indicates that municipal costs for photocopying and mailing required to carry out the required procedures under the Drainage Act can also be included as eligible administration costs on a drain.

The eligible administration cost estimate thus includes an allowance for the following items:

MNRF/DFO/NPCA submissions (if required)	$ 500 *
Printing of reports	250 *
Printing of tender documents	500 *
Interest Estimate	3,100
Permits and Applications Fees Allowance	500 *
Unforeseen	3,000 *
Total Eligible Administration Cost Estimate:	**$ 7,850**

iii) Net HST

The Harmonized Sales Tax (HST) will apply to most costs on this project (allowances and interest are excluded). However, the Municipality is eligible for a refund of a proportion of the HST paid. Therefore, the cost estimate in this report does include a dollar allowance equivalent to a net tax (Net HST) in the amount of 1.76%. The estimated Net HST has been rounded off to the nearest $5.

Net HST (1.76%) Estimate:	**$ 6,520**
TOTAL CONSTRUCTION SUPERVISION, ELIGIBLE ADMINISTRATION COSTS AND NET HST ESTIMATE:	**$ 59,370**

12.5 Estimated Cost Summary

Allowances	$ 21,700
Construction Cost Estimate	234,800
Engineering Cost Estimate	83,000
Construction Supervision, Eligible Administration Costs and Net HST Estimate	59,370
TOTAL ESTIMATED COST:	**$ 398,870**

* *The estimated Net HST (1.76%) would be applicable to these items.*

It is possible that additional costs (construction, supervision and administration) may be incurred if the MNRF, DFO or NPCA would require additional investigation and construction to address their concerns.

13.0 ASSESSMENTS

The Drainage Act requires that the total estimated cost of the project be assessed to the affected lands and roads under the categories of Benefit (Section 22), Outlet Liability (Section 23), Injuring Liability (Section 23), Special Benefit (Section 24), and Special Assessment (Section 26). On this project, assessments for Benefit and Outlet Liability are used.

a) Outlet Liability Assessments (Section 23)

The method of calculating the assessments in Schedule A is illustrated in Appendix A which has been included in this report. Appendix A divides the drain into drains/branches and intervals. The estimated cost for each interval is then determined. The first step in the assessment calculation is to

apply benefits, special benefits and special assessments, if applicable, to the affected lands and roads in each of the drain intervals. After deducting the total benefit, special benefit and special assessments from the interval cost, the balance of the cost is then assessed as outlet liability on a per hectare basis to all upstream lands and roads in the interval watershed. As noted, the hectares affected are adjusted prior to calculating the outlet liability. The basis for this adjustment is 1 hectare (2.5 acres) of cleared agricultural land contributing both surface and subsurface water to the drain. Areas which generate greater runoff such as roads are increased by a factor of 2.0 for paved Town and Regional Roads, 3.0 for the Q.E.W., and 1.5 for gravel roads, railways and built-up (residential/commercial/industrial/ institutional) areas. Areas which generate lesser runoff such as woodlots (bush areas) and low lands are decreased by a factor of 0.5.

On this project in Schedule A, there is a minimum gross assessment of $40 per property.

b) Benefit Assessments (Section 22)

There are some small benefits ($32 or less) to some owners to bring their assessments up to the $40 minimum gross assessment.

i) Glenny Drain North

P. Band & F. Cohen (Roll No. 20028-147-00) - $9,300
A. Kittel (Roll No. 20028-150-00) - $6,900
G. Poulsen (Roll No. 20028-151-00) - $3,500
Stevens Bancorp Inc. (Roll No. 40055-262-00) - $1,300
S. Sanderson & G. Melvin (Roll No. 40055-263-00) - $3,500
R. Howard (Roll No. 40055-264-00) - $1,300
W. Grimm (Roll No. 40055-267-00) - $1,600
Q.E.W. (M.T.O.) - $14,100
Townline Road (Town of Fort Erie) - $6,600
College Road (Town of Fort Erie) - $15,800

ii) Glenny Drain South

M.T.O. (Roll No. 20028-085-00) - $2,000
J. Elliot (Roll No. 20028-086-00) - $1,600
Jukic Group Ltd. (Roll No. 20028-087-00) - $4,600
S. Singh (Roll No. 20028-088-00) - $8,400
B. & I. Bryant (Roll No. 20028-092-00) - $4,500
O. Leon (Roll No. 20028-136-00) - $2,400
Town of Fort Erie (Roll No. 20028-136-01) - $800
G. & C. Nigh (Roll No. 20028-137-00) - $2,400
Q.E.W. (M.T.O.) - $38,100
College Road (Town of Fort Erie) - $4,600
Ridgemount Road (Town of Fort Erie) - $6,000
Sumner Road (Town of Fort Erie) - $8,300
Eagle Street (Town of Fort Erie) - $4,100

iii) Q.E.W. Branch

Jukic Group Ltd. (Roll No. 20028-145-00) - $4,300
Q.E.W. (M.T.O.) - $11,100
College Road (Town of Fort Erie) - $6,800

iv) C.N.R. Branch

M. Dolbeau & M. Laroche (Roll No. 20028-083-01) - $4,200
J. T. & G. Curtis (Roll No. 20028-084-00) - $10,000
Jukic Group Ltd. (Roll No. 20028-087-00) - $2,100
C.N.R. (Roll No. 20028-031-994) - $3,200
C.P.R. (Roll No. 20028-047-996) - $3,500

v) College Branch

O. Leon (Roll No. 20028-136-00) - $1,100
Jukic Group Ltd. (Roll No. 20028-145-00) - $1,100
College Road (Town of Fort Erie) - $6,300

c) Special Benefit Assessments (Section 24)

Section 24 of the Drainage Act directs that:

> *"The Engineer may assess for Special Benefit any lands for which Special Benefits have been provided by the drainage works."*

"Special Benefit" means any additional work or feature included in the construction, repair or improvements of drainage works that has no effect on the functioning of the drainage works.

There are no assessments for Special Benefit on this project at this time. However, Special Benefits could be incurred during construction as follows:

- If a landowner elects to haul spoil off-site (where not so indicated by this report) the increased cost of hauling spoil off-site above the cost of levelling spoil will be assessed to the landowner and it is not eligible for the grant.
- If a landowner elects to have new fencing in this report, the landowner will be assessed the increased cost for the new fence and it is not eligible for the grant.

d) Special Assessment (Section 26)

Section 26 of the Drainage Act directs that:

> *"In addition to all other sums lawfully assessed against the property of a public utility or road authority under this Act, and despite the fact that the public road authority is not otherwise assessable under this Act, the public utility or road authority shall be assessed for and shall pay all the increase of cost of such drainage works caused by the existence of the works of the public utility or road authority*."

There are no special assessments at this time. However, should crossings of utilities (such as underground Hydro, Bell and Gas lines, etc.) be encountered and require work by the Contractor, or should any municipal utilities (such as sanitary sewers, storm sewers or watermains) require work by the Contractor, the costs will be assessed as special assessments to the utilities or road authority, based on the actual construction costs incurred and any additional engineering and administration costs. However, if the utility or road authority undertakes the work, there will be no construction costs in the Special Assessment. If the work of the Contractor at a utility or watermain is only to locate, protect, possibly put a low-cost protective medium over the utility line, there will be no Special Assessment for such.

e) Assessments in Schedule B (Schedule of Assessments for Future Maintenance)

These assessments are described in the "Maintenance" section of this report.

f) Assessment Summary (Schedules A to C)

The assessments against the affected lands and roads are summarized in Schedule A. Schedule B (Schedule of Assessments for Future Maintenance) is to be used to bill out future maintenance costs for all of the Glenny Drain 2017. Schedule C (Schedule for Actual Cost Bylaw) illustrates the estimated Net Assessments for each property and road after possible grants and allowances are deduced. The assessments are based on the estimated costs of the work, etc. and the final assessments shall be prorated on the basis of the final project costs. Net assessments in Schedule C may vary depending on the availability of grants.

In Schedules A to C each parcel of land assessed has been identified by the Assessment Roll Number for the municipality at the time of the preparation of this report. The size of each parcel (property) was established using the assessment roll information. For convenience only, each parcel

is further identified by the owner's name from the last revised assessment roll. Final assessments are not levied until after the work is certified complete by the Engineer. The final assessments will thus be to the owner of the identified parcel at the time the final cost is levied. Properties eligible for the Farm Property Class Tax Rate (F.P.C.T.R.) may be eligible for the provincial (OMAFRA) one-third (33-1/3%) grant as per OMAFRA's ADIP policies. This grant may also be available for maintenance assessments.

14.0 ITEMS REQUESTED BY OWNERS

Any additional work or feature (such as additional and ornamental fencing, culverts, etc.) that are requested by landowners at any time that has no effect on the function of the drainage works, will be assessed to that owner. This would be a Special Benefit in accordance with Section 24 of the Drainage Act and would not be eligible for the grant.

15.0 COST OVERRUN PROVISIONS

In any cost estimate prepared by the Engineer, the substantial component relates to "construction". The construction cost estimate is prepared by the Engineer using his best knowledge of past and expected costs. However, any project must be put to tender after any report to implement it is adopted and the costs for construction can vary as per the tender received. The Drainage Act makes it mandatory to have a review by the petitioners/landowners if the tender cost should exceed the Engineer's estimate by 33%.

The allowances component of the report and the engineering for the preparation of the report itself do not vary except if appeals are involved. Construction Supervision and Eligible Administrative costs can vary with the extent of construction supervision required and with any lengthy costs or delays due to appeals, etc. where interest costs and legal representation are impacted.

All increased costs are normally prorated against the assessment schedule that is included. Contingency allowances are also included in the construction cost estimate and unforeseen costs are included in the eligible administrative cost estimate, and such could reduce the impact of cost increases.

16.0 MAINTENANCE

The Glenny Drain 2017, as outlined in this report, shall be maintained by the Town of Fort Erie with costs of all maintenance to be assessed to the lands and roads pro rata with the assessments in Schedule B (Schedule of Assessments for Future Maintenance).

To use Schedule B, the interval in which maintenance is to be undertaken must be identified. Then the percentages shown will be used to establish the amount that each property and road will bear for maintenance costs in that interval. If repair or maintenance is performed at 2 or more intervals, the percentages/assessments shown are to be totalled. A minimum percentage assessment is applied to all future small lots (built-up areas) in the watershed of 0.01% per interval affected.

It is noted that the dollar amounts currently shown in Schedule B are only theoretical and not amounts to be paid. These theoretical amounts were used to develop the assessment percentages that lands and roads would pay for whatever maintenance costs are incurred in the future.

The following notes apply for future repairs and maintenance and are to be considered as further specifications for the Glenny Drain 2017 (also refer to the "Recommended Work" section in this report which describes what the drain and culverts are for future maintenance purposes):

a) All culverts along the Glenny Drain 2017 that are shown to cross a road allowance shall be considered to be a part of the Glenny Drain 2017, but only the cost of cleaning through such culverts* shall be assessed as per ditch clean out cost upstream or downstream of the culvert.

Any work to maintain the structural integrity or to extend or replace the culverts and resulting costs will be assessed fully (100%) to the road authority.

b) The culvert across the C.P.R. (Roll No. 047-996) on the C.N.R. Branch, shall be considered to be part of the Glenny Drain 2017, but only the cost of cleaning through such culvert* shall be assessed as per ditch cleanout cost upstream or downstream of the culvert. Any work to maintain the structural integrity or to extend or replace the culvert and resulting costs will be assessed fully (100%) to the owner of the roll number.

c) Residential culverts along the Glenny Drain 2017, that are considered to be part of the drain, may be replaced up to 9m in length with the cost being split with 50% to the abutting property and 50% to the upstream lands and roads. The cost of additional length over 9m is to be solely assessed (paid) by the abutting property and is not eligible for the grant.

d) Industrial, commercial or farmland culverts along the Glenny Drain 2017, that are considered to be part of the drain, may be replaced up to 12m in length with the cost being split with 50% to the abutting property and 50% to the upstream lands and roads. The cost of additional length over 12m is to be solely assessed (paid) by the abutting property and is not eligible for the grant. If a residential home is located on industrial, commercial or farmland property a second access culvert may be installed with the cost being split with 50% to the abutting property and 50% to the upstream lands and roads. Cleanout costs*.

e) Culverts installed to service public utilities, if any, shall be assessed 50% to the utility and 50% to the affected land or road.

f) The replacement of an existing culvert or placing of a new culvert on the Glenny Drain 2017 must be approved by the Town of Fort Erie. It may be appropriate to undertake such work under a new Engineer's report under the Drainage Act.

g) According to Section 74 of the Drainage Act, RSO 1990, each owner along the drain must provide an access route to the drain for access by the Municipality to undertake the construction and necessary repair or maintenance. As well, a 5m wide right-of-way along each side of the open ditch drain routes are also to be available for future maintenance. Landowners may not place obstructions within the R.O.W. that may prevent routine maintenance of the drain. All costs resulting from the removal of such obstructions shall be assessed fully to the landowner without any grant.

h) Any landowner making a new connection into any of the Glenny Drain 2017, either tile, open ditch or outlet, shall request permission from the Drainage Superintendent to connect to such drain. If the Drainage Superintendent is not notified, this connection will be deemed to be an obstruction under Sections 81& 82 of the Drainage Act RSO 1990 and shall be removed at the owner's expense.

i) All parties affected by the Glenny Drain 2017 are encouraged to periodically inspect the drain once constructed and report any visible or suspected problems to the Town of Fort Erie.

j) The discharge of anything but clean, unpolluted water into a drain is forbidden by other provincial legislation. Materials such as petroleum products, liquid and granular fertilizers, herbicides, insecticides, fungicides, empty containers/boxes, spoiled produce, domestic and industrial garbage and waste, human or animal sewage, grey water sewage, scrap machinery cannot be stored or placed adjacent to a ditch and can not be allowed to enter a ditch. Any non-compliance should be reported to the Ministry of Environment and Climate Change.

* *Removal of accumulated sediments or debris within any culvert shall be considered as normal maintenance.*

In order to facilitate maintenance, provide for nutrient management and decrease the amount of soil erosion and bank degradation, it is recommended that a 0.9m (3') wide buffer strip be maintained on both sides of an open drain. Ideally, buffer strips should not be cultivated but could be lawn, pasture, access or forage crops.

To ensure that the capacity of the drain is not exceeded by future land use or watershed changes, it is recommended that a Section 65 report be prepared after a land use or watershed change has occurred.

To ensure future maintenance schedules have been kept up-to-date, a Section 65 report should be prepared when severances and amalgamations of parcels have occurred.

17.0 BYLAW

This report including the drawings and specifications, the assessment and future maintenance schedules and appendices, when adopted by bylaw in accordance with the Drainage Act, RSO 1990, provides the basis for construction and maintenance of the Glenny Drain 2017.

18.0 GRANTS

In accordance with the provisions of Section 85 of the Drainage Act and OMAFRA's ADIP policies, a grant not exceeding 1/3 (33-1/3%) may be available on the assessments against privately owned parcels of land which are used for agricultural purposes and that currently receive the Farm Property Class Tax Rate are eligible for the grant. Based on Municipal assessment roll information reviewed during the preparation of this report, the assessed parcels that have the Farm Property Tax Class and are thus eligible for the 1/3 grant, are identified with an 'F' in the first column of Schedule C.

Section 88 of the Drainage Act provides for the Municipality to apply for this possible grant upon certification of completion of the drain provided for in this report. The Municipality will first confirm that the Farm Property Tax Class for the parcel in the current assessment roll and then deduct the grant from the assessment prior to collecting the final assessments.

If an assessed owner feels that their property should be eligible for the grant, and they can provide proof to the Municipality of this eligibility as noted prior to the final cost levy, then the property could have the 1/3 (33-1/3%) grant deducted from the final cost levy. Please be advised that OMAFRA retains the final right to determine eligibility under the grant program, regardless of designation herein.

Schedule C (Schedule for Actual Cost Bylaw) illustrates the net assessments after deducting grants, if any, and allowances from the final assessments. Please note that Schedule C assumes that all project costs will be eligible for the grant and that the identified properties in the watershed will retain the Farm Property Tax Class.

In accordance with Section 85 of the Drainage Act, a grant not exceeding 1/3 (33-1/3%) may also be available in the future on the assessments against privately owned parcels of land taxed as agricultural (again as per OMAFRA's ADIP policies), for maintenance and repair of the Glenny Drain 2017, if done on the recommendation and supervision of an approved Drainage Superintendent and using the same eligibility requirements as outlined above.

19.0 CHANGES TO DRAIN

Should changes to the drain proposed in this report be required after the bylaw is passed and the contract is awarded, there may be some difficulty in attending to such. Since this drain is to be constructed in accordance with a Bylaw of the Town of Fort Erie, changes to the drain cannot be undertaken without a change to the bylaw. An exception would be a minor changes to the drain which are approved by the Engineer and the Municipality in accordance with the General Conditions in the report. Such changes must occur before final costs are levied.

If it is desired to make a substantial addition or deletion to the drain proposed in this report, it will be necessary that a revised report be prepared and processed through the Drainage Act, or in some cases, an application to the Ontario Drainage Tribunal may be required under the Drainage Act to obtain approval for a necessary change. The application to the Tribunal must occur before final costs are levied.

If any individual or group of owners require additional work on the proposed drain and are prepared to fully pay for such, they may make their own arrangements with the Contractor to have such work constructed. The Engineer must pre-approve such additions to verify there is no impact on the function or maintenance of the drain as proposed. Even so, the work added would not form part of the drain for the purpose of future maintenance, or be eligible for the grant.

All of which is respectfully submitted.

K. SMART ASSOCIATES LIMITED

Neal Morris

Neal Morris, P. Eng.

mw

SCHEDULE A - SCHEDULE OF ASSESSMENTS
GLENNY DRAIN 2017
Town of Fort Erie

				GLENNY DRAIN NORTH				GLENNY DRAIN SOUTH				Q.E.W. BRANCH			
Con	Lot	Roll No.	Owner	Approx ha Affected	Benefit	Outlet	Total	Approx ha Affected	Benefit	Outlet	Total	Approx ha Affected	Benefit	Outlet	Total
		(20028-)	(Bertie Twp)												
6	Pt 10	019-00	Management Board Secretariat	0.0	0	0	0	6.0	0	1,656	1,656	0	0	0	0
6	Pt 10	020-00	M.T.O.	0.0	0	0	0	3.0	0	565	565	0	0	0	0
6	Pts 9 & 10	023-00	G., J. & T Curtis	0.0	0	0	0	2.9	0	608	608	0	0	0	0
6	Pt 11	025-00	G. Lichtenberger	0.0	0	0	0	24.9	0	8,357	8,357	0	0	0	0
6	Pt 12	028-00	Appomattox Club of Buffalo	0.0	0	0	0	4.6	0	866	866	0	0	0	0
7	Pt 8	075-00	J. Laur	0.0	0	0	0	3.6	0	754	754	0	0	0	0
7	Pt 8	075-03	Walker Aggregates Inc.	0.0	0	0	0	5.0	0	922	922	0	0	0	0
7	Pt 8	075-04	Walker Aggregates Inc.	0.0	0	0	0	4.7	0	818	818	0	0	0	0
7	Pt 9	078-00	M. & S. Kompf	0.0	0	0	0	0.5	0	168	168	0	0	0	0
7	Pt 9, 10, 11	079-00	J., T. & G. Curtis	0.0	0	0	0	32.1	0	5,783	5,783	0	0	0	0
7	Pt 9	080-01	A. & H. Miller	0.0	0	0	0	3.9	0	818	818	0	0	0	0
7	Pt 9	081-00	C. Spada	0.0	0	0	0	0.3	0	63	63	0	0	0	0
7	Pt 10, 11	083-01	M. Dolbeau & M. Laroche	0.0	0	0	0	12.9	0	2,596	2,596	0	0	0	0
7	Pts 9 to 11	084-00	J., T. & G. Curtis	0.0	0	0	0	47.8	0	9,284	9,284	0	0	0	0
7	Pt 10	084-10	J. & T. Rehm	0.0	0	0	0	1.0	0	315	315	0	0	0	0
7	Pt 11	085-00	M.T.O.	0.0	0	0	0	2.0	2,000	377	2,377	0	0	0	0
7	Pt 12	086-00	J. Elliot	0.0	0	0	0	12.8	1,600	1,823	3,423	0	0	0	0
7	Pt 12	087-00	Jukic Group Ltd.	0.0	0	0	0	9.3	4,600	1,001	5,601	0	0	0	0
7	Pt 12	088-00	S. Singh	0.0	0	0	0	7.5	8,400	802	9,202	0	0	0	0
7	Pt 12	089-00	A. & B. Mueller	0.0	0	0	0	0.4	0	73	73	0	0	0	0
7	Pt 13	090-00	H. Bar	0.0	0	0	0	0.3	16	24	40	0	0	0	0
7	Pt 13	091-00	D. & G. Carlesso	0.0	0	0	0	10.0	0	602	602	0	0	0	0
7	Pt 13	092-00	B. & I. Bryant	0.0	0	0	0	4.3	4,500	362	4,862	0	0	0	0
7	Pt 14	095-00	C. & M. Paul	0.0	0	0	0	12.9	0	783	783	0	0	0	0
7	Pt 15	095-01	M. & K. Boulard	0.0	0	0	0	1.0	0	108	108	0	0	0	0
7	Pt 15	096-00	D. Demarco	0.0	0	0	0	1.6	0	157	157	0	0	0	0
7	Pt 15	096-01	R. Lesniczek & C. Cameron	0.0	0	0	0	5.7	0	349	349	0	0	0	0
7	Pt 16	103-00	T. & L. Waters	0.8	0	238	238	0.0	0	0	0	0	0	0	0
7	Pt 16	104-00	R. Courtney	2.0	0	595	595	0.0	0	0	0	0	0	0	0
7	Pt 16	105-00	A. Willick	2.0	0	595	595	0.0	0	0	0	0	0	0	0
7	Pt 16	106-00	K. & S. Cosby	1.6	0	476	476	0.0	0	0	0	0	0	0	0
7	Pt 16	107-00	C. Walter & R. Digrigoli	1.8	0	536	536	0.0	0	0	0	0	0	0	0
7	Pt 15	107-01	P. Ker	6.0	0	1,459	1,459	0.8	0	48	48	0	0	0	0
8	Pt 11	131-01	T. Tran & T. Le	0.0	0	0	0	5.0	0	602	602	0	0	0	0
8	Pt 11	132-00	C. Marr	0.0	0	0	0	5.0	0	301	301	0	0	0	0
8	Pt 11	133-00	S. Bell	0.0	0	0	0	0.9	0	168	168	0	0	0	0
8	Pt 12	135-00	Jukic Group Ltd.	0.0	0	0	0	5.3	0	638	638	0	0	0	0
8	Pt 13	136-00	O. Leon	0.0	0	0	0	2.0	2,400	58	2,458	0	0	0	0
8	Pt 13	136-01	Town of Fort Erie	0.0	0	0	0	1.0	800	181	981	0	0	0	0
8	Pt 13	137-00	G. & C. Nigh	0.0	0	0	0	3.2	2,400	130	2,530	0	0	0	0
8	Pt 14	139-00	E. Bangay	0.9	0	1,634	1,634	0.0	0	0	0	0	0	0	0
8	Pt 14	140-00	R. Christie	0.5	0	934	934	0.0	0	0	0	0	0	0	0
8	Pt 14	141-00	M. Clarkson	0.3	0	584	584	0.0	0	0	0	0	0	0	0
8	Pt 14	142-00	A. Chambers & M. Clarkson	0.2	0	350	350	0.0	0	0	0	0	0	0	0
8	Pt 14	143-00	K. White	0.1	0	234	234	0.0	0	0	0	0	0	0	0
8	Pt 14	144-00	G. Krutasky	1.1	0	1,984	1,984	0.0	0	0	0	0	0	0	0
8	Pt 14	145-00	Jukic Group Ltd.	0.0	0	0	0	5.5	0	44	44	4.7	4,300	1,907	6,207
8	Pt 15	147-00	P. Band & F. Cohen	18.4	9,300	10,738	20,038	0.0	0	0	0	0	0	0	0
8	Pt 16	150-00	A. Kittel	12.4	6,900	9,116	16,016	0.0	0	0	0	0	0	0	0
8	Pt 16	150-01	P. & P. Graves	4.7	0	4,671	4,671	0.0	0	0	0	0	0	0	0
8	Pt 16	150-02	W. Beaudoin	4.5	0	3,913	3,913	0.0	0	0	0	0	0	0	0
8	Pt 16	150-03	D. & K. Plato	4.5	0	4,147	4,147	0.0	0	0	0	0	0	0	0
8	Pt 16	151-00	G. Poulsen	4.5	3,500	3,447	6,947	0.0	0	0	0	0	0	0	0
8	Pt 16	152-00	W. & D. Gray	0.4	0	179	179	0.0	0	0	0	0	0	0	0
7	Pt 10	031-994	C.N.R.	0.0	0	0	0	2.8	0	880	880	0	0	0	0
7	Pt 10	047-996	C.P.R.	0.0	0	0	0	3.6	0	1,152	1,152	0	0	0	0

SCHEDULE A - SCHEDULE OF ASSESSMENTS
GLENNY DRAIN 2017
Town of Fort Erie

				GLENNY DRAIN NORTH				GLENNY DRAIN SOUTH				Q.E.W. BRANCH			
Con	Lot	Roll No.	Owner	Approx ha Affected	Benefit	Outlet	Total	Approx ha Affected	Benefit	Outlet	Total	Approx ha Affected	Benefit	Outlet	Total
		(40055)-	(Willoughby Twp)												
BF Sea	15	050-00	R. & M. Lauck	4.0	0	595	595	0.0	0	0	0	0	0	0	0
BF Sea	Pt 16	058-00	J. & R. Burger	4.9	0	147	147	0.0	0	0	0	0	0	0	0
BF Sea	Pt 17	061-00	B., D., M. & S. Arthur & M. Dilapo	5.5	0	106	106	0.0	0	0	0	0	0	0	0
BF Sea	Pt 17	068-00	G. Fansolato	8.8	0	166	166	0.0	0	0	0	0	0	0	0
BF Sea	Pt 18	116-00	S. & M. Wright	0.1	32	8	40	0.0	0	0	0	0	0	0	0
BF Sea	Pt 18	117-00	K. Sherk	0.2	29	11	40	0.0	0	0	0	0	0	0	0
BF Sea	Pt 18	118-00	P. & E. Burger	0.1	32	8	40	0.0	0	0	0	0	0	0	0
9	Pt 18	118-05	P. Mammoliti	0.3	21	19	40	0.0	0	0	0	0	0	0	0
9	Pt 18	118-15	H. Rerrie & L. Moore	0.1	32	8	40	0.0	0	0	0	0	0	0	0
Adj Cross	Pts 15, 16 & 21	262-00	Stevens Bancorp Inc	20.7	1,300	1,328	2,628	0.0	0	0	0	0	0	0	0
Adj Cross	Pt 21	263-00	S. Sanderson & G. Melvin	4.0	3,500	771	4,271	0.0	0	0	0	0	0	0	0
Adj Cross	Pt 22	264-00	R. Howard	0.8	1,300	201	1,501	0.0	0	0	0	0	0	0	0
Adj Cross	Pt 22	265-00	L. & G. Coutts	0.2	29	11	40	0.0	0	0	0	0	0	0	0
Adj Cross	Pt 22	266-00	L. & G. Coutts	0.1	32	8	40	0.0	0	0	0	0	0	0	0
Adj Cross	Pt 22	267-00	W. Grimm	1.0	1,600	112	1,712	0.0	0	0	0	0	0	0	0
Adj Cross	Pt 22	268-01	A. Beam	4.4	0	166	166	0.0	0	0	0	0	0	0	0
Adj Cross	Pt 22	268-05	M. & K. Knuuttila	0.1	32	8	40	0.0	0	0	0	0	0	0	0
Adj Cross	Pt 22	268-10	R. & L. Punch	0.2	29	11	40	0.0	0	0	0	0	0	0	0
Adj Cross	Pt 22	268-20	L. & J. Kawucha	0.2	29	11	40	0.0	0	0	0	0	0	0	0
Adj Cross	Pt 22	268-30	T. & J. Van Leemput	0.2	29	11	40	0.0	0	0	0	0	0	0	0
Adj Cross	Pt 22	??	Unknown (Town of Fort Erie)	0.5	3	37	40	0.0	0	0	0	0	0	0	0
	Total Assessments on Lands:			123.1	27,729	49,573	77,302	256.1	26,716	44,236	70,952	4.7	4,300	1,907	6,207
Q.E.W.			M.T.O.	3.5	14,100	8,169	22,269	23.9	38,100	10,100	48,200	1.6	11,100	2,543	13,643
Switch Road			Town of Fort Erie	1.0	0	75	75	0.0	0	0	0	0	0	0	0
Townline Road			Town of Fort Erie	1.8	6,600	1,071	7,671	0.0	0	0	0	0	0	0	0
College Road			Town of Fort Erie	0.5	15,800	1,166	16,966	3.2	4,600	289	4,889	1.4	6,800	2,225	9,025
Ridgemount Road			Town of Fort Erie	1.1	0	2,567	2,567	5.3	6,000	1,278	7,278	0	0	0	0
Sumner Road (Unopened)			Town of Fort Erie	0.0	0	0	0	0.5	8,300	188	8,488	0	0	0	0
Eagle Street			Town of Fort Erie	0.0	0	0	0	3.0	4,100	722	4,822	0	0	0	0
Arcadia Street (Unopened)			Town of Fort Erie	0.0	0	0	0	0.6	0	226	226	0	0	0	0
Laur Road			Town of Fort Erie	0.0	0	0	0	0.8	0	335	335	0	0	0	0
Laur Road (Unopened)			Town of Fort Erie	0.0	0	0	0	0.8	0	168	168	0	0	0	0
Curtis Road			Town of Fort Erie	0.0	0	0	0	0.9	0	377	377	0	0	0	0
Bowen Road			Town of Fort Erie	0.0	0	0	0	1.3	0	545	545	0	0	0	0
Shagbark Lane			Town of Fort Erie	0.2	0	15	15	0.0	0	0	0	0	0	0	0
	Total Assessments on Roads:			8.1	36,500	13,063	49,563	40.3	61,100	14,228	75,328	3.0	17,900	4,768	22,668
TOTAL ASSESSMENTS ON GLENNY DRAIN 2017:				131.2	64,229	62,636	126,865	296.4	87,816	58,464	146,280	7.7	22,200	6,675	28,875

Notes:

1. Section 21 of the Drainage Act, RSO 1990 requires that assessments be shown opposite each parcel of land and road affected. The affected parcels of land have been identified using the roll number from the last revised assessment roll for the Township. For convenience only, the owners' names as shown by the last revised assessment roll, has also been included.
2. All lands shown above are in the Town of Fort Erie.

SCHEDULE A - SCHEDULE OF ASSESSMENTS
GLENNY DRAIN 2017
Town of Fort Erie

				C.N.R. BRANCH				COLLEGE BRANCH						
Con	Lot	Roll No.	Owner	Approx ha Affected	Benefit	Outlet	Total	Approx ha Affected	Benefit	Outlet	Total	Grand Total	COR Change	COR TOTAL
		(20028-)	(Bertie Twp)											
6	Pt 10	019-00	Management Board Secretariat	0	0	0	0	0	0	0	0	1,656	-69	1,587
6	Pt 10	020-00	M.T.O.	0	0	0	0	0	0	0	0	565	-24	541
6	Pts 9 & 10	023-00	G., J. & T Curtis	0	0	0	0	0	0	0	0	608	-25	583
6	Pt 11	025-00	G. Lichtenberger	0	0	0	0	0	0	0	0	8,357	-350	8,007
6	Pt 12	028-00	Appomattox Club of Buffalo	0	0	0	0	0	0	0	0	866	-36	830
7	Pt 8	075-00	J. Laur	3.6	0	2,711	2,711	0	0	0	0	3,465	-145	3,320
7	Pt 8	075-03	Walker Aggregates Inc.	5.0	0	3,313	3,313	0	0	0	0	4,235	-177	4,058
7	Pt 8	075-04	Walker Aggregates Inc.	4.7	0	2,936	2,936	0	0	0	0	3,754	-157	3,597
7	Pt 9	078-00	M. & S. Kompf	0.5	0	603	603	0	0	0	0	771	-32	739
7	Pt 9, 10, 11	079-00	J., T. & G. Curtis	8.3	0	4,969	4,969	0	0	0	0	10,752	-450	10,302
7	Pt 9	080-01	A. & H. Miller	3.9	0	2,936	2,936	0	0	0	0	3,754	-157	3,597
7	Pt 9	081-00	C. Spada	0.3	0	226	226	0	0	0	0	289	-12	277
7	Pt 10, 11	083-01	M. Dolbeau & M. Laroche	11.7	4,200	6,634	10,834	0	0	0	0	13,430	-562	12,868
7	Pts 9 to 11	084-00	J., T. & G. Curtis	44.4	10,000	28,521	38,521	0	0	0	0	47,805	-1,997	45,808
7	Pt 10	084-10	J. & T. Rehm	1.0	0	1,130	1,130	0	0	0	0	1,445	-60	1,385
7	Pt 11	085-00	M.T.O.	0	0	0	0	0	0	0	0	2,377	-100	2,277
7	Pt 12	086-00	J. Elliot	0	0	0	0	0	0	0	0	3,423	-143	3,280
7	Pt 12	087-00	Jukic Group Ltd.	0	2,100	0	2,100	0	0	0	0	7,701	-322	7,379
7	Pt 12	088-00	S. Singh	0	0	0	0	0	0	0	0	9,202	-385	8,817
7	Pt 12	089-00	A. & B. Mueller	0	0	0	0	0	0	0	0	73	-3	70
7	Pt 13	090-00	H. Bar	0	0	0	0	0	0	0	0	40	-2	38
7	Pt 13	091-00	D. & G. Carlesso	0	0	0	0	0	0	0	0	602	-25	577
7	Pt 13	092-00	B. & I. Bryant	0	0	0	0	0	0	0	0	4,862	-204	4,658
7	Pt 14	095-00	C. & M. Paul	0	0	0	0	0	0	0	0	783	-33	750
7	Pt 15	095-01	M. & K. Boulard	0	0	0	0	0	0	0	0	108	-5	103
7	Pt 15	096-00	D. Demarco	0	0	0	0	0	0	0	0	157	-7	150
7	Pt 15	096-01	R. Lesniczek & C. Cameron	0	0	0	0	0	0	0	0	349	-15	334
7	Pt 16	103-00	T. & L. Waters	0	0	0	0	0	0	0	0	238	-10	228
7	Pt 16	104-00	R. Courtney	0	0	0	0	0	0	0	0	595	-25	570
7	Pt 16	105-00	A. Willick	0	0	0	0	0	0	0	0	595	-25	570
7	Pt 16	106-00	K. & S. Cosby	0	0	0	0	0	0	0	0	476	-20	456
7	Pt 16	107-00	C. Walter & R. Digrigoli	0	0	0	0	0	0	0	0	536	-22	514
7	Pt 15	107-01	P. Ker	0	0	0	0	0	0	0	0	1,507	-63	1,444
8	Pt 11	131-01	T. Tran & T. Le	0	0	0	0	0	0	0	0	602	-25	577
8	Pt 11	132-00	C. Marr	0	0	0	0	0	0	0	0	301	-13	288
8	Pt 11	133-00	S. Bell	0	0	0	0	0	0	0	0	168	-7	161
8	Pt 12	135-00	Jukic Group Ltd.	0	0	0	0	0	0	0	0	638	-27	611
8	Pt 13	136-00	O. Leon	0	0	0	0	1.2	1,100	1,035	2,135	4,593	-192	4,401
8	Pt 13	136-01	Town of Fort Erie	0	0	0	0	0	0	0	0	981	-41	940
8	Pt 13	137-00	G. & C. Nigh	0	0	0	0	0	0	0	0	2,530	-106	2,424
8	Pt 14	139-00	E. Bangay	0	0	0	0	0	0	0	0	1,634	-68	1,566
8	Pt 14	140-00	R. Christie	0	0	0	0	0	0	0	0	934	-39	895
8	Pt 14	141-00	M. Clarkson	0	0	0	0	0	0	0	0	584	-24	560
8	Pt 14	142-00	A. Chambers & M. Clarkson	0	0	0	0	0	0	0	0	350	-15	335
8	Pt 14	143-00	K. White	0	0	0	0	0	0	0	0	234	-10	224
8	Pt 14	144-00	G. Krutasky	0	0	0	0	0	0	0	0	1,984	-83	1,901
8	Pt 14	145-00	Jukic Group Ltd.	0	0	0	0	0	1,100	0	1,100	7,351	-308	7,043
8	Pt 15	147-00	P. Band & F. Cohen	0	0	0	0	0	0	0	0	20,038	-839	19,199
8	Pt 16	150-00	A. Kittel	0	0	0	0	0	0	0	0	16,016	-670	15,346
8	Pt 16	150-01	P. & P. Graves	0	0	0	0	0	0	0	0	4,671	-196	4,475
8	Pt 16	150-02	W. Beaudoin	0	0	0	0	0	0	0	0	3,913	-164	3,749
8	Pt 16	150-03	D. & K. Plato	0	0	0	0	0	0	0	0	4,147	-174	3,973
8	Pt 16	151-00	G. Poulsen	0	0	0	0	0	0	0	0	6,947	-291	6,656
8	Pt 16	152-00	W. & D. Gray	0	0	0	0	0	0	0	0	179	-7	172
7	Pt 10	031-994	C.N.R.	1.6	3,200	1,807	5,007	0	0	0	0	5,887	-246	5,641
7	Pt 10	047-996	C.P.R.	2.1	3,500	2,409	5,909	0	0	0	0	7,061	-296	6,765

SCHEDULE A - SCHEDULE OF ASSESSMENTS
GLENNY DRAIN 2017
Town of Fort Erie

				C.N.R. BRANCH				COLLEGE BRANCH						
Con	Lot	Roll No.	Owner	Approx ha Affected	Benefit	Outlet	Total	Approx ha Affected	Benefit	Outlet	Total	Grand Total	COR Change	COR TOTAL
		(40055)-	(Willoughby Twp)										0	0
BF Sea	15	050-00	R. & M. Lauck	0	0	0	0	0	0	0	0	595	-25	570
BF Sea	Pt 16	058-00	J. & R. Burger	0	0	0	0	0	0	0	0	147	-6	141
BF Sea	Pt 17	061-00	B., D., M. & S. Arthur & M. Dilapo	0	0	0	0	0	0	0	0	106	-4	102
BF Sea	Pt 17	068-00	G. Fansolato	0	0	0	0	0	0	0	0	166	-7	159
BF Sea	Pt 18	116-00	S. & M. Wright	0	0	0	0	0	0	0		40	-2	38
BF Sea	Pt 18	117-00	K. Sherk	0	0	0	0	0	0	0	0	40	-2	38
BF Sea	Pt 18	118-00	P. & E. Burger	0	0	0	0	0	0	0	0	40	-2	38
9	Pt 18	118-05	P. Mammoliti	0	0	0	0	0	0	0	0	40	-2	38
9	Pt 18	118-15	H. Rerrie & L. Moore	0	0	0	0	0	0	0	0	40	-2	38
Adj Cross	Pts 15, 16 & 21	262-00	Stevens Bancorp Inc	0	0	0	0	0	0	0	0	2,628	-110	2,518
Adj Cross	Pt 21	263-00	S. Sanderson & G. Melvin	0	0	0	0	0	0	0	0	4,271	-179	4,092
Adj Cross	Pt 22	264-00	R. Howard	0	0	0	0	0	0	0	0	1,501	-63	1,438
Adj Cross	Pt 22	265-00	L. & G. Coutts	0	0	0	0	0	0	0	0	40	-2	38
Adj Cross	Pt 22	266-00	L. & G. Coutts	0	0	0	0	0	0	0	0	40	-2	38
Adj Cross	Pt 22	267-00	W. Grimm	0	0	0	0	0	0	0	0	1,712	-72	1,640
Adj Cross	Pt 22	268-01	A. Beam	0	0	0	0	0	0	0	0	166	-7	159
Adj Cross	Pt 22	268-05	M. & K. Knuuttila	0	0	0	0	0	0	0	0	40	-2	38
Adj Cross	Pt 22	268-10	R. & L. Punch	0	0	0	0	0	0	0	0	40	-2	38
Adj Cross	Pt 22	268-20	L. & J. Kawucha	0	0	0	0	0	0	0	0	40	-2	38
Adj Cross	Pt 22	268-30	T. & J. Van Leemput	0	0	0	0	0	0	0	0	40	-2	38
Adj Cross	Pt 22	??	Unknown (Town of Fort Erie)	0	0	0	0	0	0	0	0	40	-2	38
	Total Assessments on Lands:			87.1	23,000	58,195	81,195	1.2	2,200	1,035	3,235	238,891	-10,000	228,891
Q.E.W.			M.T.O.	0	0	0	0	0	0	0	0	84,112	5,000	89,112
Switch Road			Town of Fort Erie	0	0	0	0	0	0	0	0	75	0	75
Townline Road			Town of Fort Erie	0	0	0	0	0	0	0	0	7,671	0	7,671
College Road			Town of Fort Erie	0	0	0	0	0.9	6,300	3,105	9,405	40,285	5,000	45,285
Ridgemount Road			Town of Fort Erie	0	0	0	0	0	0	0	0	9,845	0	9,845
Sumner Road (Unopened)			Town of Fort Erie	0	0	0	0	0	0	0	0	8,488	0	8,488
Eagle Street			Town of Fort Erie	0	0	0	0	0	0	0	0	4,822	0	4,822
Arcadia Street (Unopened)			Town of Fort Erie	0	0	0	0	0	0	0	0	226	0	226
Laur Road			Town of Fort Erie	0	0	0	0	0	0	0	0	335	0	335
Laur Road (Unopened)			Town of Fort Erie	0	0	0	0	0	0	0	0	168	0	168
Curtis Road			Town of Fort Erie	0.7	0	1,055	1,055	0	0	0	0	1,432	0	1,432
Bowen Road			Town of Fort Erie	1.3	0	1,960	1,960	0	0	0	0	2,505	0	2,505
Shagbark Lane			Town of Fort Erie	0	0	0	0	0	0	0	0	15	0	15
	Total Assessments on Roads:			2.0	0	3,015	3,015	0.9	6,300	3,105	9,405	159,979	10,000	169,979
TOTAL ASSESSMENTS ON GLENNY DRAIN 2017:				89.1	23,000	61,210	84,210	2.1	8,500	4,140	12,640	398,870	0	398,870

Notes:

1. Section 21 of the Drainage Act, RSO 1990 requires that assessments be shown opposite each parcel of land and road affected. The affected parcels of land have been identified using the roll number from the last revised assessment roll for the Township. For convenience only, the owners' names as shown by the last revised assessment roll, has also been included.
2. All lands shown above are in the Town of Fort Erie.

	Con	Lot	Roll No.	Owner	Total Estimated Gross	1/3 Grant	Allow-ances	Total Estimated Net	COR Change
			(20028-)	**(Bertie Twp)**					
	6	Pt 10	019-00	Management Board Secretariat	1,587	0	0	1,587	-69
	6	Pt 10	020-00	M.T.O.	541	0	0	541	-24
F	6	Pts 9 & 10	023-00	G., J. & T Curtis	583	194	0	389	-25
F	6	Pt 11	025-00	G. Lichtenberger	8,007	2,669	0	5,338	-350
	6	Pt 12	028-00	Appomattox Club of Buffalo	830	0	0	830	-36
F	7	Pt 8	075-00	J. Laur	3,320	1,107	0	2,213	-145
F	7	Pt 8	075-03	Walker Aggregates Inc.	4,058	1,353	0	2,705	-177
F	7	Pt 8	075-04	Walker Aggregates Inc.	3,597	1,199	0	2,398	-157
	7	Pt 9	078-00	M. & S. Kompf	739	0	0	739	-32
F	7	Pt 9, 10, 11	079-00	J., T. & G. Curtis	10,302	3,434	0	6,868	-450
F	7	Pt 9	080-01	A. & H. Miller	3,597	1,199	0	2,398	-157
	7	Pt 9	081-00	C. Spada	277	0	0	277	-12
F	7	Pt 10, 11	083-01	M. Dolbeau & M. Laroche	12,868	4,289	800	7,779	-562
F	7	Pts 9 to 11	084-00	J., T. & G. Curtis	45,808	15,269	4,100	26,439	-1,997
	7	Pt 10	084-10	J. & T. Rehm	1,385	0	0	1,385	-60
	7	Pt 11	085-00	M.T.O.	2,277	0	1,000	1,277	-100
	7	Pt 12	086-00	J. Elliot	3,280	0	400	2,880	-143
	7	Pt 12	087-00	Jukic Group Ltd.	7,379	0	1,700	5,679	-322
	7	Pt 12	088-00	S. Singh	8,817	0	2,000	6,817	-385
	7	Pt 12	089-00	A. & B. Mueller	70	0	0	70	-3
	7	Pt 13	090-00	H. Bar	38	0	0	38	-2
	7	Pt 13	091-00	D. & G. Carlesso	577	0	0	577	-25
	7	Pt 13	092-00	B. & I. Bryant	4,658	0	1,100	3,558	-204
	7	Pt 14	095-00	C. & M. Paul	750	0	0	750	-33
	7	Pt 15	095-01	M. & K. Boulard	103	0	0	103	-5
	7	Pt 15	096-00	D. Demarco	150	0	0	150	-7
	7	Pt 15	096-01	R. Lesniczek & C. Cameron	334	0	0	334	-15
	7	Pt 16	103-00	T. & L. Waters	228	0	0	228	-10
	7	Pt 16	104-00	R. Courtney	570	0	0	570	-25
	7	Pt 16	105-00	A. Willick	570	0	0	570	-25
	7	Pt 16	106-00	K. & S. Cosby	456	0	0	456	-20
	7	Pt 16	107-00	C. Walter & R. Digrigoli	514	0	0	514	-22
	7	Pt 15	107-01	P. Ker	1,444	0	0	1,444	-63
	8	Pt 11	131-01	T. Tran & T. Le	577	0	0	577	-25
	8	Pt 11	132-00	C. Marr	288	0	0	288	-13
	8	Pt 11	133-00	S. Bell	161	0	0	161	-7
	8	Pt 12	135-00	Jukic Group Ltd.	611	0	0	611	-27
	8	Pt 13	136-00	O. Leon	4,401	0	1,800	2,601	-192
	8	Pt 13	136-01	Town of Fort Erie	940	0	200	740	-41
	8	Pt 13	137-00	G. & C. Nigh	2,424	0	700	1,724	-106
	8	Pt 14	139-00	E. Bangay	1,566	0	0	1,566	-68
	8	Pt 14	140-00	R. Christie	895	0	0	895	-39
	8	Pt 14	141-00	M. Clarkson	560	0	0	560	-24
	8	Pt 14	142-00	A. Chambers & M. Clarkson	335	0	0	335	-15
	8	Pt 14	143-00	K. White	224	0	0	224	-10
	8	Pt 14	144-00	G. Krutasky	1,901	0	0	1,901	-83
	8	Pt 14	145-00	Jukic Group Ltd.	7,043	0	1,500	5,543	-308
	8	Pt 15	147-00	P. Band & F. Cohen	19,199	0	2,300	16,899	-839
	8	Pt 16	150-00	A. Kittel	15,346	0	1,400	13,946	-670
F	8	Pt 16	150-01	P. & P. Graves	4,475	1,492	0	2,983	-196
F	8	Pt 16	150-02	W. Beaudoin	3,749	1,250	0	2,499	-164
	8	Pt 16	150-03	D. & K. Plato	3,973	0	0	3,973	-174
	8	Pt 16	151-00	G. Poulsen	6,656	0	900	5,756	-291
	8	Pt 16	152-00	W. & D. Gray	172	0	0	172	-7
	7	Pt 10	031-994	C.N.R.	5,641	0	0	5,641	-246
	7	Pt 10	047-996	C.P.R.	6,765	0	100	6,665	-296
			(40055)-	**(Willoughby Twp)**					
	BF Sea	15	050-00	R. & M. Lauck	570	0	0	570	-25
	BF Sea	Pt 16	058-00	J. & R. Burger	141	0	0	141	-6
	BF Sea	Pt 17	061-00	B., D., M. & S. Arthur & M. Dilapo	102	0	0	102	-4
	BF Sea	Pt 17	068-00	G. Fansolato	159	0	0	159	-7
	BF Sea	Pt 18	116-00	S. & M. Wright	38	0	0	38	-2
	BF Sea	Pt 18	117-00	K. Sherk	38	0	0	38	-2
	BF Sea	Pt 18	118-00	P. & E. Burger	38	0	0	38	-2
	9	Pt 18	118-05	P. Mammoliti	38	0	0	38	-2
	9	Pt 18	118-15	H. Rerrie & L. Moore	38	0	0	38	-2
	Adj Cross	Pts 15, 16 & 21	262-00	Stevens Bancorp Inc	2,518	0	300	2,218	-110

	Con	Lot	Roll No.	Owner	Total Estimated Gross	1/3 Grant	Allow-ances	Total Estimated Net	COR Change
	Adj Cross	Pt 21	263-00	S. Sanderson & G. Melvin	4,092	0	700	3,392	-179
	Adj Cross	Pt 22	264-00	R. Howard	1,438	0	300	1,138	-63
	Adj Cross	Pt 22	265-00	L. & G. Coutts	38	0	0	38	-2
	Adj Cross	Pt 22	266-00	L. & G. Coutts	38	0	0	38	-2
	Adj Cross	Pt 22	267-00	W. Grimm	1,640	0	400	1,240	-72
F	Adj Cross	Pt 22	268-01	A. Beam	159	53	0	106	-7
	Adj Cross	Pt 22	268-05	M. & K. Knuuttila	38	0	0	38	-2
	Adj Cross	Pt 22	268-10	R. & L. Punch	38	0	0	38	-2
	Adj Cross	Pt 22	268-20	L. & J. Kawucha	38	0	0	38	-2
	Adj Cross	Pt 22	268-30	T. & J. Van Leemput	38	0	0	38	-2
	Adj Cross	Pt 22	??	Unknown (Town of Fort Erie)	38	0	0	38	-2
					228,891	33,508	21,700	173,683	-10,000
	Q.E.W.			M.T.O.	89,112	0	0	89,112	5,000
	Switch Road			Town of Fort Erie	75	0	0	75	0
	Townline Road			Town of Fort Erie	7,671	0	0	7,671	0
	College Road			Town of Fort Erie	45,285	0	0	45,285	5,000
	Ridgemount Road			Town of Fort Erie	9,845	0	0	9,845	0
	Sumner Road (Unopened)			Town of Fort Erie	8,488	0	0	8,488	0
	Eagle Street			Town of Fort Erie	4,822	0	0	4,822	0
	Arcadia Street (Unopened)			Town of Fort Erie	226	0	0	226	0
	Laur Road			Town of Fort Erie	335	0	0	335	0
	Laur Road (Unopened)			Town of Fort Erie	168	0	0	168	0
	Curtis Road			Town of Fort Erie	1,432	0	0	1,432	0
	Bowen Road			Town of Fort Erie	2,505	0	0	2,505	0
	Shagbark Lane			Town of Fort Erie	15	0	0	15	0
	Total Assessments on Roads:				169,979	0	0	169,979	10,000
	TOTAL ASSESSMENTS ON GLENNY DRAIN 2017:				398,870	33,508	21,700	343,662	0

Notes:

1 The above lands noted with an "F" are currently classified as agricultural according to OMAFRA and are therefore entitled to a 1/3 grant. Eligibility for the 1/3 grant will be confirmed at the time the final cost is levied.

2 Section 21 of the Drainage Act, RSO 1990 requires that assessments be shown opposite each parcel of land and road affected. The affected parcels of land have been identified using the roll number from the last revised assessment roll for the Township. For convenience only, the owners' names as shown by the last revised assessment roll, has also been included.

3. The value of the assessments identified in this schedule are estimates only, and should not be considered final.

4. All lands shown above are in the Town of Fort Erie.

SCHEDULE B - SCHEDULE OF ASSESSMENTS FOR FUTURE MAINTENANCE
GLENNY DRAIN 2017
Town of Fort Erie

				GLENNY DRAIN NORTH								GLENNY DRAIN SOUTH									
				Interval 1		Interval 2		Interval 3		Glenny Drain North		Interval 1	(Kline	Interval 2		Interval 3		Interval 4		Glenny Drain South	
				000 to 495		495 to 877		877 to 1+920		Total		000 to 332	Outlet)	332 to 1+129		1+129 to 1+582		1+582 to 1+960		Total	
				Assess	%	Assess	%	Assess	%	Assess	%	Assess	%	Assess	%	Assess	%	Assess	%	Assess	%
Con	Lot	Roll No.	Owner	($)		($)		($)		($)		($)		($)		($)		($)		($)	
BF Sea	Pt 17	068-00	G. Fansolato	162	2.75	0	0.00	0	0.00	162	0.70	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
BF Sea	Pt 18	116-00	S. & M. Wright	307	5.20	0	0.00	0	0.00	307	1.33	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
BF Sea	Pt 18	117-00	K. Sherk	11	0.19	0	0.00	0	0.00	11	0.05	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
BF Sea	Pt 18	118-00	P. & E. Burger	7	0.12	0	0.00	0	0.00	7	0.03	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
9	Pt 18	118-05	P. Mammoliti	18	0.31	0	0.00	0	0.00	18	0.08	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
9	Pt 18	118-15	H. Rerrie & L. Moore	7	0.12	0	0.00	0	0.00	7	0.03	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pts 15, 16 & 21	262-00	Stevens Bancorp Inc	384	6.51	615	13.37	0	0.00	999	4.34	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 21	263-00	S. Sanderson & G. Melvin	143	2.42	576	12.52	0	0.00	719	3.13	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 22	264-00	R. Howard	44	0.75	219	4.76	0	0.00	263	1.14	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 22	265-00	L. & G. Coutts	11	0.19	0	0.00	0	0.00	11	0.05	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 22	266-00	L. & G. Coutts	7	0.12	0	0.00	0	0.00	7	0.03	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 22	267-00	W. Grimm	83	1.41	210	4.57	0	0.00	293	1.27	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 22	268-01	A. Beam	812	13.76	0	0.00	0	0.00	812	3.53	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 22	268-05	M. & K. Knuuttila	7	0.12	0	0.00	0	0.00	7	0.03	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 22	268-10	R. & L. Punch	11	0.19	0	0.00	0	0.00	11	0.05	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 22	268-20	L. & J. Kawucha	11	0.19	0	0.00	0	0.00	11	0.05	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 22	268-30	T. & J. Van Leemput	11	0.19	0	0.00	0	0.00	11	0.05	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 22	??	Unknown (Town of Fort Erie)	11	0.19	3	0.07	0	0.00	14	0.06	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
				4,501	76.29	3,361	73.07	7,349	58.79	15,211	66.13	3,114	79.85	5,680	59.17	3,740	69.26	2,359	52.42	14,893	63.65
Q.E.W.			M.T.O.	1,059	17.95	222	4.83	3,926	31.41	5,207	22.64	471	12.08	1,038	10.81	1,560	28.89	1,901	42.24	4,970	21.24
Switch Road			Town of Fort Erie	74	1.25	0	0.00	0	0.00	74	0.32	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Townline Road			Town of Fort Erie	133	2.25	915	19.89	0	0.00	1,048	4.56	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
College Road			Town of Fort Erie	37	0.63	32	0.70	933	7.46	1,002	4.36	66	1.69	833	8.68	0	0.00	0	0.00	899	3.84
Ridgemount Road			Town of Fort Erie	81	1.37	70	1.52	292	2.34	443	1.93	109	2.79	994	10.35	0	0.00	0	0.00	1,103	4.71
Sumner Road (Unopened)			Town of Fort Erie	0	0.00	0	0.00	0	0.00	0	0.00	5	0.13	9	0.09	6	0.11	218	4.84	238	1.02
Eagle Street			Town of Fort Erie	0	0.00	0	0.00	0	0.00	0	0.00	61	1.56	910	9.48	0	0.00	0	0.00	971	4.15
Arcadia Street (Unopened)			Town of Fort Erie	0	0.00	0	0.00	0	0.00	0	0.00	6	0.15	11	0.11	8	0.15	22	0.49	47	0.20
Laur Road			Town of Fort Erie	0	0.00	0	0.00	0	0.00	0	0.00	16	0.41	29	0.30	20	0.37	0	0.00	65	0.28
Laur Road (Unopened)			Town of Fort Erie	0	0.00	0	0.00	0	0.00	0	0.00	8	0.21	15	0.16	10	0.19	0	0.00	33	0.14
Curtis Road			Town of Fort Erie	0	0.00	0	0.00	0	0.00	0	0.00	18	0.46	33	0.34	23	0.43	0	0.00	74	0.32
Bowen Road			Town of Fort Erie	0	0.00	0	0.00	0	0.00	0	0.00	26	0.67	48	0.50	33	0.61	0	0.00	107	0.46
Shagbark Lane			Town of Fort Erie	15	0.25	0	0.00	0	0.00	15	0.07	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Total Assessments on Roads:				1,399	23.71	1,239	26.93	5,151	41.21	7,789	33.87	786	20.15	3,920	40.83	1,660	30.74	2,141	47.58	8,507	36.35
TOTAL ASSESSMENTS ON GLENNY DRAIN 2017:				5,900	100.00	4,600	100.00	12,500	100.00	23,000	100.00	3,900	100.00	9,600	100.00	5,400	100.00	4,500	100.00	23,400	100.00

Notes:

1. Section 21 of the Drainage Act, RSO 1990 requires that assessments be shown opposite each parcel of land and road affected. The affected parcels of land have been identified using the roll number from the last revised assessment roll for the Township. For convenience only, the owners' names as shown by the last revised assessment roll, has also been included.
2. All lands shown above are in the Town of Fort Erie.
3. The dollars shown are not amounts to pay. They are to be used only to create the percentages that any parcel (property) and road will have of a future maintenance cost.
4. Agricultural designation not included as grant eligibility has to be confirmed at the time of maintenance cost levy.

SCHEDULE B - SCHEDULE OF ASSESSMENTS FOR FUTURE MAINTENANCE
GLENNY DRAIN 2017
Town of Fort Erie

				Q.E.W. BRANCH		C.N.R. BRANCH						COLLEGE BRANCH	
						Interval 1		Interval 2		C.N.R. Branch Total			
				000 to 343		000 to 694		694 to 867				000 to 114	
Con	Lot	Roll No.	Owner	Assess ($)	%	Assess ($)	%	Assess ($)	%	Assess ($)	%	Assess ($)	%
		(20028-)	(Bertie Twp)										
6	Pt 10	019-00	Management Board Secretariat	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
6	Pt 10	020-00	M.T.O.	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
6	Pts 9 & 10	023-00	G., J. & T Curtis	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
6	Pt 11	025-00	G. Lichtenberger	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
6	Pt 12	028-00	Appomattox Club of Buffalo	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	Pt 8	075-00	J. Laur	0	0.00	183	2.20	54	2.57	237	2.28	0	0.00
7	Pt 8	075-03	Walker Aggregates Inc.	0	0.00	224	2.70	66	3.14	290	2.79	0	0.00
7	Pt 8	075-04	Walker Aggregates Inc.	0	0.00	199	2.40	59	2.81	258	2.48	0	0.00
7	Pt 9	078-00	M. & S. Kompf	0	0.00	41	0.49	12	0.57	53	0.51	0	0.00
7	Pt 9, 10, 11	079-00	J., T. & G. Curtis	0	0.00	336	4.05	99	4.71	435	4.18	0	0.00
7	Pt 9	080-01	A. & H. Miller	0	0.00	199	2.40	59	2.81	258	2.48	0	0.00
7	Pt 9	081-00	C. Spada	0	0.00	15	0.18	5	0.24	20	0.19	0	0.00
7	Pt 10, 11	083-01	M. Dolbeau & M. Laroche	0	0.00	1,296	15.61	0	0.00	1,296	12.46	0	0.00
7	Pts 9 to 11	084-00	J., T. & G. Curtis	0	0.00	4,142	49.90	979	46.62	5,121	49.24	0	0.00
7	Pt 10	084-10	J. & T. Rehm	0	0.00	76	0.92	23	1.10	99	0.95	0	0.00
7	Pt 11	085-00	M.T.O.	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	Pt 12	086-00	J. Elliot	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	Pt 12	087-00	Jukic Group Ltd.	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	Pt 12	088-00	S. Singh	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	Pt 12	089-00	A. & B. Mueller	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	Pt 13	090-00	H. Bar	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	Pt 13	091-00	D. & G. Carlesso	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	Pt 13	092-00	B. & I. Bryant	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	Pt 14	095-00	C. & M. Paul	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	Pt 15	095-01	M. & K. Boulard	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	Pt 15	096-00	D. Demarco	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	Pt 15	096-01	R. Lesniczek & C. Cameron	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	Pt 16	103-00	T. & L. Waters	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	Pt 16	104-00	R. Courtney	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	Pt 16	105-00	A. Willick	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	Pt 16	106-00	K. & S. Cosby	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	Pt 16	107-00	C. Walter & R. Digrigoli	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	Pt 15	107-01	P. Ker	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Pt 11	131-01	T. Tran & T. Le	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Pt 11	132-00	C. Marr	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Pt 11	133-00	S. Bell	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Pt 12	135-00	Jukic Group Ltd.	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Pt 13	136-00	O. Leon	0	0.00	0	0.00	0	0.00	0	0.00	325	23.21
8	Pt 13	136-01	Town of Fort Erie	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Pt 13	137-00	G. & C. Nigh	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Pt 14	139-00	E. Bangay	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Pt 14	140-00	R. Christie	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Pt 14	141-00	M. Clarkson	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Pt 14	142-00	A. Chambers & M. Clarkson	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Pt 14	143-00	K. White	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Pt 14	144-00	G. Krutasky	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Pt 14	145-00	Jukic Group Ltd.	1,143	27.88	0	0.00	0	0.00	0	0.00	0	0.00
8	Pt 15	147-00	P. Band & F. Cohen	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Pt 16	150-00	A. Kittel	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Pt 16	150-01	P. & P. Graves	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Pt 16	150-02	W. Beaudoin	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Pt 16	150-03	D. & K. Plato	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Pt 16	151-00	G. Poulsen	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
8	Pt 16	152-00	W. & D. Gray	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
7	Pt 10	031-994	C.N.R.	0	0.00	322	3.88	336	16.00	658	6.33	0	0.00
7	Pt 10	047-996	C.P.R.	0	0.00	1,063	12.81	348	16.57	1,411	13.57	0	0.00
		(40055)-	(Willoughby Twp)										
BF Sea	15	050-00	R. & M. Lauck	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
BF Sea	Pt 16	058-00	J. & R. Burger	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
BF Sea	Pt 17	061-00	B., D., M. & S. Arthur & M. Dilapo	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00

SCHEDULE B - SCHEDULE OF ASSESSMENTS FOR FUTURE MAINTENANCE
GLENNY DRAIN 2017
Town of Fort Erie

				Q.E.W. BRANCH		C.N.R. BRANCH						COLLEGE BRANCH	
						Interval 1		Interval 2		C.N.R. Branch Total			
				000 to 343		000 to 694		694 to 867				000 to 114	
Con	Lot	Roll No.	Owner	Assess ($)	%	Assess ($)	%	Assess ($)	%	Assess ($)	%	Assess ($)	%
BF Sea	Pt 17	068-00	G. Fansolato	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
BF Sea	Pt 18	116-00	S. & M. Wright	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
BF Sea	Pt 18	117-00	K. Sherk	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
BF Sea	Pt 18	118-00	P. & E. Burger	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
9	Pt 18	118-05	P. Mammoliti	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
9	Pt 18	118-15	H. Rerrie & L. Moore	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pts 15, 16 & 21	262-00	Stevens Bancorp Inc	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 21	263-00	S. Sanderson & G. Melvin	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 22	264-00	R. Howard	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 22	265-00	L. & G. Coutts	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 22	266-00	L. & G. Coutts	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 22	267-00	W. Grimm	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 22	268-01	A. Beam	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 22	268-05	M. & K. Knuuttila	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 22	268-10	R. & L. Punch	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 22	268-20	L. & J. Kawucha	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 22	268-30	T. & J. Van Leemput	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Adj Cross	Pt 22	??	Unknown (Town of Fort Erie)	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
				1,143	27.88	8,096	97.54	2,040	97.14	10,136	97.46	325	23.21
Q.E.W.			M.T.O.	1,724	42.05	0	0.00	0	0.00	0	0.00	0	0.00
Switch Road			Town of Fort Erie	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Townline Road			Town of Fort Erie	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
College Road			Town of Fort Erie	1,233	30.07	0	0.00	0	0.00	0	0.00	1,075	76.79
Ridgemount Road			Town of Fort Erie	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Sumner Road (Unopened)			Town of Fort Erie	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Eagle Street			Town of Fort Erie	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Arcadia Street (Unopened)			Town of Fort Erie	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Laur Road			Town of Fort Erie	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Laur Road (Unopened)			Town of Fort Erie	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Curtis Road			Town of Fort Erie	0	0.00	71	0.86	21	1.00	92	0.88	0	0.00
Bowen Road			Town of Fort Erie	0	0.00	133	1.60	39	1.86	172	1.65	0	0.00
Shagbark Lane			Town of Fort Erie	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00
Total Assessments on Roads:				2,957	72.12	204	2.46	60	2.86	264	2.54	1,075	76.79
TOTAL ASSESSMENTS ON GLENNY DRAIN 2017:				4,100	100.00	8,300	100.00	2,100	100.00	10,400	100.00	1,400	100.00

Notes:

1. Section 21 of the Drainage Act, RSO 1990 requires that assessments be shown opposite each parcel of land and road affected. The affected parcels of land have been identified using the roll number from the last revised assessment roll for the Township. For convenience only, the owners' names as shown by the last revised assessment roll, has also been included.
2. All lands shown above are in the Town of Fort Erie.
3. The dollars shown are not amounts to pay. They are to be used only to create the percentages that any parcel (property) and road will have of a future maintenance cost.
4. Agricultural designation not included as grant eligibility has to be confirmed at the time of maintenance cost levy.

	Con	Lot	Roll No.	Owner	Total Estimated Gross	1/3 Grant	Allow-ances	Total Estimated Net
			(20028-)	**(Bertie Twp)**				
	6	Pt 10	019-00	Management Board Secretariat	1,587	0	0	1,587
	6	Pt 10	020-00	M.T.O.	541	0	0	541
F	6	Pts 9 & 10	023-00	G., J. & T Curtis	583	194	0	389
F	6	Pt 11	025-00	G. Lichtenberger	8,007	2,669	0	5,338
	6	Pt 12	028-00	Appomattox Club of Buffalo	830	0	0	830
F	7	Pt 8	075-00	J. Laur	3,320	1,107	0	2,213
F	7	Pt 8	075-03	Walker Aggregates Inc.	4,058	1,353	0	2,705
F	7	Pt 8	075-04	Walker Aggregates Inc.	3,597	1,199	0	2,398
	7	Pt 9	078-00	M. & S. Kompf	739	0	0	739
F	7	Pt 9, 10, 11	079-00	J., T. & G. Curtis	10,302	3,434	0	6,868
F	7	Pt 9	080-01	A. & H. Miller	3,597	1,199	0	2,398
	7	Pt 9	081-00	C. Spada	277	0	0	277
F	7	Pt 10, 11	083-01	M. Dolbeau & M. Laroche	12,868	4,289	800	7,779
F	7	Pts 9 to 11	084-00	J., T. & G. Curtis	45,808	15,269	4,100	26,439
	7	Pt 10	084-10	J. & T. Rehm	1,385	0	0	1,385
	7	Pt 11	085-00	M.T.O.	2,277	0	1,000	1,277
	7	Pt 12	086-00	J. Elliot	3,280	0	400	2,880
	7	Pt 12	087-00	Jukic Group Ltd.	7,379	0	1,700	5,679
	7	Pt 12	088-00	S. Singh	8,817	0	2,000	6,817
	7	Pt 12	089-00	A. & B. Mueller	70	0	0	70
	7	Pt 13	090-00	H. Bar	38	0	0	38
	7	Pt 13	091-00	D. & G. Carlesso	577	0	0	577
	7	Pt 13	092-00	B. & I. Bryant	4,658	0	1,100	3,558
	7	Pt 14	095-00	C. & M. Paul	750	0	0	750
	7	Pt 15	095-01	M. & K. Boulard	103	0	0	103
	7	Pt 15	096-00	D. Demarco	150	0	0	150
	7	Pt 15	096-01	R. Lesniczek & C. Cameron	334	0	0	334
	7	Pt 16	103-00	T. & L. Waters	228	0	0	228
	7	Pt 16	104-00	R. Courtney	570	0	0	570
	7	Pt 16	105-00	A. Willick	570	0	0	570
	7	Pt 16	106-00	K. & S. Cosby	456	0	0	456
	7	Pt 16	107-00	C. Walter & R. Digrigoli	514	0	0	514
	7	Pt 15	107-01	P. Ker	1,444	0	0	1,444
	8	Pt 11	131-01	T. Tran & T. Le	577	0	0	577
	8	Pt 11	132-00	C. Marr	288	0	0	288
	8	Pt 11	133-00	S. Bell	161	0	0	161
	8	Pt 12	135-00	Jukic Group Ltd.	611	0	0	611
	8	Pt 13	136-00	O. Leon	4,401	0	1,800	2,601
	8	Pt 13	136-01	Town of Fort Erie	940	0	200	740
	8	Pt 13	137-00	G. & C. Nigh	2,424	0	700	1,724
	8	Pt 14	139-00	E. Bangay	1,566	0	0	1,566
	8	Pt 14	140-00	R. Christie	895	0	0	895
	8	Pt 14	141-00	M. Clarkson	560	0	0	560
	8	Pt 14	142-00	A. Chambers & M. Clarkson	335	0	0	335
	8	Pt 14	143-00	K. White	224	0	0	224
	8	Pt 14	144-00	G. Krutasky	1,901	0	0	1,901
	8	Pt 14	145-00	Jukic Group Ltd.	7,043	0	1,500	5,543
	8	Pt 15	147-00	P. Band & F. Cohen	19,199	0	2,300	16,899
	8	Pt 16	150-00	A. Kittel	15,346	0	1,400	13,946
F	8	Pt 16	150-01	P. & P. Graves	4,475	1,492	0	2,983
F	8	Pt 16	150-02	W. Beaudoin	3,749	1,250	0	2,499
	8	Pt 16	150-03	D. & K. Plato	3,973	0	0	3,973
	8	Pt 16	151-00	G. Poulsen	6,656	0	900	5,756
	8	Pt 16	152-00	W. & D. Gray	172	0	0	172
	7	Pt 10	031-994	C.N.R.	5,641	0	0	5,641
	7	Pt 10	047-996	C.P.R.	6,765	0	100	6,665
			(40055)-	**(Willoughby Twp)**				
	BF Sea	15	050-00	R. & M. Lauck	570	0	0	570
	BF Sea	Pt 16	058-00	J. & R. Burger	141	0	0	141
	BF Sea	Pt 17	061-00	B., D., M. & S. Arthur & M. Dilapo	102	0	0	102
	BF Sea	Pt 17	068-00	G. Fansolato	159	0	0	159
	BF Sea	Pt 18	116-00	S. & M. Wright	38	0	0	38
	BF Sea	Pt 18	117-00	K. Sherk	38	0	0	38
	BF Sea	Pt 18	118-00	P. & E. Burger	38	0	0	38
	9	Pt 18	118-05	P. Mammoliti	38	0	0	38
	9	Pt 18	118-15	H. Rerrie & L. Moore	38	0	0	38
	Adj Cross	Pts 15, 16 & 21	262-00	Stevens Bancorp Inc	2,518	0	300	2,218

	Con	Lot	Roll No.	Owner	Total Estimated Gross	1/3 Grant	Allow-ances	Total Estimated Net
	Adj Cross	Pt 21	263-00	S. Sanderson & G. Melvin	4,092	0	700	3,392
	Adj Cross	Pt 22	264-00	R. Howard	1,438	0	300	1,138
	Adj Cross	Pt 22	265-00	L. & G. Coutts	38	0	0	38
	Adj Cross	Pt 22	266-00	L. & G. Coutts	38	0	0	38
	Adj Cross	Pt 22	267-00	W. Grimm	1,640	0	400	1,240
F	Adj Cross	Pt 22	268-01	A. Beam	159	53	0	106
	Adj Cross	Pt 22	268-05	M. & K. Knuuttila	38	0	0	38
	Adj Cross	Pt 22	268-10	R. & L. Punch	38	0	0	38
	Adj Cross	Pt 22	268-20	L. & J. Kawucha	38	0	0	38
	Adj Cross	Pt 22	268-30	T. & J. Van Leemput	38	0	0	38
	Adj Cross	Pt 22	??	Unknown (Town of Fort Erie)	38	0	0	38
					228,891	33,508	21,700	173,683
	Q.E.W.			M.T.O.	89,112	0	0	89,112
	Switch Road			Town of Fort Erie	75	0	0	75
	Townline Road			Town of Fort Erie	7,671	0	0	7,671
	College Road			Town of Fort Erie	45,285	0	0	45,285
	Ridgemount Road			Town of Fort Erie	9,845	0	0	9,845
	Sumner Road (Unopened)			Town of Fort Erie	8,488	0	0	8,488
	Eagle Street			Town of Fort Erie	4,822	0	0	4,822
	Arcadia Street (Unopened)			Town of Fort Erie	226	0	0	226
	Laur Road			Town of Fort Erie	335	0	0	335
	Laur Road (Unopened)			Town of Fort Erie	168	0	0	168
	Curtis Road			Town of Fort Erie	1,432	0	0	1,432
	Bowen Road			Town of Fort Erie	2,505	0	0	2,505
	Shagbark Lane			Town of Fort Erie	15	0	0	15
	Total Assessments on Roads:				169,979	0	0	169,979
	TOTAL ASSESSMENTS ON GLENNY DRAIN 2017:				398,870	33,508	21,700	343,662

Notes:

1 The above lands noted with an "F" are currently classified as agricultural according to OMAFRA and are therefore entitled to a 1/3 grant. Eligibility for the 1/3 grant will be confirmed at the time the final cost is levied.

2 Section 21 of the Drainage Act, RSO 1990 requires that assessments be shown opposite each parcel of land and road affected. The affected parcels of land have been identified using the roll number from the last revised assessment roll for the Township. For convenience only, the owners' names as shown by the last revised assessment roll, has also been included.

3. The value of the assessments identified in this schedule are estimates only, and should not be considered final.

4. All lands shown above are in the Town of Fort Erie.

				GLENNY DRAIN NORTH											
INTERVAL				Interval 1 000 to 495			Interval 2 495 to 877			Interval 3 877 to 1+920			Glenny Drain North Total		
COST ESTIMATE															
Allowances				0			1,700			4,600			6,300		
Construction				1,300			21,100			52,200			74,600		
Engineering				2,500			6,500			18,500			27,500		
Non-Administrative				450			4,435			11,495			16,380		
Net HST				75			565			1,445			2,085		
TOTAL COST ESTIMATE				4,325			34,300			88,240			126,865		
BENEFIT ASSESSMENTS					Ha Affected			Ha Affected			Ha Affected				
Roll No.	Owner	Total Ha Affected	Total ha Adjusted	Benefit	Adjusted	Outlet	Benefit	Adjusted	Outlet	Benefit	Adjusted	Outlet	Total Benefit	Total Outlets	TOTAL
Town of Fort Erie	(Bertie Twp)														
019-00	Management Board Secretariat	0	0		0.0	0		0.0	0		0.0	0	0	0	0
020-00	M.T.O.	0	0		0.0	0		0.0	0		0.0	0	0	0	0
023-00	G., J. & T Curtis	0	0		0.0	0		0.0	0		0.0	0	0	0	0
025-00	G. Lichtenberger	0	0		0.0	0		0.0	0		0.0	0	0	0	0
028-00	Appomattox Club of Buffalo	0	0		0.0	0		0.0	0		0.0	0	0	0	0
075-00	J. Laur	0	0		0.0	0		0.0	0		0.0	0	0	0	0
075-03	Walker Aggregates Inc.	0	0		0.0	0		0.0	0		0.0	0	0	0	0
075-04	Walker Aggregates Inc.	0	0		0.0	0		0.0	0		0.0	0	0	0	0
078-00	M. & S. Kompf	0	0		0.0	0		0.0	0		0.0	0	0	0	0
079-00	J., T. & G. Curtis	0	0		0.0	0		0.0	0		0.0	0	0	0	0
080-01	A. & H. Miller	0	0		0.0	0		0.0	0		0.0	0	0	0	0
081-00	C. Spada	0	0		0.0	0		0.0	0		0.0	0	0	0	0
083-01	M. Dolbeau & M. Laroche	0	0		0.0	0		0.0	0		0.0	0	0	0	0
084-00	J., T. & G. Curtis	0	0		0.0	0		0.0	0		0.0	0	0	0	0
084-10	J. & T. Rehm	0	0		0.0	0		0.0	0		0.0	0	0	0	0
085-00	M.T.O.	0	0		0.0	0		0.0	0		0.0	0	0	0	0
086-00	J. Elliot	0	0		0.0	0		0.0	0		0.0	0	0	0	0
087-00	Jukic Group Ltd.	0	0		0.0	0		0.0	0		0.0	0	0	0	0
088-00	S. Singh	0	0		0.0	0		0.0	0		0.0	0	0	0	0
089-00	A. & B. Mueller	0	0		0.0	0		0.0	0		0.0	0	0	0	0
090-00	H. Bar	0	0		0.0	0		0.0	0		0.0	0	0	0	0
091-00	D. & G. Carlesso	0	0		0.0	0		0.0	0		0.0	0	0	0	0
092-00	B. & I. Bryant	0	0		0.0	0		0.0	0		0.0	0	0	0	0
095-00	C. & M. Paul	0	0		0.0	0		0.0	0		0.0	0	0	0	0
095-01	M. & K. Boulard	0	0		0.0	0		0.0	0		0.0	0	0	0	0
096-00	D. Demarco	0	0		0.0	0		0.0	0		0.0	0	0	0	0
096-01	R. Lesniczek & C. Cameron	0	0		0.0	0		0.0	0		0.0	0	0	0	0
103-00	T. & L. Waters	0.8	0.8		0.8	30		0.8	208		0.0	0	0	238	238
104-00	R. Courtney	2.0	2		2.0	75		2.0	520		0.0	0	0	595	595
105-00	A. Willick	2.0	2		2.0	75		2.0	520		0.0	0	0	595	595
106-00	K. & S. Cosby	1.6	1.6		1.6	60		1.6	416		0.0	0	0	476	476
107-00	C. Walter & R. Digrigoli	1.8	1.8		1.8	68		1.8	468		0.0	0	0	536	536
107-01	P. Ker	6.0	4.9		4.9	185		4.9	1,274		0.0	0	0	1,459	1,459
131-01	T. Tran & T. Le	0	0		0.0	0		0.0	0		0.0	0	0	0	0
132-00	C. Marr	0	0		0.0	0		0.0	0		0.0	0	0	0	0
133-00	S. Bell	0	0		0.0	0		0.0	0		0.0	0	0	0	0
135-00	Jukic Group Ltd.	0	0		0.0	0		0.0	0		0.0	0	0	0	0
136-00	O. Leon	0	0		0.0	0		0.0	0		0.0	0	0	0	0
136-01	Town of Fort Erie	0	0		0.0	0		0.0	0		0.0	0	0	0	0
137-00	G. & C. Nigh	0	0		0.0	0		0.0	0		0.0	0	0	0	0
139-00	E. Bangay	0.9	1.4		1.4	53		1.4	364		1.4	1,217	0	1,634	1,634
140-00	R. Christie	0.5	0.8		0.8	30		0.8	208		0.8	696	0	934	934
141-00	M. Clarkson	0.3	0.5		0.5	19		0.5	130		0.5	435	0	584	584
142-00	A. Chambers & M. Clarkson	0.2	0.3		0.3	11		0.3	78		0.3	261	0	350	350
143-00	K. White	0.1	0.2		0.2	8		0.2	52		0.2	174	0	234	234
144-00	G. Krutasky	1.1	1.7		1.7	64		1.7	442		1.7	1,478	0	1,984	1,984
145-00	Jukic Group Ltd.	0	0		0.0	0		0.0	0		0.0	0	0	0	0
147-00	P. Band & F. Cohen	18.4	9.2		9.2	347		9.2	2,392	9,300	9.2	7,999	9,300	10,738	20,038
150-00	A. Kittel	12.4	9.3		9.3	351	400	9.3	2,418	6,500	7.3	6,347	6,900	9,116	16,016
150-01	P. & P. Graves	4.7	4.3		4.3	162		4.3	1,118		3.9	3,391	0	4,671	4,671
150-02	W. Beaudoin	4.5	3.8		3.8	143		3.8	988		3.2	2,782	0	3,913	3,913
150-03	D. & K. Plato	4.5	4		4.0	151		4.0	1,040		3.4	2,956	0	4,147	4,147

INTERVAL				GLENNY DRAIN NORTH											
				Interval 1 000 to 495			Interval 2 495 to 877			Interval 3 877 to 1+920			Glenny Drain North Total		
151-00	G. Poulsen	4.5	3.4		3.4	128		3.4	884	3,500	2.8	2,435	3,500	3,447	6,947
152-00	W. & D. Gray	0.4	0.6		0.6	23		0.6	156		0.0	0	0	179	179
031-994	C.N.R.	0	0		0.0	0		0.0	0		0.0	0	0	0	0
047-996	C.P.R.	0	0		0.0	0		0.0	0		0.0	0	0	0	0
(40055)-	(Willoughby Twp)														
050-00	R. & M. Lauck	4	2		2.0	75		2.0	520		0.0	0	0	595	595
058-00	J. & R. Burger	4.9	3.9		3.9	147		0.0	0		0.0	0	0	147	147
061-00	B., D., M. & S. Arthur & M. Dilapo	5.5	2.8		2.8	106		0.0	0		0.0	0	0	106	106
068-00	G. Fansolato	8.8	4.4		4.4	166		0.0	0		0.0	0	0	166	166
116-00	S. & M. Wright	0.1	0.2	32	0.2	8		0.0	0		0.0	0	32	8	40
117-00	K. Sherk	0.2	0.3	29	0.3	11		0.0	0		0.0	0	29	11	40
118-00	P. & E. Burger	0.1	0.2	32	0.2	8		0.0	0		0.0	0	32	8	40
118-05	P. Mammoliti	0.3	0.5	21	0.5	19		0.0	0		0.0	0	21	19	40
118-15	H. Rerrie & L. Moore	0.1	0.2	32	0.2	8		0.0	0		0.0	0	32	8	40
262-00	Stevens Bancorp Inc	20.7	10.4		10.4	392	1,300	3.6	936		0.0	0	1,300	1,328	2,628
263-00	S. Sanderson & G. Melvin	4	3.9		3.9	147	3,500	2.4	624		0.0	0	3,500	771	4,271
264-00	R. Howard	0.8	1.2		1.2	45	1,300	0.6	156		0.0	0	1,300	201	1,501
265-00	L. & G. Coutts	0.2	0.3	29	0.3	11		0.0	0		0.0	0	29	11	40
266-00	L. & G. Coutts	0.1	0.2	32	0.2	8		0.0	0		0.0	0	32	8	40
267-00	W. Grimm	1.0	0.9		0.9	34	1,600	0.3	78		0.0	0	1,600	112	1,712
268-01	A. Beam	4.4	4.4		4.4	166		0.0	0		0.0	0	0	166	166
268-05	M. & K. Knuuttila	0.1	0.2	32	0.2	8		0.0	0		0.0	0	32	8	40
268-10	R. & L. Punch	0.2	0.3	29	0.3	11		0.0	0		0.0	0	29	11	40
268-20	L. & J. Kawucha	0.2	0.3	29	0.3	11		0.0	0		0.0	0	29	11	40
268-30	T. & J. Van Leemput	0.2	0.3	29	0.3	11		0.0	0		0.0	0	29	11	40
??	Unknown (Town of Fort Erie)	0.5	0.3	3	0.3	11		0.1	26		0.0	0	3	37	40
Q.E.W.	M.T.O.	3.5	7		7.0	263		7.0	1,819	14,100	7.0	6,087	14,100	8,169	22,269
Switch Road	Town of Fort Erie	1	2		2.0	75		0.0	0		0.0	0	0	75	75
Townline Road	Town of Fort Erie	1.8	3.6		3.6	136	6,600	3.6	935		0.0	0	6,600	1,071	7,671
College Road	Town of Fort Erie	0.5	1		1.0	38		1.0	259	15,800	1.0	869	15,800	1,166	16,966
Ridgemount Road	Town of Fort Erie	1.1	2.2		2.2	83		2.2	571		2.2	1,913	0	2,567	2,567
Sumner Road (Unopened)	Town of Fort Erie	0	0		0.0	0		0.0	0		0.0	0	0	0	0
Eagle Street	Town of Fort Erie	0	0		0.0	0		0.0	0		0.0	0	0	0	0
Arcadia Street (Unopened)	Town of Fort Erie	0	0		0.0	0		0.0	0		0.0	0	0	0	0
Laur Road	Town of Fort Erie	0	0		0.0	0		0.0	0		0.0	0	0	0	0
Laur Road (Unopened)	Town of Fort Erie	0	0		0.0	0		0.0	0		0.0	0	0	0	0
Curtis Road	Town of Fort Erie	0	0		0.0	0		0.0	0		0.0	0	0	0	0
Bowen Road	Town of Fort Erie	0	0		0.0	0		0.0	0		0.0	0	0	0	0
Shagbark Lane	Town of Fort Erie	0.2	0.4		0.4	15		0.0	0		0.0	0	0	15	15
TOTAL BENEFITS & SPECIALS		131.2	106.0	329	106.0	3,996	14,700	75.4	19,600	49,200	44.9	39,040	64,229	62,636	126,865
	Outlet %				92%			57%			44%				
	Benefit							43%			56%				

		GLENNY DRAIN SOUTH																	Q.E.W. BRANCH			
INTERVAL				Interval 1 000 to 332			Interval 2 332 to 1+129			Interval 3 1+129 to 1+582			Interval 4 1+582 to 1+960			Glenny Drain South Total			000 to 343			
COST ESTIMATE																						
Allowances				200			4,000			2,200			1,500			7,900			1,100			
Construction				1,300			44,300			23,100			17,000			85,700			17,500			
Engineering				2,500			14,500			8,000			5,500			30,500			6,000			
Non-Administrative				450			10,520			5,055			3,765			19,790			3,795			
Net HST				75			1,220			635			460			2,390			480			
TOTAL COST ESTIMATE				4,525			74,540			38,990			28,225			146,280			28,875			
BENEFIT ASSESSMENTS Roll No.	Owner	Total Ha Affected	Total ha Adjusted	Benefit	Ha Affected Adjusted	Outlet	Benefit	Ha Affected Adjusted	Outlet	Benefit	Ha Affected Adjusted	Outlet	Benefit	Ha Affected Adjusted	Outlet	Total Benefit	Total Outlets	TOTAL	Total Ha Affected	Benefit	Ha Affected Adjusted	Outlet
Town of Fort Erie	(Bertie Twp)																					
019-00	Management Board Secretariat	6.0	4.4		4.4	70		4.4	460		4.4	392		4.4	734	0	1,656	1,656	0		0.0	0
020-00	M.T.O.	3.0	1.5		1.5	24		1.5	157		1.5	134		1.5	250	0	565	565	0		0.0	0
023-00	G., J. & T Curtis	2.9	2.9		2.9	46		2.9	303		2.9	259		0	0	0	608	608	0		0.0	0
025-00	G. Lichtenberger	24.9	22.2		22.2	352		22.2	2,322		22.2	1,979		22.2	3,704	0	8,357	8,357	0		0.0	0
028-00	Appomattox Club of Buffalo	4.6	2.3		2.3	36		2.3	241		2.3	205		2.3	384	0	866	866	0		0.0	0
075-00	J. Laur	3.6	3.6		3.6	57		3.6	376		3.6	321		0	0	0	754	754	0		0.0	0
075-03	Walker Aggregates Inc.	5	4.4		4.4	70		4.4	460		4.4	392		0	0	0	922	922	0		0.0	0
075-04	Walker Aggregates Inc.	4.7	3.9		3.9	62		3.9	408		3.9	348		0	0	0	818	818	0		0.0	0
078-00	M. & S. Kompf	0.5	0.8		0.8	13		0.8	84		0.8	71		0	0	0	168	168	0		0.0	0
079-00	J., T. & G. Curtis	32.1	27.6		27.6	437		27.6	2,886		27.6	2,460		0	0	0	5,783	5,783	0		0.0	0
080-01	A. & H. Miller	3.9	3.9		3.9	62		3.9	408		3.9	348		0.0	0	0	818	818	0		0.0	0
081-00	C. Spada	0.3	0.3		0.3	5		0.3	31		0.3	27		0.0	0	0	63	63	0		0.0	0
083-01	M. Dolbeau & M. Laroche	12.9	12.9		12.9	204		12.9	1,349		11.7	1,043		0.0	0	0	2,596	2,596	0		0.0	0
084-00	J., T. & G. Curtis	47.8	44.3		44.3	702		44.3	4,633	0	44.3	3,949		0.0	0	0	9,284	9,284	0		0.0	0
084-10	J. & T. Rehm	1.0	1.5		1.5	24		1.5	157		1.5	134		0.0	0	0	315	315	0		0.0	0
085-00	M.T.O.	2.0	1.0		1.0	16		1.0	105		1.0	89	2,000	1.0	167	2,000	377	2,377	0		0.0	0
086-00	J. Elliot	12.8	7.7		7.7	122		7.7	805		3.5	312	1,600	3.5	584	1,600	1,823	3,423	0		0.0	0
087-00	Jukic Group Ltd.	9.3	5.5		5.5	87		5.5	575	4,600	3.8	339		0.0	0	4,600	1,001	5,601	0		0.0	0
088-00	S. Singh	7.5	6.0		6.0	95	3,900	6.0	627	4,500	0.9	80		0.0	0	8,400	802	9,202	0		0.0	0
089-00	A. & B. Mueller	0.4	0.6		0.6	10		0.6	63		0.0	0		0.0	0	0	73	73	0		0.0	0
090-00	H. Bar	0.3	0.2		0.2	3	16	0.2	21		0.0	0		0.0	0	16	24	40	0		0.0	0
091-00	D. & G. Carlesso	10	5.0		5.0	79		5.0	523		0.0	0		0.0	0	0	602	602	0		0.0	0
092-00	B. & I. Bryant	4.3	3.0		3.0	48	4,500	3.0	314		0.0	0		0.0	0	4,500	362	4,862	0		0.0	0
095-00	C. & M. Paul	12.9	6.5		6.5	103		6.5	680		0.0	0		0.0	0	0	783	783	0		0.0	0
095-01	M. & K. Boulard	1	0.9		0.9	14		0.9	94		0.0	0		0.0	0	0	108	108	0		0.0	0
096-00	D. Demarco	1.6	1.3		1.3	21		1.3	136		0.0	0		0.0	0	0	157	157	0		0.0	0
096-01	R. Lesniczek & C. Cameron	5.7	2.9		2.9	46		2.9	303		0.0	0		0.0	0	0	349	349	0		0.0	0
103-00	T. & L. Waters	0	0.0		0.0	0		0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0
104-00	R. Courtney	0	0.0		0.0	0		0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0
105-00	A. Willick	0	0.0		0.0	0		0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0
106-00	K. & S. Cosby	0	0.0		0.0	0		0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0
107-00	C. Walter & R. Digrigoli	0	0.0		0.0	0		0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0
107-01	P. Ker	0.8	0.4		0.4	6		0.4	42		0.0	0		0.0	0	0	48	48	0		0.0	0
131-01	T. Tran & T. Le	5.0	5.0		5.0	79		5.0	523		0.0	0		0.0	0	0	602	602	0		0.0	0
132-00	C. Marr	5.0	2.5		2.5	40		2.5	261		0.0	0		0.0	0	0	301	301	0		0.0	0
133-00	S. Bell	0.9	1.4		1.4	22		1.4	146		0.0	0		0.0	0	0	168	168	0		0.0	0
135-00	Jukic Group Ltd.	5.3	5.3		5.3	84		5.3	554		0.0	0		0.0	0	0	638	638	0		0.0	0
136-00	O. Leon	2	1.0		1.0	16	2,400	0.4	42		0.0	0		0.0	0	2,400	58	2,458	0		0.0	0
136-01	Town of Fort Erie	1	1.5		1.5	24	800	1.5	157		0.0	0		0.0	0	800	181	981	0		0.0	0
137-00	G. & C. Nigh	3.2	1.6		1.6	25	2,400	1.0	105		0.0	0		0.0	0	2,400	130	2,530	0		0.0	0
139-00	E. Bangay	0	0.0		0.0	0		0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0
140-00	R. Christie	0	0.0		0.0	0		0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0
141-00	M. Clarkson	0	0.0		0.0	0		0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0
142-00	A. Chambers & M. Clarkson	0	0.0		0.0	0		0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0
143-00	K. White	0	0.0		0.0	0		0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0
144-00	G. Krutasky	0	0.0		0.0	0		0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0
145-00	Jukic Group Ltd.	5.5	2.8		2.8	44		0.0	0		0.0	0		0.0	0	0	44	44	4.7	4,300	2.4	1,907
147-00	P. Band & F. Cohen	0	0.0		0.0	0		0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0
150-00	A. Kittel	0	0.0		0.0	0		0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0
150-01	P. & P. Graves	0	0.0		0.0	0		0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0
150-02	W. Beaudoin	0	0.0		0.0	0		0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0
150-03	D. & K. Plato	0	0.0		0.0	0		0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0

INTERVAL		GLENNY DRAIN SOUTH																		Q.E.W. BRANCH			
				Interval 1 000 to 332		Interval 2 332 to 1+129			Interval 3 1+129 to 1+582			Interval 4 1+582 to 1+960			Glenny Drain South Total			000 to 343			
151-00	G. Poulsen	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
152-00	W. & D. Gray	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
031-994	C.N.R.	2.8	4.2	4.2	67	4.2	439		4.2	374		0.0	0	0	880	880	0	0.0	0
047-996	C.P.R.	3.6	5.5	5.5	87	5.5	575		5.5	490		0.0	0	0	1,152	1,152	0	0.0	0
(40055)-	(Willoughby Twp)																		
050-00	R. & M. Lauck	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
058-00	J. & R. Burger	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
061-00	B., D., M. & S. Arthur & M. Dilapo	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
068-00	G. Fansolato	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
116-00	S. & M. Wright	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
117-00	K. Sherk	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
118-00	P. & E. Burger	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
118-05	P. Mammoliti	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
118-15	H. Rerrie & L. Moore	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
262-00	Stevens Bancorp Inc	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
263-00	S. Sanderson & G. Melvin	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
264-00	R. Howard	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
265-00	L. & G. Coutts	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
266-00	L. & G. Coutts	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
267-00	W. Grimm	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
268-01	A. Beam	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
268-05	M. & K. Knuuttila	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
268-10	R. & L. Punch	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
268-20	L. & J. Kawucha	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
268-30	T. & J. Van Leemput	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
??	Unknown (Town of Fort Erie)	0	0.0	0.0	0	0.0	0		0.0	0		0.0	0	0	0	0	0	0.0	0
Q.E.W.	M.T.O.	23.9	46.3	46.3	733	17,200	43.1	4,508	12,900	28.5	2,540	8,000	13.9	2,319	38,100	10,100	48,200	1.6	11,100	3.2	2,543
Switch Road	Town of Fort Erie	0	0.0	0.0	0		0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0
Townline Road	Town of Fort Erie	0	0.0	0.0	0		0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0
College Road	Town of Fort Erie	3.2	6.4	6.4	101	4,600	1.8	188		0.0	0		0.0	0	4,600	289	4,889	1.4	6,800	2.8	2,225
Ridgemount Road	Town of Fort Erie	5.3	10.6	10.6	168	6,000	10.6	1,110		0.0	0		0.0	0	6,000	1,278	7,278	0		0.0	0
Sumner Road (Unopened)	Town of Fort Erie	0.5	0.5	0.5	8		0.5	52		0.5	45	8,300	0.5	83	8,300	188	8,488	0		0.0	0
Eagle Street	Town of Fort Erie	3	6.0	6.0	95	4,100	6.0	627		0.0	0		0.0	0	4,100	722	4,822	0		0.0	0
Arcadia Street (Unopened)	Town of Fort Erie	0.6	0.6	0.6	10		0.6	63		0.6	53		0.6	100	0	226	226	0		0.0	0
Laur Road	Town of Fort Erie	0.8	1.6	1.6	25		1.6	167		1.6	143		0.0	0	0	335	335	0		0.0	0
Laur Road (Unopened)	Town of Fort Erie	0.8	0.8	0.8	13		0.8	84		0.8	71		0.0	0	0	168	168	0		0.0	0
Curtis Road	Town of Fort Erie	0.9	1.8	1.8	29		1.8	188		1.8	160		0.0	0	0	377	377	0		0.0	0
Bowen Road	Town of Fort Erie	1.3	2.6	2.6	41		2.6	272		2.6	232		0.0	0	0	545	545	0		0.0	0
Shagbark Lane	Town of Fort Erie	0	0.0	0.0	0		0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0
TOTAL BENEFITS & SPECIALS		296.4	285.5	0 285.5	4,525	45,916	273.7	28,624	22,000	190.6	16,990	19,900	49.9	8,325	87,816	58,464	146,280	7.7	22,200	8.4	6,675
	Outlet %			100%			38%			44%			29%							23%	
	Benefit			0%			62%			56%			71%							77%	

		C.N.R. BRANCH										COLLEGE BRANCH						
INTERVAL				Interval 1 000 to 694			Interval 2 694 to 867			C.N.R. Branch Total			000 to 114					GRAND TOTAL
COST ESTIMATE																		
Allowances				4,800			700			5,500			900					21,700
Construction				39,700			10100			49,800			7,200					234,800
Engineering				13,000			3500			16,500			2,500					83,000
Non-Administrative				8,790			2260			11,050			1,835					52,850
Net HST				1,080			280			1,360			205					6,520
TOTAL COST ESTIMATE				67,370			16840			84,210			12,640					398,870
BENEFIT ASSESSMENTS Roll No.	Owner	Total Ha Affected	Total ha Adjusted	Benefit	Ha Affected Adjusted	Outlet	Benefit	Ha Affected Adjusted	Outlet	Total Benefit	Total Outlets	TOTAL	Total Ha Affected	Benefit	Ha Affected Adjusted	Outlet	Total Benefits	Total Outlets	Grand Total
Town of Fort Erie	(Bertie Twp)																	
019-00	Management Board Secretariat	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	1,656	1,656
020-00	M.T.O.	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	565	565
023-00	G., J. & T Curtis	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	608	608
025-00	G. Lichtenberger	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	8,357	8,357
028-00	Appomattox Club of Buffalo	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	866	866
075-00	J. Laur	3.6	3.6		3.6	2,041		3.6	670	0	2,711	2,711	0		0.0	0	0	3,465	3,465
075-03	Walker Aggregates Inc.	5.0	4.4		4.4	2,495		4.4	818	0	3,313	3,313	0		0.0	0	0	4,235	4,235
075-04	Walker Aggregates Inc.	4.7	3.9		3.9	2,211		3.9	725	0	2,936	2,936	0		0.0	0	0	3,754	3,754
078-00	M. & S. Kompf	0.5	0.8		0.8	454		0.8	149	0	603	603	0		0.0	0	0	771	771
079-00	J., T. & G. Curtis	8.3	6.6		6.6	3,742		6.6	1,227	0	4,969	4,969	0		0.0	0	0	10,752	10,752
080-01	A. & H. Miller	3.9	3.9		3.9	2,211		3.9	725	0	2,936	2,936	0		0.0	0	0	3,754	3,754
081-00	C. Spada	0.3	0.3		0.3	170		0.3	56	0	226	226	0		0.0	0	0	289	289
083-01	M. Dolbeau & M. Laroche	11.7	11.7	4,200	11.7	6,634		0.0	0	4,200	6,634	10,834	0		0.0	0	4,200	9,230	13,430
084-00	J., T. & G. Curtis	44.4	42	8,700	42.0	23,816	1,300	25.3	4,705	10,000	28,521	38,521	0		0.0	0	10,000	37,805	47,805
084-10	J. & T. Rehm	1.0	1.5		1.5	851		1.5	279	0	1,130	1,130	0		0.0	0	0	1,445	1,445
085-00	M.T.O.	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	2,000	377	2,377
086-00	J. Elliot	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	1,600	1,823	3,423
087-00	Jukic Group Ltd.	0.0	0	2,100	0.0	0		0.0	0	2,100	0	2,100	0		0.0	0	6,700	1,001	7,701
088-00	S. Singh	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	8,400	802	9,202
089-00	A. & B. Mueller	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	73	73
090-00	H. Bar	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	16	24	40
091-00	D. & G. Carlesso	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	602	602
092-00	B. & I. Bryant	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	4,500	362	4,862
095-00	C. & M. Paul	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	783	783
095-01	M. & K. Boulard	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	108	108
096-00	D. Demarco	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	157	157
096-01	R. Lesniczek & C. Cameron	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	349	349
103-00	T. & L. Waters	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	238	238
104-00	R. Courtney	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	595	595
105-00	A. Willick	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	595	595
106-00	K. & S. Cosby	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	476	476
107-00	C. Walter & R. Digrigoli	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	536	536
107-01	P. Ker	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	1,507	1,507
131-01	T. Tran & T. Le	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	602	602
132-00	C. Marr	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	301	301
133-00	S. Bell	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	168	168
135-00	Jukic Group Ltd.	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	638	638
136-00	O. Leon	0.0	0		0.0	0		0.0	0	0	0	0	1.2	1,100	0.6	1,035	3,500	1,093	4,593
136-01	Town of Fort Erie	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	800	181	981
137-00	G. & C. Nigh	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	2,400	130	2,530
139-00	E. Bangay	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	1,634	1,634
140-00	R. Christie	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	934	934
141-00	M. Clarkson	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	584	584
142-00	A. Chambers & M. Clarkson	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	350	350
143-00	K. White	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	234	234
144-00	G. Krutasky	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	1,984	1,984
145-00	Jukic Group Ltd.	0.0	0		0.0	0		0.0	0	0	0	0	0	1,100	0.0	0	5,400	1,951	7,351
147-00	P. Band & F. Cohen	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	9,300	10,738	20,038
150-00	A. Kittel	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	6,900	9,116	16,016
150-01	P. & P. Graves	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	4,671	4,671
150-02	W. Beaudoin	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	3,913	3,913
150-03	D. & K. Plato	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	4,147	4,147

INTERVAL		C.N.R. BRANCH		Interval 1 000 to 694			Interval 2 694 to 867			C.N.R. Branch Total			COLLEGE BRANCH	000 to 114			GRAND TOTAL	
151-00	G. Poulsen	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	3,500	3,447	6,947
152-00	W. & D. Gray	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	179	179
031-994	C.N.R.	1.6	2.4	1,000	2.4	1,361	2,200	2.4	446	3,200	1,807	5,007	0		0.0	0	3,200	2,687	5,887
047-996	C.P.R.	2.1	3.2	1,300	3.2	1,814	2,200	3.2	595	3,500	2,409	5,909	0		0.0	0	3,500	3,561	7,061
(40055)-	(Willoughby Twp)																		
050-00	R. & M. Lauck	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	595	595
058-00	J. & R. Burger	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	147	147
061-00	B., D., M. & S. Arthur & M. Dilapo	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	106	106
068-00	G. Fansolato	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	166	166
116-00	S. & M. Wright	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	32	8	40
117-00	K. Sherk	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	29	11	40
118-00	P. & E. Burger	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	32	8	40
118-05	P. Mammoliti	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	21	19	40
118-15	H. Rerrie & L. Moore	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	32	8	40
262-00	Stevens Bancorp Inc	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	1,300	1,328	2,628
263-00	S. Sanderson & G. Melvin	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	3,500	771	4,271
264-00	R. Howard	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	1,300	201	1,501
265-00	L. & G. Coutts	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	29	11	40
266-00	L. & G. Coutts	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	32	8	40
267-00	W. Grimm	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	1,600	112	1,712
268-01	A. Beam	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	166	166
268-05	M. & K. Knuuttila	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	32	8	40
268-10	R. & L. Punch	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	29	11	40
268-20	L. & J. Kawucha	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	29	11	40
268-30	T. & J. Van Leemput	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	29	11	40
??	Unknown (Town of Fort Erie)	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	3	37	40
Q.E.W.	M.T.O.	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	63,300	20,812	84,112
Switch Road	Town of Fort Erie	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	75	75
Townline Road	Town of Fort Erie	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	6,600	1,071	7,671
College Road	Town of Fort Erie	0.0	0		0.0	0		0.0	0	0	0	0	0.9	6,300	1.8	3,105	33,500	6,785	40,285
Ridgemount Road	Town of Fort Erie	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	6,000	3,845	9,845
Sumner Road (Unopened)	Town of Fort Erie	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	8,300	188	8,488
Eagle Street	Town of Fort Erie	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	4,100	722	4,822
Arcadia Street (Unopened)	Town of Fort Erie	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	226	226
Laur Road	Town of Fort Erie	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	335	335
Laur Road (Unopened)	Town of Fort Erie	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	168	168
Curtis Road	Town of Fort Erie	0.7	1.4		1.4	795		1.4	260	0	1,055	1,055	0		0.0	0	0	1,432	1,432
Bowen Road	Town of Fort Erie	1.3	2.6		2.6	1,475		2.6	485	0	1,960	1,960	0		0.0	0	0	2,505	2,505
Shagbark Lane	Town of Fort Erie	0.0	0		0.0	0		0.0	0	0	0	0	0		0.0	0	0	15	15
TOTAL BENEFITS & SPECIALS		89.1	88.3	17,300	88.3	50,070	5,700	59.9	11,140	23,000	61,210	84,210	2.1	8,500	2.4	4,140	205,745	193,125	398,870
	Outlet %				74%			66%							33%				
	Benefit				26%			34%							67%				

				GLENNY DRAIN NORTH														
INTERVAL				Interval 1 000 to 495				Interval 2 495 to 877				Interval 3 877 to 1+920				Glenny Drain North		
				(12/m for ditch cleanout)				(12/m for ditch cleanout)				(12/m for ditch cleanout)				Total		
TOTAL COST ESTIMATE				5,900				4,600				12,500				23,000		
BENEFIT ASSESSMENTS Roll No.	Owner	Total Ha Affected	Total ha Adjusted	Benefit	Ha Affected Adjusted	Outlet	%	Benefit	Ha Affected Adjusted	Outlet	%	Benefit	Ha Affected Adjusted	Outlet	%	Total Benefit	Total Outlets	TOTAL
Town of Fort Erie	(Bertie Twp)																	
019-00	Management Board Secretariat	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
020-00	M.T.O.	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
023-00	G., J. & T Curtis	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
025-00	G. Lichtenberger	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
028-00	Appomattox Club of Buffalo	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
075-00	J. Laur	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
075-03	Walker Aggregates Inc.	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
075-04	Walker Aggregates Inc.	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
078-00	M. & S. Kompf	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
079-00	J., T. & G. Curtis	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
080-01	A. & H. Miller	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
081-00	C. Spada	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
083-01	M. Dolbeau & M. Laroche	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
084-00	J., T. & G. Curtis	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
084-10	J. & T. Rehm	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
085-00	M.T.O.	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
086-00	J. Elliot	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
087-00	Jukic Group Ltd.	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
088-00	S. Singh	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
089-00	A. & B. Mueller	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
090-00	H. Bar	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
091-00	D. & G. Carlesso	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
092-00	B. & I. Bryant	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
095-00	C. & M. Paul	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
095-01	M. & K. Boulard	0.0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
096-00	D. Demarco	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
096-01	R. Lesniczek & C. Cameron	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
103-00	T. & L. Waters	0.8	0.8		0.8	29	0.49		0.8	25	0.54		0	0	0.00	0	54	54
104-00	R. Courtney	2.0	2		2	74	1.25		2	64	1.39		0	0	0.00	0	138	138
105-00	A. Willick	2.0	2		2	74	1.25		2	64	1.39		0	0	0.00	0	138	138
106-00	K. & S. Cosby	1.6	1.6		1.6	59	1.00		1.6	51	1.11		0	0	0.00	0	110	110
107-00	C. Walter & R. Digrigoli	1.8	1.8		1.8	66	1.12		1.8	57	1.24		0	0	0.00	0	123	123
107-01	P. Ker	6.0	4.9		4.9	180	3.05		4.9	156	3.39		0	0	0.00	0	336	336
131-01	T. Tran & T. Le	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
132-00	C. Marr	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
133-00	S. Bell	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
135-00	Jukic Group Ltd.	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
136-00	O. Leon	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
136-01	Town of Fort Erie	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
137-00	G. & C. Nigh	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
139-00	E. Bangay	0.9	1.4		1.4	52	0.88		1.4	45	0.98		1.4	186	1.49	0	283	283
140-00	R. Christie	0.5	0.8		0.8	29	0.49		0.8	25	0.54		0.8	106	0.85	0	160	160
141-00	M. Clarkson	0.3	0.5		0.5	18	0.31		0.5	16	0.35		0.5	66	0.53	0	100	100
142-00	A. Chambers & M. Clarkson	0.2	0.3		0.3	11	0.19		0.3	10	0.22		0.3	40	0.32	0	61	61
143-00	K. White	0.1	0.2		0.2	7	0.12		0.2	6	0.13		0.2	27	0.22	0	40	40
144-00	G. Krutasky	1.1	1.7		1.7	63	1.07		1.7	54	1.17		1.7	225	1.80	0	342	342
145-00	Jukic Group Ltd.	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
147-00	P. Band & F. Cohen	18.4	9.2		9.2	338	5.73		9.2	293	6.37	1,400	9.2	1,219	20.95	1,400	1,850	3,250
150-00	A. Kittel	12.4	9.3		9.3	342	5.80		9.3	296	6.43	850	7.3	967	14.54	850	1,605	2,455
150-01	P. & P. Graves	4.7	4.3		4.3	158	2.68		4.3	137	2.98		3.9	517	4.14	0	812	812
150-02	W. Beaudoin	4.5	3.8		3.8	140	2.37		3.8	121	2.63		3.2	424	3.39	0	685	685
150-03	D. & K. Plato	4.5	4		4	147	2.49		4	127	2.76		3.4	451	3.61	0	725	725
151-00	G. Poulsen	4.5	3.4		3.4	125	2.12		3.4	108	2.35	500	2.8	371	6.97	500	604	1,104
152-00	W. & D. Gray	0.4	0.6		0.6	22	0.37		0.6	19	0.41		0	0	0.00	0	41	41
031-994	C.N.R.	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
047-996	C.P.R.	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0

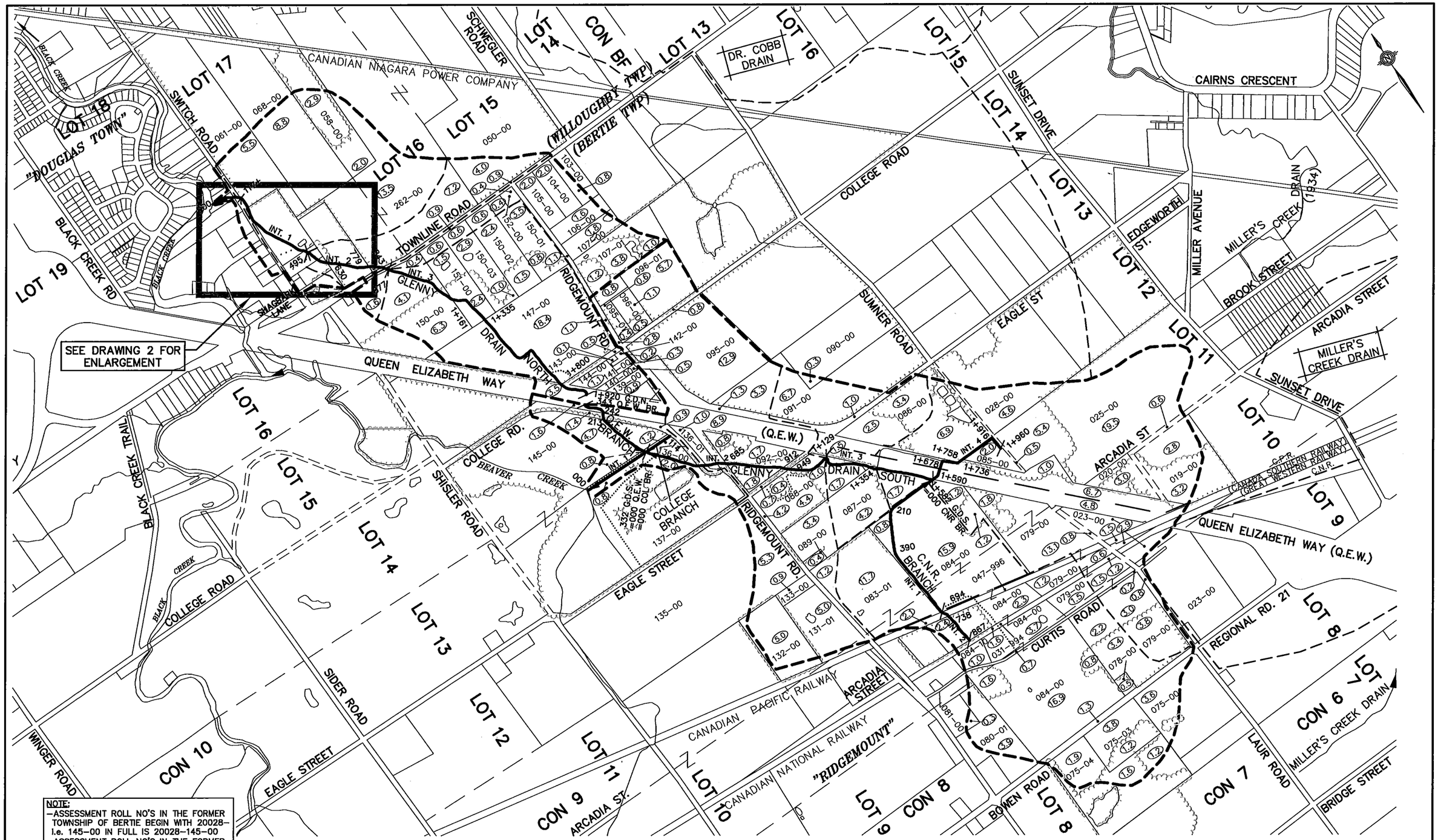
INTERVAL				GLENNY DRAIN NORTH														
				Interval 1				Interval 2				Interval 3				Glenny Drain North		
				000 to 495				495 to 877				877 to 1+920						
				(12/m for ditch cleanout)				(12/m for ditch cleanout)				(12/m for ditch cleanout)				Total		
(40055)-	(Willoughby Twp)																	
050-00	R. & M. Lauck	4.0	2		2	74	1.25		2	64	1.39		0	0	0.00	0	138	138
058-00	J. & R. Burger	4.9	3.9		3.9	143	2.42		0	0	0.00		0	0	0.00	0	143	143
061-00	B., D., M. & S. Arthur & M. Dilapo	5.5	2.8	200	2.8	103	5.14		0	0	0.00		0	0	0.00	200	103	303
068-00	G. Fansolato	8.8	4.4		4.4	162	2.75		0	0	0.00		0	0	0.00	0	162	162
116-00	S. & M. Wright	0.1	0.2	300	0.2	7	5.20		0	0	0.00		0	0	0.00	300	7	307
117-00	K. Sherk	0.2	0.3		0.3	11	0.19		0	0	0.00		0	0	0.00	0	11	11
118-00	P. & E. Burger	0.1	0.2		0.2	7	0.12		0	0	0.00		0	0	0.00	0	7	7
118-05	P. Mammoliti	0.3	0.5		0.5	18	0.31		0	0	0.00		0	0	0.00	0	18	18
118-15	H. Rerrie & L. Moore	0.1	0.2		0.2	7	0.12		0	0	0.00		0	0	0.00	0	7	7
262-00	Stevens Bancorp Inc	20.7	10.4		10.4	384	6.51	500	3.6	115	13.37		0	0	0.00	500	499	999
263-00	S. Sanderson & G. Melvin	4.0	3.9		3.9	143	2.42	500	2.4	76	12.52		0	0	0.00	500	219	719
264-00	R. Howard	0.8	1.2		1.2	44	0.75	200	0.6	19	4.76		0	0	0.00	200	63	263
265-00	L. & G. Coutts	0.2	0.3		0.3	11	0.19		0	0	0.00		0	0	0.00	0	11	11
266-00	L. & G. Coutts	0.1	0.2		0.2	7	0.12		0	0	0.00		0	0	0.00	0	7	7
267-00	W. Grimm	1.0	0.9	50	0.9	33	1.41	200	0.3	10	4.57		0	0	0.00	250	43	293
268-01	A. Beam	4.4	4.4	650	4.4	162	13.75		0	0	0.00		0	0	0.00	650	162	812
268-05	M. & K. Knuuttila	0.1	0.2		0.2	7	0.12		0	0	0.00		0	0	0.00	0	7	7
268-10	R. & L. Punch	0.2	0.3		0.3	11	0.19		0	0	0.00		0	0	0.00	0	11	11
268-20	L. & J. Kawucha	0.2	0.3		0.3	11	0.19		0	0	0.00		0	0	0.00	0	11	11
268-30	T. & J. Van Leemput	0.2	0.3		0.3	11	0.19		0	0	0.00		0	0	0.00	0	11	11
??	Unknown (Town of Fort Erie)	0.5	0.3		0.3	11	0.19		0.1	3	0.07		0	0	0.00	0	14	14
Q.E.W.	M.T.O.	3.5	7	800	7	259	17.94		7	222	4.83	3,000	7	926	31.39	3,800	1,407	5,207
Switch Road	Town of Fort Erie	1.0	2		2	74	1.25		0	0	0.00		0	0	0.00	0	74	74
Townline Road	Town of Fort Erie	1.8	3.6		3.6	133	2.25	800	3.6	115	19.89		0	0	0.00	800	248	1,048
College Road	Town of Fort Erie	0.5	1		1	37	0.63		1	32	0.70	800	1	133	7.46	800	202	1,002
Ridgemount Road	Town of Fort Erie	1.1	2.2		2.2	81	1.37		2.2	70	1.52		2.2	292	2.34	0	443	443
Sumner Road (Unopened)	Town of Fort Erie	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
Eagle Street	Town of Fort Erie	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
Arcadia Street (Unopened)	Town of Fort Erie	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
Laur Road	Town of Fort Erie	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
Laur Road (Unopened)	Town of Fort Erie	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
Curtis Road	Town of Fort Erie	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
Bowen Road	Town of Fort Erie	0	0		0	0	0.00		0	0	0.00		0	0	0.00	0	0	0
Shagbark Lane	Town of Fort Erie	0.2	0.4		0.4	15	0.25		0	0	0.00		0	0	0.00	0	15	15
TOTAL BENEFITS & SPECIALS		131.2	106	2,000	106.0	3,900	100.00	2,200	75.4	2,400	100.00	6,550	44.9	5,950	100.00	10,750	12,250	23,000
OUTLET ASSESSMENTS				3,900				2,400				5,950						
Ha into Interval				106.0				75.4				44.9						
Outlet Rate/Ha				36.79				31.83				132.52						

		GLENNY DRAIN SOUTH																				
				Interval 1				Interval 2				Interval 3				Interval 4				Glenny Drain South		
INTERVAL				000 to 332 (Kline Outlet)				332 to 1+129				1+129 to 1+582				1+582 to 1+960						
				(12/m for ditch cleanout)				(12/m for ditch cleanout)				(12/m for ditch cleanout)				(12/m for ditch cleanout)				Total		
TOTAL COST ESTIMATE				3,900				9,600				5,400				4,500				23,400		
BENEFIT ASSESSMENTS					Ha				Ha				Ha				Ha					
Roll No.	Owner	Total Ha Affected	Total ha Adjusted	Benefit	Affected Adjusted	Outlet	%	Benefit	Affected Adjusted	Outlet	%	Benefit	Affected Adjusted	Outlet	%	Benefit	Affected Adjusted	Outlet	%	Total Benefit	Total Outlets	TOTAL
Town of Fort Erie	(Bertie Twp)																					
019-00	Management Board Secretariat	6.0	4.4		4.4	45	1.15		4.4	80	0.83		4.4	55	1.02		4.4	159	3.53	0	339	339
020-00	M.T.O.	3.0	1.5		1.5	15	0.38		1.5	27	0.28		1.5	19	0.35		1.5	54	1.20	0	115	115
023-00	G., J. & T Curtis	2.9	2.9		2.9	29	0.74		2.9	53	0.55		2.9	37	0.69		0.0	0	0.00	0	119	119
025-00	G. Lichtenberger	24.9	22.2		22.2	226	5.79		22.2	406	4.23		22.2	279	5.17		22.2	801	17.80	0	1,712	1,712
028-00	Appomattox Club of Buffalo	4.6	2.3		2.3	23	0.59		2.3	42	0.44		2.3	29	0.54		2.3	83	1.84	0	177	177
075-00	J. Laur	3.6	3.6		3.6	37	0.95		3.6	66	0.69		3.6	45	0.83		0	0	0.00	0	148	148
075-03	Walker Aggregates Inc.	5.0	4.4		4.4	45	1.15		4.4	80	0.83		4.4	55	1.02		0	0	0.00	0	180	180
075-04	Walker Aggregates Inc.	4.7	3.9		3.9	40	1.03		3.9	71	0.74		3.9	49	0.91		0	0	0.00	0	160	160
078-00	M. & S. Kompf	0.5	0.8		0.8	8	0.21		0.8	15	0.16		0.8	10	0.19		0	0	0.00	0	33	33
079-00	J., T. & G. Curtis	32.1	27.6		27.6	280	7.18		27.6	504	5.25		27.6	347	6.43		0	0	0.00	0	1,131	1,131
080-01	A. & H. Miller	3.9	3.9		3.9	40	1.03		3.9	71	0.74		3.9	49	0.91		0	0	0.00	0	160	160
081-00	C. Spada	0.3	0.3		0.3	3	0.08		0.3	5	0.05		0.3	4	0.07		0	0	0.00	0	12	12
083-01	M. Dolbeau & M. Laroche	12.9	12.9		12.9	131	3.36		12.9	236	2.46		11.7	147	2.72		0	0	0.00	0	514	514
084-00	J., T. & G. Curtis	47.8	44.3		44.3	450	11.54		44.3	809	8.43	600	44.3	558	21.44		0	0	0.00	600	1,817	2,417
084-10	J. & T. Rehm	1.0	1.5		1.5	15	0.38		1.5	27	0.28		1.5	19	0.35		0	0	0.00	0	61	61
085-00	M.T.O.	2.0	1.0		1.0	10	0.26		1.0	18	0.19		1.0	13	0.24	500	1.0	36	11.91	500	77	577
086-00	J. Elliot	12.8	7.7		7.7	78	2.00		7.7	141	1.47		3.5	44	0.81	600	3.5	126	16.13	600	389	989
087-00	Jukic Group Ltd.	9.3	5.5		5.5	56	1.44		5.5	100	1.04	700	3.8	48	13.85		0	0	0.00	700	204	904
088-00	S. Singh	7.5	6.0		6.0	61	1.56	500	6.0	110	6.35	500	0.9	11	9.46		0	0	0.00	1,000	182	1,182
089-00	A. & B. Mueller	0.4	0.6		0.6	6	0.15		0.6	11	0.11		0.0	0	0.00		0	0	0.00	0	17	17
090-00	H. Bar	0.3	0.2		0.2	2	0.05		0.2	4	0.04		0.0	0	0.00		0	0	0.00	0	6	6
091-00	D. & G. Carlesso	10.0	5.0		5.0	51	1.31		5.0	91	0.95		0.0	0	0.00		0	0	0.00	0	142	142
092-00	B. & I. Bryant	4.3	3.0		3.0	30	0.77	600	3.0	55	6.82		0.0	0	0.00		0	0	0.00	600	85	685
095-00	C. & M. Paul	12.9	6.5		6.5	66	1.69		6.5	119	1.24		0.0	0	0.00		0	0	0.00	0	185	185
095-01	M. & K. Boulard	1.0	0.9		0.9	9	0.23		0.9	16	0.17		0.0	0	0.00		0	0	0.00	0	25	25
096-00	D. Demarco	1.6	1.3		1.3	13	0.33		1.3	24	0.25		0.0	0	0.00		0	0	0.00	0	37	37
096-01	R. Lesniczek & C. Cameron	5.7	2.9		2.9	29	0.74		2.9	53	0.55		0.0	0	0.00		0	0	0.00	0	82	82
103-00	T. & L. Waters	0.0	0.0		0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
104-00	R. Courtney	0.0	0.0		0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
105-00	A. Willick	0.0	0.0		0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
106-00	K. & S. Cosby	0.0	0.0		0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
107-00	C. Walter & R. Digrigoli	0.0	0.0		0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
107-01	P. Ker	0.8	0.4		0.4	4	0.10		0.4	7	0.07		0.0	0	0.00		0	0	0.00	0	11	11
131-01	T. Tran & T. Le	5.0	5.0		5.0	51	1.31		5.0	91	0.95		0.0	0	0.00		0	0	0.00	0	142	142
132-00	C. Marr	5.0	2.5		2.5	25	0.64		2.5	46	0.48		0.0	0	0.00		0	0	0.00	0	71	71
133-00	S. Bell	0.9	1.4		1.4	14	0.36		1.4	26	0.27		0.0	0	0.00		0	0	0.00	0	40	40
135-00	Jukic Group Ltd.	5.3	5.3		5.3	54	1.38		5.3	97	1.01		0.0	0	0.00		0	0	0.00	0	151	151
136-00	O. Leon	2.0	1.0	100	1.0	10	2.82	300	0.4	7	3.20		0.0	0	0.00		0	0	0.00	400	17	417
136-01	Town of Fort Erie	1.0	1.5		1.5	15	0.38	150	1.5	27	1.84		0.0	0	0.00		0	0	0.00	150	42	192
137-00	G. & C. Nigh	3.2	1.6	450	1.6	16	11.95	400	1.0	18	4.35		0.0	0	0.00		0	0	0.00	850	34	884
139-00	E. Bangay	0.0	0.0		0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
140-00	R. Christie	0.0	0.0		0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
141-00	M. Clarkson	0.0	0.0		0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
142-00	A. Chambers & M. Clarkson	0.0	0.0		0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
143-00	K. White	0.0	0.0		0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
144-00	G. Krutasky	0.0	0.0		0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
145-00	Jukic Group Ltd.	5.5	2.8	450	2.8	28	12.26		0.0	0	0.00		0.0	0	0.00		0.0	0	0.00	450	28	478
147-00	P. Band & F. Cohen	0.0	0.0		0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
150-00	A. Kittel	0.0	0.0		0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
150-01	P. & P. Graves	0.0	0.0		0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
150-02	W. Beaudoin	0.0	0.0		0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
150-03	D. & K. Plato	0.0	0.0		0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
151-00	G. Poulsen	0.0	0.0		0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
152-00	W. & D. Gray	0.0	0.0		0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
031-994	C.N.R.	2.8	4.2		4.2	43	1.10		4.2	77	0.80		4.2	53	0.98		0	0	0.00	0	173	173
047-996	C.P.R.	3.6	5.5		5.5	56	1.44		5.5	100	1.04		5.5	69	1.28		0	0	0.00	0	225	225

		GLENNY DRAIN SOUTH																				
				Interval 1			**Interval 2**				**Interval 3**				**Interval 4**				**Glenny Drain South**		
INTERVAL				000 to 332 (Kline Outlet)			332 to 1+129				1+129 to 1+582				1+582 to 1+960						
				(12/m for ditch cleanout)			(12/m for ditch cleanout)				(12/m for ditch cleanout)				(12/m for ditch cleanout)				**Total**		
(40055)-	(Willoughby Twp)																				
050-00	R. & M. Lauck	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
058-00	J. & R. Burger	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
061-00	B., D., M. & S. Arthur & M. Dilapo	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
068-00	G. Fansolato	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
116-00	S. & M. Wright	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
117-00	K. Sherk	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
118-00	P. & E. Burger	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
118-05	P. Mammoliti	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
118-15	H. Rerrie & L. Moore	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
262-00	Stevens Bancorp Inc	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
263-00	S. Sanderson & G. Melvin	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
264-00	R. Howard	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
265-00	L. & G. Coutts	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
266-00	L. & G. Coutts	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
267-00	W. Grimm	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
268-01	A. Beam	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
268-05	M. & K. Knuuttila	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
268-10	R. & L. Punch	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
268-20	L. & J. Kawucha	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
268-30	T. & J. Van Leemput	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
??	Unknown (Town of Fort Erie)	0.0	0.0	0.0	0	0.00	0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
Q.E.W.	M.T.O.	23.9	46.3	46.3	471	12.10	250	43.1	788	10.82	1200	28.5	360	28.88	1400	13.9	501	42.26	2,850	2,120	4,970
Switch Road	Town of Fort Erie	0.0	0.0	0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
Townline Road	Town of Fort Erie	0.0	0.0	0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
College Road	Town of Fort Erie	3.2	6.4	6.4	66	1.69	800	1.8	33	8.68		0.0	0	0.00		0	0	0.00	800	99	899
Ridgemount Road	Town of Fort Erie	5.3	10.6	10.6	109	2.79	800	10.6	194	10.36		0.0	0	0.00		0	0	0.00	800	303	1,103
Sumner Road (Unopened)	Town of Fort Erie	0.5	0.5	0.5	5	0.13		0.5	9	0.09		0.5	6	0.11	200	0.5	18	4.84	200	38	238
Eagle Street	Town of Fort Erie	3.0	6.0	6.0	61	1.56	800	6.0	110	9.49		0.0	0	0.00		0	0	0.00	800	171	971
Arcadia Street (Unopened)	Town of Fort Erie	0.6	0.6	0.6	6	0.15		0.6	11	0.11		0.6	8	0.15		0.6	22	0.49	0	47	47
Laur Road	Town of Fort Erie	0.8	1.6	1.6	16	0.41		1.6	29	0.30		1.6	20	0.37		0	0	0.00	0	65	65
Laur Road (Unopened)	Town of Fort Erie	0.8	0.8	0.8	8	0.21		0.8	15	0.16		0.8	10	0.19		0	0	0.00	0	33	33
Curtis Road	Town of Fort Erie	0.9	1.8	1.8	18	0.46		1.8	33	0.34		1.8	23	0.43		0	0	0.00	0	74	74
Bowen Road	Town of Fort Erie	1.3	2.6	2.6	26	0.67		2.6	48	0.50		2.6	33	0.61		0	0	0.00	0	107	107
Shagbark Lane	Town of Fort Erie	0	0.0	0.0	0	0.00		0.0	0	0.00		0.0	0	0.00		0	0	0.00	0	0	0
TOTAL BENEFITS & SPECIALS		296.4	285.5	1,000	285.5	2,900	100.00	4,600	273.7	5,000	100.00	3,000	190.6	2,400	100.00	2,700	49.9	1,800	100.00	11,300	12,100	23,400
OUTLET ASSESSMENTS				2,900				5,000				2,400				1,800						
Ha into Interval				285.5				273.7				190.6				49.9						
Outlet Rate/Ha				10.16				18.27				12.59				36.07						

		Q.E.W. BRANCH					C.N.R. BRANCH												COLLEGE BRANCH				
		Interval 1							Interval 1				Interval 2				C.N.R. Branch Total			Interval 1				
INTERVAL		000 to 343							000 to 694				694 to 867							000 to 114				
		(12/m for ditch cleanout)							(12/m for ditch cleanout)				(12/m for ditch cleanout)							(12/m for ditch cleanout)				
TOTAL COST ESTIMATE		4,100							8,300				2,100				10,400			1,400				
BENEFIT ASSESSMENTS		Total Ha		Ha Affected			Total Ha	Total ha		Ha Affected				Ha Affected			Total	Total		Total Ha		Ha Affected		
Roll No.	Owner	Affected	Benefit	Adjusted	Outlet	%	Affected	Adjusted	Benefit	Adjusted	Outlet	%	Benefit	Adjusted	Outlet	%	Benefit	Outlets	TOTAL	Affected	Benefit	Adjusted	Outlet	%
Town of Fort Erie	(Bertie Twp)																							
019-00	Management Board Secretariat	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
020-00	M.T.O.	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
023-00	G., J. & T Curtis	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
025-00	G. Lichtenberger	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
028-00	Appomattox Club of Buffalo	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
075-00	J. Laur	0		0	0	0.00	3.6	3.6		3.6	183	2.20		3.6	54	2.57	0	237	237	0		0	0	0.00
075-03	Walker Aggregates Inc.	0		0	0	0.00	5	4.4		4.4	224	2.70		4.4	66	3.14	0	290	290	0		0	0	0.00
075-04	Walker Aggregates Inc.	0		0	0	0.00	4.7	3.9		3.9	199	2.40		3.9	59	2.81	0	258	258	0		0	0	0.00
078-00	M. & S. Kompf	0		0	0	0.00	0.5	0.8		0.8	41	0.49		0.8	12	0.57	0	53	53	0		0	0	0.00
079-00	J., T. & G. Curtis	0		0	0	0.00	8.3	6.6		6.6	336	4.05		6.6	99	4.71	0	435	435	0		0	0	0.00
080-01	A. & H. Miller	0		0	0	0.00	3.9	3.9		3.9	199	2.40		3.9	59	2.81	0	258	258	0		0	0	0.00
081-00	C. Spada	0		0	0	0.00	0.3	0.3		0.3	15	0.18		0.3	5	0.24	0	20	20	0		0	0	0.00
083-01	M. Dolbeau & M. Laroche	0		0	0	0.00	11.7	11.7	700	11.7	596	15.61		0	0	0.00	700	596	1,296	0		0	0	0.00
084-00	J., T. & G. Curtis	0		0	0	0.00	44.4	42	2000	42	2,142	49.90	600	25.3	379	46.62	2,600	2,521	5,121	0		0	0	0.00
084-10	J. & T. Rehm	0		0	0	0.00	1	1.5		1.5	76	0.92		1.5	23	1.10	0	99	99	0		0	0	0.00
085-00	M.T.O.	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
086-00	J. Elliot	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
087-00	Jukic Group Ltd.	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
088-00	S. Singh	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
089-00	A. & B. Mueller	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
090-00	H. Bar	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
091-00	D. & G. Carlesso	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
092-00	B. & I. Bryant	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
095-00	C. & M. Paul	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
095-01	M. & K. Boulard	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
096-00	D. Demarco	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
096-01	R. Lesniczek & C. Cameron	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
103-00	T. & L. Waters	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
104-00	R. Courtney	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
105-00	A. Willick	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
106-00	K. & S. Cosby	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
107-00	C. Walter & R. Digrigoli	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
107-01	P. Ker	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
131-01	T. Tran & T. Le	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
132-00	C. Marr	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
133-00	S. Bell	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
135-00	Jukic Group Ltd.	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
136-00	O. Leon	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	1.2	200	0.6	125	23.21
136-01	Town of Fort Erie	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
137-00	G. & C. Nigh	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
139-00	E. Bangay	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
140-00	R. Christie	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
141-00	M. Clarkson	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
142-00	A. Chambers & M. Clarkson	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
143-00	K. White	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
144-00	G. Krutasky	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
145-00	Jukic Group Ltd.	4.7	600	2.4	543	27.88	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
147-00	P. Band & F. Cohen	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
150-00	A. Kittel	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
150-01	P. & P. Graves	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
150-02	W. Beaudoin	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
150-03	D. & K. Plato	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
151-00	G. Poulsen	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
152-00	W. & D. Gray	0		0	0	0.00	0	0		0	0	0.00		0	0	0.00	0	0	0	0		0	0	0.00
031-994	C.N.R.	0		0	0	0.00	1.6	2.4	200	2.4	122	3.88	300	2.4	36	16.00	500	158	658	0		0	0	0.00
047-996	C.P.R.	0		0	0	0.00	2.1	3.2	900	3.2	163	12.81	300	3.2	48	16.57	1,200	211	1,411	0		0	0	0.00

		Q.E.W. BRANCH					C.N.R. BRANCH												COLLEGE BRANCH				
		Interval 1						Interval 1				Interval 2				C.N.R. Branch Total			Interval 1				
INTERVAL		000 to 343						000 to 694				694 to 867							000 to 114				
		(12/m for ditch cleanout)						(12/m for ditch cleanout)				(12/m for ditch cleanout)							(12/m for ditch cleanout)				
(40055)-	(Willoughby Twp)																						
050-00	R. & M. Lauck	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
058-00	J. & R. Burger	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
061-00	B., D., M. & S. Arthur & M. Dilapo	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
068-00	G. Fansolato	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
116-00	S. & M. Wright	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
117-00	K. Sherk	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
118-00	P. & E. Burger	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
118-05	P. Mammoliti	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
118-15	H. Rerrie & L. Moore	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
262-00	Stevens Bancorp Inc	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
263-00	S. Sanderson & G. Melvin	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
264-00	R. Howard	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
265-00	L. & G. Coutts	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
266-00	L. & G. Coutts	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
267-00	W. Grimm	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
268-01	A. Beam	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
268-05	M. & K. Knuuttila	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
268-10	R. & L. Punch	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
268-20	L. & J. Kawucha	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
268-30	T. & J. Van Leemput	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
??	Unknown (Town of Fort Erie)	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
						0.00					0.00			0.00								0.00
						0.00					0.00			0.00								0.00
Q.E.W.	M.T.O.	1.6	1000	3.2	724	42.05	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
Switch Road	Town of Fort Erie	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
Townline Road	Town of Fort Erie	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
College Road	Town of Fort Erie	1.4	600	2.8	633	30.07	0	0	0	0	0.00	0	0	0.00	0	0	0	0.9	700	1.8	375	76.79
Ridgemount Road	Town of Fort Erie	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
Sumner Road (Unopened)	Town of Fort Erie	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
Eagle Street	Town of Fort Erie	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
Arcadia Street (Unopened)	Town of Fort Erie	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
Laur Road	Town of Fort Erie	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
Laur Road (Unopened)	Town of Fort Erie	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
Curtis Road	Town of Fort Erie	0		0	0	0.00	0.7	1.4	1.4	71	0.86	1.4	21	1.00	0	92	92	0		0	0	0.00
Bowen Road	Town of Fort Erie	0		0	0	0.00	1.3	2.6	2.6	133	1.60	2.6	39	1.86	0	172	172	0		0	0	0.00
Shagbark Lane	Town of Fort Erie	0		0	0	0.00	0	0	0	0	0.00	0	0	0.00	0	0	0	0		0	0	0.00
TOTAL BENEFITS & SPECIALS		7.7	2,200	8.4	1,900	100.00	89.1	88.3	3,800	88.3	4,500	100.00	1,200	59.9	900	100.00	5,000	5,400	10,400	2.1	900	2.4	500	100.00
OUTLET ASSESSMENTS			1,900						4,500				900								500			
Ha into Interval			8.4						88.3				59.9								2.4			
Outlet Rate/Ha			226.19						50.96				15.03								208.33			



NOTE:
- ASSESSMENT ROLL NO'S IN THE FORMER TOWNSHIP OF BERTIE BEGIN WITH 20028– i.e. 145–00 IN FULL IS 20028–145–00
- ASSESSMENT ROLL NO'S IN THE FORMER TOWNSHIP OF WILLOUGHBY BEGIN WITH 40055– i.e. 061–00 IN FULL IS 40055–061–00

THE POSITION OF POLE LINES, CONDUITS, WATERMAINS, SEWERS AND OTHER UNDERGROUND AND OVERGROUND UTILITIES AND STRUCTURES IS NOT NECESSARILY SHOWN ON THE CONTRACT DRAWINGS, AND, WHERE SHOWN, THE ACCURACY IS NOT GUARANTEED. BEFORE STARTING WORK, THE CONTRACTOR SHALL INFORM HIMSELF OF THE EXACT LOCATION OF ALL SUCH UTILITIES AND STRUCTURES, AND SHALL ASSUME ALL LIABILITY FOR DAMAGE TO THEM.

PLAN LEGEND

- MAJOR WATERSHED
- INTERMEDIATE WATERSHED
- PROPOSED DRAIN
- UNOPENED ROAD ALLOWANCE
- ACCESS ROUTE
- DENOTES PROPERTY OWNERSHIP ON BOTH SIDES OF LOT LINE
- (2.8) — APPROXIMATE HECTARES IN WATERSHED
- 134–00 — ASSESSMENT ROLL NUMBER

DESIGNED BY:	H.A.W.
CHECKED BY:	N.W.M.
DRAWN BY:	N.M.B.
CHECKED BY:	N.M.M.

REGISTERED PROFESSIONAL ENGINEER — N. W. MORRIS — 100109137 — PROVINCE OF ONTARIO

SCALE: 0 150 300m (1:15,000 ON 11"x17")

GLENNY DRAIN 2017

REGION OF NIAGARA — TOWN OF FORT ERIE

WATERSHED PLAN

NOV. 17 2017

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER — SUDBURY

REVISED:
JOB NUMBER: 05–182
DRAWING 1 OF 15

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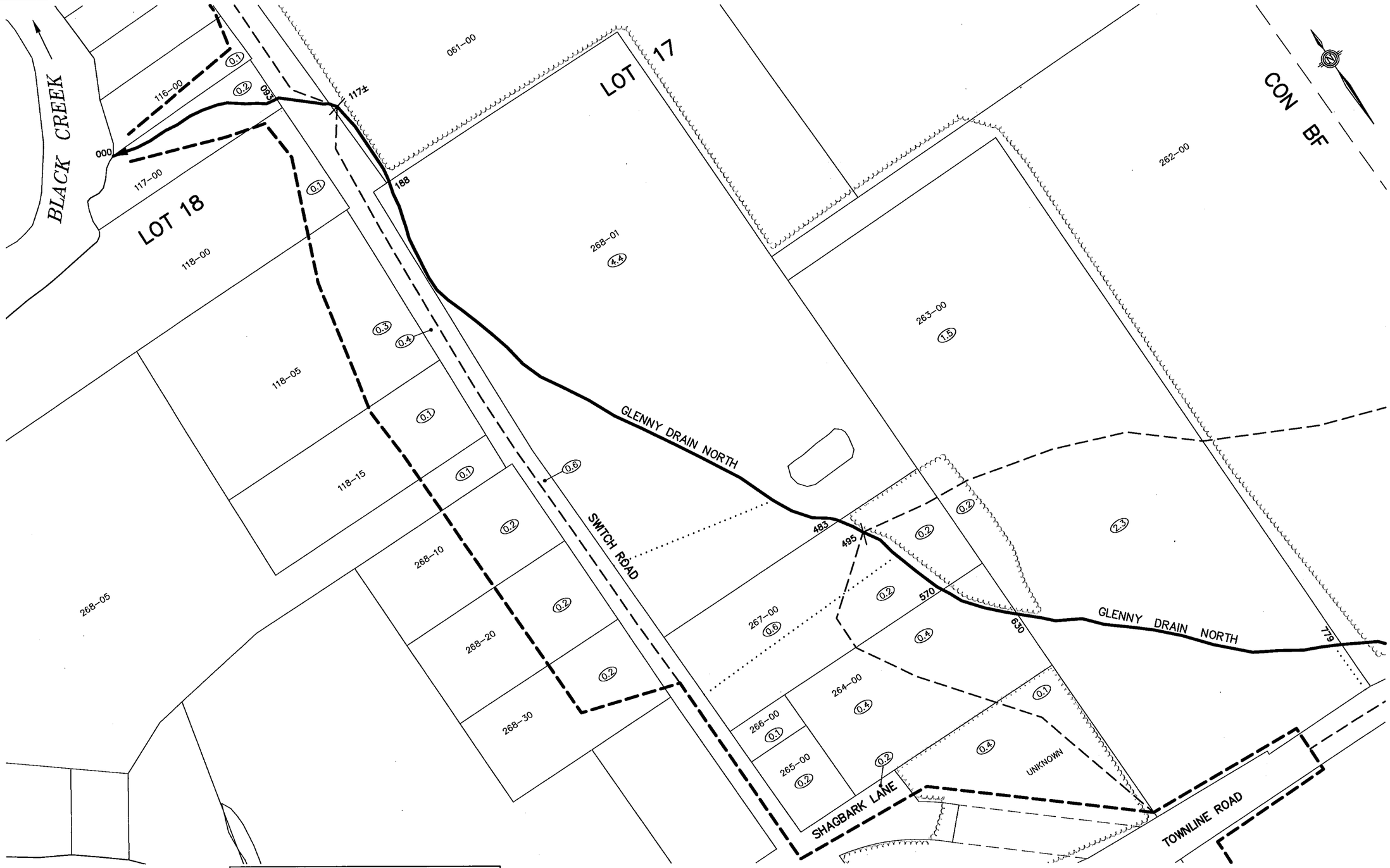


PLAN LEGEND

- — MAJOR WATERSHED
- — INTERMEDIATE WATERSHED
- — PROPOSED DRAIN
- — ACCESS ROUTE
- (0.2) — APPROXIMATE HECTARES IN WATERSHED
- 268-30 — ASSESSMENT ROLL NUMBER

NOTE:
ASSESSMENT ROLL NUMBERS IN THE FORMER TOWNSHIP OF WILLOUGHBY BEGIN WITH 40055-
i.e. 061-00 IN FULL IS 40055-061-00

DESIGNED BY:	H.A.W.
CHECKED BY:	N.W.M.
DRAWN BY:	N.M.B.
CHECKED BY:	N.M.M.

REGISTERED PROFESSIONAL ENGINEER
N. W. MORRIS
100109137
NOV 17 2017
PROVINCE OF ONTARIO

SCALE
0 20 40m
(1:2,000 ON 11"x17")

GLENNY DRAIN 2017

REGION OF NIAGARA — TOWN OF FORT ERIE

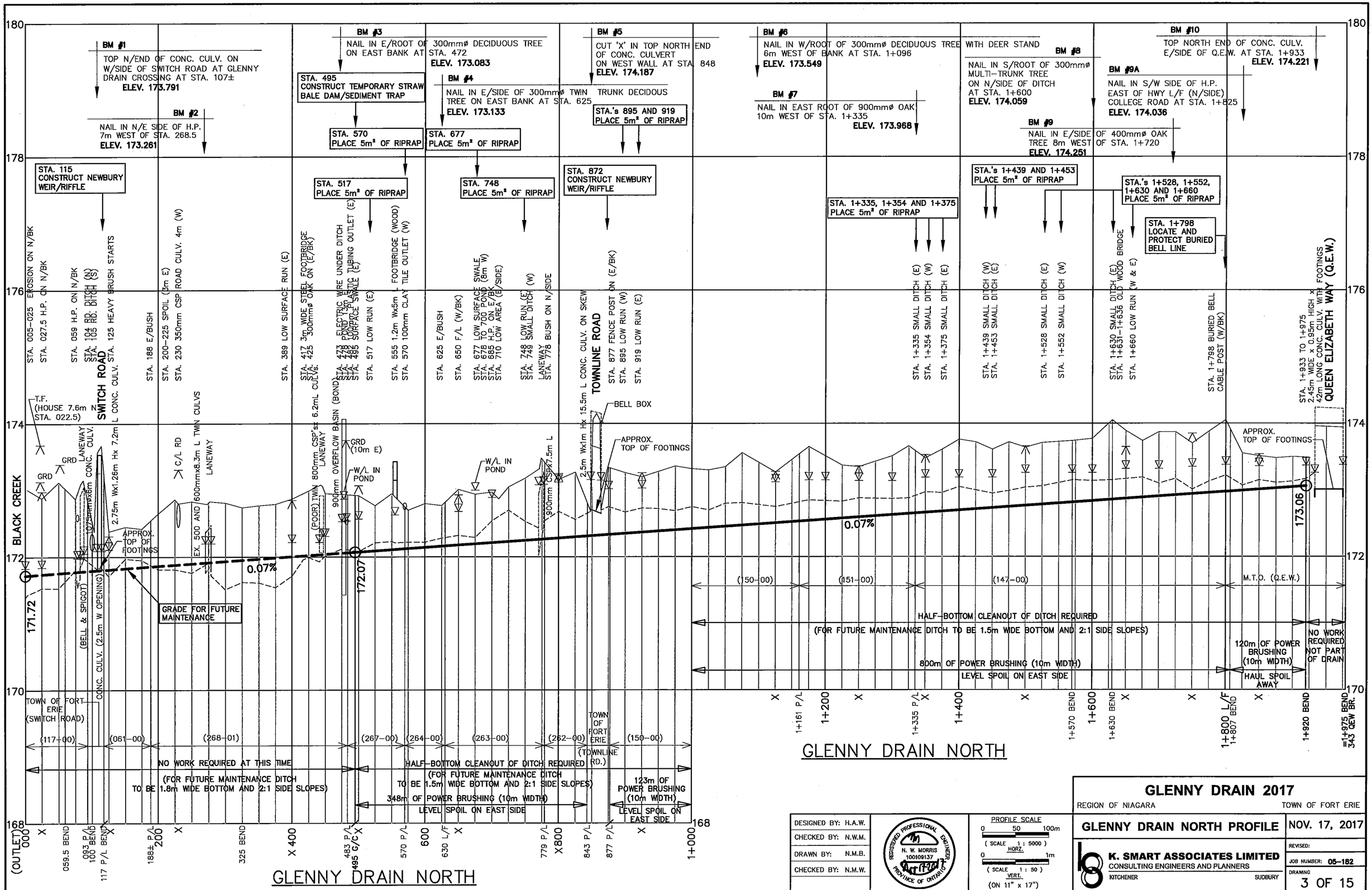
ENLARGEMENT PLAN

NOV. 17, 2017

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER — SUDBURY

REVISED:
JOB NUMBER: 05-182
DRAWING 2 OF 15

\\Server\ksdata\Data\2005\05-182\Drafting\WS 05-182.dwg ENLARGEMENT 15-Nov-17 1:06:31 PM



GLENNY DRAIN 2017

REGION OF NIAGARA — TOWN OF FORT ERIE

GLENNY DRAIN NORTH PROFILE

NOV. 17, 2017

DESIGNED BY:	H.A.W.
CHECKED BY:	N.W.M.
DRAWN BY:	N.M.B.
CHECKED BY:	N.M.W.

REGISTERED PROFESSIONAL ENGINEER — N. W. MORRIS — 100109137 — PROVINCE OF ONTARIO — Nov 17/2017

PROFILE SCALE
0 50 100m (SCALE 1 : 5000) HORZ.
0 1m (SCALE 1 : 50) VERT.
(ON 11" x 17")

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER — SUDBURY

REVISED:
JOB NUMBER: 05-182
DRAWING 3 OF 15

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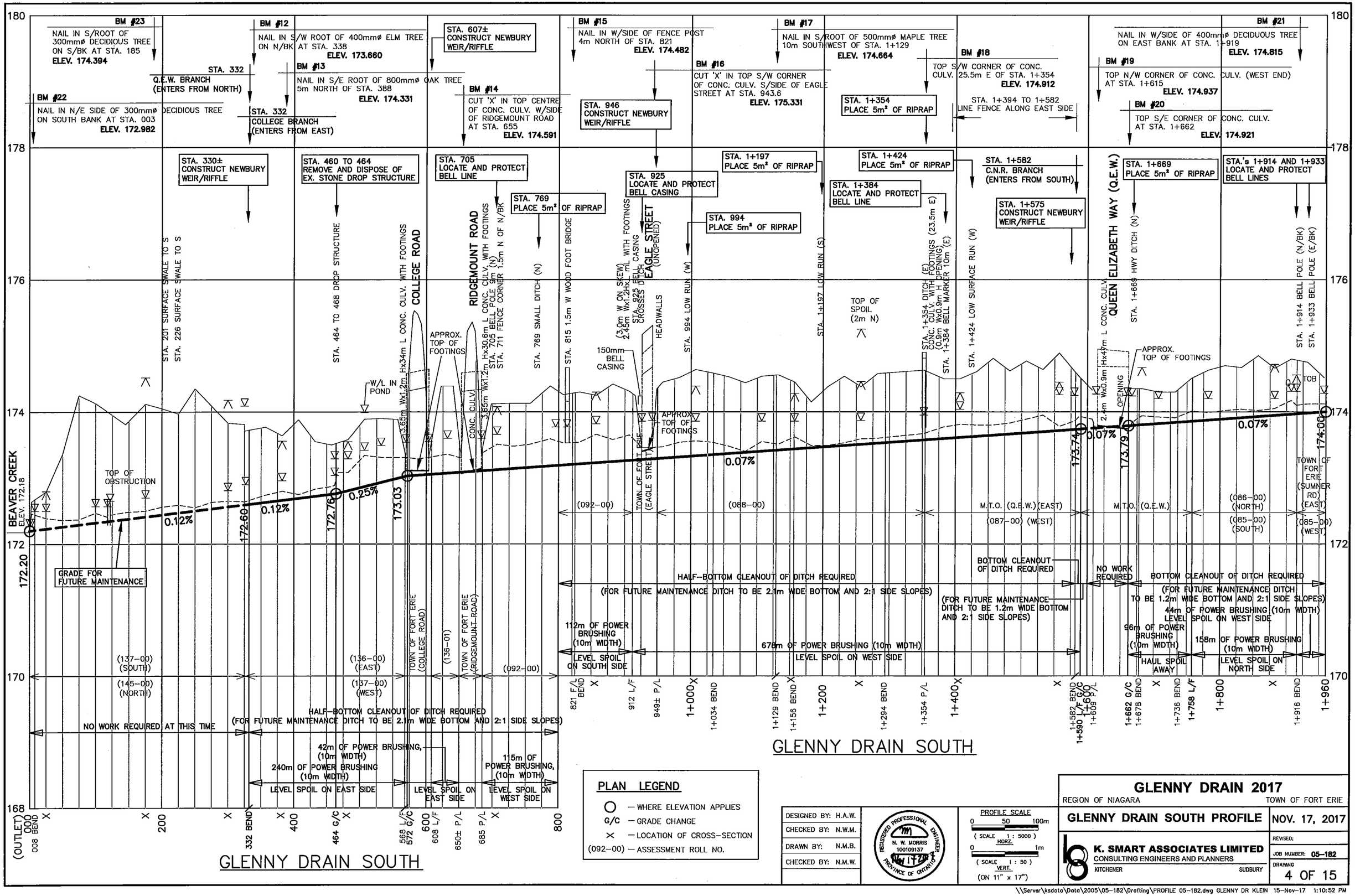

PLAN LEGEND

- ○ — WHERE ELEVATION APPLIES
- G/C — GRADE CHANGE
- × — LOCATION OF CROSS-SECTION
- (092–00) — ASSESSMENT ROLL NO.

DESIGNED BY:	H.A.W.
CHECKED BY:	N.W.M.
DRAWN BY:	N.M.B.
CHECKED BY:	N.M.W.

REGISTERED PROFESSIONAL ENGINEER — N. W. MORRIS — 100109137 — PROVINCE OF ONTARIO

PROFILE SCALE
0 50 100m (SCALE 1 : 5000) HORZ.
0 1m (SCALE 1 : 50) VERT.
(ON 11" x 17")

GLENNY DRAIN 2017

REGION OF NIAGARA — TOWN OF FORT ERIE

GLENNY DRAIN SOUTH PROFILE

NOV. 17, 2017

REVISED:

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER — SUDBURY

JOB NUMBER: 05–182

DRAWING 4 OF 15

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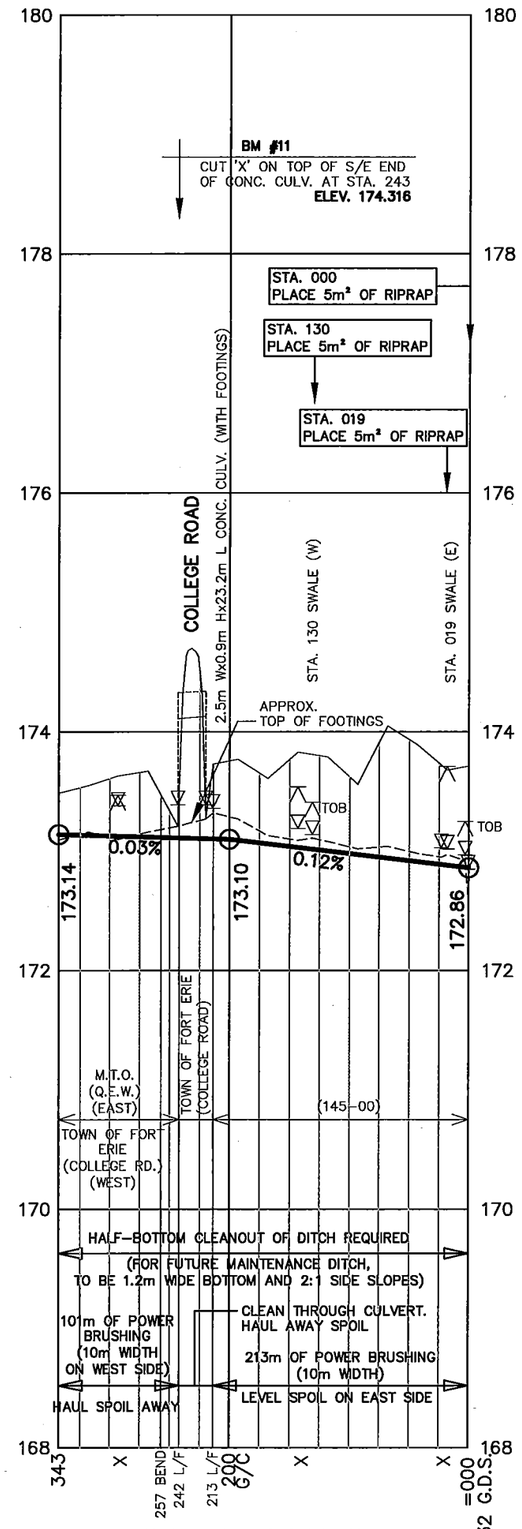
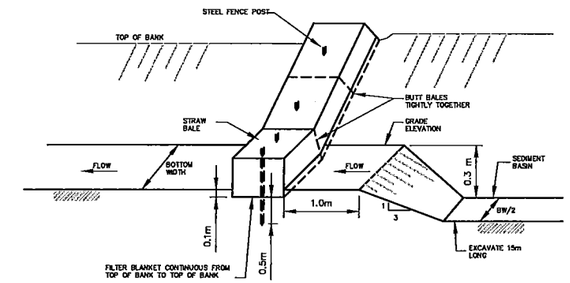
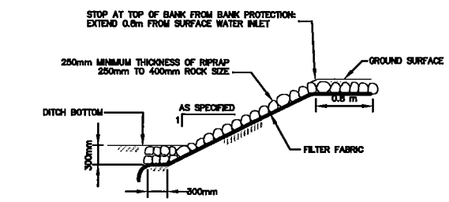


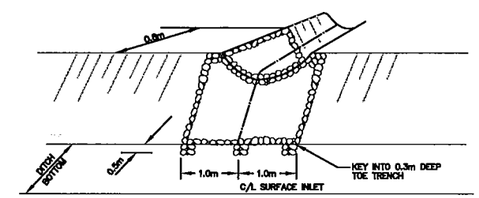
Q.E.W. BRANCH



TEMPORARY SEDIMENT TRAP (STRAW BALES)
N.T.S.



NOTES: EROSION CONTROL MATS OR CABLE CONCRETE
MAY BE USED IF APPROVED BY THE ENGINEER.



BANK PROTECTION
FOR SURFACE WATER INLET
N.T.S.

DESIGNED BY: H.A.W.	REGISTERED PROFESSIONAL ENGINEER N. W. MORRIS 100109137 PROVINCE OF ONTARIO	PROFILE SCALE 0 50 100m (SCALE 1 : 5000) HORZ. 0 1m (SCALE 1 : 50) VERT. (ON 11" x 17")
CHECKED BY: N.W.M.		
DRAWN BY: N.M.B.		
CHECKED BY: N.W.M.		

GLENNY DRAIN 2017

REGION OF NIAGARA — TOWN OF FORT ERIE

Q.E.W. BRANCH PROFILE AND TYPICAL DETAILS

NOV, 17, 2017

REVISED:

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER — SUDBURY

JOB NUMBER: 05-182

DRAWING 5 OF 15

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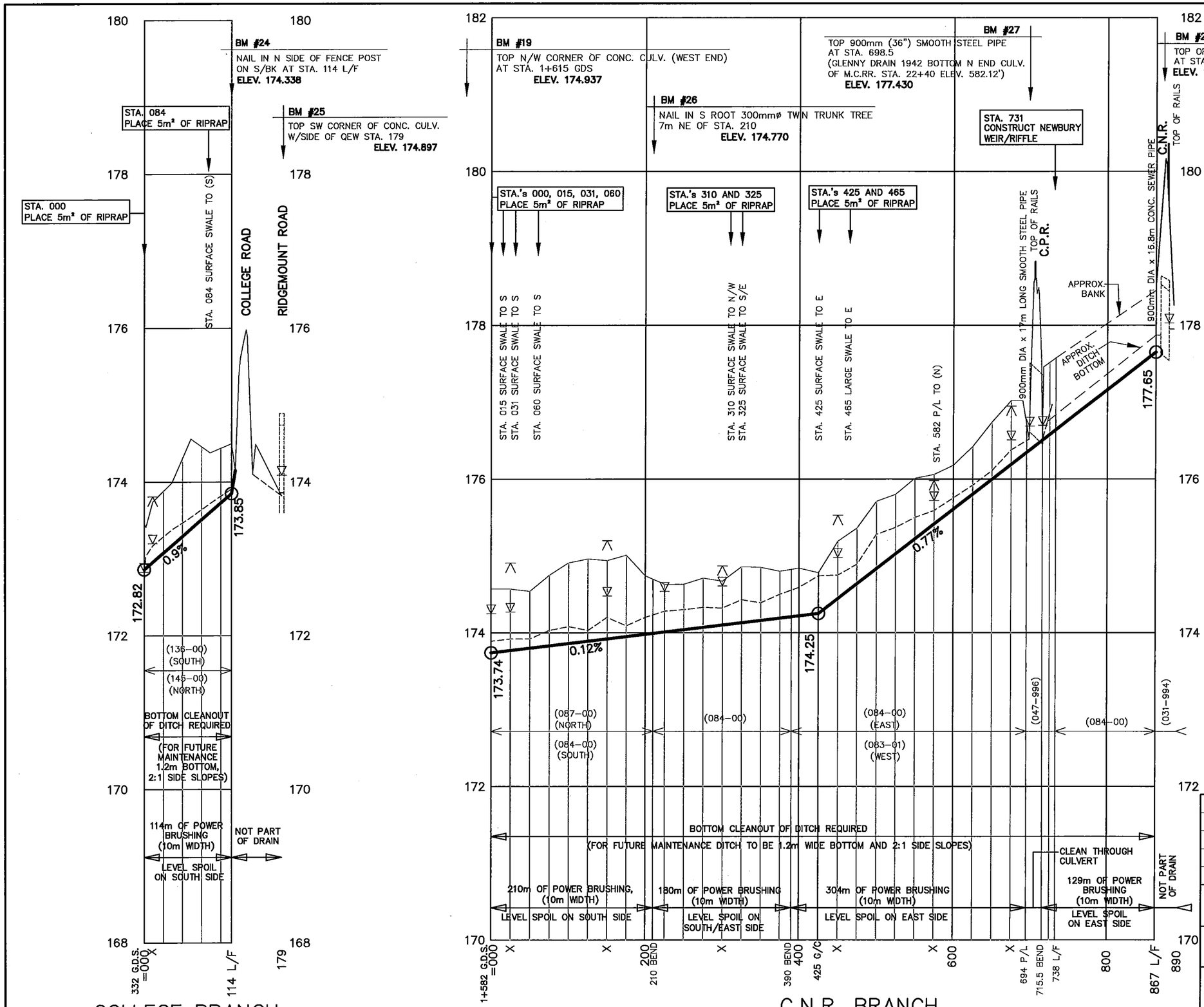


DESIGNED BY: H.A.W.	
CHECKED BY: N.W.M.	
DRAWN BY: N.M.B.	
CHECKED BY: N.M.W.	

REGISTERED PROFESSIONAL ENGINEER N. W. MORRIS 100109137 PROVINCE OF ONTARIO

PROFILES SCALE
0 50 100m (SCALE 1 : 5000) HORZ.
0 1m (SCALE 1 : 50) VERT.
(ON 11" x 17")

GLENNY DRAIN 2017

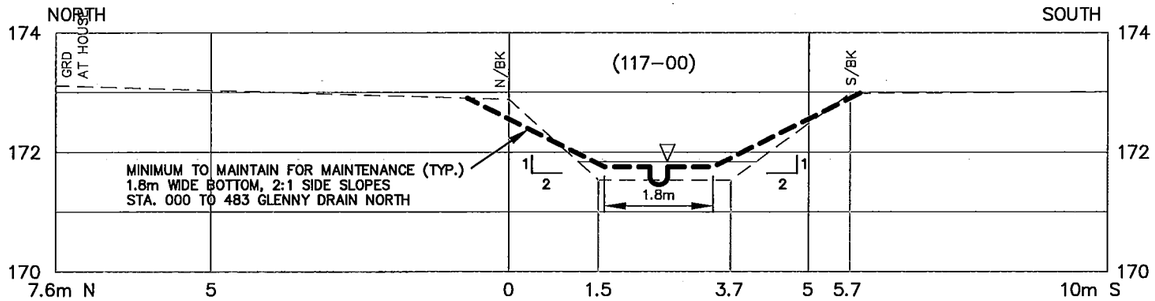
REGION OF NIAGARA — TOWN OF FORT ERIE

COLLEGE AND C.N.R. BRANCHES — NOV. 17, 2017

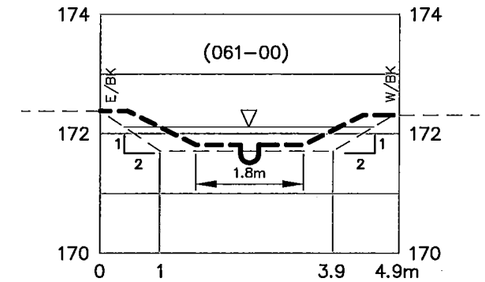
K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER — SUDBURY

REVISED:
JOB NUMBER: 05-182
DRAWING 6 OF 15

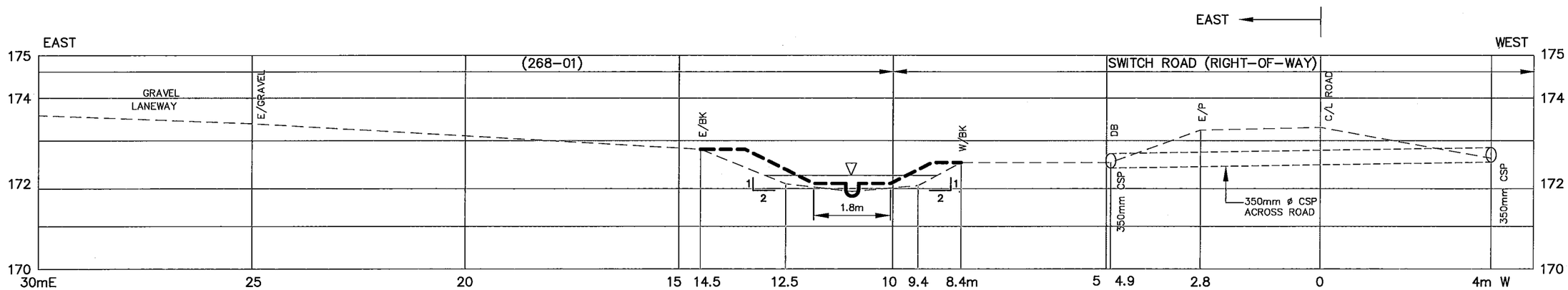
\\Server\ksdata\Data\2005\05-182\Drafting\PROFILE 05-182.dwg COLLEGE AND CNR 15-Nov-17 1:12:59 PM



GLENNY DRAIN NORTH STA. 025



GLENNY DRAIN NORTH STA. 125



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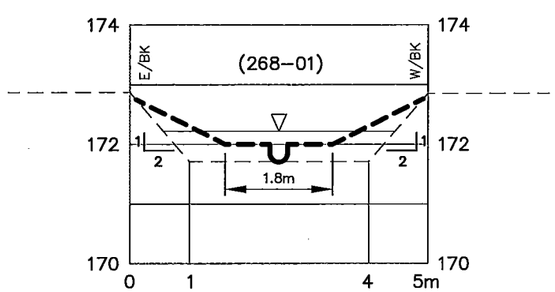

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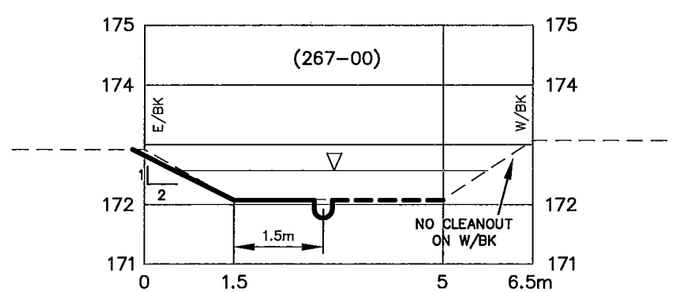
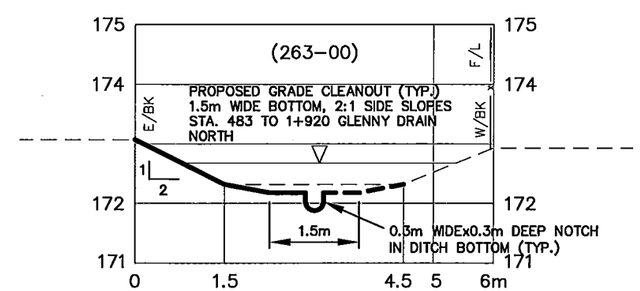


GLENNY DRAIN NORTH STA. 500



GLENNY DRAIN NORTH STA. 650

DESIGNED BY:	H.A.W.
CHECKED BY:	N.W.M.
DRAWN BY:	N.M.B.
CHECKED BY:	N.W.M.

REGISTERED PROFESSIONAL ENGINEER N. W. MORRIS 100109137 PROVINCE OF ONTARIO

CROSS-SECTIONS SCALE
0 — 2m (SCALE 1 : 100) HORZ.
0 — 2m (SCALE 1 : 100) VERT.
(ON 11"x17")

GLENNY DRAIN 2017

REGION OF NIAGARA — TOWN OF FORT ERIE

GLENNY DRAIN NORTH CROSS SECTIONS

NOV. 17, 2017

REVISED:

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER — SUDBURY

JOB NUMBER: 05-182

DRAWING 7 OF 15

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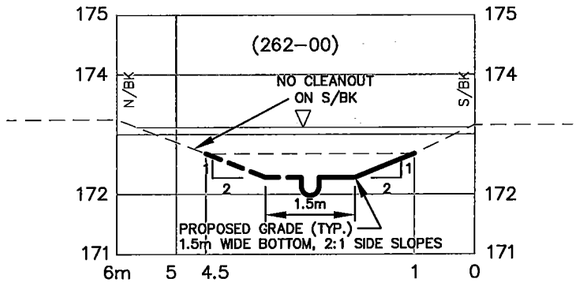

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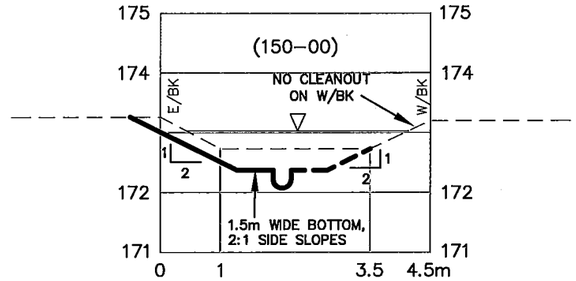

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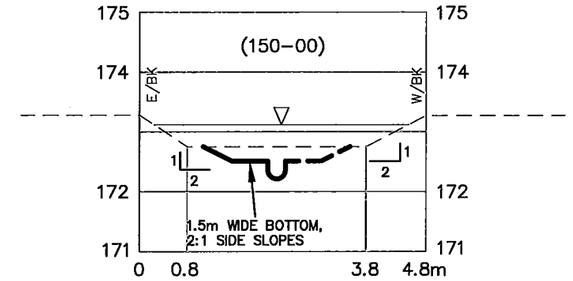

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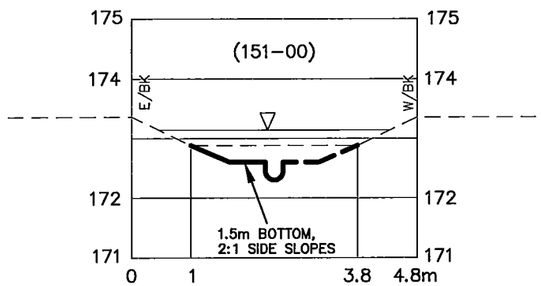

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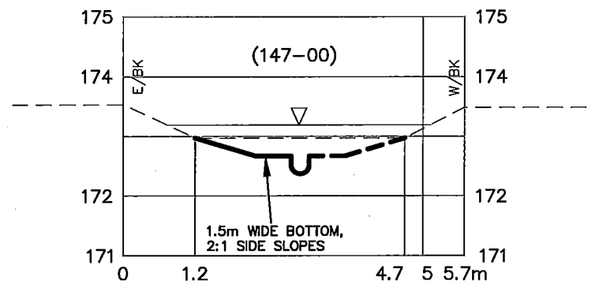

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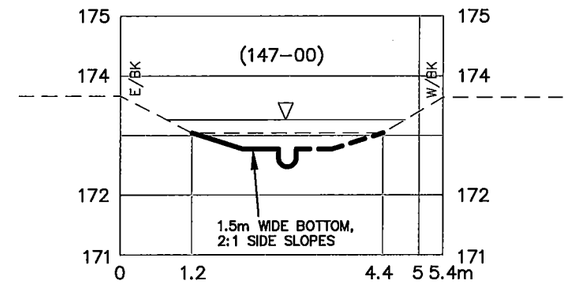
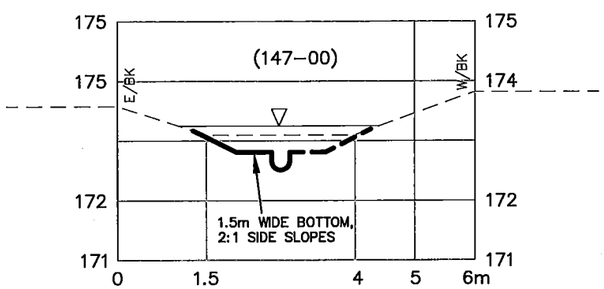
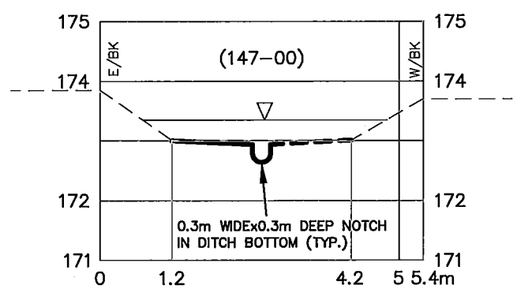


GLENNY DRAIN NORTH STA. 1+500



GLENNY DRAIN NORTH STA. 1+650



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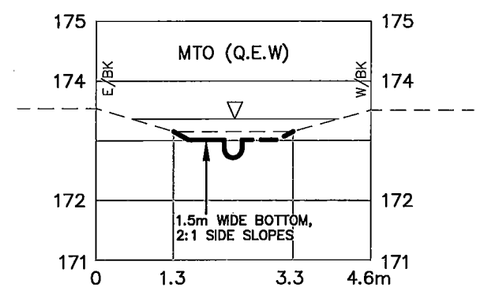


GLENNY DRAIN NORTH STA. 1+850

DESIGNED BY:	H.A.W.
CHECKED BY:	N.W.M.
DRAWN BY:	N.M.B.
CHECKED BY:	N.W.M.

REGISTERED PROFESSIONAL ENGINEER N. W. MORRIS 100109137 NOV 17 2017 PROVINCE OF ONTARIO

CROSS-SECTIONS SCALE
0 2m
(SCALE 1 : 100) HORZ.
0 2m
(SCALE 1 : 100) VERT.
(ON 11"x17")

GLENNY DRAIN 2017

REGION OF NIAGARA — TOWN OF FORT ERIE

GLENNY DRAIN NORTH
CROSS SECTIONS CONTINUED

NOV. 17, 2017

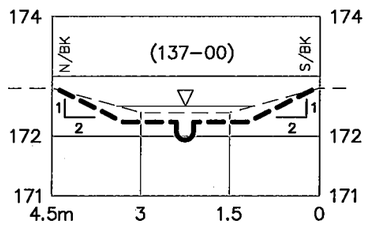
REVISED:

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER — SUDBURY

JOB NUMBER: 05-182

DRAWING 8 OF 15

\\Server\ksdata\Data\2005\05-182\Drafting\SECTIONS 05-182.dwg MAIN (2) 15-Nov-17 1:26:17 PM



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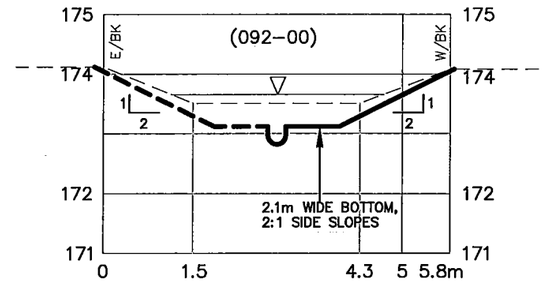

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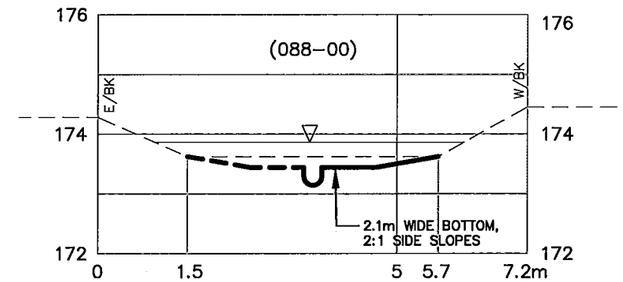

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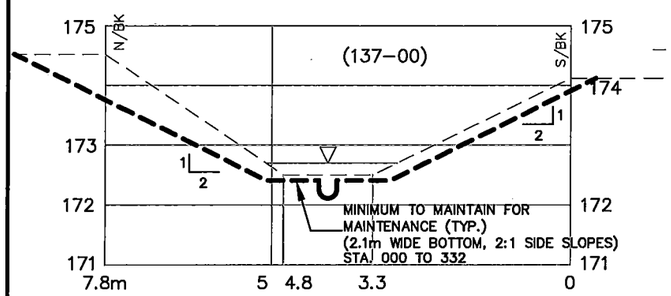

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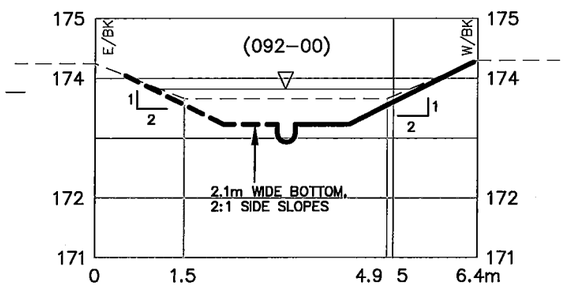

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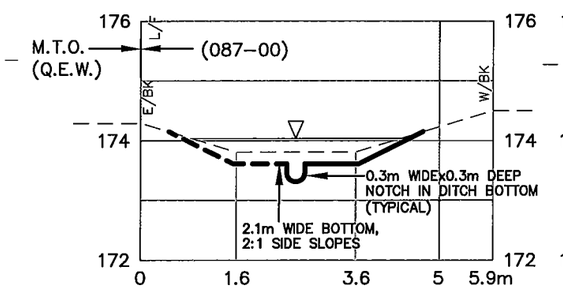

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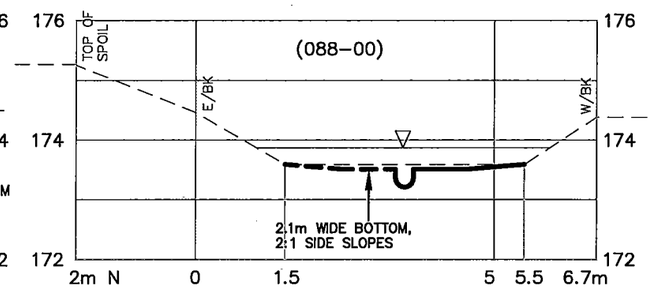

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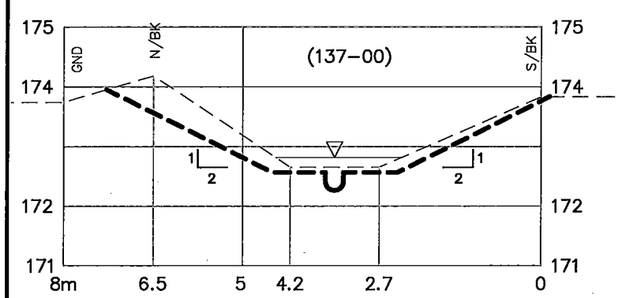
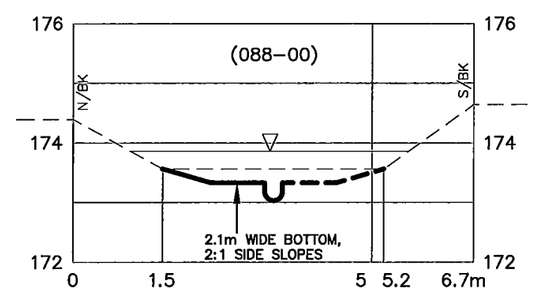


GLENNY DRAIN SOUTH 300



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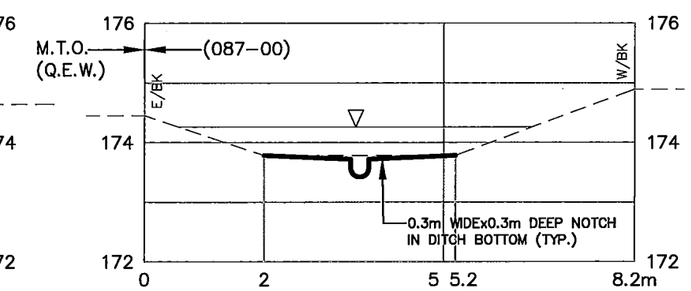

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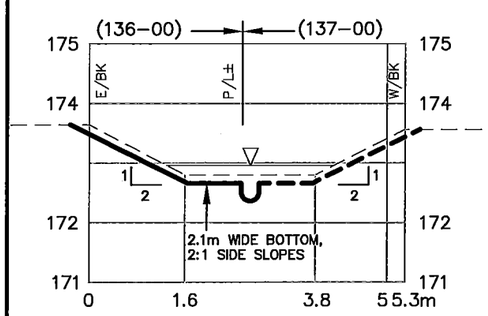

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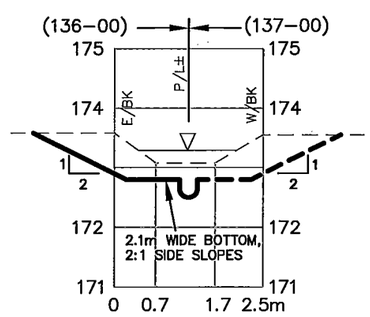

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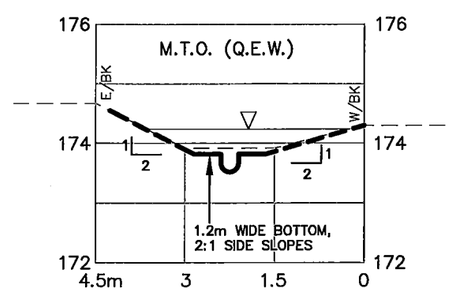

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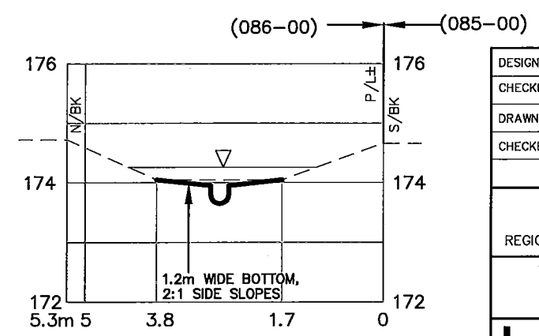

GLENNY DRAIN SOUTH STA. 1+884

DESIGNED BY: H.A.W.	
CHECKED BY: N.W.M.	
DRAWN BY: N.M.B.	
CHECKED BY: N.W.M.	

REGISTERED PROFESSIONAL ENGINEER N. W. MORRIS 100109137 PROVINCE OF ONTARIO

SCALE
0 2m (SCALE 1 : 100) HORZ.
0 2m (SCALE 1 : 100) VERT.
(ON 11"x17")

GLENNY DRAIN 2017

REGION OF NIAGARA — TOWN OF FORT ERIE

GLENNY DRAIN SOUTH CROSS SECTIONS

NOV. 17, 2017

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER — SUDBURY

REVISED:
JOB NUMBER: 05–182
DRAWING 9 OF 15

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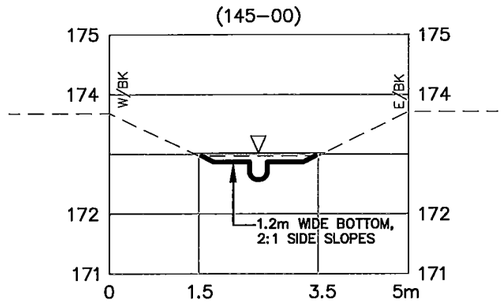

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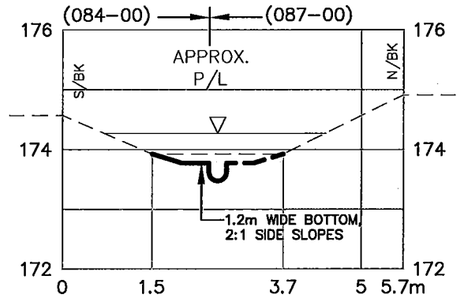

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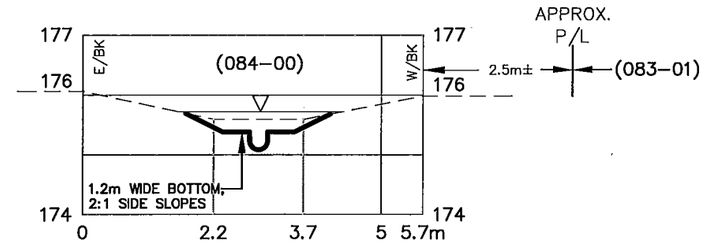

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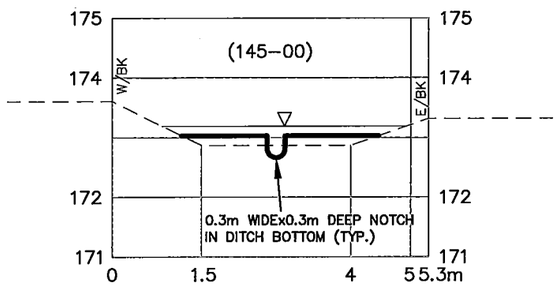

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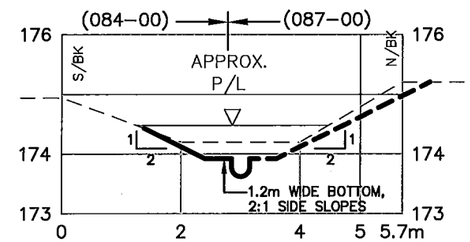

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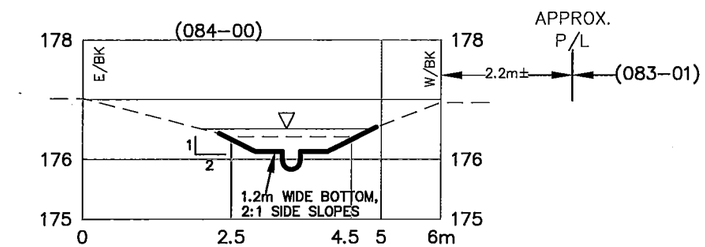

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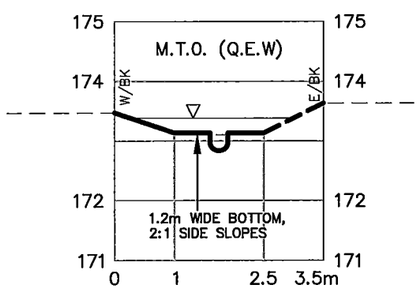

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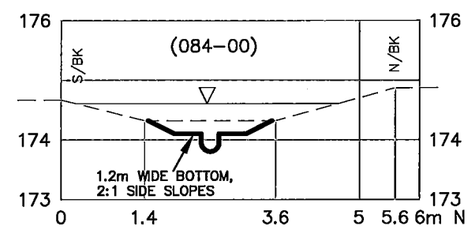

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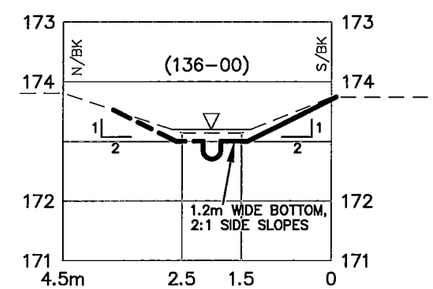

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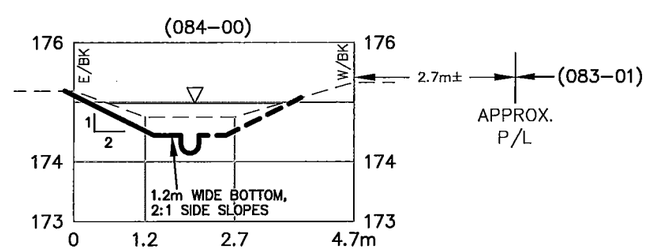


C.N.R. BRANCH STA. 450

DESIGNED BY: H.A.W.	REGISTERED PROFESSIONAL ENGINEER N. W. MORRIS 100109137 PROVINCE OF ONTARIO	CROSS–SECTIONS SCALE 0 2m (SCALE 1 : 100) HORZ. 0 2m (SCALE 1 : 100) VERT. (ON 11" x 17")
CHECKED BY: N.W.M.		
DRAWN BY: N.M.B.		
CHECKED BY: N.W.M.		

GLENNY DRAIN 2017

REGION OF NIAGARA — TOWN OF FORT ERIE

Q.E.W., COLLEGE AND C.N.R. BRANCHES CROSS SECTIONS

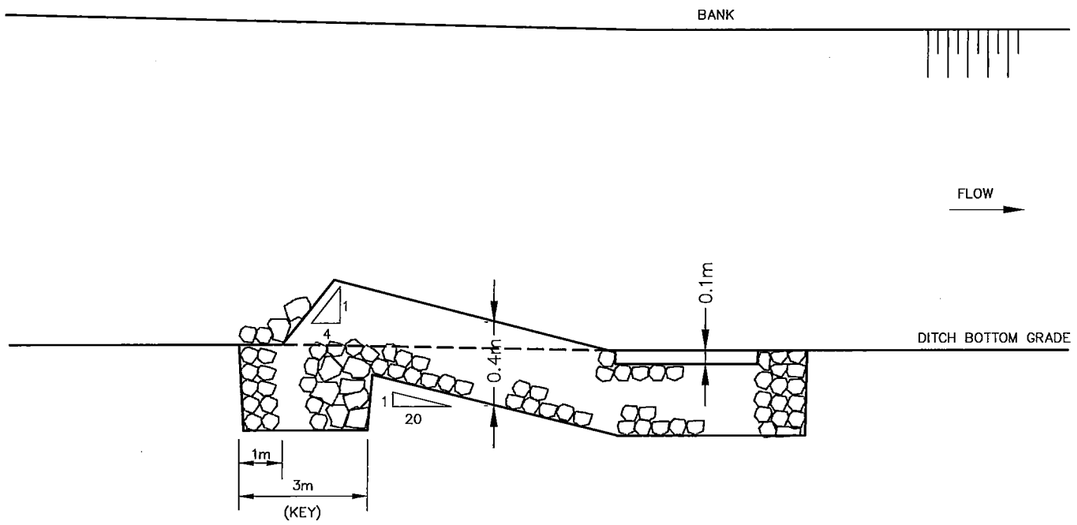
NOV. 17, 2017

REVISED:

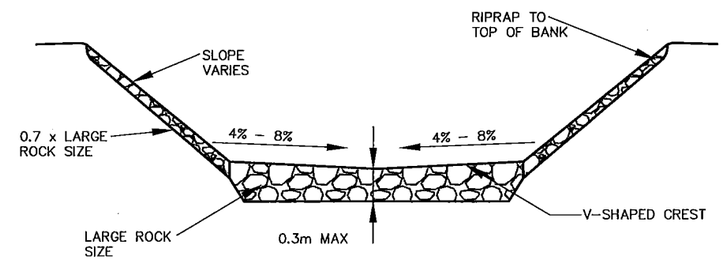
K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER — SUDBURY

JOB NUMBER: 05–182

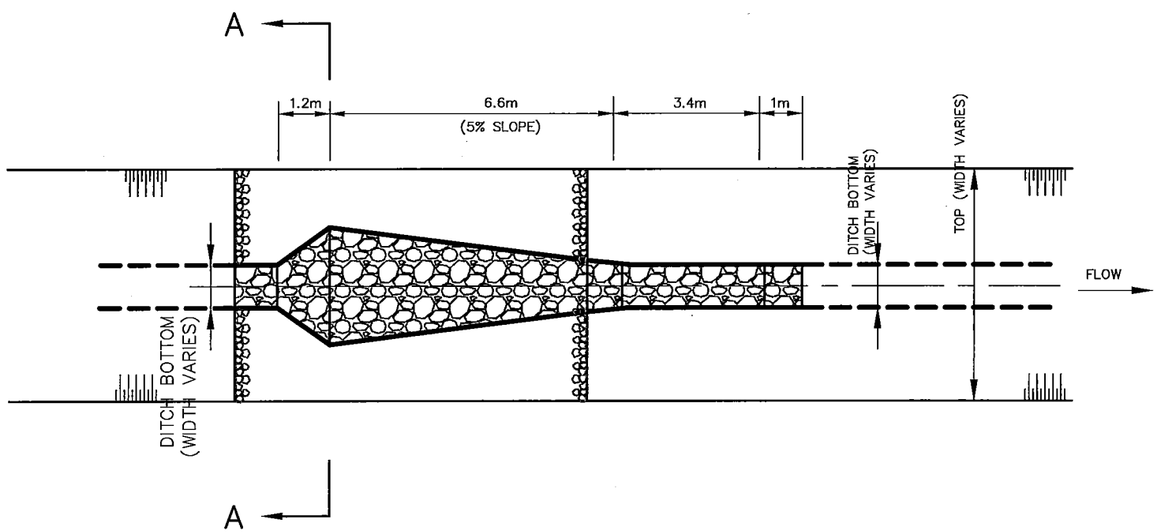
DRAWING 10 OF 15



PROFILE
5:1 VERTICAL SCALE



SECTION A – A
N.T.S.



NEWBURY WEIR/RIFFLE

PLAN
N.T.S.

DESIGNED BY: H.A.W.	
CHECKED BY: N.W.M.	
DRAWN BY: N.M.B.	
CHECKED BY: N.W.M.	

REGISTERED PROFESSIONAL ENGINEER
N. W. MORRIS
100109137
PROVINCE OF ONTARIO

GLENNY DRAIN 2017

REGION OF NIAGARA — TOWN OF FORT ERIE

NEWBURY WEIR/RIFFLE DETAIL — NOV. 17, 2017

REVISED:

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER SUDBURY RAINY RIVER

JOB NUMBER: 05–182

DRAWING 11 OF 15

\\server\KSdata\Data\2005\05-182\Drafting\NEWBURY WEIR 05-182.dwg DETAIL 15-Nov-17 1:55:59 PM

300) SPECIAL PROVISIONS (CONSTRUCTION NOTES)

300.1) SITE SPECIFIC NOTES

(Note: All ditches to have a 0.3m wide x 0.3m deep notch (low flow ditch) in the ditch bottom.

i) Glenny Drain North

K. Sherk (Roll No. 40055- 117-00)

000 to 093
- Existing 93m of ditch to remain
- No work required at this time.
- For future maintenance, ditch to have 1.8m wide bottom and 2:1 side slopes

082 to 088
- Existing 6m length of 1075mm dia. concrete sewer pipe laneway culvert to remain. No work required at this time.

Switch Road (Town of Fort Erie)

093 to 107
- Existing 14m of ditch to remain
- No work required at this time.
- For future maintenance, ditch to have 1.8m wide bottom and 2:1 side slopes

107 to 114.2
- Existing 2.75m wide x 1.26m high x 7.2m long concrete road culvert with footings to remain. No work required at this time.

114.2 to 117
- Existing 2.8m of ditch to remain
- No work required at this time.
- For future maintenance, ditch to have 1.8m wide bottom and 2:1 side slopes

115
- Construct Newbury weir/riffles.

B., D., M. & S. Arthur & M. Dilapo (Roll No. 40055-061-00)

117 to 188
- Existing 71m of ditch to remain
- No work required at this time.
- For future maintenance, ditch to have 1.8m wide bottom and 2:1 side slopes

A. Beam (Roll No. 40055-268 -01)

188 to 483
- Existing 295m of ditch to remain
- No work required at this time.
- For future maintenance, ditch to have 1.8m wide bottom and 2:1 side slopes

270.5 to 278.8
- Existing private twin (2) 8.3m lengths of concrete/CSP laneway culverts. One 500mm dia. and one 600mm dia. to remain. They are to be maintained by the owner.

417
- Existing private 0.3m wide steel beam footbridge is not part of the drain. It is the responsibility of the landowner to maintain such.

441 to 447.2
- Existing twin (2) 6.2m lengths of 800mm dia. CSP's laneway culverts in poor shape (warped) to remain. No work required at this time.

473
- Caution: Electrical wire crosses under the ditch.

478
- Existing private 900mm dia. concrete overflow pipe, which outlets from the existing private pond to the east, into the ditch to remain. The concrete pipe and pond are not part of the drain. They are to be maintained by the landowner.

W. Grimm (Roll No. 40055-267-00)

483 to 495
- Existing 12m of ditch to remain
- No work required at this time.
- For future maintenance, ditch to have 1.8m wide bottom and 2:1 side slopes

495
- Construct temporary straw bale dam/sediment trap

495 to 570
- 75m of half-bottom cleanout on east side
- For future maintenance, ditch to have 1.5m wide bottom and 2:1 side slopes
- 75m of power brushing (10m width on east side)
- East bank to be seeded (2m side).
- Place/level spoil on east side

555
- Existing private 1.2m wide x 5m long wood footbridge is not part of the drain. It is the responsibility of the landowner to maintain such.

517
- Place 5m² of riprap at low run (swale) from the east.

570
- Place 5m² of riprap at 100mm (4") clay tile outlet from the west.

R. Howard (Roll No. 40055-264-00)

570 to 630
- 60m of half-bottom cleanout on east side
- For future maintenance ditch to have 1.5m wide bottom and 2:1 side slopes
- 60m of power brushing (10m width on east side)
- East bank to be seeded (2m side).
- Place/level spoil on east side.

S. Sanderson & G. Melvin (Roll No. 40055-263-00)

630 to 779
- 149m of half-bottom cleanout on east side
- For future maintenance ditch to have 1.5m wide bottom and 2:1 side slopes
- 149m of power brushing (10m width on east side)
- East bank to be seeded (2m side).
- Place/level spoil on east side.

677
- Place 5m² of riprap at low run (swale) from the east

678 to 700
- Existing private pond located to the west to remain. It is not part of the drain. It is to be maintained by the landowner.

748
- Place 5m² of riprap at low run (swale) from the east.

770 to 777.5
- Existing 7.5m length of 900mm dia. CSP laneway culvert to remain. No work required at this time.

Stevens Bancorp Inc. (Roll No. 40055-262-00)

779 to 843
- 64m of half-bottom cleanout on east side
- For future maintenance ditch to have 1.5m wide bottom and 2:1 side slopes
- 64m of power brushing (10m width on east side)
- East bank to be seeded (2m side).
- Place/level spoil on east side.

Townline Road (Town of Fort Erie)

843 to 848
- 5m of half-bottom cleanout.
- For future maintenance ditch to have 1.5m wide bottom and 2:1 side slopes
- Spoil to be hauled away and disposed of

848 to 863.5
- Existing 2.5m wide x 1.0m high x 15.5m long concrete road culvert with footings to remain. Clean through bottom
- Spoil to be hauled away and disposed of.

863.5 to 877
- 13.5m of half-bottom cleanout
- For future maintenance ditch to have 1.5m wide bottom and 2:1 side slopes
- Spoil to be hauled away and disposed of

872
- Construct Newbury weir/riffles.

A. Kittel (Roll No. 20028-150-00)

877 to 1+161
- 284m of half-bottom cleanout
- For future maintenance ditch to have 1.5m wide bottom and 2:1 side slopes
- 284m of power brushing (10m width on east side)
- East bank to be seeded (2m side).
- Place/level spoil on east side.

895
- Place 5m² of riprap at low run (swale) from the west

919
- Place 5m² of riprap at low run (swale) from the east.

G. Poulsen (Roll No. 20028-151-00)

1+161 to 1+335
- 174m of half-bottom cleanout on east side
- For future maintenance ditch to have 1.5m wide bottom and 2:1 side slopes
- 174m of power brushing (10m width on east side)
- East bank to be seeded (2m side).
- Place/level spoil on east side.

1+335
- Place 5m² of riprap at low run (swale) from the east.

P. Band & F. Cohen (Roll No. 20028-147-00)

1+335 to 1+800
- 465m of half-bottom cleanout on east side
- For future maintenance ditch to have 1.5m wide bottom and 2:1 side slopes
- 465m of power brushing (10m width on east side)
- East bank to be seeded (2m side).
- Place/level spoil on east side.

1+354, 1+439 & 1+552
- Place 15m² of riprap at low runs (swales) from the west (5m² at each location)

1+375, 1+453, 1+528, 1+630 & 1+660
- Place 25m² of riprap at low runs (swales) from the east (5m² at each location)

1+631 to 1+636
- Existing private dilapidated old wood bridge (size unknown) to be removed by the owner. Not part of drain.

1+798
- Locate and protect buried Bell line, if necessary

REGISTERED PROFESSIONAL ENGINEER
N. W. MORRIS
100109137
PROVINCE OF ONTARIO
Nov 17/17

GLENNY DRAIN 2017
TOWN OF FORT ERIE
Region of Niagara
File No. 05-182 November 17, 2017
Drawing 12 of 15

Q.E.W. (M.T.O.)

1+800 to 1+920
- 120m of half-bottom cleanout on east side
- For future maintenance ditch to have 1.5m wide bottom and 2:1 side slopes
- 120m of power brushing (10m width on east side)
- East bank to be seeded (2m side).
- Spoil to be hauled away and disposed of

1+920 to 1+975
- Existing ditch and 2.45m wide x 0.95m high x 42m long concrete culvert with footings, across Q.E.W., to remain. Not part of the drain. It will be the responsibility of the MTO to maintain them.

The Glenny Drain North exists from Sta. 000 to 1+920. Upstream of Sta. 1+920 is not part of the drain.

ii) Glenny Drain South

G. & C. Nigh (Roll No. 20028-137-00) (South) / Jukic Group Ltd. (Roll No. 20028-145-00) (North)

000 to 332
- Existing 332m of ditch to remain.
- No work required at this time.
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes

330±
- Construct Newbury weir/riffles.

O. Leon (Roll No. 20028-136-00) (East) / G. & C. Nigh (Roll No. 20028-137-00) (West)

332 to 568
- 236m of half-bottom cleanout on east side
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes
- 236m of power brushing (10m width on east side)
- East bank to be seeded (2m side).
- Place/level spoil on east side

460 to 464
- Remove and dispose of existing stone drop structure

505±
- Existing private pond located 23m south/west (on G. & C. Nigh property) to remain. It is not part of the drain. It is to be maintained by the landowner.

College Road (Town of Fort Erie)

568 to 571.5
- 3.5m of half-bottom cleanout
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes
- Spoil to be hauled away and disposed of.

571.5 to 605.5
- Existing 3.65m wide x 1.2m high x 34m long concrete road culvert with footings to remain. Clean through bottom.
- Spoil to be hauled away and disposed of

605.5 to 608
- 2.5m of half-bottom cleanout
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes
- Spoil to be hauled away and disposed of.

607±
- Construct Newbury weir/riffles.

Town of Fort Erie (Roll No. 20028-136-01)

608 to 650
- 42m of half-bottom cleanout on east side
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes
- 42m of power brushing (10m width on east side)
- East bank to be seeded (2m side).
- Place/level spoil on east side

Ridgemount Road (Town of Fort Erie)

650 to 655
- 5m of half-bottom cleanout
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes
- Spoil to be hauled away and disposed of.

655 to 685.6
- Existing 3.65m wide x 1.2m high x 30.6m long concrete road culvert with footings to remain. Clean through bottom.
- Spoil to be hauled away and disposed of.

B. & I. Bryant (Roll No. 20028-092-00)

685.6 to 912
- 226m of half-bottom cleanout on west side
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes
- 226m of power brushing (10m width on west side)
- West bank to be seeded (2m side).
- Place/level spoil on west side

705
- Locate and protect buried Bell line if necessary.

769
- Place 5m² of riprap at low run (swale) from the north/east

815
- Existing private 1.5m wide wood footbridge is not part of the drain. It is the responsibility of the landowner to maintain such.

Eagle Street (Town of Fort Erie)

912 to 927.7
- 15.7m of half-bottom cleanout
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes
- Spoil to be hauled away and disposed of.

925
- Locate and protect 150mm (6") Bell casing crossing ditch, if necessary.

927.7 to 943.6
- Existing 2.45m wide (3.06m wide on skew) x 1.2m high x 15.9m long concrete road culvert with footings to remain. Clean through bottom
- Spoil to be hauled away and disposed of.

943.6 to 949
- 5.4m of half-bottom cleanout
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes
- Spoil to be hauled away and disposed of.

946
- Construct Newbury weir/riffles.

S. Singh (Roll No. 20028-088-00)

949 to 1+354
- 405m of half-bottom cleanout on west side
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes
- 405m of power brushing (10m width on west side)
- West bank to be seeded (2m side).
- Place/level spoil on west side

994 & 1+197
- Place 10m² of riprap at low runs (swales) from the west (5m² at each location)

Jukic Group Ltd. (Roll No. 20028-087-00) (West) / Q.E.W. (M.T.O.) (East)

1+354 to 1+582
- 228m of half-bottom cleanout on west side
- For future maintenance ditch to have 2.1m wide bottom and 2:1 side slopes
- 228m of power brushing (10m width on west side)
- West bank to be seeded (2m side).
- Place/level spoil on west side

1+354
- Place 5m² of riprap at low run (swale) from the east

1+384
- Locate and protect buried Bell line, if necessary.

1+424
- Place 5m² of riprap at low run (swale) from the west.

1+575
- Construct Newbury weir/riffle

1+582 to 1+590
- 8m of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 8m of power brushing (10m width on south side)
- South bank to be seeded (2m side).
- Place/level spoil on south side

Q.E.W. (M.T.O.)

1+590 to 1+615
- Existing 25m of ditch to remain.
- No work required at this time
- For future maintenance, ditch to have 1.2m wide bottom and 2:1 side slopes

1+615 to 1+662
- Existing 2.4m wide x 0.9m high x 47m long concrete culvert with footings across Q.E.W. to remain. No work required at this time.

1+662 to 1+758
- 96m of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 96m of power brushing (10m width on east side)
- East bank to be seeded (2m side).
- Spoil to be hauled away and disposed of.

1+669
- Place 5m² of riprap at ditch outlet from the north.

J. Elliot (Roll No. 20028-086-00) (North) / M.T.O. (Roll No. 20028-085-00) (South)

1+758 to 1+916
- 158m of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 158m of power brushing (10m width on north side)
- North bank to be seeded (1m side).
- Place/level spoil on north side

1+914
- Locate and protect buried Bell line, if necessary.

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M.T.O. (Roll No. 20028-085-00) (West) / Sumner Road (Unopened) (Town of Fort Erie) (East)

1+916 to 1+960
- 44 of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 44m of power brushing (10m width) on west side
- West bank to be seeded (1m side).
- Place/level spoil on west side

1+933
- Locate and protect buried Bell line, if necessary.

The Glenny Drain South exists from Sta. 000 to 1+960. Upstream of Sta. 1+960 is a road ditch that is not part of the drain.

iii) Q.E.W. Branch

Jukic Group Ltd. (Roll No. 20028-145-00)

000
- Place 5m² of riprap at ditch outlet

000 to 213
- 213m of ditch bottom cleanout (including removal of obstructions (branches, etc.) at Sta. 005±)
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 213m of power brushing (10m width on east side)
- East bank to be seeded (1m side).
- Place/level spoil on east side

019
- Place 5m² of riprap at low run (swale) from the east

130
- Place 5m² of riprap at low run (swale) from the west

College Road (Town of Fort Erie)

213 to 219.8
- 6.8m of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- Spoil to be hauled away and disposed of.

219.8 to 242
- Existing 2.5m wide x 0.9m high x 22.2m long concrete road culvert with footings to remain. Clean through bottom.
- Spoil to be hauled away and disposed of.

Q.E.W. (M.T.O.) (East) / College Road (Town of Fort Erie) (West)

242 to 343
- 101m of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 101m of power brushing (10m width) on west side
- West bank to be seeded (1m side).
- Spoil to be hauled away and disposed of.

The Q.E.W. Branch exists from Sta. 000 to 343. Upstream of Sta. 343 is not part of the drain.

iv) C.N.R. Branch

J., T. & G. Curtis (Roll No. 20028-084-00) (South) / Jukic Group Ltd. (Roll No. 20028-087-00) (North)

000
- Place 5m² of riprap at ditch outlet

000 to 210
- 210m of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 210m of power brushing (10m width on south side)
- South bank to be seeded (2m side).
- Place/level spoil on south side

015 & 060
- Place 10m² of riprap at low runs (swales) from the south (5m² at each location)

031
- Place 5m² of riprap at low run (swale) from the north

J., T. & G. Curtis (Roll No. 20028-084-00)

210 to 390
- 180m of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 180m of power brushing (10m width on south/east side)
- South/east bank to be seeded (2m side).
- Place/level spoil on south/east side

310
- Place 5m² of riprap at low run (swale) from the north/west.

325
- Place 5m² of riprap at low run (swale) from the south/east

J., T. & G. Curtis (Roll No. 20028-084-00) (East) / M. Dolbeau & M. Laroche (Roll No. 20028-083-01) (West)

390 to 694
- 304m of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 304m of power brushing (10m width on east side)
- East bank to be seeded (2m side).
- Place/level spoil on east side

425 & 465
- Place 10m² of riprap at low runs (swales) from the east (5m² at each location)

C.P.R. (Roll No. 047-996)

694 to 698.5
- 4.5m of ditch bottom cleanout
- For future maintenance, ditch to have 1.2m wide bottom and 2:1 side slopes
- Spoil to be hauled away and disposed of

698.5 to 715.5
- Existing 17m length of 900mm dia. steel smooth wall pipe railway culvert to remain. Clean through culvert.
- Spoil to be hauled away and disposed of.

715.5 to 738
- 22.5m of ditch bottom cleanout
- For future maintenance, ditch to have 1.2m wide bottom and 2:1 side slopes
- Banks to be seeded (2m sides).
- Spoil to be hauled away and disposed of

731
- Construct Newbury weir/riffles.

J., T. & G. Curtis (Roll No. 20028-084-00)

738 to 867
- 129m of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 129m of power brushing (10m width on east side)
- East bank to be seeded (2m side).
- Place/level spoil on east side

The C.N.R. Branch exists from Sta. 000 to 867. Upstream of Sta. 867 is not part of the drain.

v) College Branch

O. Leon (Roll No. 20028-136-00) (south) / Jukic Group Ltd. (Roll No. 20028-145-00) (North)

000
- Place 5m² of riprap at ditch outlet

000 to 114
- 114m of ditch bottom cleanout
- For future maintenance ditch to have 1.2m wide bottom and 2:1 side slopes
- 114m of power brushing (10m width on south side)
- South bank to be seeded (2m side).
- Place/level spoil on south side

084
- Place 5m² of riprap at low run (swale) from the south.

The College Branch exists from Sta. 000 to 114. Upstream of Sta. 114 is not part of the drain.

300.2) GENERAL NOTES

300.2.1) Working Area

- All work (brushing/clearing/cleanout) shall be done from the side of the drain as noted. The working side has been identified for each interval, and this is to minimize habitat damage in the wetland. The working width is to be 10 to 15m as noted.

Refer to Standard Specifications for Construction, Section 400.4 for exceptions.

300.2.2) Access (Standard Specifications for Construction of Drains, Section 400.5)

The Contractor shall have access to the drain along the routes, if any, shown on the plan. The access routes shall be along existing laneways or paths or where none exist, along a 6m wide (maximum) path. All specifications governing fences, livestock and crops during drain construction shall apply to access routes except where superseded by notes on the drawings. No other access routes shall be used unless first approved by the Engineer and affected landowners. The Contractor shall also contact each owner prior to using designated accesses. The landowner information will be supplied with the tender documents.

Telephone numbers for contact are:

(Willoughby Twp)		
-262-00	Stevens Bancorp Inc.	
-263-00	C. Sanderson & G. Melvin	
-264-00	R. Howard	
-267-00	W. Grimm	
(Bertie Twp)		
-083-01	M. Dolbeau & M. Laroche	(Phone No's for
-084-00	J., T. & G. Curtis	landowners
-085-00	M.T.O.	may be
-086-00	J. Elliot	available
-087-00, -145-00	Jukic Group Ltd.	at time of
-088-00	S. Singh	tendering)
-092-00	B. & I. Bryant	
-136-00	O. Leon	

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-137-00	G. & C. Nigh	
-147-00	P. Band & F. Cohen	
-150-00	A. Kittel	
-151-00	G. Poulsen	
047-996	C.P.R.	
Engineer (Neal Morris, P. Eng.)		519-748-1199 ext. 240
Town of Fort Erie (Dave Maiden, Drainage Superintendent)		905-871-1600 ext. 2405
One Call Centre		1-800-400-2055

300.2.3) Ditch Work Required (Standard Specification for Open Drains, Section 410)
All construction on this project must use laser grade control for open work. Failure to do such may require forfeiture of the contract including tender deposit and payment for any work done.

a) General Note for Ditch Work on this Project
In all areas, the side of the drain for placing and leveling the spoil is to be the working side. Power brushing materials are preferred. Where materials are cut by chainsaw or excavated by backhoe, materials are to be left in piles for the landowner to dispose of. Where bush is within 10m of the channel, such materials are to be pushed and windrowed in with or adjacent to the bush areas. All brushing is to be included as part of the ditch work unless it is separately noted in the Specific Notes. All new ditch banks are to be seeded.

b) General re Open Drain Work
The open drains to be constructed will have cross-sectional dimensions as specified by the profiles and the Typical Sections on the drawings. Ditch bottom elevations are to be as shown on the profile drawings. Also minimum bottom widths and bank slopes are shown by the typical sections and by the profile drawings. All spoil is to be piled adjacent to the drain, and all banks where disturbed, are to be seeded the same day as excavation unless when requested otherwise. Do not over-excavate any channel except if noted, do not unnecessarily disturb opposite banks, and minimize bottom disturbance during root removal.

During future maintenance, all excavated materials are to be piled/levelled on adjacent properties.

300.2.4) Soil Conditions
The Region of Niagara Soils Map for this area indicates that the soils adjacent to this drain are mainly reddish-hued lacustrine heavy clay and silty clay over clay loam till with some stone. These soils should not present significant construction difficulty but pockets of poor soil conditions may be experienced, especially if ground water levels are high at the time of construction.

300.2.5) Native Seed (Seeding Mixture)
Use Sassafras Farms wetland sites mixture or approved equal. Seed mixture to contain:

Botanical Name	Common Name	%
(Carex vulpinoidea)	Fox Sedge	20
(Juncus effuses)	Soft Rush	5
(Carex lupulina)	Hop Sedge	4
(Elymus Riparius)	River Bank Wild Rye	22
(Elymus Canadensis)	Canada Wild Rye	25
(Mimulus ringens)	Monkey Flower	1
(Verbena hastate)	Blue Vervain	2
(Aster novae-angliae)	New England Aster	3
(Carex stipata)	Awl Sedge	3
(Eupatorium fistulosum)	Joe Pye Weed	1
(Eupatorium perfoliatum)	Boneset	1
(Scirpus cyperinus)	Wool Grass	7
(Asclepias incarnate)	Swamp Milkweed	1
(Solidago patula)	Rough Leaved Goldenrod	5

To be applied at a rate of 3 kg per hectare.

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