

Court of Revision Agenda

Tuesday, February 14, 2023, 4:30 pm
Tecumseh Town Hall - Council Chambers
917 Lesperance Road
Tecumseh, Ontario N8N 1W9

Pages

A. Roll Call

B. Call to Order

C. Land Acknowledgement

We acknowledge that we are on land and surrounded by water, originally inhabited by Indigenous Peoples who have travelled this area since time immemorial. This territory is within the lands honoured by the Wampum Treaties; agreements between the Anishinaabe, Haudenosaunee, Leni Lenape and allied Nations to peacefully share and care for the resources around the Great Lakes. Specifically, we would like to acknowledge the presence of the Three Fires Confederacy Ojibwe, Odawa, Potawatomi and Huron/Wendat Peoples. We are dedicated to honouring Indigenous history and culture while remaining committed to moving forward respectfully with all First Nations, Inuit and Métis.

D. Disclosure of Pecuniary Interest

E. Introduction and Purpose of Meeting

The purpose of the meeting is to hear from any affected owner who wishes to appeal his/her assessment or any part thereof as set out in the Drainage Report, prepared by Mark Hernandez P. Eng., of Dillon Consulting Limited, dated October 7, 2022 for the Branch of South Talbot and Holden Drain - Meo Bridge.

F. Delegations

1. Mark Hernandez, Drainage Engineer, Dillon Consulting

G. Communications

1. Public Notice dated January 31, 2023 3 - 3
2. PWES-2023-06 Request to Consider Engineers Report - Branch of South Talbot and Holden Outlet Drain - Meo Bridge 4 - 33

Being a bylaw to provide for the repair and improvements to the Branch of South Talbot and Holden Outlet Drain – Meo Bridge

Recommendation

Moved by _____

Seconded by _____

That Communications - For Information 1 to 3 as listed on the Tuesday, February 14, 2023 Court of Revision Agenda, **be received**.

H. Adjournment

Recommendation

Moved by _____

Seconded by _____

That there being no further business, the Tuesday, February 14, 2023 meeting of the Court of Revision **be adjourned** at pm.

January 31, 2023

To Affected Property Owners, Road Authorities, and Utility Owners

Re: Repair and Improvement of Branch of the South Talbot & Holden Outlet Drain (Meo Bridge)

Take notice your property is assessed for the above-mentioned drainage works under Section 78 of the *Drainage Act*. Details of your assessment are contained within the Engineer's Report, which has been previously sent to you or if not, is available **upon request**.

The Council of the Town of Tecumseh, on January 25, 2023, adopted the Engineer's Report prepared by Mark Hernandez, P.Eng. of Dillon Consulting Ltd., dated October 7, 2022 for the repair and improvement of the Branch of the South Talbot & Holden Outlet Drain (Meo Bridge) under provisional By-law No. 2023-009, which is attached exclusive of the Engineer's Report.

The Court of Revision will take place as follows:

Date: Tuesday, February 14, 2023

Time: 4:30 pm – 5:00 pm

Place: Electronic Meeting. Public Meetings are being held virtually with electronic participation only and live streamed on the Town's website for viewing. **There is no in-person meeting.**

If you wish to appear before Council, contact the Clerk, Robert Auger, at rauger@tecumseh.ca or submit an online delegation request form available on the Town's website at <https://www.tecumseh.ca/en/town-hall/appearing-before-council.aspx> by **12:00pm (noon) on Monday, February 13. By registering as a delegate, persons are consenting their image, voice and comments being recorded and available for public viewing on the Town's website.**

If you are unable to attend the meeting, it will proceed in your absence. Even if you choose not to participate, you will continue to receive notification as required by the *Drainage Act*. Additional information regarding the *Drainage Act* process is located on the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) website at <http://www.omafra.gov.on.ca>

Questions or concerns regarding this notice can be directed to Town Drainage Superintendent, Alessia Mussio, EIT at amussio@tecumseh.ca or (519) 735-2184 ext. 140, or Assistant Drainage Superintendent, Joseph Lappalainen, EIT at jlappalainen@tecumseh.ca or (519) 735-2184 ext. 105. More information on municipal drainage works within the Town of Tecumseh is available on the Town's website; <https://www.tecumseh.ca/en/living-here/municipal-drains.aspx>

Robert Auger
Director, Legislative Services & Clerk





The Corporation of the Town of Tecumseh

Public Works & Engineering Services

To: Mayor and Members of Council

From: Phil Bartnik, Director Public Works & Engineering Services

Date to Council: January 25, 2023

Report Number: PWES-2023-06

Subject: Request to Consider Engineer's Report
Branch of the South Talbot & Holden Outlet Drain (Meo Bridge)

Recommendations

It is recommended:

That the Report and Specifications for the Branch of the South Talbot and Holden Outlet Drain (Meo Bridge) (Drain) as prepared by Mark Hernandez, P.Eng., of Dillon Consulting Limited, dated October 7, 2022, (Drainage Report) **be received**;

And that consideration **be given** to the first and second readings of a provisional by-law to adopt the Drainage Report in accordance with Section 42 of the Drainage Act (Act);

And further that notice **be given** to all affected landowners of the Court of Revision to be held on February 14, 2023, at 4:30 pm in accordance with Section 46(1) of the Act, subject to the adoption of the provisional by-law.

Background

The purpose of this report is to provide a summary of the background and other information in order to assist Council in giving consideration to the Drainage Report in accordance with Section 78 of the Act.

On July 12, 2022 Council accepted the recommendation by the Drainage Superintendent under Public Works & Engineering Services Report No. [PWES-2022-35](#) and passed resolution (Motion: RCM-218/22) as follows:

- (i) That Dillon Consulting Ltd. be appointed drainage engineer to make an examination of the Branch of the South Talbot & Holden Outlet Drain drainage area as submitted by the landowner in the "Notice of Request for Drainage Improvement" dated April 19, 2022;
- (ii) And that a Drainage Report be prepared in accordance with Section 78 of The Drainage Act, including provisions for future maintenance.

An on-site meeting was held on August 3, 2022. A summary of this meeting is included in Schedule 'A' of the Drainage Report.

On October 11, 2022, Dillon, filed a report dated October 7, 2022 for a new farm access bridge serving Pt. Lot 3, Concession 6 (Roll No. 440-00800) over the Branch of the South Talbot and Holden Outlet Drain being a repair and improvement to the Drain in accordance with Section 78 of the Act. On January 10, 2023, invitations were sent to all affected landowners and agencies that the Public Council Meeting to consider the Engineer's Report would be held on Wednesday, January 25, 2023 at 6:30 pm.

The Drainage Report outlines that the farm access bridge is part of a recent severance and is needed to provide access across the Drain.

Comments

The sections of the Act referenced within this report are included in Schedule A which is attached to this Council Report as Attachment 2.

Consideration by Council

Subject to the discretion of Council, the Drainage Report may be:

- a. Referred back to the Drainage Engineer for reconsideration if it appears that there are, or may be errors in the report or for any other reason the report should be reconsidered; or
- b. Provisionally approved by giving first and second readings to a Provisional By-law.

Subject to the discussions that take place at the Public Council Meeting to consider the report, and if no issues are raised that would warrant the report being referred back to the engineer, Administration recommends giving the first and second readings of a Provisional By-law to adopt the Drainage Report.

Following provisional adoption of the By-law, a meeting of the Court of Revision shall be scheduled to allow any affected owner of land assessed for the drainage works to appeal their assessed costs subject to the following:

- a. Any land or road has been assessed too high or too low; or
- b. Any land or road that should have been assessed has not been assessed; or
- c. Due consideration has not been given as to type of land use.

Regulatory Approvals

Regulatory Approvals have been reviewed for the Branch of the South Talbot and Holden Outlet Drain (Meo Bridge) and consist of:

- 1) Essex Region Conservation Authority (ERCA) – *Conservation Authorities Act*
 - a. A permit from ERCA will be required prior to construction.
- 2) Department of Fisheries & Oceans (DFO) – *Fisheries Act*
 - a. A self assessment has been completed and determined that this project does not require a formal review by DFO and the Drain should not contain any aquatic species at risk or critical habitat.
- 3) Ministry of Environment, Conservation & Parks (MECP) – *Endangered Species Act*
 - a. The Town's Species-At-Risk Mitigation Plan continues to comply with the *Endangered Species Act*. The Town and Contractor will gather information on encountered species and/or mitigation plans implemented prior to and throughout construction.

Consultations

Financial Services
Dillon Consulting Limited

Financial Implications

As per the Drainage Report, the total estimated cost for the farm access bridge is \$31,450, which is assessed to the requesting landowner's 14.08 hectares (34.80 acres) property as Special Benefit Liability. The subject property is shown on the Watershed Plan (page 1 of 2) in the Drainage Report.

Other than costs to administer the project, the cost of preparing this report and construction is 100% recoverable from affected lands. In addition, the Drainage Report includes an Assessment Schedule for future maintenance that includes lands owned by the Town of Tecumseh.

For assessments in excess of \$5,000 the Town offers landowners the option of paying the balance plus interest over a five (5) year period; the annual payments are added as a special charge on their taxes.

Link to Strategic Priorities

Applicable	2019-22 Strategic Priorities
<input type="checkbox"/>	Make the Town of Tecumseh an even better place to live, work and invest through a shared vision for our residents and newcomers.
<input checked="" type="checkbox"/>	Ensure that Tecumseh's current and future growth is built upon the principles of sustainability and strategic decision-making.
<input type="checkbox"/>	Integrate the principles of health and wellness into all of Tecumseh's plans and priorities.
<input checked="" type="checkbox"/>	Steward the Town's "continuous improvement" approach to municipal service delivery to residents and businesses.
<input type="checkbox"/>	Demonstrate the Town's leadership role in the community by promoting good governance and community engagement, by bringing together organizations serving the Town and the region to pursue common goals.

Communications

Not applicable ☒

Website ☐ Social Media ☐ News Release ☐ Local Newspaper ☐

This report has been reviewed by Senior Administration as indicated below and recommended for submission by the Chief Administrative Officer.

Prepared by:

Alessia Mussio, E.I.T.
Drainage Superintendent

Reviewed by:

Phil Bartnik, P.Eng.
Director Public Works & Engineering Services

Reviewed by:

Tom Kitsos, CPA, CMA, BComm
Director Financial Services & Chief Financial Officer

Recommended by:

Margaret Misek-Evans, MCIP, RPP
Chief Administrative Officer

Attachment Number	Attachment Name
1	Engineers Report Summary
2	Drainage Report dated October 7, 2022 by Mark Hernandez, P.Eng., of Dillon Consulting Ltd.
3	Schedule A – Drainage Act Excerpts

January 25, 2023

Re: PWES-2023-06 - Report to Consider Engineer's Report – Branch South Talbot & Holden Outlet Drain (Meo Bridge)

Public Council Meeting - January 25, 2023, at 6:30 pm

On July 12, 2022, Council appointed Dillon Consulting Ltd. under section 78 of the Drainage Act to;

- (I) Make an examination of the Branch of the South Talbot & Holden Outlet Drain drainage area as submitted by the landowner (Roll No. 440-00800) in the "Notice of Request for Drain Improvement" dated April 19, 2022.
- (II) Prepare a Drainage Report for the Branch of the South Talbot & Holden Outlet Drain, in accordance with Section 78 of the Drainage Act, including provisions for future maintenance of the Drain.

On October 11, 2022, Dillon Consulting Ltd. submitted a report titled the "Branch of the South Talbot and Holden Outlet Drain (Meo Bridge)" (Report); a copy of which is attached to PWES-2023-06.

The Report provides specifications for a new farm access bridge serving part of Lot 3, Concession 6 over the Branch of the South Talbot and Holden Outlet Drain. The bridge is to be installed as part of a land severance.

The Report also includes cost estimates for the recommended works and a schedule of assessment for affected properties. In addition, details of previous meetings that have been held for this project under the Drainage Act process are included in the Report.

If you have any questions or would like to request an AODA version of the Dillon Consulting Ltd. drainage report for the repair and improvement of the "Branch of the South Talbot & Holden Outlet Drain" (dated October 7, 2022), please contact Dana Reid at (519) 735-2184 ext. 168 or dreid@tecumseh.ca.

**DRAINAGE REPORT
FOR**

**NEW FARM ACCESS BRIDGE ON
PT. LOT 3, CONCESSION 6
OVER THE
BRANCH OF THE SOUTH TALBOT &
HOLDEN OUTLET DRAIN
(MEO BRIDGE)**

TOWN OF TECUMSEH



(FINAL-COUNCIL CONSIDERATION)

7 OCTOBER 2022

MARK D. HERNANDEZ, P.ENG.

FILE No. 22-4605

TECUMSEH FILE E09SO(96)CC5027

File No. 22-4605

Mayor and Council
The Corporation of the Town of Tecumseh
917 Lesperance Road
Tecumseh, Ontario
N8N 1W9

**Drainage Report for
NEW FARM ACCESS BRIDGE
ON PT. LOT 3, CONCESSION 6
OVER THE BRANCH OF THE SOUTH TALBOT &
HOLDEN OUTLET DRAIN
(MEO BRIDGE)
Town of Tecumseh**

Mayor and Council:

Instructions

The Municipality received a request for a new farm access bridge serving part of Lot 3, Concession 6 (Roll No. 440-00800) over the Branch of the South Talbot and Holden Outlet Drain that was filed at the Municipal Office on the 19th April 2022. Council accepted the request under Section 78 of the Drainage Act and on 12th July 2022 appointed Dillon Consulting Limited to prepare a drainage report.

Watershed Description

The Branch of the South Talbot and Holden Outlet Drain consists of an open channel commencing at a high point at the line between Lots 4 & 5, Concession 6. The drain flows southerly along the easterly limit of Holden Road and outlets into the Merrick Creek Drain. The lands comprising the watershed are predominantly under intensive agricultural production with cash crops. There are several non-agricultural residential parcels in the watershed. The lands within the watershed are generally flat.

Drain History

The recent history of Engineers' reports for the Branch of the South Talbot and Holden Outlet Drain follows:

- **20 April 2015 by Mark D. Hernandez, P.Eng.:** The report recommended the repair and improvement of the southerly portion of the Branch of the South Talbot and Holden Outlet Drain. The report also recommended the replacement of an existing bridge.
- **21 October 2013 by Halliday P. Pearson, P.Eng.:** The report recommended the installation of a new 1630 mm x 1120 mm (equivalent to 1400 mm diameter) C.S.P.A. access culvert serving Roll No. 440-00901 in part of Lot 3, Concession 6 denoted herein as Bridge No. 6.



3200 Deziel Drive
Suite 608
Windsor, Ontario
Canada
N8W 5K8
Telephone
519.948.5000
Fax
519.948.5054

- **9 August 2010 by Bruce D. Crozier, P.Eng.:** The recommended work included the repair and improvement of the northerly portion of the Branch of the South Talbot and Holden Outlet Drain from the high point at the line between Lots 4 and 5 to the outlet into the Holden Outlet Drain. The report recommended a clean out and the replacement of an existing access culvert.
- **23 February 2009 by Bruce D. Crozier, P.Eng.:** The report recommended the installation of a new access culvert serving Roll No. 440-010 in part of Lot 4, Concession 6, denoted herein as Bridge No. 12. This is a secondary access assessed 100% to the property.
- **10 May 1979 by Maurice Armstrong, P.Eng.:** The recommended work included the repair and improvement of the entire Branch of the South Talbot and Holden Outlet Drain, complete with brushing, cleaning and lowering of two existing culverts.

On-Site Meeting

An on-site meeting was held on 3rd August 2022. A record of the meeting is provided in Schedule 'A', which is appended hereto.

Survey

Our survey and examination of the Branch of the South Talbot and Holden Outlet Drain was carried out in July 2022. The survey comprised the recording of topographic data and examining the channel for available depth necessary to provide sufficient drainage.

Design Considerations

The new access culvert is designed for an upstream drainage area of approximately 91.21 hectares (225.40 acres). The hydraulic capacity of the structure must meet the current Design Standards recommended by the Ministry of Agriculture, Food and Rural Affairs. The Design and Construction Guidelines suggest that a farm culvert must be designed to freely pass the runoff generated from a 2-year return period storm event. We have applied this criterion. We have also confirmed that the installation of this culvert will not result in adverse impacts to the level of service provided by the drain.

Allowances

In accordance with Sections 29 and 30 of the Drainage Act, we do not anticipate any agricultural lands being damaged or taken as a result of the proposed drainage works. Any damage to existing grassed areas shall be restored to original conditions as part of the work. Therefore, 'Schedule B' for Allowances has not been included in this report.

Recommendations and Cost Estimate

Based on our review of the history, the information obtained during the site meeting and our examination and analysis of the survey data, we recommend that the Branch of the South Talbot and Holden Outlet Drain be repaired and improved as described below:

Item	Description	Amount
1.	Supply and place a new 19.0 m long, 1400 mm diameter aluminized corrugated steel pipe (CSP) culvert with 125 mm x 25 mm corrugations and 2.8 mm thickness including coupler and hardware (see Specifications). The work is to include drain bottom cleanout in close proximity to the bridge, site cleanup and restoration within the working area.	\$14,100.00
2.	Supply and placement of clear stone bedding materials, minimum 150 mm thickness (approximately 20 tonnes).	\$1,650.00
3.	Supply and placement of compacted Granular 'B' backfill materials up to pipe springline (approximately 35 tonnes).	\$1,450.00
4.	Supply and placement of clean native or imported clean native backfill material from springline of pipe culvert to the underside of Granular 'A' driveway material and outside of driveway portion to construct the 0.50 m wide native buffer strips (approximately 60 m ³). Note: Where there is an insufficient amount of native fill materials for backfilling the culvert, the Contractor may elect to import additional fill materials or alternatively use Granular 'B' at his/her own expense.	\$1,100.00
5.	Supply and install Granular 'A' (crushed limestone) compacted driveway surface, minimum 200 mm thickness (approximately 25 tonnes) providing a minimum 12.2 m (40 ft.) driveable top width.	\$1,500.00
6.	Supply and placement of stone rip-rap minimum 300 mm thickness c/w filter cloth underlay for sloping end walls (approximately 30 m ²).	\$2,800.00
7.	Temporary sediment and erosion control measures.	<u>\$850.00</u>
SUB-TOTAL		\$23,450.00
8.	Survey, report, assessment and final inspection	\$7,000.00
9.	Expenses and incidentals	\$500.00
10.	ERCA review fee and permit.	<u>\$500.00</u>
TOTAL ESTIMATE (excluding Net HST)		\$31,450.00

The estimate provided in this report was prepared according to current materials and installation prices as of the date of this report. In the event of delays from the time of filing of the report by the Engineer to the time of tendering the work, it is understood that the estimate of cost is subject to inflation. The rate of inflation shall be calculated using the Consumer Price Index applied to the cost of construction from the date of the report to the date of tendering.

Assessment of Costs

The individual assessments are comprised of three (3) assessment components:

- i. Benefit (*advantages relating to the betterment of lands, roads, buildings, or other structures resulting from the improvement to the drain*).
- ii. Outlet Liability (*part of cost required to provide outlet for lands and roads*).
- iii. Special Benefit (*additional work or feature that may not affect function of the drain*).

We have assessed the estimated costs against the affected lands and roads as listed in Schedule 'C' under "Value of Special Benefit," "Value of Benefit" and "Value of Outlet." Since there is only one Special Benefit assessment, a separate schedule for Details of Special Benefit (Schedule 'D') is not required or included herein.

Assessment Rationale

Special Benefit assessment shown in Schedule 'C' was derived as follows:

1. Costs associated with the new farm access bridge have been assessed 100% to adjoining property Roll No. 440-00800 as listed under "Value of Special Benefit."

Utilities

It may become necessary to temporarily or permanently relocate utilities that may conflict with the construction recommended under this report. In accordance with Section 26 of the Drainage Act, we assess any relocation cost against the public utility having jurisdiction. Under Section 69 of the Drainage Act, the public utility is at liberty to do the work with its own forces, but if it should not exercise this option within a reasonable time, the Municipality will arrange to have this work completed and the costs will be charged to the appropriate public utility.

Future Maintenance

We recommend that future work of repair and maintenance on the new farm access bridge be carried out by the Municipality and assessed 50% against the lands on which the bridge is located and the remaining 50% assessed as "Outlet" assessment pro-rata against the lands and road that are located upstream of the affected bridge site in the same relative proportions as shown in Schedule 'E.' The outlet assessment is based on an arbitrary \$10,000.00.

These provisions for maintenance are subject, of course, to any variations that may be made under the authority of the Drainage Act.

Drawings and Specifications

Attached to this report is "Schedule F," which contains specifications setting out the details of the recommended works, and "Schedule G," which represents the following drawings that are also attached to this report:

Page 1 of 2: Watershed Plan

Page 2 of 2: Bridge Details

Approvals

The construction and/or improvement to a drainage works, including repair and maintenance activities, and all operations connected therewith are subject to the approval, inspection, by-laws and regulations of all Municipal, Provincial, Federal and other authorities having jurisdiction in respect to any matters embraced by the proposed works. Prior to any construction or maintenance works, the Municipality or proponent designated on the Municipality's behalf shall obtain all required approvals/permits and confirm any construction limitations including timing windows, mitigation/off-setting measures, standard practices or any other limitations related to in-stream works.

Respectfully submitted,

DILLON CONSULTING LIMITED

Mark D. Hernandez, P.Eng.

MDH:wlb



Meeting Minutes

Subject: South Talbot and Holden Outlet Drain New Access Bridge
Date: August 3, 2022
Location: Via Zoom
Our File: 22-4605
Distribution: Distribution

Attendees

Alessia Mussio	Town of Tecumseh
Mark Fishleigh	County of Essex
Ralph Meo	Landowner
Mark Hernandez	Dillon Consulting Ltd.

Notes

Section 78 request for a new access bridge on Branch of South Talbot and Holden Outlet Drain

Landowner has provided information to Dillon regarding access needs

Dillon has completed the topographical survey

Dillon has started preparation of the report and anticipate it can be completed in a timely fashion

It was discussed that a PIC meeting would not be necessary due to the limited impact to other landowners. Other landowners are not responsible for the cost of the design and construction of the new culvert. Due to the timing of the municipal elections, the Town will not be in a position to take the report to the Board until the New Year. This means construction may not occur until the spring of 2023.

The first board meeting is the Meeting to Consider the technical aspects of the report. The second meeting is the Court of Revision to discuss the assessment aspect of the report.

The landowner noted that they would like the remaining conditions cleared to be able to sever the land. The conditions included a reapportionment which will be completed by the Town and the Drainage Act process for establishing a new access to the property.

Errors and/or Omissions

These minutes were prepared by Mark Hernandez who should be notified of any errors and/or omissions.

"SCHEDULE C"
SCHEDULE OF ASSESSMENT
BRANCH OF THE SOUTH TALBOT & HOLDEN OUTLET DRAIN
TOWN OF TECUMSEH

PRIVATELY-OWNED - AGRICULTURAL LANDS (NON-GRANTABLE)

Roll No.	Con.	Description	Area Affected		Owner	Special Benefit	Benefit	Outlet	Total Assessment
			(Acres)	(Ha.)					
440-00800	6	S. Pt. Lot 3	34.80	14.08	Raffaele & Gina Meo	\$31,450.00	\$0.00	\$0.00	\$31,450.00
Total on Privately-Owned - Agricultural Lands.....						\$31,450.00	\$0.00	\$0.00	\$31,450.00
TOTAL ASSESSMENT						\$31,450.00	\$0.00	\$0.00	\$31,450.00
			(Acres)	(Ha.)					
			-----	-----					
Total Area:			34.80	14.08					

"SCHEDULE E"
SCHEDULE OF ASSESSMENT FOR FUTURE MAINTENANCE
BRANCH OF THE SOUTH TALBOT & HOLDEN OUTLET DRAIN (MEO BRIDGE)
TOWN OF TECUMSEH

MUNICIPAL LANDS:

Description	Area Affected (Acres) (Ha.)		Owner	Special Benefit	Benefit	Outlet	Total Assessment
Holden Road	7.00	2.83	Town of Tecumseh	\$0.00	\$0.00	\$1,877.00	\$1,877.00
Total on Municipal Lands.....				\$0.00	\$0.00	\$1,877.00	\$1,877.00

PRIVATELY-OWNED - NON-AGRICULTURAL LANDS:

Roll No.	Con.	Description	Area Affected (Acres) (Ha.)		Owner	Special Benefit	Benefit	Outlet	Total Assessment
Severed Parcel	6	Pt. Lot 3	1.35	0.55	Raffaele & Gina Meo	\$0.00	\$0.00	\$120.00	\$120.00
440-00805	6	Pt. Lot 3 RP 12R7600 Pt. 1	0.62	0.25	Vincent J. & Antonietta Gyori	\$0.00	\$0.00	\$91.00	\$91.00
440-00901	6	N. Pt. Lot 3 RP 12R3516 Pt. 1	1.00	0.40	Julie-Christie Laudenbach & Leon J. Dufour	\$0.00	\$0.00	\$106.00	\$106.00
440-00950	6	Pt. Lot 3 RP 12R24063 Pt. 1	1.25	0.51	Gino Marchisio	\$0.00	\$0.00	\$118.00	\$118.00
440-01010	6	Pt. Lot 4 RP 12R22384 Pt. 1	1.81	0.73	Jessie J. & Catherine E. Robinet	\$0.00	\$0.00	\$131.00	\$131.00
440-01001	6	Pt. Lot 4 RP 12R6119 Pt. 1	1.00	0.40	James J. & Catherine M. Sykes	\$0.00	\$0.00	\$106.00	\$106.00
440-01005	6	Pt. Lot 4 RP 12R23835 Pt. 1	1.25	0.51	Anna Weinberg	\$0.00	\$0.00	\$118.00	\$118.00
440-01100	6	W. Pt. Lot 4	0.50	0.20	Daniel G. & Karen T. Lesperance	\$0.00	\$0.00	\$80.00	\$80.00
440-01101	6	Pt. Lots 4&5 RP 12R6847 Pt. 1	1.64	0.66	Scott & Joie Reyner	\$0.00	\$0.00	\$126.00	\$126.00
440-01200	6	Pt. Lot 5 RP 12R24842Pt. 1	1.26	0.51 *	Scott & Joie Reyner	\$0.00	\$0.00	\$118.00	\$118.00
440-01400	6	N. Pt. Lot 5 RP 12R21849 Pt. 1	0.56	0.23 *	Elaine J. Healey	\$0.00	\$0.00	\$87.00	\$87.00
Total on Privately-Owned - Non-Agricultural Lands.....						\$0.00	\$0.00	\$1,201.00	\$1,201.00

PRIVATELY-OWNED - AGRICULTURAL LANDS

Roll No.	Con.	Description	Area Affected (Acres) (Ha.)		Owner	Special Benefit	Benefit	Outlet	Total Assessment
440-00800	6	S. Pt. Lot 3	34.80	14.08	Raffaele & Gina Meo	\$0.00	\$0.00	\$1,867.00	\$1,867.00
440-00910	6	Pt. Lot 3 RP 12R24159 Pt. 1	33.18	13.43	Charles A. & Helen J. Banwell	\$0.00	\$0.00	\$1,781.00	\$1,781.00
440-01000	6	Pt. Lot 4 RP 12R23835 Pt. 2	52.44	21.22	Joie Jobin & Scott Reyner	\$0.00	\$0.00	\$2,814.00	\$2,814.00
440-01220	6	Pt. W. ½ Lots 4 & 5	62.30	25.21 *	Scott & Joie Reyner	\$0.00	\$0.00	\$334.00	\$334.00
440-01300	6	S. Pt. Lot 5	23.44	9.49 *	Elaine J. Healey & Kathleen M. Tyrrell	\$0.00	\$0.00	\$126.00	\$126.00
Total on Privately-Owned - Agricultural Lands.....						\$0.00	\$0.00	\$6,922.00	\$6,922.00
TOTAL ASSESSMENT						\$0.00	\$0.00	\$10,000.00	\$10,000.00
			(Acres)	(Ha.)					
Total Area:			225.40	91.21					

* denotes lands assessed at reduced rate

"SCHEDULE F"
DRAINAGE REPORT FOR A
NEW FARM ACCESS BRIDGE ON PT. LOT 3, CONCESSION 6
BRANCH OF SOUTH TALBOT & HOLDEN OUTLET DRAIN
TOWN OF TECUMSEH

SPECIAL PROVISIONS - GENERAL

1.0 GENERAL SPECIFICATIONS

The General Specifications attached hereto is part of "Schedule F." It also forms part of this specification and is to be read with it, but where there is a difference between the requirements of the General Specifications and those of the Special Provisions which follow, the Special Provisions will take precedence.

2.0 DESCRIPTION OF WORK

The work to be carried out under this Contract includes, but is not limited to, the supply of all **labour, equipment and materials** to complete the following items:

- Supply and place a new 19.0 m long, 1400 mm diameter aluminized corrugated steel pipe (CSP) culvert with 125 mm x 25 mm corrugations and 2.8 mm thickness including coupler and hardware (see Specifications). The work is to include drain bottom cleanout in close proximity to the bridge, site cleanup and restoration within the working area.
- Supply and placement of clear stone bedding materials, minimum 150 mm thickness (approximately 20 tonnes).
- Supply and placement of compacted Granular 'B' backfill materials up to pipe springline (approximately 35 tonnes).
- Supply and placement of clean native or imported clean native backfill material from springline of pipe culvert to the underside of Granular 'A' driveway material and outside of driveway portion to construct the 0.50 m wide native buffer strips (approximately 60 m³). Note: Where there is an insufficient amount of native fill materials for backfilling the culvert, the Contractor may elect to import additional fill materials or alternatively use Granular 'B' at his/her own expense.
- Supply and install Granular 'A' (crushed limestone) compacted driveway surface, minimum 200 mm thickness (approximately 25 tonnes) providing a minimum 12.2 m (40 ft.) driveable top width..
- Supply and placement of stone rip-rap minimum 300 mm thickness c/w filter cloth underlay for sloping end walls (approximately 30 m²).
- Temporary sediment and erosion control measures.

3.0 ACCESS TO THE WORK

Access to the drain shall be from Holden Road. Through traffic must be maintained at all times along municipal roads with the required traffic control as per Section 13.0 in the General Specifications. All construction materials for the bridge are to be stored on the field side of the Branch of the South Talbot and Holden Outlet Drain. Any damage resulting from the Contractor's access to the bridge site shall be rectified to pre-existing conditions at his expense.

4.0 WORKING CORRIDOR

The working area at the bridge site shall be restricted to a radius of 20.0 m from the proposed centre of the new culvert.

Any damages to lands and/or roads from the Contractor's work within the working area for the bridge site shall be rectified to pre-existing conditions at his/her expense.

5.0 BRIDGE CONSTRUCTION

5.1 Location of New Bridge

The new bridge structure shall be installed as shown on the drawing attached hereto.

5.2 Materials for New Bridge

Materials shall be as follows:

<i>Culvert Pipe</i>	<i>New 19.0 long, 1400 diameter aluminized Type II corrugated steel pipe (CSP) wall thickness of 2.8 mm and 125 mm x 25 mm corrugations with rerolled ends. New culvert shall be joined with annular aluminized corrugated wide bolt and angle couplers (minimum of 8 corrugation overlap and 2.8 mm wall thickness) and no single pipe less than 6.0 m in length. All pipes connected with couplers shall abut to each other with no more than a 25 mm gap between pipes prior to installation of the coupler and wrapped with filter fabric.</i>
<i>Pipe Bedding Below Pipe</i>	<i>20-25 mm clear stone conforming to OPSS Division 10.</i>
<i>Backfill up to Pipe Springline</i>	<i>Granular 'B' conforming to OPSS Division 10.</i>
<i>Backfill Above Pipe Springline up to Driveway Surface Materials</i>	<i>Dry native material free of topsoil, organic matter, broken concrete, steel, wood and deleterious substances. Alternatively, Granular 'A' or 'B' conforming to OPSS Division 10.</i>
<i>Driveway Surface</i>	<i>Granular 'A' made from crushed limestone conforming to OPSS Division 10. Minimum 200 mm thickness.</i>
<i>Erosion Stone</i>	<i>All stone to be used for erosion protection shall be 125 - 250 mm clear quarried rock or OPSS.Muni 1004, minimum 300 mm thickness.</i>
<i>Buffer Strips</i>	<i>Dry native material free of topsoil, organic matter, broken concrete, steel, wood and deleterious substances.</i>
<i>Filter Fabric</i>	<i>"Non-Woven" geotextile filter fabric with a minimum strength equal to or greater than Terrafix 270R, Amoco 4546, Mirafi 140NC or approved equivalent.</i>

5.3 Culvert Installation

Suitable dykes shall be constructed in the drain so that the installation of the pipe can be accomplished in the dry. The drain bottom shall be cleaned, prepared, shaped and compacted to suit the new culvert configuration, as shown on the drawings. Granular materials shall be compacted to 100% of their maximum dry density; imported clean native materials shall be supplied, placed and compacted to 95% of their maximum dry density.

5.4 Sloping Stone End Walls

End walls shall be constructed of quarry stone rip-rap, as specified herein. Each end wall shall extend from the invert of the new culvert to the top of the proposed lane. The end walls shall be sloped 1 vertical to 1.5 horizontal with a filter fabric underlay surrounding the pipe and spanning across the entire width of the drain and wrapping around the drain banks to align with the ends of the new pipe culvert. The minimum thickness requirement of the erosion stone layer is 300 mm with no portion of the filter fabric to be exposed to sunlight.

5.5 Granular 'A' Driveway

The Contractor shall construct the driveway with a maximum 3% cross-fall grade consisting of a minimum 200 mm thickness of compacted Granular 'A' (crushed limestone) surface. The minimum top width of the driveway shall be as shown on the drawings.

5.6 Lateral Tile Drains

One corrugated plastic tile drain needs to be relocated as shown on the drawings. Should the Contractor encounter any lateral tiles within the proposed culvert limits not shown on the attached drawings, the Contractor shall re-route the outlet tile drain(s) in consultation with the Drainage Superintendent, as required, to accommodate the new culvert. **Tile drain outlets through the wall of the new culvert pipe will not be permitted.** All costs associated with re-routing lateral tile drains (if any) shall be at the Contractor's expense.

GENERAL SPECIFICATIONS

1.0 AGREEMENT AND GENERAL CONDITIONS

The part of the Specifications headed "Special Provisions" which is attached hereto forms part of this Specification and is to be read with it. Where there is any difference between the requirements of this General Specification and those of the Special Provisions, the Special Provisions shall govern.

Where the word "Drainage Superintendent" is used in this specification, it shall mean the person or persons appointed by the Council of the Municipality having jurisdiction to superintend the work.

Tenders will be received and contracts awarded only in the form of a lump sum contract for the completion of the whole work or of specified sections thereof. The Tenderer agrees to enter into a formal contract with the Municipality upon acceptance of the tender. The General Conditions of the contract and Form of Agreement shall be those of the Stipulated Price Contract CCDC2-Engineers, 1994 or the most recent revision of this document.

2.0 EXAMINATION OF SITE, PLANS AND SPECIFICATIONS

Each tenderer must visit the site and review the plans and specifications before submitting his/her tender and must satisfy himself/herself as to the extent of the work and local conditions to be met during the construction. Claims made at any time after submission of his/her tender that there was any misunderstanding of the terms and conditions of the contract relating to site conditions, will not be allowed. The Contractor will be at liberty, before bidding to examine any data in the possession of the Municipality or of the Engineer.

The quantities shown or indicated on the drawings or in the report are estimates only and are for the sole purpose of indicating to the tenderers the general magnitude of the work. The tenderer is responsible for checking the quantities for accuracy prior to submitting his/her tender.

3.0 MAINTENANCE PERIOD

The successful Tenderer shall guarantee the work for a period of one (1) year from the date of acceptance thereof from deficiencies that, in the opinion of the Engineer, were caused by faulty workmanship or materials. The successful Tenderer shall, at his/her own expense, make good and repair deficiencies and every part thereof, all to the satisfaction of the Engineer. Should the successful Tenderer for any cause, fail to do so, then the Municipality may do so and employ such other person or persons as the Engineer may deem proper to make such repairs or do such work, and the whole costs, charges and expense so incurred may be deducted from any amount due to the Tenderer or may be collected otherwise by the Municipality from the Tenderer.

4.0 GENERAL CO-ORDINATION

The Contractor shall be responsible for the coordination between the working forces of other organizations and utility companies in connection with this work. The Contractor shall have no cause of action against the Municipality or the Engineer for delays based on the allegation that the site of the work was not made available to him by the Municipality or the Engineer by reason of the acts, omissions, misfeasance or non-feasance of other organizations or utility companies engaged in other work.

5.0 RESPONSIBILITY FOR DAMAGES TO UTILITIES

The Contractor shall note that overhead and underground utilities such as hydro, gas, telephone and water are not necessarily shown on the drawings. It is the Contractor's responsibility to contact utility companies for information regarding utilities, to exercise the necessary care in construction operations and to take other precautions to safeguard the utilities from damage. All work on or adjacent to any utility, pipeline, railway, etc., is to be carried out in accordance with the requirements of the utility, pipeline, railway, or other, as the case may be, and its specifications for such work are to be followed as if they were part of this specification. The Contractor will be liable for any damage to utilities.

6.0 CONTRACTOR'S LIABILITY

The Contractor, his/her agents and all workmen or persons under his/her control including sub-contractors, shall use due care that no person or property is injured and that no rights are infringed in the prosecution of the work. The Contractor shall be solely responsible for all damages, by whomsoever claimable, in respect to any injury to persons or property of whatever description and in respect of any infringement of any right, privilege or easement whatever, occasioned in the carrying on of the work, or by any neglect on the Contractor's part.

The Contractor, shall indemnify and hold harmless the Municipality and the Engineer, their agents and employees from and against claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of or attributable to the Contractor's performance of the contract.

7.0 PROPERTY BARS AND SURVEY MONUMENTS

The Contractor shall be responsible for marking and protecting all property bars and survey monuments during construction. All missing, disturbed or damaged property bars and survey monuments shall be replaced at the Contractor's expense, by an Ontario Land Surveyor.

8.0 MAINTENANCE OF FLOW

The Contractor shall, at his/her own cost and expense, permanently provide for and maintain the flow of all drains, ditches and water courses that may be encountered during the progress of the work.

9.0 ONTARIO PROVINCIAL STANDARDS

Ontario Provincial Standard Specifications (OPSS) and Ontario Provincial Standard Drawings (OPSD) shall apply and govern at all times unless otherwise amended or extended in these Specifications or on the Drawing. Access to the electronic version of the Ontario Provincial Standards is available online through the MTO website, free of charge to all users. To access the electronic standards on the Web go to <http://www.mto.gov.on.ca/english/transrd/>. Under the title Technical Manuals is a link to the Ontario Provincial Standards. Users require Adobe Acrobat to view all pdf files.

10.0 APPROVALS, PERMITS AND NOTICES

The construction of the works and all operations connected therewith are subject to the approval, inspection, by-laws and regulations of all Municipal, Provincial, Federal and other authorities having jurisdiction in respect to any matters embraced in this Contract. The Contractor shall obtain all approvals and permits and notify the affected authorities when carrying out work in the vicinity of any public utility, power, underground cables, railways, etc.

11.0 SUBLETTING

The Contractor shall keep the work under his/her personal control, and shall not assign, transfer, or sublet any portion without first obtaining the written consent of the Municipality.

12.0 TIME OF COMPLETION

The Contractor shall complete all work on or before the date fixed at the time of tendering. The Contractor will be held liable for any damages or expenses occasioned by his/her failure to complete the work on time and for any expenses of inspection, superintending, re-tendering or re-surveying, due to their neglect or failure to carry out the work in a timely manner.

13.0 TRAFFIC CONTROL

The Contractor will be required to control vehicular and pedestrian traffic along roads at all times and shall, at his/her own expense, provide for placing and maintaining such barricades, signs, flags, lights and flag persons as may be required to ensure public safety. The Contractor will be solely responsible for controlling traffic and shall appoint a representative to maintain the signs and warning lights at night, on weekends and holidays and at all other times that work is not in progress. All traffic control during construction shall be strictly in accordance with the **Occupational Health and Safety Act** and the current version of the **Ontario Traffic Manuals**. Access to the electronic version of the **Ontario Traffic Manual** is available online through the MTO website, free of charge to all users. To access the electronic standards on the Web go to <http://www.mto.gov.on.ca/english/transrd/>, click on "Library Catalogue," under the "Title," enter "Ontario Traffic Manual" as the search. Open the applicable "Manual(s)" by choosing the "Access Key," once open look for the "Attachment," click the pdf file. Users require Adobe Acrobat to view all pdf files.

Contractors are reminded of the requirements of the Occupational Health and Safety Act pertaining to Traffic Protection Plans for workers and Traffic Control Plan for Public Safety.

14.0 SITE CLEANUP AND RESTORATION

As part of the work and upon completion, the Contractor shall remove and dispose of, off-site any loose timber, logs, stumps, large stones, rubber tires, cinder blocks or other debris from the drain bottom and from the side slopes. Where the construction works cross a lawn, the Contractor shall take extreme care to avoid damaging the lawn, shrubs and trees encountered. Upon completion of the work, the Contractor shall completely restore the area by the placement and fine grading of topsoil and seeding or sodding the area as specified by the Engineer or Drainage Superintendent.

15.0 UTILITY RELOCATION WORKS

In accordance with Section 26 of the Drainage Act, if utilities are encountered during the installation of the drainage works that conflict with the placement of the new culvert, the operating utility company shall relocate the utility at their own costs. The Contractor however will be responsible to co-ordinate these required relocations (if any) and their co-ordination work shall be considered incidental to the drainage works.

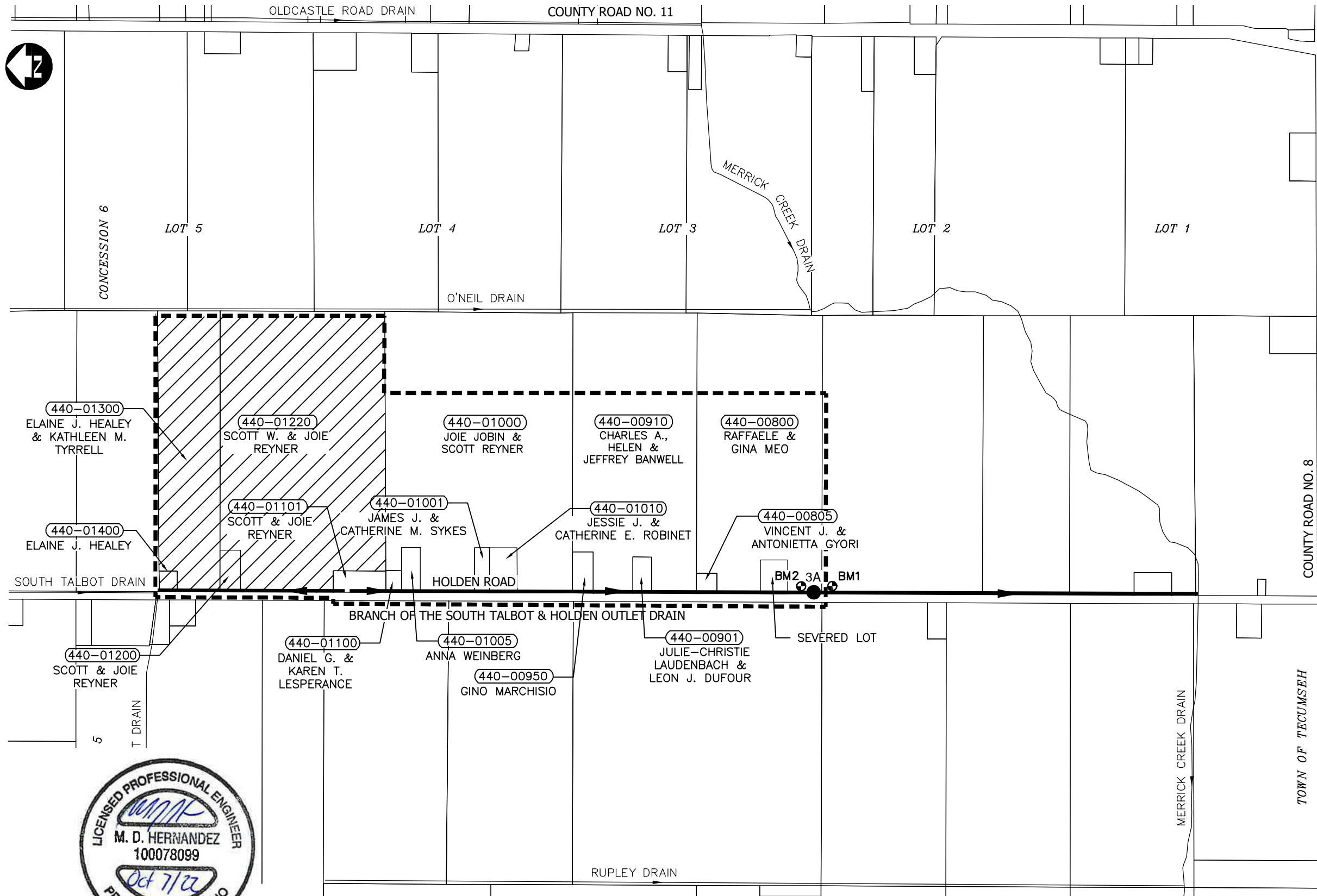
16.0 FINAL INSPECTION

All work shall be carried out to the satisfaction of the Drainage Superintendent for the Municipality, in compliance with the specifications, drawings and the Drainage Act. Upon completion of the project, the work will be inspected by the Engineer and the Drainage Superintendent. Any deficiencies noted during the final inspection shall be immediately rectified by the Contractor. Final inspection will be made by the Engineer within 20 days after the Drainage Superintendent has received notice in writing from the Contractor that the work is completed, or as soon thereafter as weather conditions permit.

17.0 FISHERIES CONCERNS

Standard practices to be followed to minimize disruption to fish habitat include embedment of the culvert a minimum 10% below grade, constructing the work 'in the dry' and cutting only trees necessary to do the work (no clear-cutting). No in-water work is to occur during the timing window unless otherwise approved by the appropriate authorities.

Oct 06, 2022 -- 11:58am C:\pwworking\directory\projects\2022\dillon_33\wb\dms40746\224605-DRN-CON.dwg




BENCHMARKS
BM1
TOP OF SIB ON EAST TOP OF BANK
APPROX. 12 m SOUTH OF C OF NEW
BRIDGE.
ELEVATION=184.95m

BM2
TOP OF SIB ON EAST TOP OF BANK
APPROX. 38 m NORTH OF C OF NEW
BRIDGE.
ELEVATION=185.02m

LEGEND
--- BRANCH OF THE SOUTH TALBOT
& HOLDEN OUTLET DRAIN
DRAINAGE AREA
➔ BRANCH OF THE SOUTH TALBOT
& HOLDEN OUTLET DRAIN
➔ OTHER DRAINS
● NEW BRIDGE
BM LOCAL BENCHMARK
▨ LAND ASSESSED AT
REDUCED RATE



WATERSHED PLAN
SCALE=1:10,000

Conditions of Use Verify elevations and/or dimensions on drawing prior to use. Report any discrepancies to Dillon Consulting Limited. Do not scale dimensions from drawing. Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.					DESIGN MDH	REVIEWED BY CDP		Drainage Report for the BRANCH OF THE SOUTH TALBOT & HOLDEN OUTLET DRAIN (MEO BRIDGE) Town of Tecumseh	
					DRAWN WLB	CHECKED BY TRO			
					DATE October 7, 2022				
	2	FINAL REPORT SUBMISSION	OCT. 7/22	MDH	SCALE AS SHOWN			PROJECT NO. 22-4605	SHEET TITLE <u>WATERSHED PLAN</u>
	1	CLIENT REVIEW	AUG. 26/22	MDH					
	No.	ISSUED FOR 26	DATE	BY			DRAWING SCALES BASED ON A 11" X 17" SHEET	PAGE NO. 1 of 2	

Oct 06, 2022 - 11:57am C:\pwworking\directory\projects\2022\dillon_33\wb\dms40746\224605-DRN-CON.dwg

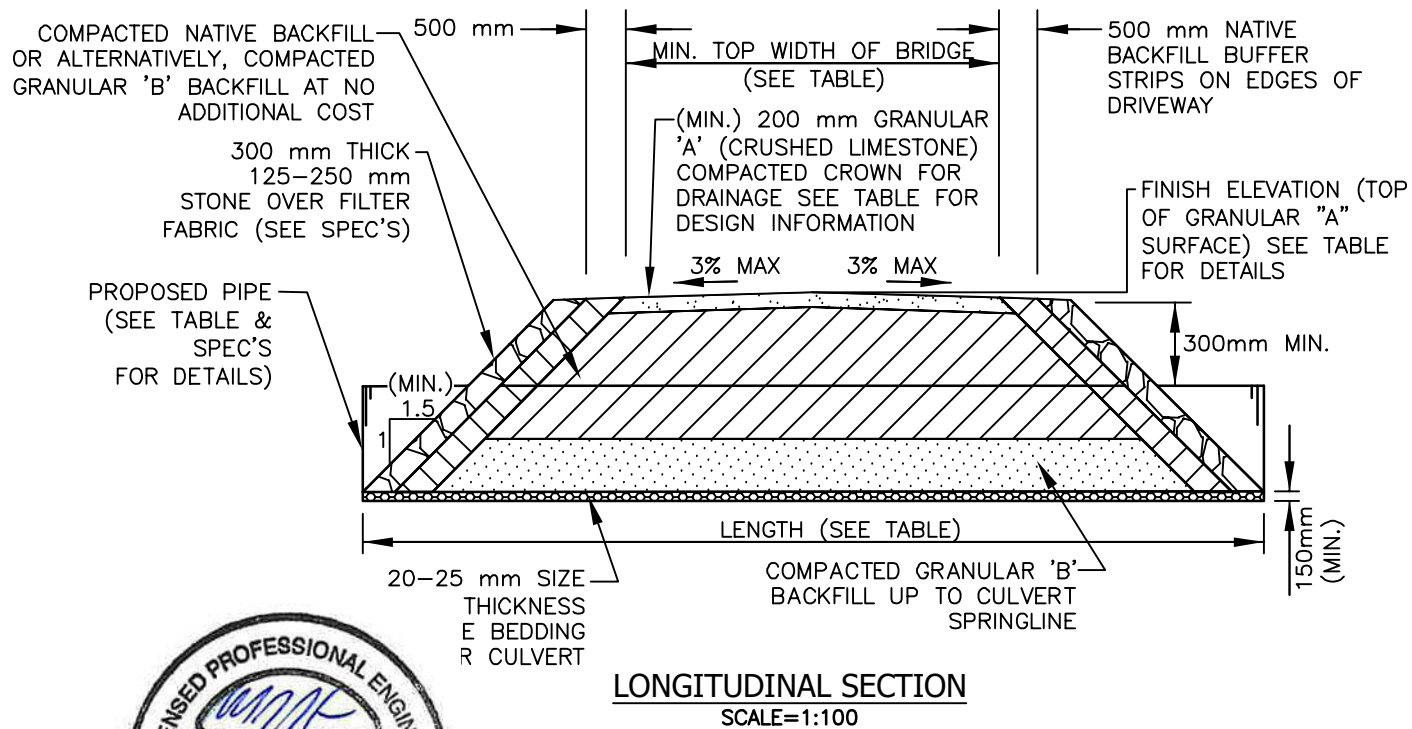
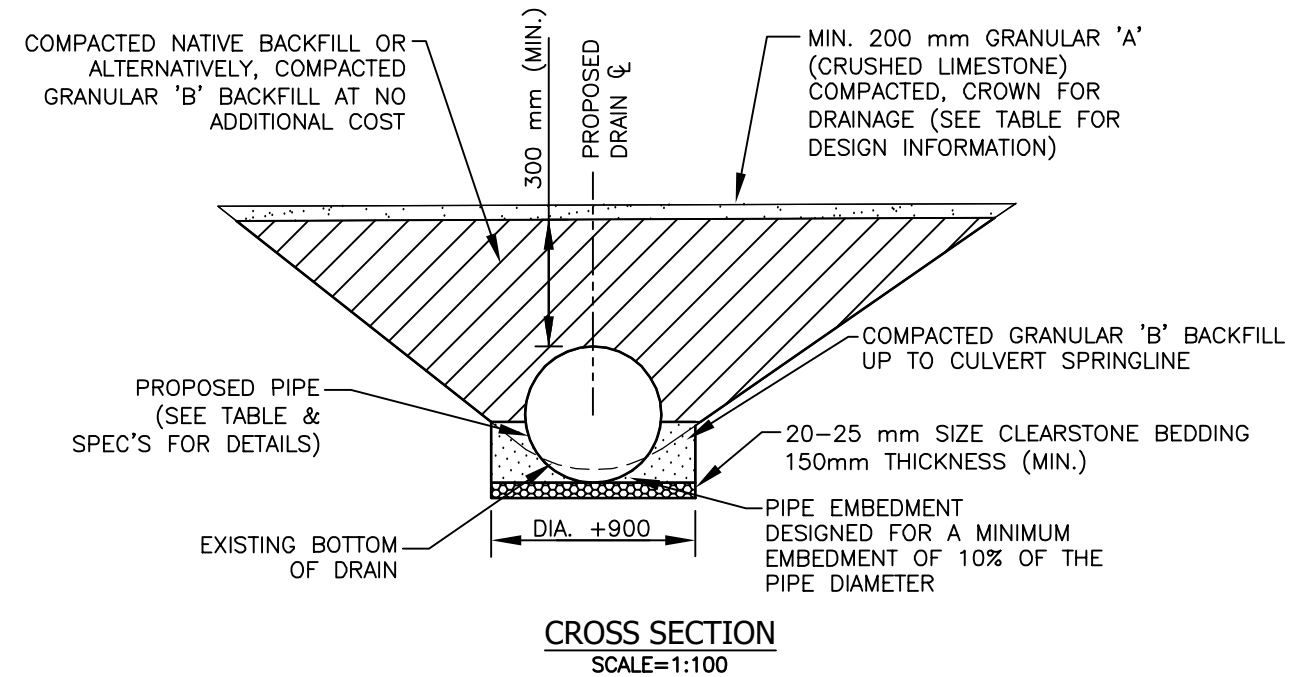
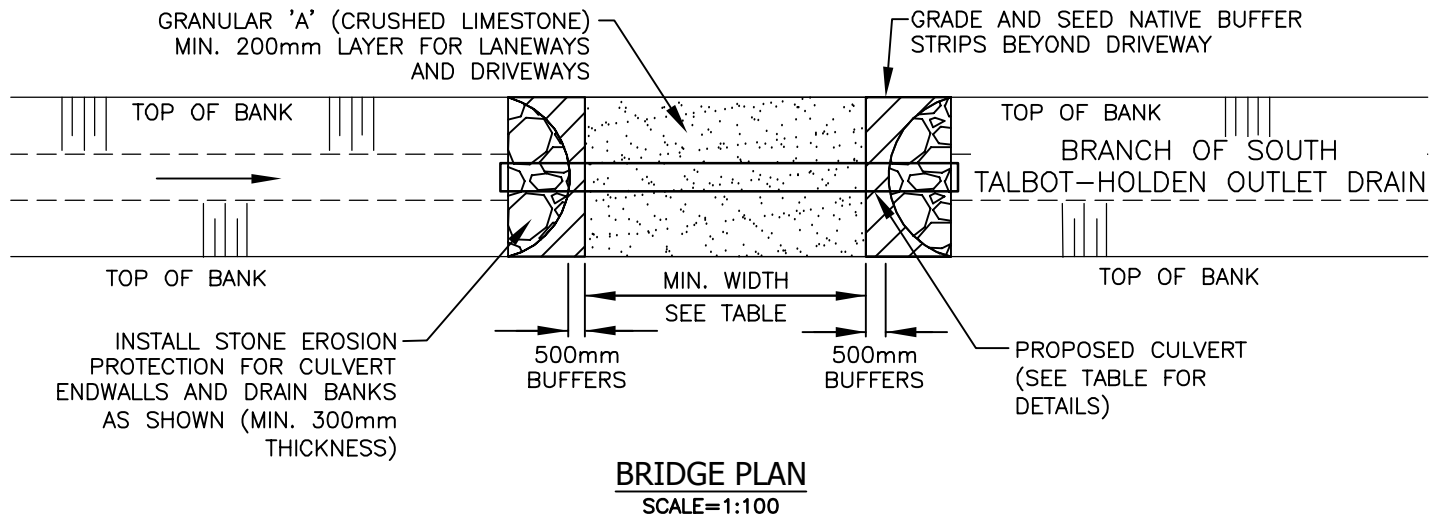


TABLE 1 - ACCESS BRIDGE DESIGN INFORMATION	
DESCRIPTION	BRIDGE No. 3A
PIPE INVERT ELEV. U/S SIDE(m)	183.40
PIPE INVERT ELEV. D/S SIDE(m)	183.38
TOP OF ϕ DRIVEWAY SURFACE ELEV. (m)	185.10
DRAIN BOTTOM (m) (DESIGN) (AT CENTRELINE OF CULVERT)	183.66
MIN. TOP WIDTH OF DRIVEWAY (m)	12.2
MIN. CULVERT GRADE (%)	0.10
CULVERT TYPE	C.S.P.
CULVERT MATERIAL	ALUM.
CULVERT LENGTH (m)	19.0
CULVERT THICKNESS (mm)	2.8
CULVERT CORRUGATIONS (mm)	125x25
PIPE SIZE (mm)	1400
CULVERT ENDWALL TYPE	SLOPING



Conditions of Use

Verify elevations and/or dimensions on drawing prior to use. Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.

				DESIGN	REVIEWED BY
				MDH	CDP
				DRAWN	CHECKED BY
				WLB	TRO
				DATE	
2	FINAL REPORT SUBMISSION	OCT. 7/22	MDH	October 7, 2022	
1	CLIENT REVIEW	AUG. 26/22	MDH		
No.	ISSUED FOR	DATE	BY	SCALE	
	27			AS SHOWN	

DESIGN	REVIEWED BY
MDH	CDP
DRAWN	CHECKED BY
WLB	TRO
DATE	
October 7, 2022	
SCALE	
AS SHOWN	

PROJECT NO.	22-4605
DRAWING SCALES BASED ON A 11" X 17" SHEET	

'SCHEDULE G'

Drainage Report for the
BRANCH OF THE SOUTH TALBOT &
HOLDEN OUTLET DRAIN (MEO BRIDGE)
Town of Tecumseh

SHEET TITLE
BRIDGE DETAILS

PAGE NO.
2 of 2

Legislation

Petition

4 (1) A petition for the drainage by means of a drainage works of an area requiring drainage as described in the petition may be filed with the clerk of the local municipality in which the area is situate by,

- (a) the majority in number of the owners, as shown by the last revised assessment roll of lands in the area, including the owners of any roads in the area;
- (b) the owner or owners, as shown by the last revised assessment roll, of lands in the area representing at least 60 per cent of the hectarage in the area;
- (c) where a drainage works is required for a road or part thereof, the engineer, road superintendent or person having jurisdiction over such road or part, despite subsection 61 (5);
- (d) where a drainage works is required for the drainage of lands used for agricultural purposes, the Director. R.S.O. 1990, c. D.17, s. 4 (1).

Form of petition

(2) A petition under subsection (1) shall be in the form prescribed by the regulations and, where it is filed by an owner or owners under clause (1) (a) or (b), shall be signed by such owner or owners. R.S.O. 1990, c. D.17, s. 4 (2).

Petition where area lies on each side of boundary line

(3) Where it is desired to construct a drainage works for the drainage of an area composed of lands or roads lying on each side of a boundary line between two or more local municipalities, the council of any of them may proceed upon a petition as required by this Act in all respects, including the sending of notices, as if such area were entirely within the limits of the municipality. R.S.O. 1990, c. D.17, s. 4 (3).

Person deemed owner

(4) Where a person who is the owner of land, but does not appear by the last revised assessment roll of the municipality to be the owner, is a petitioner, the person shall be deemed an owner if the person's ownership is proved to the satisfaction of the clerk, and, if the person who appears by the assessment roll to be the owner is a petitioner, the person's name shall be disregarded in determining the sufficiency of the petition. R.S.O. 1990, c. D.17, s. 4 (4).

Persons jointly assessed

(5) Where two or more persons are jointly assessed for a property, in determining the sufficiency of a petition, they shall be deemed to be one owner. R.S.O. 1990, c. D.17, s. 4 (5).

Section 25(1) – Engineer may assess a block, etc.

The council of the local municipality may direct the engineer to assess as a block, a built-up area designated by the council, and the sum assessed therefor may be levied against all the ratable properties in the designated area proportionately on the

basis of the assessed value of the land and buildings.

Section 25(2) – Assessments to be charged against public roads

Where the engineer makes a block assessment under subsection (1), the engineer shall designate the proportion of the assessment to be charged against the public roads in the designated area.

Section 26 – Increased cost, how borne

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 utility or 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.

Section 41(1) – Notice of drainage works

Upon the filing of the engineer's report, the council of the initiating municipality, if it intends to proceed with the drainage works, shall, within thirty days of the filing of the report, cause the clerk of the initiating municipality to send a copy of the report and a notice stating,

- 1) the date of the filing of the report;
- 2) the name or other designation of the drainage works; and
- 3) the date of the council meeting at which the report will be considered, to;
 - a) the owners, in the initiating municipality, as shown by the last revised assessment roll to be the owners of lands and roads assessed for the drainage works or for which compensation or other allowances have been provided in the report;
 - b) the clerk of every other local municipality in which any land or road that is assessed for the drainage works or for which compensation or other allowances have been provided in the report is situate;
 - c) the secretary-treasurer of each conservation authority that has jurisdiction over any land affected by the report;
 - d) any railway company, public utility or road authority affected by the report, other than by way of assessment;
 - e) the Minister of Natural Resources where land under his or her jurisdiction may be affected by the report; and
 - f) the Director.

Section 41(3) – Copy of report not required

Despite subsections (1) and (2), where a block assessment is made, the notice to the owners of the lands so assessed need not be accompanied by a copy of the report.

Section 41(3.1) – Same

Despite subsections (1) and (2), the council of a local municipality is not required to send a copy of the report to owners of lands and roads assessed for a sum of less than \$100.

Section 42 – Consideration of report

The council of the initiating municipality at the meeting mentioned in section 41 shall consider the report, and, where the drainage works is requested on petition, shall give an opportunity to any person who has signed the petition to withdraw from it by filing a signed withdrawal with the clerk and shall also give those present owning lands within the area requiring drainage who have not signed the petition an opportunity to do so, and should any of the lands or roads owned by the municipality within the area requiring drainage as described in the petition be assessed, the council may by resolution authorize the head of the municipality to sign the petition for the municipality, and such signature counts as that of one person in favour of the petition.

Section 65(1) – Subsequent subdivision of land

If, after the final revision of an engineer's assessment of land for a drainage works, the land is divided by a change in ownership of any part, the clerk of the local municipality in which the land is situate shall instruct an engineer in writing to apportion the assessment among the parts into which the land was divided, taking into account the part of the land affected by the drainage works.

Section 65(2) – Agreement on share of assessment

If the owners of the subdivided land mutually agree on the share of the drainage assessment that each should pay, they may enter into a written agreement and file it

with the clerk of the local municipality and, if the agreement is approved by the council by resolution, no engineer need be instructed under subsection (1).

Section 76(1) - Varying original assessments for maintenance

The Council of any local municipality liable for contribution to a drainage works in connection with which conditions have changed or circumstances have arisen such as to justify a variation of the assessment for maintenance and repair of the drainage works may make an application to the Tribunal, of which notice has been given to the head of every other municipality affected by the drainage works, for permission to procure a report of an engineer to vary the assessment, and, in the event of such permission being given, such council may appoint an engineer for such purpose and may adopt the report but, if all the lands and roads assessed or intended to be assessed lie within the limits of one local municipality, the council of that municipality may procure and adopt such report without such permission.

Section 76(2) – Proceedings on report of engineer

The proceedings upon such report, excepting appeals, shall be the same, as nearly as may be, as upon the report for construction of the drainage works.

Section 76(3) – Appeal from report of engineer

Any council served with a copy of such report may, within 45 days of such service, appeal to the Tribunal from the finding of the engineer as to the portion of the cost of the drainage works for which the municipality is liable.

Section 76(4) – Appeal from assessment

Any owner of land assessed for maintenance or repair may appeal from the assessment in the report on the grounds and in the manner provided by Section 52 in the case of the construction of the drainage works.

Section 76(5) – Basis of future assessments

An assessment determined under this section shall thereafter, until it is further varied, form the basis of any assessment for maintenance or repair of the drainage works affected thereby.

Section 78(1) – Improving, upon examination and report of engineer

If a drainage works has been constructed under a by-law passed under this Act or any predecessor of this Act, and the council of the municipality that is responsible for maintaining and repairing the drainage works considers it appropriate to undertake one or more of the major improvement projects listed in subsection (1.1) for the better use, maintenance or repair of the drainage works or of lands or roads, the municipality may undertake and complete the project in accordance with the report of an engineer appointed by it and without the petition required by section 4. 2010, c.16, Sched. 1, s. 2 (27); 2020, c. 18, Sched. 4, s. 9 (1).

Section 78(1.1) – Projects

The projects referred to in subsections (1) are:

- 1) 1. Changing the course of the drainage works.
- 2) 2. Making a new outlet for the whole or any part of the drainage works.
- 3) 3. Constructing a tile drain under the bed of the whole or any part of the drainage works.
- 4) 4. Constructing, reconstructing or extending embankments, walls, dykes, dams, reservoirs, bridges, pumping stations or other protective works in connection with the drainage works.
- 5) 5. Extending the drainage works to an outlet.
- 6) 5.1 Improving or altering the drainage works if the drainage works is located on more than one property.
- 7) 6. Covering all or part of the drainage works.
- 8) 7. Consolidating two or more drainage works.
- 9) 8. Any other activity to improve the drainage works, other than an activity prescribed by the Minister as a minor improvement. 2010, c. 16, Sched. 1, s. 2 (27); 2020, c. 18, Sched. 4, s. 9 (2-4).

Section 78(2) – Notice to conservation authority

2) An engineer shall not be appointed under subsection (1) until 30 days after a notice has been sent to the following persons advising them of the municipality's intent to undertake the major improvement project:

1. The secretary-treasurer of each conservation authority that has jurisdiction over any lands that would be affected by the project.
2. The prescribed persons. 2020, c. 18, Sched. 4, s. 9 (5).

Section 78(3) – Powers and duties of engineer

(3) The engineer has all the powers and shall perform all the duties of an engineer appointed with respect to the construction of a drainage works under this Act. R.S.O. 1990, c. D.17, s. 78 (3).

Section 78(4) – Proceedings

(4) All proceedings, including appeals, under this section shall be the same as on a report for the construction of a drainage works. R.S.O. 1990, c. D.17, s. 78(4).

Minor improvements to drainage works

(5) Despite subsections (2) to (4), the Minister may prescribe the process for approving minor improvements to a drainage works mentioned in paragraph 8 of subsection (1.1). 2020, c. 18, Sched. 4, s. 9 (6).

AMENDMENTS TO ENGINEER'S REPORT

84.1 (1) This section applies with respect to engineer's reports that are prepared for

the purpose of a petition under section 4 or for the purpose of section 78 and that are adopted by a municipal by-law. 2020, c. 18, Sched. 4, s. 10.

Approval process

(2) The Minister may, by regulation, set out the process by which the engineer's report may be amended and the process by which those amendments are to be approved. 2020, c. 18, Sched. 4, s. 10.

Section Amendments with date in force (28/09/2021)

The Corporation of the Town of Tecumseh

By-Law Number 2023 - 009

Being a bylaw to provide for the repair and improvements to the Branch of South Talbot and Holden Outlet Drain – Meo Bridge

Whereas the Council of The Corporation of the Town of Tecumseh (hereafter “Town”) has been requested to provide for the repair and improvement of the Branch of South Talbot and Holden Outlet;

And Whereas the Town procured a Drainage Report for the Branch of South Talbot and Holden Outlet and specifications from the consulting engineering firm of Dillon Consulting, dated October 7, 2022(hereafter “Drainage Report”);

And Whereas notice of a Public Meeting to hear comments from the affected property owners was given on Tuesday, January 10, 2023;

And Whereas a Public Meeting of Council was held on Wednesday, January 25, 2023, at 6:30 pm to hear from any affected property owners on the Drainage Report;

And Whereas the Council of The Corporation of the Town of Tecumseh is of the opinion that the repair and improvement of the Branch of South Talbot and Holden Outlet is desirable.

Now Therefore the Council of The Corporation of The Town of Tecumseh Enacts as follows:

1. **That** the Drainage Report providing for the repair and improvement of the Branch of South Talbot and Holden Outlet, dated October 7, 2022, as prepared by the consulting engineering firm Dillon Consulting and attached hereto as Schedule “A” to this by-law, is hereby adopted and the drainage works as therein indicated and set forth is hereby approved and shall be completed in accordance therewith.
2. **That** the Treasurer, subject to the approval of Council, may agree with any bank or person for temporary advances of money to meet the costs of construction pending the completion of the drain and grants and computed payments are received.
3. **That** the Town may issue debentures for the amount borrowed and the amount of such debentures shall be reduced to the total amount of:
 - a) Grants received under Section 85 of the said Act;
 - b) Commuted payments made in respect of land and roads assessed.

4. **That** such debentures shall be made payable within five (5) years from the date of the debenture and shall bear interest at a rate as approved by resolution of Council.
5. **That** the specifications and General Specifications as established are adopted as set out in the Drainage Report which forms part of this by-law.
6. **That** the Mayor and Clerk are authorized to cause a contract for the construction of the works to be made and entered into with some person or persons, firm or corporations, subject to the approval of the Council to be declared by resolution.
7. **That** this by-law shall come into force upon and after the final passing thereof.

Read a first and second time this 25th day of January, 2023.

Gary McNamara, Mayor

Jennifer Alexander, Acting Clerk

Read a third and final time this **Choose an item.** day of **Choose an item.**, 2023.

Gary McNamara, Mayor

Clerk

**DRAINAGE REPORT
FOR**

**NEW FARM ACCESS BRIDGE ON
PT. LOT 3, CONCESSION 6
OVER THE
BRANCH OF THE SOUTH TALBOT &
HOLDEN OUTLET DRAIN
(MEO BRIDGE)**

TOWN OF TECUMSEH



(FINAL-COUNCIL CONSIDERATION)

7 OCTOBER 2022

MARK D. HERNANDEZ, P.ENG.

FILE No. 22-4605

TECUMSEH FILE E09SO(96)CC5027

File No. 22-4605

Mayor and Council
The Corporation of the Town of Tecumseh
917 Lesperance Road
Tecumseh, Ontario
N8N 1W9

**Drainage Report for
NEW FARM ACCESS BRIDGE
ON PT. LOT 3, CONCESSION 6
OVER THE BRANCH OF THE SOUTH TALBOT &
HOLDEN OUTLET DRAIN
(MEO BRIDGE)
Town of Tecumseh**

Mayor and Council:

Instructions

The Municipality received a request for a new farm access bridge serving part of Lot 3, Concession 6 (Roll No. 440-00800) over the Branch of the South Talbot and Holden Outlet Drain that was filed at the Municipal Office on the 19th April 2022. Council accepted the request under Section 78 of the Drainage Act and on 12th July 2022 appointed Dillon Consulting Limited to prepare a drainage report.

Watershed Description

The Branch of the South Talbot and Holden Outlet Drain consists of an open channel commencing at a high point at the line between Lots 4 & 5, Concession 6. The drain flows southerly along the easterly limit of Holden Road and outlets into the Merrick Creek Drain. The lands comprising the watershed are predominantly under intensive agricultural production with cash crops. There are several non-agricultural residential parcels in the watershed. The lands within the watershed are generally flat.

Drain History

The recent history of Engineers' reports for the Branch of the South Talbot and Holden Outlet Drain follows:

- **20 April 2015 by Mark D. Hernandez, P.Eng.:** The report recommended the repair and improvement of the southerly portion of the Branch of the South Talbot and Holden Outlet Drain. The report also recommended the replacement of an existing bridge.
- **21 October 2013 by Halliday P. Pearson, P.Eng.:** The report recommended the installation of a new 1630 mm x 1120 mm (equivalent to 1400 mm diameter) C.S.P.A. access culvert serving Roll No. 440-00901 in part of Lot 3, Concession 6 denoted herein as Bridge No. 6.



3200 Deziel Drive
Suite 608
Windsor, Ontario
Canada
N8W 5K8
Telephone
519.948.5000
Fax
519.948.5054

- **9 August 2010 by Bruce D. Crozier, P.Eng.:** The recommended work included the repair and improvement of the northerly portion of the Branch of the South Talbot and Holden Outlet Drain from the high point at the line between Lots 4 and 5 to the outlet into the Holden Outlet Drain. The report recommended a clean out and the replacement of an existing access culvert.
- **23 February 2009 by Bruce D. Crozier, P.Eng.:** The report recommended the installation of a new access culvert serving Roll No. 440-010 in part of Lot 4, Concession 6, denoted herein as Bridge No. 12. This is a secondary access assessed 100% to the property.
- **10 May 1979 by Maurice Armstrong, P.Eng.:** The recommended work included the repair and improvement of the entire Branch of the South Talbot and Holden Outlet Drain, complete with brushing, cleaning and lowering of two existing culverts.

On-Site Meeting

An on-site meeting was held on 3rd August 2022. A record of the meeting is provided in Schedule 'A', which is appended hereto.

Survey

Our survey and examination of the Branch of the South Talbot and Holden Outlet Drain was carried out in July 2022. The survey comprised the recording of topographic data and examining the channel for available depth necessary to provide sufficient drainage.

Design Considerations

The new access culvert is designed for an upstream drainage area of approximately 91.21 hectares (225.40 acres). The hydraulic capacity of the structure must meet the current Design Standards recommended by the Ministry of Agriculture, Food and Rural Affairs. The Design and Construction Guidelines suggest that a farm culvert must be designed to freely pass the runoff generated from a 2-year return period storm event. We have applied this criterion. We have also confirmed that the installation of this culvert will not result in adverse impacts to the level of service provided by the drain.

Allowances

In accordance with Sections 29 and 30 of the Drainage Act, we do not anticipate any agricultural lands being damaged or taken as a result of the proposed drainage works. Any damage to existing grassed areas shall be restored to original conditions as part of the work. Therefore, 'Schedule B' for Allowances has not been included in this report.

Recommendations and Cost Estimate

Based on our review of the history, the information obtained during the site meeting and our examination and analysis of the survey data, we recommend that the Branch of the South Talbot and Holden Outlet Drain be repaired and improved as described below:

Item	Description	Amount
1.	Supply and place a new 19.0 m long, 1400 mm diameter aluminized corrugated steel pipe (CSP) culvert with 125 mm x 25 mm corrugations and 2.8 mm thickness including coupler and hardware (see Specifications). The work is to include drain bottom cleanout in close proximity to the bridge, site cleanup and restoration within the working area.	\$14,100.00
2.	Supply and placement of clear stone bedding materials, minimum 150 mm thickness (approximately 20 tonnes).	\$1,650.00
3.	Supply and placement of compacted Granular 'B' backfill materials up to pipe springline (approximately 35 tonnes).	\$1,450.00
4.	Supply and placement of clean native or imported clean native backfill material from springline of pipe culvert to the underside of Granular 'A' driveway material and outside of driveway portion to construct the 0.50 m wide native buffer strips (approximately 60 m ³). Note: Where there is an insufficient amount of native fill materials for backfilling the culvert, the Contractor may elect to import additional fill materials or alternatively use Granular 'B' at his/her own expense.	\$1,100.00
5.	Supply and install Granular 'A' (crushed limestone) compacted driveway surface, minimum 200 mm thickness (approximately 25 tonnes) providing a minimum 12.2 m (40 ft.) driveable top width.	\$1,500.00
6.	Supply and placement of stone rip-rap minimum 300 mm thickness c/w filter cloth underlay for sloping end walls (approximately 30 m ²).	\$2,800.00
7.	Temporary sediment and erosion control measures.	<u>\$850.00</u>
SUB-TOTAL		\$23,450.00
8.	Survey, report, assessment and final inspection	\$7,000.00
9.	Expenses and incidentals	\$500.00
10.	ERCA review fee and permit.	<u>\$500.00</u>
TOTAL ESTIMATE (excluding Net HST)		\$31,450.00

The estimate provided in this report was prepared according to current materials and installation prices as of the date of this report. In the event of delays from the time of filing of the report by the Engineer to the time of tendering the work, it is understood that the estimate of cost is subject to inflation. The rate of inflation shall be calculated using the Consumer Price Index applied to the cost of construction from the date of the report to the date of tendering.

Assessment of Costs

The individual assessments are comprised of three (3) assessment components:

- i. Benefit (*advantages relating to the betterment of lands, roads, buildings, or other structures resulting from the improvement to the drain*).
- ii. Outlet Liability (*part of cost required to provide outlet for lands and roads*).
- iii. Special Benefit (*additional work or feature that may not affect function of the drain*).

We have assessed the estimated costs against the affected lands and roads as listed in Schedule 'C' under "Value of Special Benefit," "Value of Benefit" and "Value of Outlet." Since there is only one Special Benefit assessment, a separate schedule for Details of Special Benefit (Schedule 'D') is not required or included herein.

Assessment Rationale

Special Benefit assessment shown in Schedule 'C' was derived as follows:

1. Costs associated with the new farm access bridge have been assessed 100% to adjoining property Roll No. 440-00800 as listed under "Value of Special Benefit."

Utilities

It may become necessary to temporarily or permanently relocate utilities that may conflict with the construction recommended under this report. In accordance with Section 26 of the Drainage Act, we assess any relocation cost against the public utility having jurisdiction. Under Section 69 of the Drainage Act, the public utility is at liberty to do the work with its own forces, but if it should not exercise this option within a reasonable time, the Municipality will arrange to have this work completed and the costs will be charged to the appropriate public utility.

Future Maintenance

We recommend that future work of repair and maintenance on the new farm access bridge be carried out by the Municipality and assessed 50% against the lands on which the bridge is located and the remaining 50% assessed as "Outlet" assessment pro-rata against the lands and road that are located upstream of the affected bridge site in the same relative proportions as shown in Schedule 'E.' The outlet assessment is based on an arbitrary \$10,000.00.

These provisions for maintenance are subject, of course, to any variations that may be made under the authority of the Drainage Act.

Drawings and Specifications

Attached to this report is "Schedule F," which contains specifications setting out the details of the recommended works, and "Schedule G," which represents the following drawings that are also attached to this report:

Page 1 of 2: Watershed Plan

Page 2 of 2: Bridge Details

Approvals

The construction and/or improvement to a drainage works, including repair and maintenance activities, and all operations connected therewith are subject to the approval, inspection, by-laws and regulations of all Municipal, Provincial, Federal and other authorities having jurisdiction in respect to any matters embraced by the proposed works. Prior to any construction or maintenance works, the Municipality or proponent designated on the Municipality's behalf shall obtain all required approvals/permits and confirm any construction limitations including timing windows, mitigation/off-setting measures, standard practices or any other limitations related to in-stream works.

Respectfully submitted,

DILLON CONSULTING LIMITED

Mark D. Hernandez, P.Eng.

MDH:wlb



Meeting Minutes

Subject: South Talbot and Holden Outlet Drain New Access Bridge
Date: August 3, 2022
Location: Via Zoom
Our File: 22-4605
Distribution: Distribution

Attendees

Alessia Mussio	Town of Tecumseh
Mark Fishleigh	County of Essex
Ralph Meo	Landowner
Mark Hernandez	Dillon Consulting Ltd.

Notes

Item	Discussion	Action by
1.	Section 78 request for a new access bridge on Branch of South Talbot and Holden Outlet Drain	
2.	Landowner has provided information to Dillon regarding access needs	
3.	Dillon has completed the topographical survey	
4.	Dillon has started preparation of the report and anticipate it can be completed in a timely fashion	
5.	It was discussed that a PIC meeting would not be necessary due to the limited impact to other landowners. Other landowners are not responsible for the cost of the design and construction of the new culvert.	
6.	Due to the timing of the municipal elections, the Town will not be in a position to take the report to the Board until the New Year. This means construction may not occur until the spring of 2023.	
7.	The first board meeting is the Meeting to Consider the technical aspects of the report. The second meeting is the Court of Revision to discuss the assessment aspect of the report.	
8.	The landowner noted that they would like the remaining conditions cleared to be able to sever the land. The conditions included a reapportionment which will be completed by the Town and the Drainage Act process for establishing a new access to the property.	

Errors and/or Omissions

These minutes were prepared by Mark Hernandez who should be notified of any errors and/or omissions.

"SCHEDULE C"
SCHEDULE OF ASSESSMENT
BRANCH OF THE SOUTH TALBOT & HOLDEN OUTLET DRAIN
TOWN OF TECUMSEH

PRIVATELY-OWNED - AGRICULTURAL LANDS (NON-GRANTABLE)

Roll No.	Con.	Description	Area Affected		Owner	Special Benefit	Benefit	Outlet	Total Assessment
			(Acres)	(Ha.)					
440-00800	6	S. Pt. Lot 3	34.80	14.08	Raffaele & Gina Meo	\$31,450.00	\$0.00	\$0.00	\$31,450.00
Total on Privately-Owned - Agricultural Lands.....						\$31,450.00	\$0.00	\$0.00	\$31,450.00
TOTAL ASSESSMENT						\$31,450.00	\$0.00	\$0.00	\$31,450.00
			(Acres)	(Ha.)					
Total Area:			34.80	14.08					

"SCHEDULE E"
SCHEDULE OF ASSESSMENT FOR FUTURE MAINTENANCE
BRANCH OF THE SOUTH TALBOT & HOLDEN OUTLET DRAIN (MEO BRIDGE)
TOWN OF TECUMSEH

MUNICIPAL LANDS:

Description	Area Affected (Acres) (Ha.)		Owner	Special Benefit	Benefit	Outlet	Total Assessment
Holden Road	7.00	2.83	Town of Tecumseh	\$0.00	\$0.00	\$1,877.00	\$1,877.00
Total on Municipal Lands.....				\$0.00	\$0.00	\$1,877.00	\$1,877.00

PRIVATELY-OWNED - NON-AGRICULTURAL LANDS:

Roll No.	Con.	Description	Area Affected (Acres) (Ha.)		Owner	Special Benefit	Benefit	Outlet	Total Assessment
Severed Parcel	6	Pt. Lot 3	1.35	0.55	Raffaele & Gina Meo	\$0.00	\$0.00	\$120.00	\$120.00
440-00805	6	Pt. Lot 3 RP 12R7600 Pt. 1	0.62	0.25	Vincent J. & Antonietta Gyori	\$0.00	\$0.00	\$91.00	\$91.00
440-00901	6	N. Pt. Lot 3 RP 12R3516 Pt. 1	1.00	0.40	Julie-Christie Laudenbach & Leon J. Dufour	\$0.00	\$0.00	\$106.00	\$106.00
440-00950	6	Pt. Lot 3 RP 12R24063 Pt. 1	1.25	0.51	Gino Marchisio	\$0.00	\$0.00	\$118.00	\$118.00
440-01010	6	Pt. Lot 4 RP 12R22384 Pt. 1	1.81	0.73	Jessie J. & Catherine E. Robinet	\$0.00	\$0.00	\$131.00	\$131.00
440-01001	6	Pt. Lot 4 RP 12R6119 Pt. 1	1.00	0.40	James J. & Catherine M. Sykes	\$0.00	\$0.00	\$106.00	\$106.00
440-01005	6	Pt. Lot 4 RP 12R23835 Pt. 1	1.25	0.51	Anna Weinberg	\$0.00	\$0.00	\$118.00	\$118.00
440-01100	6	W. Pt. Lot 4	0.50	0.20	Daniel G. & Karen T. Lesperance	\$0.00	\$0.00	\$80.00	\$80.00
440-01101	6	Pt. Lots 4&5 RP 12R6847 Pt. 1	1.64	0.66	Scott & Joie Reyner	\$0.00	\$0.00	\$126.00	\$126.00
440-01200	6	Pt. Lot 5 RP 12R24842Pt. 1	1.26	0.51 *	Scott & Joie Reyner	\$0.00	\$0.00	\$118.00	\$118.00
440-01400	6	N. Pt. Lot 5 RP 12R21849 Pt. 1	0.56	0.23 *	Elaine J. Healey	\$0.00	\$0.00	\$87.00	\$87.00
Total on Privately-Owned - Non-Agricultural Lands.....						\$0.00	\$0.00	\$1,201.00	\$1,201.00

PRIVATELY-OWNED - AGRICULTURAL LANDS

Roll No.	Con.	Description	Area Affected (Acres) (Ha.)		Owner	Special Benefit	Benefit	Outlet	Total Assessment
440-00800	6	S. Pt. Lot 3	34.80	14.08	Raffaele & Gina Meo	\$0.00	\$0.00	\$1,867.00	\$1,867.00
440-00910	6	Pt. Lot 3 RP 12R24159 Pt. 1	33.18	13.43	Charles A. & Helen J. Banwell	\$0.00	\$0.00	\$1,781.00	\$1,781.00
440-01000	6	Pt. Lot 4 RP 12R23835 Pt. 2	52.44	21.22	Joie Jobin & Scott Reyner	\$0.00	\$0.00	\$2,814.00	\$2,814.00
440-01220	6	Pt. W. ½ Lots 4 & 5	62.30	25.21 *	Scott & Joie Reyner	\$0.00	\$0.00	\$334.00	\$334.00
440-01300	6	S. Pt. Lot 5	23.44	9.49 *	Elaine J. Healey & Kathleen M. Tyrrell	\$0.00	\$0.00	\$126.00	\$126.00
Total on Privately-Owned - Agricultural Lands.....						\$0.00	\$0.00	\$6,922.00	\$6,922.00
TOTAL ASSESSMENT						\$0.00	\$0.00	\$10,000.00	\$10,000.00
			(Acres)	(Ha.)					
Total Area:			225.40	91.21					

* denotes lands assessed at reduced rate

"SCHEDULE F"
DRAINAGE REPORT FOR A
NEW FARM ACCESS BRIDGE ON PT. LOT 3, CONCESSION 6
BRANCH OF SOUTH TALBOT & HOLDEN OUTLET DRAIN
TOWN OF TECUMSEH

SPECIAL PROVISIONS - GENERAL

1.0 GENERAL SPECIFICATIONS

The General Specifications attached hereto is part of "Schedule F." It also forms part of this specification and is to be read with it, but where there is a difference between the requirements of the General Specifications and those of the Special Provisions which follow, the Special Provisions will take precedence.

2.0 DESCRIPTION OF WORK

The work to be carried out under this Contract includes, but is not limited to, the supply of all **labour, equipment and materials** to complete the following items:

- Supply and place a new 19.0 m long, 1400 mm diameter aluminized corrugated steel pipe (CSP) culvert with 125 mm x 25 mm corrugations and 2.8 mm thickness including coupler and hardware (see Specifications). The work is to include drain bottom cleanout in close proximity to the bridge, site cleanup and restoration within the working area.
- Supply and placement of clear stone bedding materials, minimum 150 mm thickness (approximately 20 tonnes).
- Supply and placement of compacted Granular 'B' backfill materials up to pipe springline (approximately 35 tonnes).
- Supply and placement of clean native or imported clean native backfill material from springline of pipe culvert to the underside of Granular 'A' driveway material and outside of driveway portion to construct the 0.50 m wide native buffer strips (approximately 60 m³). Note: Where there is an insufficient amount of native fill materials for backfilling the culvert, the Contractor may elect to import additional fill materials or alternatively use Granular 'B' at his/her own expense.
- Supply and install Granular 'A' (crushed limestone) compacted driveway surface, minimum 200 mm thickness (approximately 25 tonnes) providing a minimum 12.2 m (40 ft.) driveable top width..
- Supply and placement of stone rip-rap minimum 300 mm thickness c/w filter cloth underlay for sloping end walls (approximately 30 m²).
- Temporary sediment and erosion control measures.

3.0 ACCESS TO THE WORK

Access to the drain shall be from Holden Road. Through traffic must be maintained at all times along municipal roads with the required traffic control as per Section 13.0 in the General Specifications. All construction materials for the bridge are to be stored on the field side of the Branch of the South Talbot and Holden Outlet Drain. Any damage resulting from the Contractor's access to the bridge site shall be rectified to pre-existing conditions at his expense.

4.0 WORKING CORRIDOR

The working area at the bridge site shall be restricted to a radius of 20.0 m from the proposed centre of the new culvert.

Any damages to lands and/or roads from the Contractor's work within the working area for the bridge site shall be rectified to pre-existing conditions at his/her expense.

5.0 BRIDGE CONSTRUCTION

5.1 Location of New Bridge

The new bridge structure shall be installed as shown on the drawing attached hereto.

5.2 Materials for New Bridge

Materials shall be as follows:

<i>Culvert Pipe</i>	<i>New 19.0 long, 1400 diameter aluminized Type II corrugated steel pipe (CSP) wall thickness of 2.8 mm and 125 mm x 25 mm corrugations with rerolled ends. New culvert shall be joined with annular aluminized corrugated wide bolt and angle couplers (minimum of 8 corrugation overlap and 2.8 mm wall thickness) and no single pipe less than 6.0 m in length. All pipes connected with couplers shall abut to each other with no more than a 25 mm gap between pipes prior to installation of the coupler and wrapped with filter fabric.</i>
<i>Pipe Bedding Below Pipe</i>	<i>20-25 mm clear stone conforming to OPSS Division 10.</i>
<i>Backfill up to Pipe Springline</i>	<i>Granular 'B' conforming to OPSS Division 10.</i>
<i>Backfill Above Pipe Springline up to Driveway Surface Materials</i>	<i>Dry native material free of topsoil, organic matter, broken concrete, steel, wood and deleterious substances. Alternatively, Granular 'A' or 'B' conforming to OPSS Division 10.</i>
<i>Driveway Surface</i>	<i>Granular 'A' made from crushed limestone conforming to OPSS Division 10. Minimum 200 mm thickness.</i>
<i>Erosion Stone</i>	<i>All stone to be used for erosion protection shall be 125 - 250 mm clear quarried rock or OPSS.Muni 1004, minimum 300 mm thickness.</i>
<i>Buffer Strips</i>	<i>Dry native material free of topsoil, organic matter, broken concrete, steel, wood and deleterious substances.</i>
<i>Filter Fabric</i>	<i>"Non-Woven" geotextile filter fabric with a minimum strength equal to or greater than Terrafix 270R, Amoco 4546, Mirafi 140NC or approved equivalent.</i>

5.3 Culvert Installation

Suitable dykes shall be constructed in the drain so that the installation of the pipe can be accomplished in the dry. The drain bottom shall be cleaned, prepared, shaped and compacted to suit the new culvert configuration, as shown on the drawings. Granular materials shall be compacted to 100% of their maximum dry density; imported clean native materials shall be supplied, placed and compacted to 95% of their maximum dry density.

5.4 Sloping Stone End Walls

End walls shall be constructed of quarry stone rip-rap, as specified herein. Each end wall shall extend from the invert of the new culvert to the top of the proposed lane. The end walls shall be sloped 1 vertical to 1.5 horizontal with a filter fabric underlay surrounding the pipe and spanning across the entire width of the drain and wrapping around the drain banks to align with the ends of the new pipe culvert. The minimum thickness requirement of the erosion stone layer is 300 mm with no portion of the filter fabric to be exposed to sunlight.

5.5 Granular 'A' Driveway

The Contractor shall construct the driveway with a maximum 3% cross-fall grade consisting of a minimum 200 mm thickness of compacted Granular 'A' (crushed limestone) surface. The minimum top width of the driveway shall be as shown on the drawings.

5.6 Lateral Tile Drains

One corrugated plastic tile drain needs to be relocated as shown on the drawings. Should the Contractor encounter any lateral tiles within the proposed culvert limits not shown on the attached drawings, the Contractor shall re-route the outlet tile drain(s) in consultation with the Drainage Superintendent, as required, to accommodate the new culvert. **Tile drain outlets through the wall of the new culvert pipe will not be permitted.** All costs associated with re-routing lateral tile drains (if any) shall be at the Contractor's expense.

GENERAL SPECIFICATIONS

1.0 AGREEMENT AND GENERAL CONDITIONS

The part of the Specifications headed "Special Provisions" which is attached hereto forms part of this Specification and is to be read with it. Where there is any difference between the requirements of this General Specification and those of the Special Provisions, the Special Provisions shall govern.

Where the word "Drainage Superintendent" is used in this specification, it shall mean the person or persons appointed by the Council of the Municipality having jurisdiction to superintend the work.

Tenders will be received and contracts awarded only in the form of a lump sum contract for the completion of the whole work or of specified sections thereof. The Tenderer agrees to enter into a formal contract with the Municipality upon acceptance of the tender. The General Conditions of the contract and Form of Agreement shall be those of the Stipulated Price Contract CCDC2-Engineers, 1994 or the most recent revision of this document.

2.0 EXAMINATION OF SITE, PLANS AND SPECIFICATIONS

Each tenderer must visit the site and review the plans and specifications before submitting his/her tender and must satisfy himself/herself as to the extent of the work and local conditions to be met during the construction. Claims made at any time after submission of his/her tender that there was any misunderstanding of the terms and conditions of the contract relating to site conditions, will not be allowed. The Contractor will be at liberty, before bidding to examine any data in the possession of the Municipality or of the Engineer.

The quantities shown or indicated on the drawings or in the report are estimates only and are for the sole purpose of indicating to the tenderers the general magnitude of the work. The tenderer is responsible for checking the quantities for accuracy prior to submitting his/her tender.

3.0 MAINTENANCE PERIOD

The successful Tenderer shall guarantee the work for a period of one (1) year from the date of acceptance thereof from deficiencies that, in the opinion of the Engineer, were caused by faulty workmanship or materials. The successful Tenderer shall, at his/her own expense, make good and repair deficiencies and every part thereof, all to the satisfaction of the Engineer. Should the successful Tenderer for any cause, fail to do so, then the Municipality may do so and employ such other person or persons as the Engineer may deem proper to make such repairs or do such work, and the whole costs, charges and expense so incurred may be deducted from any amount due to the Tenderer or may be collected otherwise by the Municipality from the Tenderer.

4.0 GENERAL CO-ORDINATION

The Contractor shall be responsible for the coordination between the working forces of other organizations and utility companies in connection with this work. The Contractor shall have no cause of action against the Municipality or the Engineer for delays based on the allegation that the site of the work was not made available to him by the Municipality or the Engineer by reason of the acts, omissions, misfeasance or non-feasance of other organizations or utility companies engaged in other work.

5.0 RESPONSIBILITY FOR DAMAGES TO UTILITIES

The Contractor shall note that overhead and underground utilities such as hydro, gas, telephone and water are not necessarily shown on the drawings. It is the Contractor's responsibility to contact utility companies for information regarding utilities, to exercise the necessary care in construction operations and to take other precautions to safeguard the utilities from damage. All work on or adjacent to any utility, pipeline, railway, etc., is to be carried out in accordance with the requirements of the utility, pipeline, railway, or other, as the case may be, and its specifications for such work are to be followed as if they were part of this specification. The Contractor will be liable for any damage to utilities.

6.0 CONTRACTOR'S LIABILITY

The Contractor, his/her agents and all workmen or persons under his/her control including sub-contractors, shall use due care that no person or property is injured and that no rights are infringed in the prosecution of the work. The Contractor shall be solely responsible for all damages, by whomsoever claimable, in respect to any injury to persons or property of whatever description and in respect of any infringement of any right, privilege or easement whatever, occasioned in the carrying on of the work, or by any neglect on the Contractor's part.

The Contractor, shall indemnify and hold harmless the Municipality and the Engineer, their agents and employees from and against claims, demands, losses, costs, damages, actions, suits, or proceedings arising out of or attributable to the Contractor's performance of the contract.

7.0 PROPERTY BARS AND SURVEY MONUMENTS

The Contractor shall be responsible for marking and protecting all property bars and survey monuments during construction. All missing, disturbed or damaged property bars and survey monuments shall be replaced at the Contractor's expense, by an Ontario Land Surveyor.

8.0 MAINTENANCE OF FLOW

The Contractor shall, at his/her own cost and expense, permanently provide for and maintain the flow of all drains, ditches and water courses that may be encountered during the progress of the work.

9.0 ONTARIO PROVINCIAL STANDARDS

Ontario Provincial Standard Specifications (OPSS) and Ontario Provincial Standard Drawings (OPSD) shall apply and govern at all times unless otherwise amended or extended in these Specifications or on the Drawing. Access to the electronic version of the Ontario Provincial Standards is available online through the MTO website, free of charge to all users. To access the electronic standards on the Web go to <http://www.mto.gov.on.ca/english/transrd/>. Under the title Technical Manuals is a link to the Ontario Provincial Standards. Users require Adobe Acrobat to view all pdf files.

10.0 APPROVALS, PERMITS AND NOTICES

The construction of the works and all operations connected therewith are subject to the approval, inspection, by-laws and regulations of all Municipal, Provincial, Federal and other authorities having jurisdiction in respect to any matters embraced in this Contract. The Contractor shall obtain all approvals and permits and notify the affected authorities when carrying out work in the vicinity of any public utility, power, underground cables, railways, etc.

11.0 SUBLETTING

The Contractor shall keep the work under his/her personal control, and shall not assign, transfer, or sublet any portion without first obtaining the written consent of the Municipality.

12.0 TIME OF COMPLETION

The Contractor shall complete all work on or before the date fixed at the time of tendering. The Contractor will be held liable for any damages or expenses occasioned by his/her failure to complete the work on time and for any expenses of inspection, superintending, re-tendering or re-surveying, due to their neglect or failure to carry out the work in a timely manner.

13.0 TRAFFIC CONTROL

The Contractor will be required to control vehicular and pedestrian traffic along roads at all times and shall, at his/her own expense, provide for placing and maintaining such barricades, signs, flags, lights and flag persons as may be required to ensure public safety. The Contractor will be solely responsible for controlling traffic and shall appoint a representative to maintain the signs and warning lights at night, on weekends and holidays and at all other times that work is not in progress. All traffic control during construction shall be strictly in accordance with the **Occupational Health and Safety Act** and the current version of the **Ontario Traffic Manuals**. Access to the electronic version of the **Ontario Traffic Manual** is available online through the MTO website, free of charge to all users. To access the electronic standards on the Web go to <http://www.mto.gov.on.ca/english/transrd/>, click on "Library Catalogue," under the "Title," enter "Ontario Traffic Manual" as the search. Open the applicable "Manual(s)" by choosing the "Access Key," once open look for the "Attachment," click the pdf file. Users require Adobe Acrobat to view all pdf files.

Contractors are reminded of the requirements of the Occupational Health and Safety Act pertaining to Traffic Protection Plans for workers and Traffic Control Plan for Public Safety.

14.0 SITE CLEANUP AND RESTORATION

As part of the work and upon completion, the Contractor shall remove and dispose of, off-site any loose timber, logs, stumps, large stones, rubber tires, cinder blocks or other debris from the drain bottom and from the side slopes. Where the construction works cross a lawn, the Contractor shall take extreme care to avoid damaging the lawn, shrubs and trees encountered. Upon completion of the work, the Contractor shall completely restore the area by the placement and fine grading of topsoil and seeding or sodding the area as specified by the Engineer or Drainage Superintendent.

15.0 UTILITY RELOCATION WORKS

In accordance with Section 26 of the Drainage Act, if utilities are encountered during the installation of the drainage works that conflict with the placement of the new culvert, the operating utility company shall relocate the utility at their own costs. The Contractor however will be responsible to co-ordinate these required relocations (if any) and their co-ordination work shall be considered incidental to the drainage works.

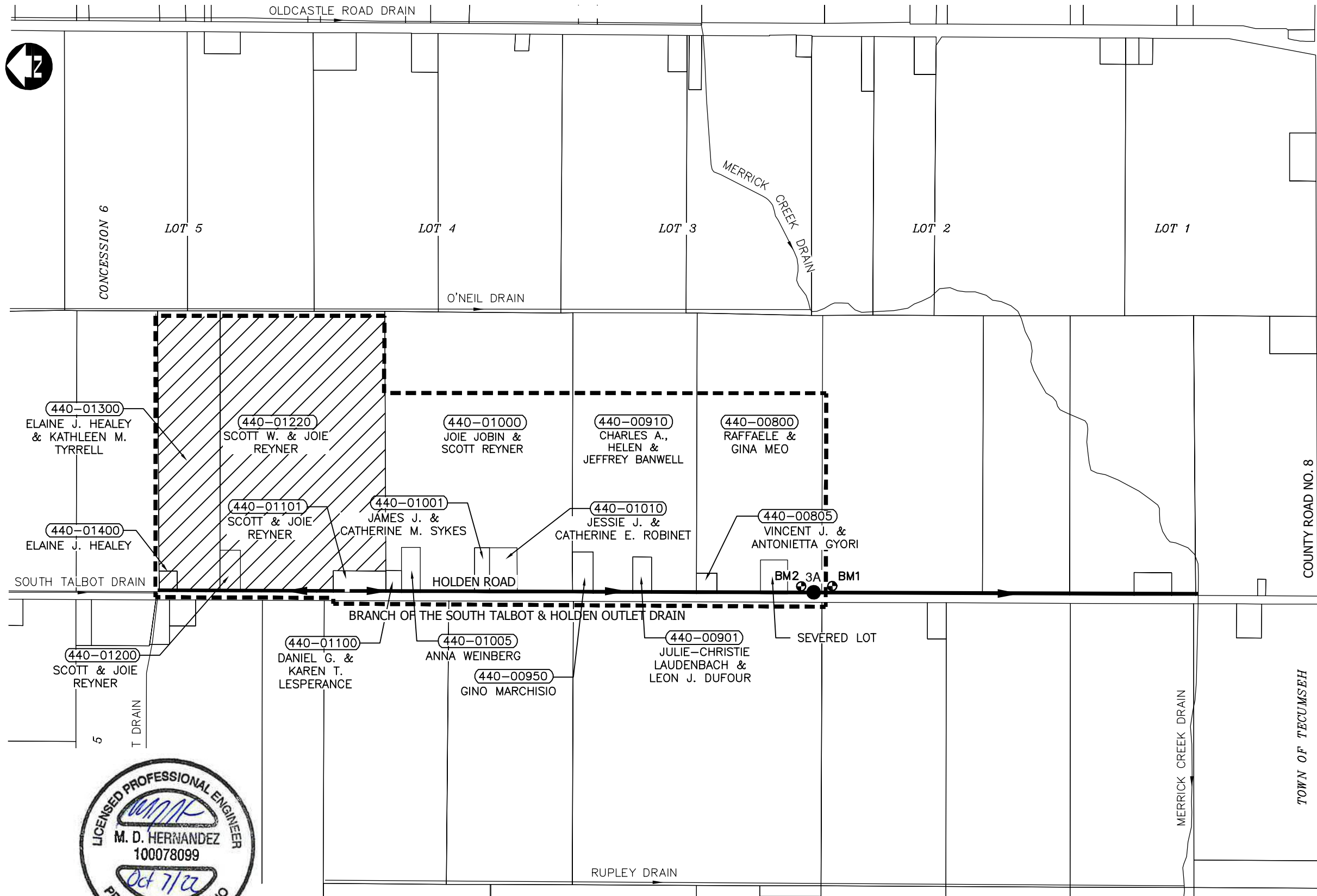
16.0 FINAL INSPECTION

All work shall be carried out to the satisfaction of the Drainage Superintendent for the Municipality, in compliance with the specifications, drawings and the Drainage Act. Upon completion of the project, the work will be inspected by the Engineer and the Drainage Superintendent. Any deficiencies noted during the final inspection shall be immediately rectified by the Contractor. Final inspection will be made by the Engineer within 20 days after the Drainage Superintendent has received notice in writing from the Contractor that the work is completed, or as soon thereafter as weather conditions permit.

17.0 FISHERIES CONCERNS

Standard practices to be followed to minimize disruption to fish habitat include embedment of the culvert a minimum 10% below grade, constructing the work 'in the dry' and cutting only trees necessary to do the work (no clear-cutting). No in-water work is to occur during the timing window unless otherwise approved by the appropriate authorities.

Oct 06, 2022 -- 11:58am C:\pwworking\directory\projects\2022\dillon_33\wb\dms40746\224605-DRN-CON.dwg




BENCHMARKS
BM1
TOP OF SIB ON EAST TOP OF BANK
APPROX. 12 m SOUTH OF C OF NEW
BRIDGE.
ELEVATION=184.95m
BM2
TOP OF SIB ON EAST TOP OF BANK
APPROX. 38 m NORTH OF C OF NEW
BRIDGE.
ELEVATION=185.02m

LEGEND
--- BRANCH OF THE SOUTH TALBOT
& HOLDEN OUTLET DRAIN
DRAINAGE AREA
➔ BRANCH OF THE SOUTH TALBOT
& HOLDEN OUTLET DRAIN
➔ OTHER DRAINS
● NEW BRIDGE
BM ● LOCAL BENCHMARK
▨ LAND ASSESSED AT
REDUCED RATE



WATERSHED PLAN
SCALE=1:10,000

Conditions of Use Verify elevations and/or dimensions on drawing prior to use. Report any discrepancies to Dillon Consulting Limited. Do not scale dimensions from drawing. Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.					DESIGN MDH	REVIEWED BY CDP	 DILLON CONSULTING	Drainage Report for the BRANCH OF THE SOUTH TALBOT & HOLDEN OUTLET DRAIN (MEO BRIDGE) Town of Tecumseh	
					DRAWN WLB	CHECKED BY TRO			
					DATE October 7, 2022			PROJECT NO. 22-4605	SHEET TITLE <u>WATERSHED PLAN</u>
	2	FINAL REPORT SUBMISSION	OCT. 7/22	MDH	SCALE AS SHOWN			DRAWING SCALES BASED ON A 11" X 17" SHEET	PAGE NO. 1 of 2
	1	CLIENT REVIEW	AUG. 26/22	MDH					
	No.	ISSUED FOR 52	DATE	BY					

Oct 06, 2022 - 11:57am C:\pwworking\directory\projects\2022\dillon_33\wb\dms40746\224605-DRN-CON.dwg

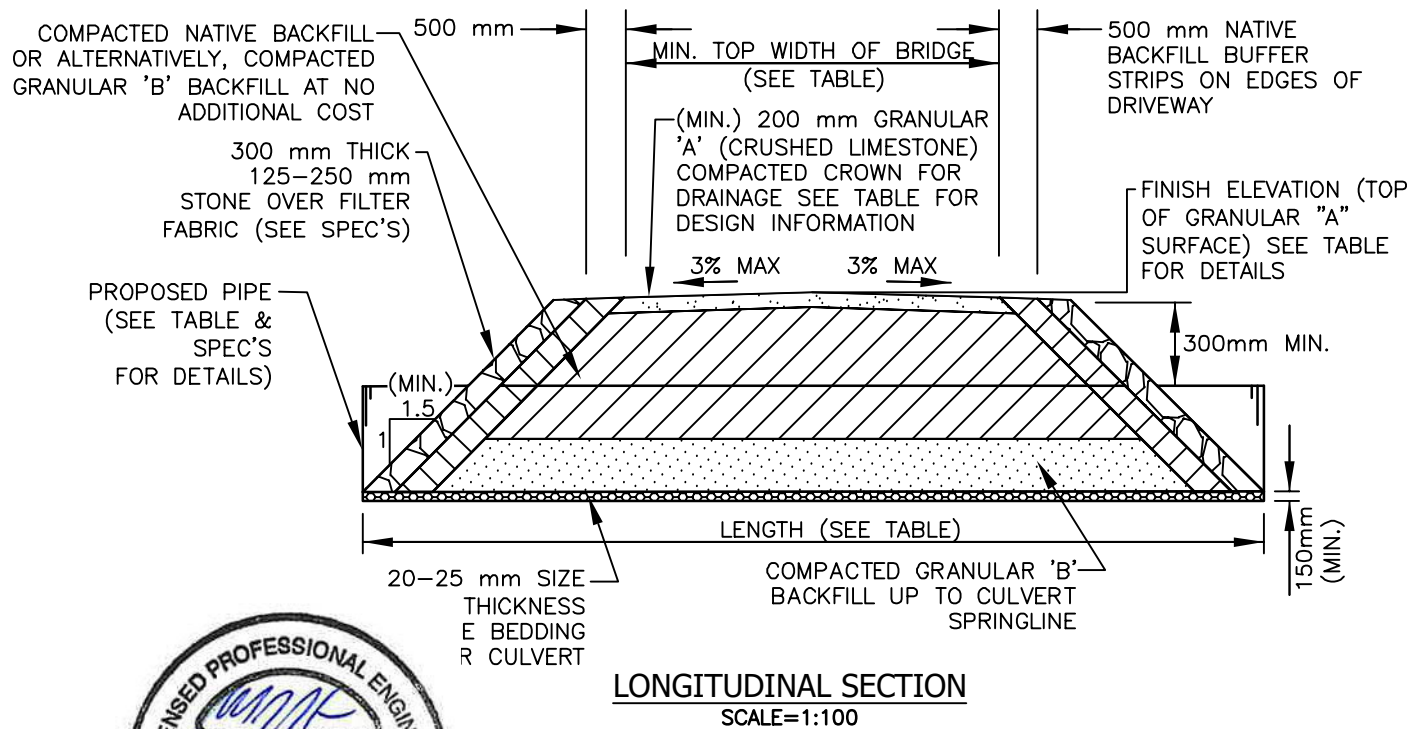
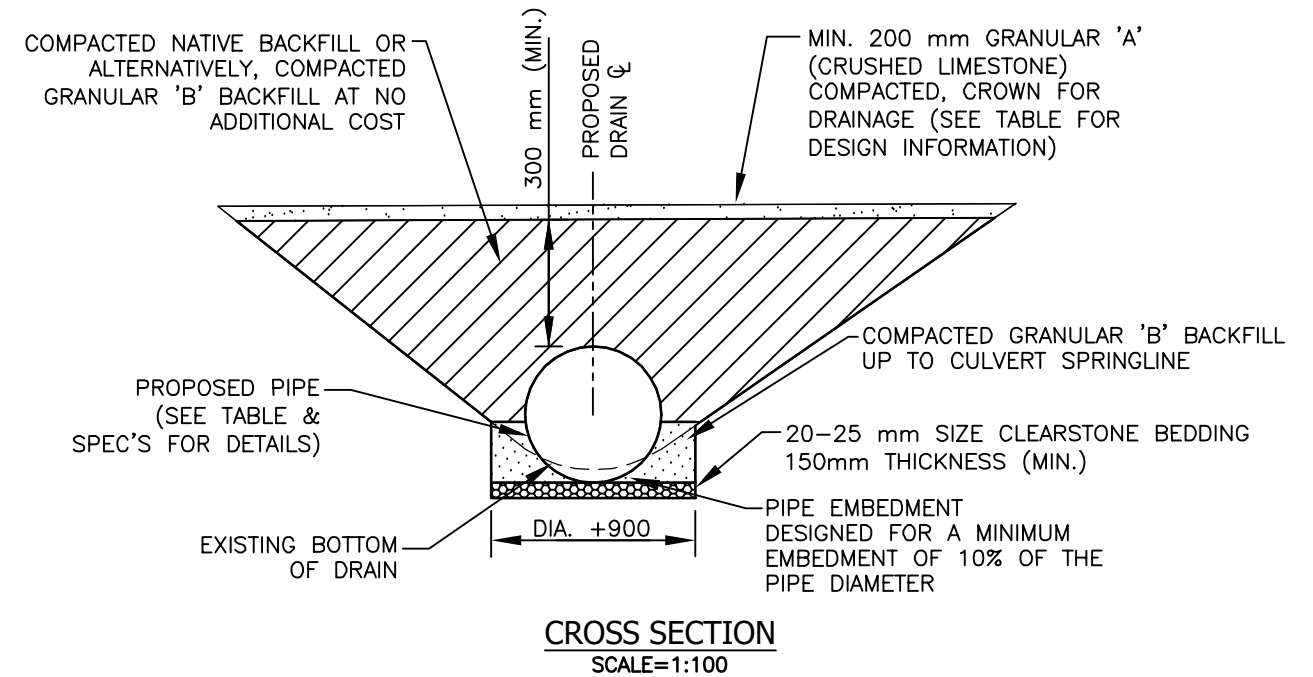
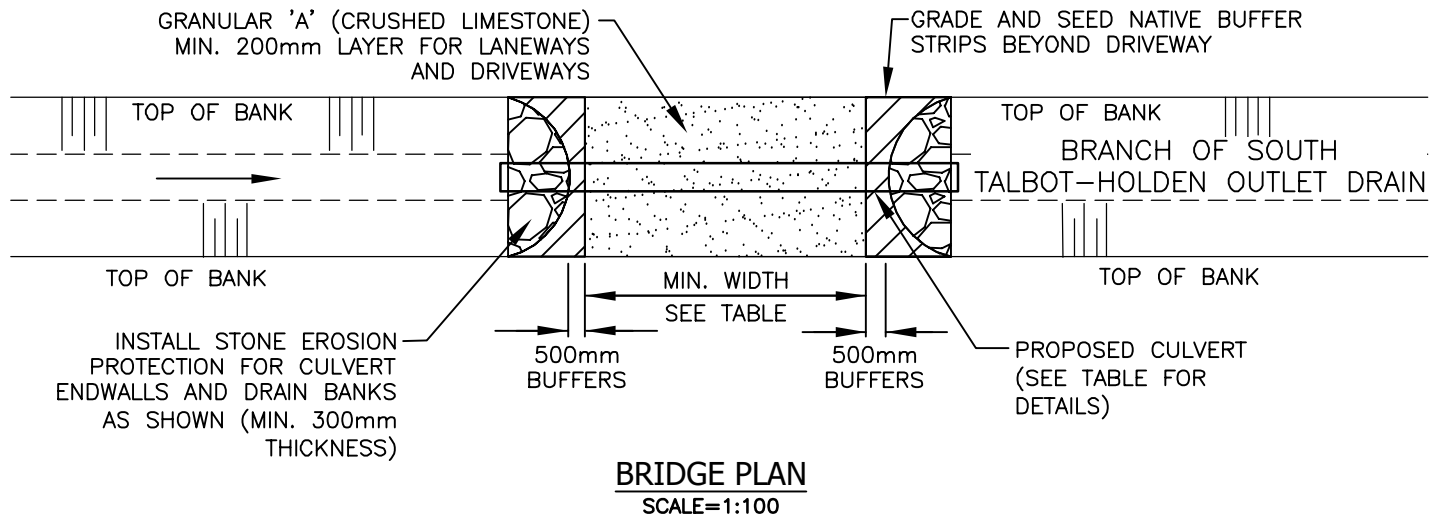


TABLE 1 - ACCESS BRIDGE DESIGN INFORMATION	
DESCRIPTION	BRIDGE No. 3A
PIPE INVERT ELEV. U/S SIDE(m)	183.40
PIPE INVERT ELEV. D/S SIDE(m)	183.38
TOP OF ϕ DRIVEWAY SURFACE ELEV. (m)	185.10
DRAIN BOTTOM (m) (DESIGN) (AT CENTRELINE OF CULVERT)	183.66
MIN. TOP WIDTH OF DRIVEWAY (m)	12.2
MIN. CULVERT GRADE (%)	0.10
CULVERT TYPE	C.S.P.
CULVERT MATERIAL	ALUM.
CULVERT LENGTH (m)	19.0
CULVERT THICKNESS (mm)	2.8
CULVERT CORRUGATIONS (mm)	125x25
PIPE SIZE (mm)	1400
CULVERT ENDWALL TYPE	SLOPING



Conditions of Use

Verify elevations and/or dimensions on drawing prior to use. Report any discrepancies to Dillon Consulting Limited.

Do not scale dimensions from drawing.

Do not modify drawing, re-use it, or use it for purposes other than those intended at the time of its preparation without prior written permission from Dillon Consulting Limited.

				DESIGN	REVIEWED BY
				MDH	CDP
				DRAWN	CHECKED BY
				WLB	TRO
				DATE	
2	FINAL REPORT SUBMISSION	OCT. 7/22	MDH	October 7, 2022	
1	CLIENT REVIEW	AUG. 26/22	MDH		
No.	ISSUED FOR	53	DATE	BY	AS SHOWN

DESIGN	REVIEWED BY
MDH	CDP
DRAWN	CHECKED BY
WLB	TRO
DATE	
October 7, 2022	
SCALE	
AS SHOWN	

PROJECT NO.	22-4605
DRAWING SCALES BASED ON A 11" X 17" SHEET	

'SCHEDULE G'	
Drainage Report for the BRANCH OF THE SOUTH TALBOT & HOLDEN OUTLET DRAIN (MEO BRIDGE) Town of Tecumseh	
SHEET TITLE	BRIDGE DETAILS
PAGE NO.	2 of 2