



**TOWN OF AMHERSTBURG
DRAINAGE BOARD
Tuesday, July 5, 2022
6:00 PM**

MINUTES

PRESENT

Bob Bezaire, Chair
Allan Major, Vice-Chair
Anthony Campigotto
Bob Pillon
Brad Laramie
Shane McVitty, Drainage Superintendent &
Engineering Coordinator
Nicole Humber, Recording Secretary
Kevin Fox, Policy and Committee Coordinator

ABSENT

CALL TO ORDER

The Vice-Chair called the meeting to order at 6:00 p.m.

DISCLOSURE OF PECUNIARY INTEREST & GENERAL NATURE THEREOF

4. The Chair read the following land acknowledgement:

“We will begin by acknowledging that the land on which we gather is the traditional territory of the Three Fires Confederacy of First Nations (comprising the Ojibway, the Odawa, and the Potawatomie Peoples), and of the Huron- Wendat and Wyandot Peoples. We recognize the land as an expression of gratitude to those whose traditional territory we reside on, and a way of honouring the Indigenous people who have been living and thriving on the land since time immemorial. We value the significant historical and contemporary contributions of local and regional First Nations and all of the Original Peoples of Turtle Island.”

5. **MINUTES OF PREVIOUS MEETING**

Anthony Campigotto moved, Bob Pillon seconded;

That:

The minutes of the previous meeting BE ADOPTED:

1. Drainage Board Meeting Minutes – June 7, 2022

Motion Carried

6. **OPEN COURT OF REVISION**

The Chair opened the Court at 6:01 p.m.

6.1 **Appeals – Jeths Drain Improvements**

Mike Gerrits, P.Eng from M.Gerrits Consulting Ltd. addressed the Board regarding his report for the Jeths Drain Improvements. Mr. Gerrits offered the following, with emphasis on the assessment rationale used in his report:

- The rip rap at Station 0+117 has been assessed with 100% of the costs as an outlet assessment to upstream lands based on equivalent hectares. The rip rap is required to minimize the damage the water generated

upstream has on the drain and as such is assessed to all upstream lands based on equivalent area.

- The open channel between Station 0+117 and Station 0+965 has been assessed with 50% of the cost applied as a benefit assessment to the adjacent landowners, and the remainder of the cost assessed as an outlet assessment to upstream lands and roads based on equivalent hectares.
- Private tile outlet protection has been assessed with 100% of the cost applied as a benefit assessment to the lands which the outlet is located on (Station 0+630, 0+960 and 0+963).
- The removal of private culverts which were not installed under a report has been assessed with 100% of the cost applied as a special benefit assessment to the lands on which the culvert is located.
- Culverts – The cost of a standard 10m (or less) access culvert with a 6m top width and rip rap end protection has been assessed with 50% of the costs applied as a benefit assessment to the adjacent landowner, and the remainder assessed as an outlet assessment to upstream lands, based on equivalent hectares.
- Culvert 2 – The extra length of culvert beyond the standard length specified in this report is 16m and shall be assessed 100% of the cost of the extra length of culvert as a benefit assessment to the adjacent landowner. Culvert 2 has been assessed with 78% of the costs as a benefit assessment to the adjacent landowner, and the remainder assessed as an outlet assessment to upstream lands, based on equivalent hectares.
- The costs to engineer the future access culverts to replace the existing bridges has been assessed with 50% of the engineering cost of a standard length culvert, applied as a benefit assessment to the landowner, and the remainder assessed as an outlet assessment on upstream lands, based on equivalent hectares.
- The costs to engineer the enclosures has been assessed with 50% of the engineering cost of a tile installation and structures, including any additional costs due to construction in areas where the drain abuts building structures, applied as a special benefit assessment to the landowner, and the remainder assessed as an outlet assessment to upstream lands based on equivalent hectares.

- The Jeths Branch Drain collects water from the land owned by 1109152 Ont. Ltd. The cost includes allowances paid to A. Thompson (Landowner ID 26) for land taken. The Jeths Branch Drain has been assessed with 100% of the costs, including allowances, assessed to the petitioning landowner, 1109152 Ont. Ltd.
- The Schedule of Maintenance and report specifications update has been assessed as an outlet assessment to all lands and roads within the watershed, based on equivalent hectares.

Board Chair Bob Bezaire invited Ashley Thompson to address the Board regarding her appeal.

Adam Thompson advised he would be speaking on behalf of Ashley Thompson.

- **Adam Thompson - 533 Front Road N**

Mr. Thompson addressed the Board regarding his appeal and stated the following:

Due to the lack of maintenance performed on the Jeths Drain over the years, the Town should be assessed for works proposed under this project.

Mr. Thompson quoted Sections, 78, 79, 74 of the Drainage Act. Mr. Thompson highlighted wording under these sections that he believed obligated the Municipality to perform regular maintenance, repairs and improvements to municipal drains. Mr. Thompson also noted that he could not find anywhere in the Drainage Act that says the landowner is responsible for maintenance on the drain. Mr. Thompson explained that in the 1993 report on the Jeths Drain prepared by D. Joudrey, trees and heavy brush on the banks was noted. Mr. Thompson questioned why maintenance was not completed on the drain at that time.

Mr. McVitty confirmed that landowners are not responsible for maintaining the drain. Mr. McVitty stated that he could not speak to what happened in 1993 regarding the maintenance or works performed under the report by D. Joudrey.

Mr. Thompson emphasized that the drain has not been maintained since 1960, and felt that this was too long of a time to have gone by without maintenance. Mr. Thompson referenced Section 18 (2) of the Drainage Act

as further evidence of the Town's responsibilities in this regard. Mr. Thompson stated that due to the neglect and lack of maintenance, other landowners have used the drain for free over the years. Mr. Thompson questioned if the Town completes inspections on the drains.

Mr. McVitty explained that drain maintenance is initiated through landowner requests. Drain repairs and improvements, under Section 78 of the Act, are also driven by landowner requests. He added that drains are inspected by the Town, but will not be maintained unless a request is received by a landowner. Other circumstances, such as possible negative impacts to Town infrastructure, may compel drain maintenance without landowner request. Mr. McVitty stated that the Town has over 200 municipal drains which cannot be maintained at the rate that Mr. Thompson has suggested.

Board Chair Bob Bezaire advised that municipal drain maintenance is landowner driven, and if there are no complaints from landowners then there are other issues to be taken care of. Mr. Bezaire also stated that any time that the Municipality has to do maintenance or improvements on a drain, the costs are still assessed to the landowners.

Mr. Gerrits stated that landowners have a right to request maintenance on a drain, and if a Municipality does not do anything in response, then there is a problem. Mr. Gerrits further stated that if there was no request for maintenance, then there would not be any new work completed on the drain.

Mr. Thompson added that the original request was for the Branch Drain, and questioned why improvements to the entire drain was now being recommended.

Mr. McVitty stated that the original request was to provide drainage for a proposed residential development. He added that under the Drainage Act, a landowner has a right to be provided a sufficient outlet for his lands. Mr. McVitty stated that due to the nature of the project, and through review of the condition of the drain, it was sensible to review the condition of the entire drain. He also cited access restrictions to the drain as further justification for reviewing the entire drain.

Mr. Gerrits stated that under the Drainage Act, the Municipality is obligated to provide sufficient outlet to those lands.

A discussion occurred on water rates of flow, with Mr. Thompson questioning how SWM controls from the proposed development will necessitate drain maintenance. Mr. McVitty provided an overview of the

SWM principals, indicating that although the rate of flow is attenuated, the volume of flow increases. Mr. Thompson felt that with SWM controls in place, the drain should not require any maintenance.

Board Chair Bob Bezaire explained that the Board does not have the power to change his assessment. Mr. Bezaire indicated that if Mr. Thompson was still unhappy with his assessment, he could appeal to the Tribunal.

Board Chair Bob Bezaire asked those in attendance if there were any other residents that wished to submit a written or verbal appeal to the Court of Revision.

John Hindi, from 176 Texas Road, indicated that he wished to verbally appeal.

A motion was made to hear additional verbal appeals:

Bob Pillon moved, Anthony Campigotto seconded;

THAT:

- 1. The appeals submitted written or verbally to the Court of Revision for the Jeths Drain Improvements BE RECEIVED**

Motion Carried

- John Hindi – 176 Texas Rd**

Mr. Hindi indicated that he does not require a culvert on his property as it is a natural area. He added that a footbridge would be sufficient to provide access to the back of his lot in order to maintain the lawn.

Mr. Gerrits explained that in order to remove the culvert from the project, the report would have to be sent back to the engineer for reconsideration. Mr. Gerrits further explained that he does not like footbridges as they can cause issues with the drain such as obstructions. Mr. Gerrits stated that under his report, the costs for Mr. Hindi's culvert has been assessed on a 50/50 basis. He added that when it comes to footbridges, landowners are responsible for their entire installation and removal costs.

Mr. Hindi indicated he had no problem with what Mr. Gerrits had stated, and apologized to the Board for not submitting a written appeal earlier.

Mr. Hindi stated that there were reports completed in 1934, 1944, 1958, 1983, and 1993, and each of these reports provided maintenance schedules. Mr. Hindi further stated that in 2013, and 2019 there were charges for maintenance work on tax bills and questioned the whereabouts of the monies that was collected at that time. Mr. Hindi questioned why the money that was collected could not be used to remove trees and perform other necessary works of maintenance.

Mr. Gerrits advised that drainage reports provide maintenance provisions and instructions by which the costs of future works of maintenance are to be assessed.

Mr. McVitty explained that the charges from 2013 and 2019 were related to previous maintenance projects completed at the outlet on the Jeths Drain. He noted that in 2013, a portion of the outlet pipe had collapsed and required replacement, and in 2019 the river bank required armour rock installation to address erosion caused by high water levels.

Mr. McVitty further explained that these works were assessed back to the landowners upstream. Mr. McVitty clarified that the monies that were collected on the tax bills for Jeths Drain improvements were not collected for the purpose of paying for future maintenance work. He explained that these were charges stemming from works completed.

Mr. Hindi asked about project timelines, meetings, and the passing of the bylaw.

Mr. McVitty stated that there are meetings mandated by the Drainage Act including the On-site meeting, the Consideration meeting, and a Court of Revision meeting, all of which have taken place (noting that the Court of Revision was presently underway). Mr. McVitty further stated that the Town of Amherstburg uses a Drainage Board for the Consideration meeting and the Court of Revision, and the Board makes recommendations to Council regarding the direction of the project for final approval. Mr. McVitty advised that the bylaw for the Jeths Drain has only been adopted provisionally, and will only go to Council to be finally passed once all appeal periods have lapsed and appeals have been dealt with.

Board Chair Bob Bezaire asked if anyone in the audience would like to address the Board.

There were none.

Board Chair Bob Bezaire asked if anyone participating online would like to address the Board.

There were none.

Board Chair Bob Bezaire asked if any of the Board members would like to speak.

The Board heard from:

Board Member Brad Laramie asked if the developer could be provided an outlet and reassess the landowners by only completing the work that is necessary for the development.

Mr. Gerrits stated that for this to take place, the engineer's report would have to be referred back for reconsideration. Mr. Gerrits cautioned that by not completing the recommended drainage work now, there could be access issues in the future. He noted that future works of maintenance would require landowners along Texas Road to provide access to heavy construction machinery directly through their properties, rather than along the maintenance corridor established under his report and available prior to completion of the proposed residential development. Mr. Gerrits further cautioned that any another landowner could put in a request for maintenance at any time, which would compel the Town to pursue the request and complete drain maintenance. Mr. Gerrits explained that his report is set up to allow for future maintenance, including technical details for culvert replacements, drain cleaning, and assessments. Mr. Gerrits advised that if he is instructed to reconsider his report, he would make the necessary changes to remove Mr. Hindi's culvert from the report, and would put in a clause for future culvert specifications on the Hindi property so that a new report would not be needed should a culvert be wanted in the future on the property.

Mr. Laramie stated that at the Consideration meeting, the Board asked the upstream landowners if there were water or drainage problems, and the landowners had advised there were not. Mr. Laramie suggested that perhaps only the outlet for Mr. Bolger should be entertained at this time.

Board Member Anthony Campigotto asked if any future development would impact the drain and the landowners.

Mr. Gerrits confirmed that if a landowner asked for an outlet, or if future development was proposed that affected the drain, landowners could be impacted.

Board Member Bob Pillon explained that he understands where the landowners are coming from. He added that it was only the developer that had requested an outlet.

A discussion between Administration ensued regarding the procedural issues surrounding a motion to reconsider.

Board Chair Bob Bezaire indicated that a motion would be needed to reassess the report.

Bob Pillon moved, Brad Laramie seconded;

THAT:

- 1. The recommendation from the Drainage Board to Council to provisionally adopt the engineer's report, prepared by M. Gerrits Consulting Inc., dated May 23, 2022 for the Jeths Drain Improvements BE RECONSIDERED;**

Motion Carried

Board Member Bob Pillon expressed that he had the same concern as Mr. Laramie. He added that he would rather the engineering report provide adequate drainage to the development, in addition to all necessary provisions for any future works of drain maintenance.

- **Norbert Bolger – Developer**

Mr. Bolger advised he has no problem with the cleaning of the drain up to his portion. Mr. Bolger indicated that he has been working over the last 3 ½ years to develop this property and had concerns about further delays if the report was referred back to the engineer. Mr. Bolger asked if referring the report back would change the assessment to the Thompsons.

Mr. Gerrits advised that the assessments downstream would be similar, but the upstream landowners assessments would be reduced. Mr. Gerrits explained that he could not predict the timeline of the process, though his modifications to the report would be quick. He indicated that the Town will be required to hold additional meetings per the Drainage Act.

Mr. McVitty explained in detail the projected timing of the meetings and appeal periods and suggested the project could possibly be tendered sometime in November if there were no appeals.

There was a discussion on the timelines and the process of meetings.

Mr. McVitty reiterated that according to Section 57 of the Drainage Act, the Board can refer the report back to the engineer at any time before the final passing of the bylaw. He added that Mr. Gerrits' report could be set up to address future works of maintenance on the drain. Mr. McVitty cautioned however that there is a possibility that a new engineer's report could be required if improvements are requested that are not addressed under Mr. Gerrits' report. He also added that maintenance work, including replacement of culverts, could also take place should a landowner request maintenance at any time in the future.

Mr. Jubenville, the engineer for Mr. Bolger, spoke to the estimated timelines of the drainage report as it related to Draft Plan approvals being submitted to the Town and the County of Essex.

A landowner in the audience asked why the timelines were so long and questioned whether an emergency meeting could be scheduled to speed up the process.

Mr. McVitty stated that the Drainage Act dictates the timelines. He added that due to staffing issues in August and notice deadlines, a meeting of the Drainage Board will not be held in August.

Board Chair Bob Bezaire recapped for the landowners that the report would be going back to the engineer to change the scope of work and to provide new assessments. He added that Mr. Gerrits would also be instructed to make the necessary provisions for future maintenance works. Mr. Bezaire advised the landowners that a copy of the new report would be circulated to them along with a notice of the next meeting to reconsider the report.

A landowner asked if there were costs that had been incurred on the project up to this point, and whether upstream lands would still be assessed.

Board Chair Bob Bezaire indicated that engineering costs have been accrued to date, and these costs form part of the project and will be assessed. He added that although the scope of work would be reduced, assessments may also still result from Mr. Gerrits' reconsideration for downstream work.

Brad Laramie moved, Anthony Campigotto seconded;

THAT:

- 1. The engineer's report, prepared by M. Gerrits Consulting Inc. on May 23, 2022 for the Jeths Drain Improvements BE REFERRED back to the engineer and reconsidered to reduce the scope of the work in order to provide the developer with a new outlet and to include the necessary provisions for future maintenance on the drain.**

Motion Carried

7. CLOSE COURT OF REVISION

Anthony Campigotto moved, Bob Pillon seconded;

That:

- 1. The Court of Revision be ADJOURNED.**

Motion Carried

The Court of Revision was closed at 7:06 p.m.

8. CONSIDERATION OF FINAL DRAINAGE REPORT

- 8.1 New Access Bridge over the Dufour Drain for MGV Development (McGregor) Inc. & New Maintenance Schedule of Assessment (Dufour Drain and Branch A) based on the Drainage Report by Dillon Consulting Ltd.**

Oliver Moir, P. Eng from Dillon Consulting Ltd. provided an overview of the Dufour Drain report written by Tim Oliver, P. Eng. Mr. Moir advised that the Town had received a request for improvement under Section 78 of the Drainage Act. He explained that a new bridge is required for parcel 66 in order to provide access to a proposed residential development. Mr. Moir explained that due to the development, an updated maintenance schedule is also required. Mr. Moir explained that the storm water management controls have been designed as part of the development such that pre-development release rates into the Dufour Drain are maintained. Mr. Moir stated that the maintenance corridor for parcel 66 has to be relocated to the south side of the

drain and into the Middle Sideroad (County Road 10) right-of-way. He indicated that this will require that spoils from future drain cleaning be hauled away. Mr. Moir advised that the additional costs to do so would be assessed to Block A according to the new drainage report. Mr. Moir advised that the estimated costs for this project is \$87,600.00, and all costs for this report and project will be paid for by the developer and owner of parcel 66.

Board Chair Bob Bezaire asked if there was anyone in the audience that would like to speak.

The Board heard from:

- **Michelle Poberezny – 8515 8th Concession N**

Ms. Poberezny asked for confirmation that the developer would be paying the costs and not the landowners. She requested clarification that the only costs to the landowners would be for future maintenance when such maintenance takes place. Ms. Poberezny asked if maintenance was going to be completed on the drain.

Mr. Moir confirmed there will be no cost to the landowners at this time. The costs of the new access and all related engineering costs have been assessed to the developer. He added that the new report provides updated assessment schedules which can be used to assess landowners for their share of the costs of future maintenance. Mr. Moir stated that if the Town received a maintenance request, Mr. McVitty would use the schedules in the report to assess the costs. Mr. Moir advised that the previous drainage report by Mr. Oliver was used as a starting point for this report. He added that the assessment proportion to individual landowners was now lower than shown in the previous report due to the addition of the development being assessed a higher proportion.

- **Mary Arts**

Mrs. Arts asked if the development was not occurring, would there be a need to update the Dufour Drain. Mrs. Arts advised she has concerns with the development and potential water issues because of the development abutting her land. Mrs. Arts indicated that since maintenance last took place on the Dufour Drain, there is now water issues on her farm and she feels it is due to machinery possibly damaging her lands.

Mr. McVitty advised that the new development was the trigger for the new report, and the old maintenance schedule would no longer be valid. Mr. McVitty stated that the report was needed for the development due to the

its requirement for a new access bridge, an updated maintenance schedule, and minor changes to how the maintenance will be completed in the future near the development. Mr. McVitty clarified that the purpose of this meeting was to deal with the engineering report for the Dufour Drain, and not the development itself. Mr. McVitty informed Mrs. Arts that she would have had an opportunity at other planning related meetings held by the Town to address her concerns with the development.

Mrs. Arts expressed her concerns with the proposed works, and indicated that the last maintenance project cost the landowners money. She added that there were weeds in the ditches within two years and was promised that the drain would be sprayed every two years following the last project.

Mr. McVitty stated that doing work on Municipal Drains costs money and if Mrs. Arts would like additional maintenance done on the drain she would have to put in the request. He indicated that the costs of any maintenance work on the drain would be assessed according to the prevalent schedule of assessment.

Board Chair Bob Bezaire asked if there were any questions from the Board.

There were none.

Bob Pillon moved, Anthony Campigotto seconded;

That:

- 1. The engineer's report, prepared by Dillon Consulting Ltd. on June 15, 2022 for the New Access Bridge over the Dufour Drain for MGV Development (McGregor) Inc. & New Maintenance Schedule of Assessment (Dufour Drain and Branch A) BE RECEIVED;**
- 2. The engineer's report for the New Access Bridge over the Dufour Drain for MGV Development (McGregor) Inc. & New Maintenance Schedule of Assessment (Dufour Drain and Branch A) BE CONSIDERED;**
- 3. The PROVISIONAL ADOPTION of By-law 2022-076 of the engineer's report for the New Access Bridge over the Dufour Drain for MGV Development (McGregor) Inc. & New Maintenance Schedule of Assessment (Dufour Drain and Branch A) BE BROUGHT to the next Regular Council meeting for Council's consideration; and,**

4. Administration BE DIRECTED to schedule the Court of Revision for the New Access Bridge over the Dufour Drain for MGV Development (McGregor) Inc. & New Maintenance Schedule of Assessment (Dufour Drain and Branch A).

8. NEXT MEETING DATE

Tuesday, September 6, 2022 @ 6:00 p.m.

9. ADJOURNMENT

Allan Major moved, Bob Pillon seconded;

That:

The Board rise and adjourn at 7:25 p.m.

Motion Carried

Chair – Bob Bezaire

Staff Liaison – Shane McVitty

**DRAINAGE REPORT
FOR**

**NEW ACCESS BRIDGE OVER THE
DUFOUR DRAIN FOR MG
V
DEVELOPMENT (MCGREGOR) INC. &
NEW MAINTENANCE SCHEDULE OF
ASSESSMENT (DUFOUR DRAIN &
BRANCH A)**

TOWN OF AMHERSTBURG



15 JUNE 2022
TIM R. OLIVER, P.ENG.
FILE No. 21-2982

File No. 21-2982

Mayor and Council
The Corporation of the Town of Amherstburg
271 Sandwich St. South
Amherstburg, Ontario
N9V 2A5

**Drainage Report for
NEW ACCESS BRIDGE OVER THE DUFOUR DRAIN
MGV DEVELOPMENT (MCGREGOR) INC. &
NEW MAINTENANCE SCHEDULE OF ASSESSMENT
(DUFOUR DRAIN & BRANCH A)
Town of Amherstburg**

Drainage Board:

Instructions

The Municipality received a request from the landowner of properties Parcel No. 66 & 67 for a new access culvert (denoted as Bridge No. 6 herein) over the Dufour Drain to service a proposed residential subdivision. This request also includes new schedules of assessment for future Dufour Drain maintenance and an updated working corridor replacing same from the former 2016 report. The request for the drainage report was filed at the Municipal Office on the 23rd day of April 2021. Council accepted the request under Section 78 of the Drainage Act and on the 1st day of June 2021 appointed Dillon Consulting Limited to prepare a report.

Watershed Description

Dufour Drain

The watershed of the Dufour Drain covers a portion of Lots 6, 7 & 8, Concession 8, as well as, a small portion of Lot 7, Concession 7 within the Town of Amherstburg. The Dufour Drain serves as the outlet for agricultural and residential lands. From the Ontario Soil Survey, the dominant surficial soil within the watershed is Brookston Clay type which requires effective surface and sub-surface drainage to be productive for agriculture. The watershed area is approximately 82.30 hectares (203.42 acres) where the natural topography is flat and the design gradient of the existing drainage works is minimal. Dufour Drain was designed to convey flows from runoff generated by a 1:5 year rainfall event.

Branch A

The watershed of Branch A is within the Dufour Drain watershed, and is positioned within Lot 7, Concession 8, running adjacent to the Essex Region Conservation Foundation (ERCF) pedestrian trail and finds outlet into the upstream end of the Dufour Drain. Branch A currently serves the existing residential lands and the Cypher Systems Group Greenway trail, both of which lie to the south of Branch A, as well as some agricultural headlands to the north side of the drain. The proposed residential subdivision on the north side of Branch A (26.01 Ha) that was formerly part of the Dufour Drain



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watershed is designed to outlet controlled drainage flows into the downstream portion of Branch A. These flows are to be a controlled release from a storm water detention pond designed for the new subdivision such that there will be no increased flows downstream within the Dufour Drain compared to existing conditions. The total area served by Branch A is approximately 32.90 hectares (81.33 acres). Branch A was designed to convey flows from the runoff generated by a 1:5 year rainfall event.

Drain History

The recent history of Engineers' reports for the Dufour Drain follows:

- **7 October 2016 by Tim R. Oliver, P. Eng.:** The recommended work included the establishment of Branch A and Branch B drains. The Dufour Drain and Branches were recommended to be improved such that the drains would have the hydraulic capacity to convey the flows during the 5 year return period event. This work included the replacement and improvement of one access bridge (denoted herein as Bridge No. 3) and one lawn enclosure on the main drain (denoted herein as Bridge No.5), the removal of culvert within Branch A, and the partial replacement of the Branch B County Road No. 10 road crossing. The report also recommended catch basins be installed along the ECRF trail, brushing and cleaning of the entire Dufour Drain and Branch A, as well as the establishment of a 1m wide grass buffer strip along the easterly and northerly edge of the drain where it abuts agricultural lands.
- **28 March 2013 by Tim R. Oliver, P. Eng.:** The recommended work included the construction of a new 1600 mm diameter CSP access culvert for a secondary access to the farm parcel identified as Parcel No. 64 (denoted herein as Bridge No. 2).
- **23 April 2010 by Tom H. Marentette, P. Eng.:** The recommended work included the construction of a new 1400 mm diameter CSP access culvert for the residential lot identified as Parcel No. 60 (denoted herein as Bridge No. 4).
- **26 June 2002 by Bruce D. Crozier, P. Eng.:** The recommended work included the construction of a new 1600 mm diameter CSP access culvert for the farm parcel identified as Parcel No. 64 (denoted herein as Bridge No. 1).
- **28 October 1991 by R. Meo, P. Eng.:** The recommended work included the construction of the Dufour Drain Extension outletting to the eastern limit of the Dufour Drain on the north side of the abandoned Canadian National Railway Tracks (denoted herein as Branch A).
- **31 May 1971 by M. Armstrong, P.Eng.:** The recommended work included the repair and improvement of the Dufour Drain, complete with brushing and a drain clean out.
- **25 August 1961 by M. Armstrong, P. Eng.:** The recommended work included improvements to the upper portion of the Dufour Drain involving a re-alignment and enclosure to move the drain onto private property at the intersection of County Road No. 10 and the 8th Concession Road. The work also included moving the upstream portion of the Dufour Drain onto private property along the south side of County Road No. 10 and east of where it crosses the said road. A new 900 mm diameter concrete culvert was placed under the railway on the north



side of the road and continued with a new 900 mm diameter CSP road culvert to connect to the relocated drain portion on the south side of the road.

On-Site Meeting

We conducted an on-site meeting on 15 February 2022. A record of the meeting is provided in Schedule 'A', which is appended hereto.

Survey

Survey of the Dufour Drain was completed in December 2012 as part of the previous 2016 report and was utilized for this report. Further examination and survey was completed in March 2021 as part of the proposed residential development.

Design Considerations

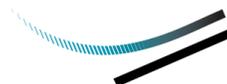
The new access bridge over the Dufour Drain (denoted as Bridge No. 6) is designed for a total upstream drainage area of approximately 42.42 hectares (104.83 acres). This area includes both the Branch A and Branch B tributary drain watersheds. The lands proposed for the new residential subdivision which will have stormwater management controls limiting flows equivalent to the 1:2 year storm event under a pre-development condition. With these controls, the same level of service is provided to the entire Dufour Drain watershed and no further improvements to the drain capacity is required as a result of this proposed residential development.

A Guide for Engineers working under the Drainage Act in Ontario, OMAFRA Publication 852 (2018) is the current reference document used by engineers carrying out work on municipal drains under the Act. For bridges over municipal roadways, a 5 to 10 year storm return period design storm is the recommended design criteria. We have applied a 10 year storm return period design criteria for the new access bridge such that flows freely pass through the culvert without backwater effects.

The 100 year return period design storm impacts were checked to confirm that water levels upstream of the culvert remain below observed ground surface elevations of existing residential properties. The minimum size of the culvert required is 1400 mm diameter and 45 meters long to fully enclose the Dufour Drain across the proposed subdivision street right-of-way. The longer culvert will facilitate future utility crossings and pedestrian trail realignment at County Road No. 10. The culvert depth is designed to provide a minimum 10% embedment of the pipe culvert below the drain bottom and the placement of the pipe to be aligned with the centerline of the Dufour Drain.

Updated Working Corridor

The previous working corridor for the Dufour Drain includes a 9 m wide corridor on the north side of the drain measured from top of bank between Station 1+188 and Station 1+298. Once the proposed development is constructed, this section of working corridor will no longer be accessible as it will be over residential lands. As such, spreading of drain spoils over the lands will also no longer be permitted and shall be required to be hauled off site to a suitable location. We therefore recommend a new working corridor be established on the south side of the Dufour Drain between Station 1+188 and Station 1+298 as specified herein.



Allowances

In accordance with Section 29 and 30 of the Drainage Act, we do not anticipate any lands being damaged or taken as a result of the proposed drainage work. All lands that may be impacted by the proposed works are to be returned to original conditions as part of the work. Therefore, 'Schedule B' for Allowances has not been included in this report.

Cost Estimate

Based on our review of the history, our examination and analysis of the survey data, we recommend that the new access bridge over the Dufour Drain (Bridge No.6) be constructed as described below:

Item	Description	Amount
	Bridge No. 6	
1.	Supply and place a new 45 m long, 1400 mm diameter polymer laminated corrugated steel pipe (CSP) culvert with 125 mm x 25 mm corrugations and 2.8 mm thickness including coupler hardware and an 18 degree prefabricated polymer laminated corrugated steel pipe elbow (see Specifications).	\$32,700.00
2.	Supply and placement of clearstone 20 – 25 mm size bedding below culvert, minimum 150 mm thickness (approximately 40 tonnes).	\$2,200.00
3.	Supply and placement of Granular 'A' (crushed limestone) compacted backfill materials from the bridge invert up to the springline of the culvert (approximately 135 tonnes).	\$5,550.00
4.	Supply and placement of Granular 'A' (crushed limestone) compacted backfill material from the culvert springline up to the roadway surface (approximately 250 tonnes).	\$10,200.00
5.	Supply and placement of imported clean native backfill material from the culvert springline to the top of the drain banks beyond the roadway, for the culvert portion (approximately 300 m ³).	\$4,700.00
6.	Supply and placement of stone rip-rap minimum 300 mm thickness c/w filter cloth underlay for sloping end walls (approximately 35 m ²).	\$2,750.00
7.	Temporary sediment and erosion control measures	<u>\$500.00</u>
	SUB-TOTAL	\$58,600.00
8.	Report, expenses and incidentals	\$25,950.00
9.	Construction administration and inspection	\$2,550.00
10.	ERCA permit fee	<u>\$500.00</u>
	TOTAL ESTIMATE	\$87,600.00



The estimate provided in this report was prepared according to current materials and installation prices as of the date of this report and includes the non-rebated portion of the harmonized sales tax, where applicable. 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 "Special Benefit", "Benefit" and "Outlet". Details of the Special Benefit assessment listed in Schedule 'C' are provided for in Schedule 'D'.

Assessment Rationale

There is no access to property Parcel No. 66 across the Dufour Drain. The present access for this property is through the adjacent property Parcel No. 67 having access from Walker Road. The purpose of this new bridge is to facilitate a new street entrance from Middle Side Road (County Road No. 10) for future residential subdivision lands.

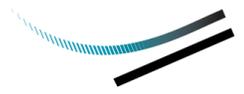
The Special Benefit assessment shown in Schedule 'C' and detailed in Schedule 'D' were derived as follows:

1. For a first time access bridge crossing the Dufour Drain, and for the purpose of a future residential development, costs have been assessed 100% to adjoining property Parcel No. 66 as listed under "Special Benefit".

Utilities

It may become necessary to temporarily or permanently relocate utilities that may conflict with the drainage recommended under this report. In accordance with Section 26 of the Drainage Act, any increased costs to the drainage works caused by the presence of the public utility shall be assessed 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.

As part of the future residential subdivision servicing and design, there are known utility works required involving an existing hydro pole relocation and new watermain connection. These works are not considered to be an increased cost to the drainage works caused by the presence of the existing utility. They are a direct result of the new residential development and in our considered opinion, Section 26 of the Drainage Act would not apply.



Future Maintenance (Dufour Drain)

We recommend that future work of repair and maintenance of the Dufour Drain be carried out by the Town of Amherstburg in accordance with the specifications contained within the former 2016 report. The costs shall be assessed against the affected lands and roads in the same relative proportions as shown in the updated Schedule 'E-1' within this report replacing the former Schedule E-1 from the 2016 report. An updated working corridor has also been provided within this report to replace the former working corridor in the 2016 report. The assessment is based on an arbitrary \$10,000.00 of future maintenance costs on the Dufour Drain excluding any special benefit assessments applicable to access culverts, trucking of drain spoils and repairs to lateral surface water and tile drains.

A portion of Property Parcel Nos. 66 and 67 have been included in a block assessment denoted as Block 'A' for the purposes of assessing of costs related to future maintenance of the Dufour Drain and Branch A. Block A represents the first phase of residential development separated between future lands and roads. For subsequent phases of future residential development within the remaining portions of Parcel Nos. 66 and 67, future block assessments will need to be considered as part of a reassessment in accordance with Section 76 of the Drainage Act due to future land use changes between lands and roads.

Future maintenance costs associated with trucking of drain spoils off site generated between Station 1+188 and Station 1+298 are to be assessed 100% Block 'A' in the same relative proportions between lands and roads.

Future Maintenance (Branch A)

We recommend that future work of repair and maintenance of Branch A be carried out by the Town of Amherstburg in accordance with the specifications contained within the 2016 report. The exception being, the working corridor which has been redefined under this new report contained within Schedule 'F' specifications herein, and the assessment changes as outlined below.

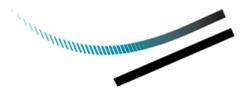
From Station 0+000A to Station 0+173A, the excavated drain spoils shall be disposed of by trucking off-site since they can no longer be placed within the designated corridor on the north side of the drain where a future landscaped green space will occupy this area and surrounding the future storm water pond being situated north of this drain corridor. Trucking costs for drain excavation materials between Stations 0+000A and 0+533A, along with any associated costs required as part of the Excess Soils Regulation (O. Reg. 406/19), shall be assessed 33% to property Parcel No. 66 and remaining 67% shall be assessed to property Parcel No. 67 as a special benefit assessment.

For all other future drain maintenance costs associated with Branch 'A', they shall be assessed against the affected lands and roads in the same relative proportions as shown in the updated Schedule 'E-2' within this report replacing the former Schedule 'E-2' from the 2016 report. The costs are based on an arbitrary \$10,000.00.

Future Maintenance of Bridge No. 6

We recommend that future work of repair and maintenance of Bridge No. 6 be carried out by the Town of Amherstburg and the costs assessed 100% against the Town of Amherstburg Road Authority in accordance with Section 26 of the Drainage Act.

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 contain specifications setting out the details of the recommended works. "Schedule G" represents the drawings described herein and are attached to this report:

- Page 1 of 3: Overall Plan**
- Page 2 of 3: Property Information**
- Page 3 of 3: Bridge No.6 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.

The details of the proposed works and supporting calculations were submitted to the Essex Region Conservation Authority (ERCA) on April 4, 2022 for their review. Subsequently, on April 25, 2022 return correspondence was received confirming acceptance of the design, and that the permit application process could be finalized following submission of the final drainage report and drawings.

The Dufour Drain has been classified by the Department of Fisheries and Oceans (DFO) as a Type F drain. Type F drains have intermittent water flow and may provide habitat for bait fish. Standard mitigation measures shall be followed as outlined below.

- Work will not be conducted at times when flows are elevated due to local rain events, storms or seasonal floods. Work will be done in the dry with temporary barriers installed to isolate the work area and removed immediately after work is complete.
- All disturbed soils on both banks and within the channel, including spoil must be stabilized immediately upon completion of work. The restoration of the site must be completed to a like or better condition to what existed prior to the works.
- To prevent sediment entry into the Drain, in the event of an unexpected rainfall, silt barriers and/or traps must be placed in the channel during the works and until the site has been stabilized. All sediment and erosion control measures are to be in accordance with related Ontario Provincial Standards. It is incumbent on the proponent and his/her contractors to ensure that sediment and erosion control measures are functioning properly and are maintained/upgraded as required.
- All activities should be controlled to prevent the entry of petroleum products, debris, rubble, concrete or other deleterious substances into the

water. Vehicular refueling and maintenance should be conducted away from the water.

In terms of endangered species, the critical habitat distribution mapping does not identify any critical habitat found for extirpated, endangered, threatened or special concern species within the area of the proposed drainage works. The Town of Amherstburg has developed a mitigation plan document which recommends mitigation measures to minimize adverse effects on species at risk including monitoring and reporting requirements should an endangered, threatened or special concern species (fishes, reptiles, amphibians, molluscs, birds, plants, trees) be encountered. The document shall be made available to the contractor prior to construction.

Respectfully submitted,

DILLON CONSULTING LIMITED



Tim R. Oliver, P.Eng.
TRO:mma:nek



SCHEDULE ‘A’
SUMMARY OF ON-SITE MEETING

Virtual Meeting via Zoom Platform
February 15, 2022 @ 9:00 a.m.

Present:

Michelle Poberezny	Landowner
James Poberezny	Landowner
Mary Arts (absent represented by Michelle)	Landowner
Eric Arts	Landowner
Mike McMahon (MGV Development)	Landowner
Shane McVitty	Town of Amherstburg
Tim Oliver	Dillon Consulting Limited
Oliver Moir	Dillon Consulting Limited
Murrad Abdul	Dillon Consulting Limited

Introduction

Shane McVitty provided an explanation of the request received under Section 78 of the Drainage Act.

Oliver Moir provided an overview of some relevant drainage history, and an overview of the proposed works which includes the construction of a new access bridge for a proposed residential subdivision. It was mentioned that the change in land use requires an updated schedule of assessments for future maintenance for the Dufour Drain and the Branch A Drain. The development’s stormwater management plan will be considered in the assessment of the drain capacity and assessment of costs for future maintenance. The working corridor, which the Town uses to access and maintain the drain will also have to be updated. Costs associated with the works are all a result of the requested bridge, and so can be expected that 100% of the costs associated with the works will be assessed 100% to MGV Developments.

Questions from landowners were submitted ahead of the on-site meeting and were subsequently discussed at the meeting. Question/comments with responses relevant to the drainage works are summarized below:

- Will there be an increase in flow/higher water levels in the drain downstream as a result of the development?
 - Oliver Moir explained that the development will redirect the flows away from its current natural westerly drainage pattern into a stormwater detention pond. The pond will release at a maximum rate equivalent to the pre-development conditions during a storm likely to occur once every two years. It can be expected to actually lower water levels in larger storm events.
- What is the location of the bridge?
 - Oliver Moir identified that the bridge is proposed to be located 35 m east of the property line between Mary J. Arts’s property and the MGV Developments property.
- The drain is filled in with weeds and doesn’t drain well. There is general concern that the development will worsen flooding downstream.

- Shane McVitty explained that drain maintenance is conducted upon request from landowners, so the landowners need only submit a request to brush the drain.
- Oliver Moir explained that the development has the responsibility to not adversely impact neighbours, but also that the stormwater management detention pond may provide a benefit to the drain.

The meeting summary was prepared by Murrad Abdul who should be notified of any errors and/or omissions.

"SCHEDULE C"
SCHEDULE OF ASSESSMENT
DUFOUR DRAIN (BRIDGE NO. 6)
TOWN OF AMHERSTBURG

PRIVATELY-OWNED - AGRICULTURAL LANDS:

Parcel No.	Con.	Description	Area Affected		Owner	Special Benefit	Benefit	Outlet	Total Assessment
			(Acres)	(Ha.)					
66	8	Pt Lot 7	4.57	1.85	MGV Developments * (McGregor) Inc.	\$87,600.00	\$0.00	\$0.00	\$87,600.00
Total on Privately-Owned - Agricultural Lands.....						\$87,600.00	\$0.00	\$0.00	\$87,600.00
TOTAL ASSESSMENT - DUFOUR DRAIN (BRIDGE No.6).....						\$87,600.00	\$0.00	\$0.00	\$87,600.00

	(Acres)	(Ha.)
Total Area:	4.57	1.85

* Denotes lands that are not eligible for OMAFRA grants towards the costs of the new access bridge (Bridge No. 6)

"SCHEDULE D"
DETAILS OF SPECIAL BENEFIT
DUFOUR DRAIN (BRIDGE No. 6)
TOWN OF AMHERSTBURG

SPECIAL BENEFIT ASSESSMENT
(GENERAL DESCRIPTION OF SPECIAL BENEFIT)

Parcel No.	Owner	Item Description	Estimated Cost	Cost of Report	Special Benefit
66	MGV Developments (McGregor) Inc.	Bridge No. 6 costs all inclusive	\$58,600.00	\$29,000.00	\$87,600.00
Total Special Benefit Assessment			58,600.00	29,000.00	87,600.00
OVERALL TOTAL SPECIAL BENEFIT ASSESSMENT					\$87,600.00

"SCHEDULE E-1"
SCHEDULE OF ASSESSMENT (FUTURE MAINTENANCE)
DUFOUR DRAIN
TOWN OF AMHERSTBURG

MUNICIPAL LANDS:

Description	Area Affected		Owner	Special Benefit	Benefit	Outlet	Total Assessment
	(Acres)	(Ha.)					
Middle Sideroad (County Road 10)	5.00	2.02	County of Essex	\$0.00	\$278.00	\$576.00	\$854.00
8th Concession Road	3.60	1.46	Town of Amherstburg	\$0.00	\$488.00	\$1,150.00	\$1,638.00
Gardiner Crescent	1.42	0.57	Town of Amherstburg	\$0.00	\$25.00	\$451.00	\$476.00
McGregor Court	0.37	0.15	Town of Amherstburg	\$0.00	\$7.00	\$119.00	\$126.00
Block A Roads	7.56	3.06	Town of Amherstburg	\$0.00	\$119.00	\$392.00	\$511.00
Total on Municipal Lands.....				\$0.00	\$917.00	\$2,688.00	\$3,605.00

PRIVATELY-OWNED - NON-AGRICULTURAL LANDS:

Parcel No.	Con.	Description	Area Affected		Owner	Special Benefit	Benefit	Outlet	Total Assessment
			(Acres)	(Ha.)					
Block A Lands			23.15	9.37	MGV Developments (McGregor) Inc.	\$0.00	\$222.00	\$729.00	\$951.00
42	7	Pt Lot 6	4.20	1.70	Jeffrey Tales & Jami L. Reaume	\$0.00	\$11.00	\$81.00	\$92.00
41	8	Pt Lot 6	0.48	0.19	Enrico J. & Krista M. Truant	\$0.00	\$5.00	\$27.00	\$32.00
40	8	Pt Lot 6	0.57	0.23	Dante & Marisa Delrizzo	\$0.00	\$5.00	\$30.00	\$35.00
39	8	Pt Lot 6	0.53	0.21	Grant E. Chittim & Andrea Elaine	\$0.00	\$6.00	\$33.00	\$39.00
38	8	Pt Lot 6	0.45	0.18	Kyle P. Krizan	\$0.00	\$5.00	\$29.00	\$34.00
37	8	Pt Lot 6	0.40	0.16	Gregory G. Girard	\$0.00	\$4.00	\$25.00	\$29.00
36	8	Pt Lot 6	0.64	0.26	Brian J. & Christine G. Beaton	\$0.00	\$5.00	\$36.00	\$41.00
70	8	Pt Lot 6	0.30	0.12	1473511 Ontario Limited	\$0.00	\$3.00	\$20.00	\$23.00
49	8	Pt Lot 6	0.32	0.13	Jesse & Kelly Bone	\$0.00	\$4.00	\$22.00	\$26.00
50	8	Pt Lot 6	0.32	0.13	Travis W.R. and Tina B. Middleton	\$0.00	\$4.00	\$22.00	\$26.00
51	8	Pt Lot 6	0.32	0.13	Roger H. & Sheila A. Baillargeon	\$0.00	\$4.00	\$22.00	\$26.00
52	8	Pt Lot 6	0.32	0.13	Sarah Cherian	\$0.00	\$4.00	\$22.00	\$26.00
53	8	Pt Lot 6	0.32	0.13	Scott R. Warnock & Pierrette A. Wray	\$0.00	\$4.00	\$22.00	\$26.00
54	8	Pt Lot 6	0.32	0.13	Derek R. & Jennifer M. Aiken	\$0.00	\$4.00	\$22.00	\$26.00
55	8	Pt Lot 6	0.32	0.13	David Cvetanovski	\$0.00	\$4.00	\$22.00	\$26.00
56	8	Pt Lot 6	0.32	0.13	Community Living Essex County	\$0.00	\$4.00	\$22.00	\$26.00
57	8	Pt Lot 6	0.32	0.13	Beverly A. Santin & Nelson J. Rocheleau	\$0.00	\$4.00	\$22.00	\$26.00
44	8	Pt Lot 6	0.34	0.14	Justin M. Kilmowics & Emily M. Hillman	\$0.00	\$4.00	\$23.00	\$27.00
45	8	Pt Lot 6	0.45	0.18	John T. & Sandra M. Amato	\$0.00	\$5.00	\$30.00	\$35.00
46	8	Pt Lot 6	0.35	0.14	Henry & Deborah A. Schwager	\$0.00	\$4.00	\$23.00	\$27.00
47	8	Pt Lot 6	0.34	0.14	Martin E. A. & Colleen B. Nelson	\$0.00	\$4.00	\$23.00	\$27.00
48	8	Pt Lot 6	0.34	0.14	Mary Ann E. Papia Arce	\$0.00	\$4.00	\$23.00	\$27.00
68	8	Pt Lot 6	1.78	0.72	Essex Region Conservation Foundation	\$0.00	\$8.00	\$58.00	\$66.00
71	8	Pt Lot 7	5.40	2.19	Essex Region Conservation Foundation	\$0.00	\$25.00	\$176.00	\$201.00
5	8	RP M285 Lot 18	0.22	0.09	Adam J. Lucier	\$0.00	\$2.00	\$15.00	\$17.00

Parcel No.	Con.	Description	Area Affected		Owner	Special Benefit	Benefit	Outlet	Total Assessment
			(Acres)	(Ha.)					
6	8	RP M285 Lot 17	0.27	0.11	Wallace N. & Rosemary K. Charett	\$0.00	\$3.00	\$18.00	\$21.00
7	8	RP M285 Lot 16	0.24	0.10	Lindsay Charette & Michael Deyoung	\$0.00	\$3.00	\$16.00	\$19.00
8	8	RP M285 Lot 15	0.40	0.16	Igor Varga & Shirley Couch	\$0.00	\$4.00	\$27.00	\$31.00
9	8	RP M285 Lot 14	0.29	0.12	Kevin & Penny Veldhuis	\$0.00	\$3.00	\$20.00	\$23.00
3	8	RP M285 Lot 22	0.25	0.10	Matthew B. & Heather E. Allison	\$0.00	\$3.00	\$16.00	\$19.00
10	8	RP M 285 Lot 13	0.20	0.08	Jody A. & Melissa D. Fleming	\$0.00	\$2.00	\$13.00	\$15.00
11	8	RP M285 Lot 12,13 & 14	0.19	0.08	Nistor & Livia Sasca	\$0.00	\$2.00	\$13.00	\$15.00
12	8	RP M285 Lot 12 & 14	0.19	0.08	Richard H. & Patricia J. Prieur	\$0.00	\$2.00	\$13.00	\$15.00
13	8	RP M285 Lot 11	0.22	0.09	David W. & Terese A. Pitt	\$0.00	\$2.00	\$15.00	\$17.00
14	8	RP M285 Lot 10	0.18	0.07	Robert J. & Irene A. McFarlane	\$0.00	\$2.00	\$12.00	\$14.00
15	8	RP M285 Lot 9	0.18	0.07	Kenneth & Marie Allen	\$0.00	\$2.00	\$12.00	\$14.00
16	8	RP M285 Lot 8	0.18	0.07	John F. & Janine J. Willett	\$0.00	\$2.00	\$12.00	\$14.00
17	8	RP M285 Lot 7	0.18	0.07	Jerome & Victoria Pardo	\$0.00	\$2.00	\$12.00	\$14.00
18	8	RP M285 Lot 6	0.18	0.07	Paula C. Charlebois	\$0.00	\$2.00	\$12.00	\$14.00
19	8	RP M285 Lot 5	0.18	0.07	Antonio & Theresa Pietrangelo	\$0.00	\$2.00	\$12.00	\$14.00
2	8	RP M285 Lot 21	0.20	0.08	Cherie H. Lajoy & Richard J. & Deborah A. Drouillard	\$0.00	\$2.00	\$13.00	\$15.00
20	8	RP M285 Lot 4	0.25	0.10	Marek & Mariola Piotrowski	\$0.00	\$3.00	\$16.00	\$19.00
21	8	RP M285 Lot 3	0.52	0.21	Izidor & Mitzi Fujs	\$0.00	\$6.00	\$35.00	\$41.00
22	8	RP M285 Lot 2	0.42	0.17	Allen C. & Lori A. Stewart	\$0.00	\$5.00	\$29.00	\$34.00
23	8	RP M285 Lot 1	0.27	0.11	Allan J. & Allan C. & Lori Stewart	\$0.00	\$3.00	\$18.00	\$21.00
1	8	RP M285 Lot 20	0.20	0.08	Mark A. Pszczonak & Robyn J. Nease	\$0.00	\$2.00	\$13.00	\$15.00
4	8	RP M285 Lot 19	0.20	0.08	Matthew F. Charlebois & Crystal M. Barron	\$0.00	\$2.00	\$13.00	\$15.00
58	8	Pt Lot 7 RP 12R22195 Pt. 1	0.35	0.14	Barbara Bellemore & Betty Jane Belleau	\$0.00	\$4.00	\$23.00	\$27.00
24	8	Pt Lot 7	1.09	0.44	Jason J. & Michelle T. Bullard	\$0.00	\$7.00	\$46.00	\$53.00
25	8	Pt Lot 7	1.42	0.57	Cheryl L. Major & Linda A. Bondy	\$0.00	\$7.00	\$49.00	\$56.00
26	8	Pt Lot 7	0.61	0.25	Thomas J. & Karen Renaud	\$0.00	\$5.00	\$38.00	\$43.00
27	8	Pt Lot 7	0.57	0.23	Nelson F. Drouillard	\$0.00	\$5.00	\$36.00	\$41.00
28	8	Pt Lot 7	0.52	0.21	Yollande McIntyre	\$0.00	\$6.00	\$35.00	\$41.00
29	8	Pt Lot 7	0.48	0.19	Adam J. & Candace R. Hammond	\$0.00	\$5.00	\$32.00	\$37.00
30	8	Pt Lot 7	0.46	0.19	Gilbert H. Beaulieu	\$0.00	\$5.00	\$32.00	\$37.00
31	8	Pt Lot 7	0.39	0.16	Daniel J. & Margaret J. Leithead	\$0.00	\$4.00	\$27.00	\$31.00
32	8	Pt Lot 7	0.36	0.15	Wanda J. Gagnon & Robert H. Dishman	\$0.00	\$4.00	\$25.00	\$29.00
33	8	Pt Lot 7	0.38	0.15	Stephen P. Skov	\$0.00	\$4.00	\$25.00	\$29.00
34	8	Pt Lot 7	0.33	0.13	Hydro One Networks Inc.	\$0.00	\$4.00	\$22.00	\$26.00
35	8	Pt Lot 7	0.40	0.16	Kenneth H. Holden	\$0.00	\$4.00	\$27.00	\$31.00
61	8	Pt Lot 7	1.15	0.47	Kevin V. Murphy & Linda A. Bailey	\$0.00	\$7.00	\$40.00	\$47.00
60	8	Pt Lot 7	0.55	0.22	James P. & Michelle C. Poberezny	\$0.00	\$22.00	\$27.00	\$49.00
62	8	Pt Lot 7	0.46	0.19	Maddalena & Eric Simone	\$0.00	\$17.00	\$21.00	\$38.00
Total on Privately-Owned - Non-Agricultural Lands.....						\$0.00	\$527.00	\$2,444.00	\$2,971.00

Parcel No.	Con.	Description	Area Affected (Acres) (Ha.)		Owner	Special Benefit	Benefit	Outlet	Total Assessment
PRIVATELY-OWNED - AGRICULTURAL LANDS									
69	8	Pt Lot 6	2.85	1.15	Paul H. Ouellette	\$0.00	\$7.00	\$55.00	\$62.00
43	8	Pt Lot 6	1.98	0.80	Joseph Miceli	\$0.00	\$5.00	\$41.00	\$46.00
63	8	Pt Lot 7	35.36	14.31	Mary J. Arts	\$0.00	\$407.00	\$732.00	\$1,139.00
59	7	Pt Lot 7	7.00	2.83	Viscount Mobile Homes Ltd.	\$0.00	\$19.00	\$140.00	\$159.00
65	8	S Pt Lot, RP M246 Lot 1&Pt Lot 2	20.00	8.09	STS George & Sharbel Holdings Ltd	\$0.00	\$162.00	\$231.00	\$393.00
64	8	Pt Lot 7	21.42	8.67	Christopher & Elaine Mannina	\$0.00	\$162.00	\$248.00	\$410.00
66	8	Pt Lot 7	4.57	1.85	MGV Developments (McGregor) Inc.	\$0.00	\$34.00	\$111.00	\$145.00
73	8	Pt Lot 7	5.73	2.32 *	MGV Developments (McGregor) Inc.	\$0.00	\$43.00	\$139.00	\$182.00
67	8	Pt Lot 7	23.25	9.41	MGV Developments (McGregor) Inc.	\$0.00	\$172.00	\$566.00	\$738.00
72	8	Pt Lot 7	5.58	2.26 **	MGV Developments (McGregor) Inc.	\$0.00	\$45.00	\$105.00	\$150.00
Total on Privately-Owned - Agricultural Lands.....						\$0.00	\$1,056.00	\$2,368.00	\$3,424.00
TOTAL ASSESSMENT - DUFOUR DRAIN.....						\$0.00	\$2,500.00	\$7,500.00	\$10,000.00
			(Acres)	(Ha.)					
Total Area:			203.42	82.30					

- * Denotes future parcel for stormwater pond awaiting future Roll No. to be assigned
- ** Denotes severed property located north of Block 'A' awaiting future Roll No. to be assigned

"SCHEDULE E-2"
SCHEDULE OF ASSESSMENT (FUTURE MAINTENANCE)
BRANCH A
TOWN OF AMHERSTBURG (COUNTY OF ESSEX)

MUNICIPAL LANDS:

Description	Area Affected		Owner	Special	Benefit	Outlet	Total
	(Acres)	(Ha.)		Benefit			
Gardiner Crescent	1.20	0.49	Town of Amherstburg	\$0.00	\$58.00	\$439.00	\$497.00
McGregor Court	0.35	0.14	Town of Amherstburg	\$0.00	\$17.00	\$126.00	\$143.00
Block A Roads	7.56	3.06	Town of Amherstburg	\$0.00	\$193.00	\$774.00	\$967.00
Total on Ontario Lands.....				\$0.00	\$268.00	\$1,339.00	\$1,607.00

PRIVATELY-OWNED - NON-AGRICULTURAL LANDS:

Roll No.	Con.	Description	Area Affected		Owner	Special	Benefit	Outlet	Total
			(Acres)	(Ha.)		Benefit			
Block A Lands			23.15	9.37	MGV Developments (McGregor) Inc.	\$0.00	\$258.00	\$1,438.00	\$1,696.00
71	8	Pt Lot 7	5.40	2.19	Essex Region Conservation Foundation	\$0.00	\$714.00	\$589.00	\$1,263.00
3	8	RP M285 Lot 22	0.25	0.10	Matthew B. & Heather E. Allison	\$0.00	\$9.00	\$75.00	\$68.00
2	8	RP M285 Lot 21	0.22	0.09	Cherie H. & Richard J. & Deborah A. Drouillard	\$0.00	\$8.00	\$68.00	\$62.00
1	8	RP M285 Lot 20	0.20	0.08	Mark A. Pszczonak & Robyn J. Nease	\$0.00	\$7.00	\$60.00	\$55.00
4	8	RP M285 Lot 19	0.20	0.08	Matthew F. Charlebois & Crystal M. Barron	\$0.00	\$7.00	\$60.00	\$55.00
5	8	RP M285 Lot 18	0.22	0.09	Adam J. Lucier	\$0.00	\$8.00	\$68.00	\$62.00
6	8	RP M285 Lot 17	0.27	0.11	Wallace N. & Rosemary K. Charette	\$0.00	\$10.00	\$83.00	\$75.00
7	8	RP M285 Lot 16	0.24	0.10	Lindsay Charette & Michael Deyoung	\$0.00	\$9.00	\$75.00	\$68.00
8	8	RP M285 Lot 15	0.40	0.16	Igor Varga & Shirley Couch	\$0.00	\$14.00	\$120.00	\$109.00
9	8	RP M285 Lot 14	0.29	0.12	Kevin & Penny Veldhuis	\$0.00	\$11.00	\$90.00	\$83.00
10	8	RP M 285 Lot 13 & 14	0.19	0.08	Jody A. & Melissa J. Fleming	\$0.00	\$7.00	\$60.00	\$55.00
11	8	RP M285 Lot 12,13 & 14	0.20	0.08	Nistor & Livia Sasca	\$0.00	\$7.00	\$60.00	\$55.00
12	8	RP M285Lot 12 & 14	0.19	0.08	Richard H. & Patricia J. Prieur	\$0.00	\$7.00	\$60.00	\$55.00
13	8	RP M285 Lot 11	0.22	0.09	David W. & Terese A. Pitt	\$0.00	\$8.00	\$68.00	\$62.00
14	8	RP M285 Lot 10	0.18	0.07	Robert J. & Irene A. McFarlane	\$0.00	\$6.00	\$52.00	\$48.00
15	8	RP M285 Lot 9	0.18	0.07	Kenneth & Marie Allen	\$0.00	\$6.00	\$52.00	\$48.00
16	8	RP M285 Lot 8	0.18	0.07	John F. & Janine J. Willett	\$0.00	\$6.00	\$52.00	\$48.00
17	8	RP M285 Lot 7	0.18	0.07	Jerome & Victoria Pardo	\$0.00	\$6.00	\$52.00	\$48.00
18	8	RP M285 Lot 6	0.18	0.07	Paula C. Charlebois	\$0.00	\$6.00	\$52.00	\$48.00
19	8	RP M285 Lot 5	0.18	0.07	Antonio & Theresa Pietrangelo	\$0.00	\$6.00	\$52.00	\$48.00
20	8	RP M285 Lot 4	0.28	0.11	Marek & Mariola Piotrowski	\$0.00	\$10.00	\$83.00	\$75.00
21	8	RP M285 Lot 3	0.25	0.10	Izidor & Mitzi Fujs	\$0.00	\$9.00	\$75.00	\$68.00
22	8	RP M285 Lot 2	0.24	0.10	Allen C. & Lori A. Stewart	\$0.00	\$9.00	\$75.00	\$68.00
23	8	RP M285 Lot 1	0.27	0.11	Allan J. & Allan C. & Lori Stewart	\$0.00	\$10.00	\$83.00	\$75.00

Roll No.	Con.	Description	Area Affected		Owner	Special Benefit	Benefit	Outlet	Total Assessment
			(Acres)	(Ha.)					
58	8	Pt. Lot 7 RP 12R22195 Pt. 1	0.35	0.14	Barbara Bellemore & Betty J. Belleau	\$0.00	\$13.00	\$105.00	\$96.00
24	8	Pt Lot 7	1.09	0.44	Jason J. & Michelle T. Bullard	\$0.00	\$25.00	\$187.00	\$172.00
25	8	Pt Lot 7	1.42	0.57	Cheryl L. Major & Linda A. Bondy	\$0.00	\$28.00	\$201.00	\$186.00
26	8	Pt Lot 7	0.37	0.15	Thomas J. & Karen Renaud	\$0.00	\$14.00	\$91.00	\$85.00
27	8	Pt Lot 7	0.33	0.13	Nelson F. Drouillard	\$0.00	\$12.00	\$79.00	\$74.00
28	8	Pt Lot 7	0.28	0.11	Yollande McIntyre	\$0.00	\$10.00	\$63.00	\$60.00
29	8	Pt Lot 7	0.24	0.10	Adam J. & Candace R. Hammond	\$0.00	\$9.00	\$57.00	\$54.00
30	8	Pt Lot 7	0.22	0.09	Gilbert H. Beaulieu	\$0.00	\$8.00	\$49.00	\$47.00
31	8	Pt Lot 7	0.15	0.06	Daniel J. & Margaret J. Leithead	\$0.00	\$5.00	\$32.00	\$30.00
32	8	Pt Lot 7	0.12	0.05	Wanda J. Gagnon & Robert H. Dishman	\$0.00	\$4.00	\$25.00	\$24.00
33	8	Pt Lot 7	0.16	0.06	Stephen P. Skov	\$0.00	\$5.00	\$30.00	\$29.00
34	8	Pt Lot 7	0.11	0.04	Hydro One Networks Inc.	\$0.00	\$3.00	\$18.00	\$18.00
35	8	Pt Lot 7	0.07	0.03	Kenneth H. Holden	\$0.00	\$3.00	\$14.00	\$13.00
Total on Privately-Owned - Non-Agricultural Lands.....						\$0.00	\$1,297.00	\$4,553.00	\$5,850.00
PRIVATELY-OWNED - AGRICULTURAL LANDS:									
66	8	Pt Lot 7	4.57	1.85	MGV Developments (McGregor) Inc.	\$0.00	\$132.00	\$219.00	\$351.00
73	8	Pt Lot 7	5.73	2.32 *	MGV Developments (McGregor) Inc.	\$0.00	\$166.00	\$275.00	\$441.00
67	8	Pt Lot 7	23.25	9.41	MGV Developments (McGregor) Inc.	\$0.00	\$637.00	\$1,114.00	\$1,751.00
Total on Privately-Owned - Agricultural Lands.....						\$0.00	\$935.00	\$1,608.00	\$2,543.00
TOTAL ASSESSMENT - BRANCH A.....						\$0.00	\$2,500.00	\$7,500.00	\$10,000.00
			(Acres)	(Ha.)					
Total Area:			58.18	23.53					

* Denotes future parcel for stormwater pond awaiting future Roll No. to be assigned

”SCHEDULE F”
**NEW ACCESS BRIDGE OVER THE
DUFOR DRAIN
TOWN OF AMHERSTBURG**

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, materials, and equipment** to complete the following items:

- Supply and place a new 45 m long, 1400 mm diameter polymer laminated corrugated steel pipe (CSP) culvert with 125 mm x 25 mm corrugations and 2.8 mm thickness including coupler hardware and an 18 degree prefabricated polymer laminated corrugated steel pipe elbow (see Specifications).
- Supply and placement of clearstone 20 – 25 mm size bedding below culvert, minimum 150 mm thickness (approximately 40 tonnes).
- Supply and placement of Granular 'A' (crushed limestone) compacted backfill materials from the bridge invert up to the springline of the culvert (approximately 135 tonnes).
- Supply and placement of Granular 'A' (crushed limestone) compacted backfill material from the culvert springline up to the roadway surface (approximately 250 tonnes).
- Supply and placement of imported clean native backfill material from the culvert springline to the top of the drain banks beyond the roadway, for the culvert portion (approximately 300 m³).
- Supply and placement of stone rip-rap minimum 300 mm thickness c/w filter cloth underlay for sloping end walls (approximately 35 m²).
- Temporary sediment and erosion control measures

3.0 ACCESS TO THE WORK

Access to the drain shall be from the County Road No. 10 right-of-way and Cypher Systems Group Greenway trail. The Contractor shall make his/her own arrangements for any additional access for his/her convenience. All road areas, greenway trail and grass lawn areas disturbed shall be restored to original conditions at the Contractor’s expense.

4.0 WORKING CORRIDOR (BRIDGE NO. 6)

The working area at the bridge site shall be restricted to the working corridor along the south side of the drain, as specified in the following section and including the County Road No. 10 road allowance provided through traffic is maintained as per Section 13.0 in the General Specifications.

5.0 WORKING CORRIDOR (DUFOUR DRAIN & BRANCH A)

For the purpose of future maintenance, the Contractor shall restrict his equipment to the working corridors as specified in this Section. Any damage resulting from non-compliance with this Section, shall be borne by the Contractor. The new working corridor shall be measured from the top of the new drain bank and shall be as follows:

FROM	TO	WORKING CORRIDOR
		Dufour Drain
0+000	0+750	9.0 m wide on east side of drain measured from top of bank
0+750	0+785	8th Concession Road ROW
0+785	0+807	9.0 m wide on east side of drain measured from top of bank
0+807	0+890	8th Concession Road ROW / 6 m wide on Parcel No. 61
0+890	0+939	County Road No. 10 ROW / 6 m wide on Parcel No. 61
0+939	1+188	9.0 m wide on north side of drain measured from top of bank
1+188	1+240	County Road No. 10 ROW/Street A ROW
1+240	1+298	9.0 m wide on north side (For north bank repairs only) 9.0 m wide on south side measured from top of bank (for drain cleanout, excavation, trucking, outlet pipes and south bank repairs)
		Branch A Drain
0+000A	0+173A	9.0 m wide on north side (For north bank repairs only) 9.0 m wide on south side measured from top of bank (for drain cleanout, excavation, trucking, outlet pipes and south bank repairs)
0+173A	0+533A	9.0 m wide on south side of drain measured from top of bank (For drain cleanout, excavation, trucking, outlet pipes and south bank repairs)

6.0 BRIDGE CONSTRUCTION

6.1 Location of New Access Bridge

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

6.2 Materials for New Bridge

Materials shall be as follows:

<i>Culvert Pipe</i>	<i>New 45 m long, 1400 mm diameter polymer laminated corrugated steel pipe (CSP) wall thickness of 2.8 mm and 125 x 25 mm corrugations with rerolled ends complete with 18 degree prefabricated polymer laminated corrugated steel pipe elbow meeting the pipe manufacturer's specifications. New culvert shall be joined with annular polymer laminated corrugated wide bolt and angle couplers (minimum of 8</i>
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<i>Culvert Bedding</i>	<i>corrugations 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. 20-25 mm size clearstone conforming to OPSS Division 10. Minimum 150 mm thickness.</i>
<i>Backfill up to culvert springline</i>	<i>Granular 'A' conforming to OPSS Division 10.</i>
<i>Beneath Road Surface, Backfill Above Pipe Springline</i>	<i>Full Granular 'A' backfill conforming to OPSS Division 10.</i>
<i>Beyond Road Surface, Backfill Above Pipe Springline</i>	<i>Dry native material free of topsoil, organic matter, broken concrete, steel, wood and deleterious substances.</i>
<i>Erosion Stone</i>	<i>All stone to be used for erosion protection shall be 125 - 250 mm clear quarried rock or OPSS 1004, minimum 300 mm thickness.</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>

6.3 Culvert Installation

Suitable dykes shall be constructed in the drain so that the installation of the bridge 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.

6.4 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.

6.5 Granular 'A' Driveway Surface

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

6.6 Native Materials

Native materials suitable for use as backfill, as defined under Section 6.2, shall be imported as required to complete the work as shown on the drawings. Alternatively, the Contractor may elect to import additional non-contaminated dry native materials at their own expense.

6.7 Lateral Tile and/or Surface Swale Drains

Should the Contractor encounter any lateral tiles or surface swale drains within the proposed culvert limits not shown on the attached drawings, the Contractor shall re-route 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 (if any) shall be at the Contractor's expense.

7.0 UTILITY POLE SUPPORT

The Contractor's attention is drawn to the hydro pole that exists in the vicinity of the proposed bridge. Should the work commence prior to the hydro pole relocation, the Contractor shall notify Hydro One Networks Inc. and request utility pole support services for the duration of the work at his/her 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

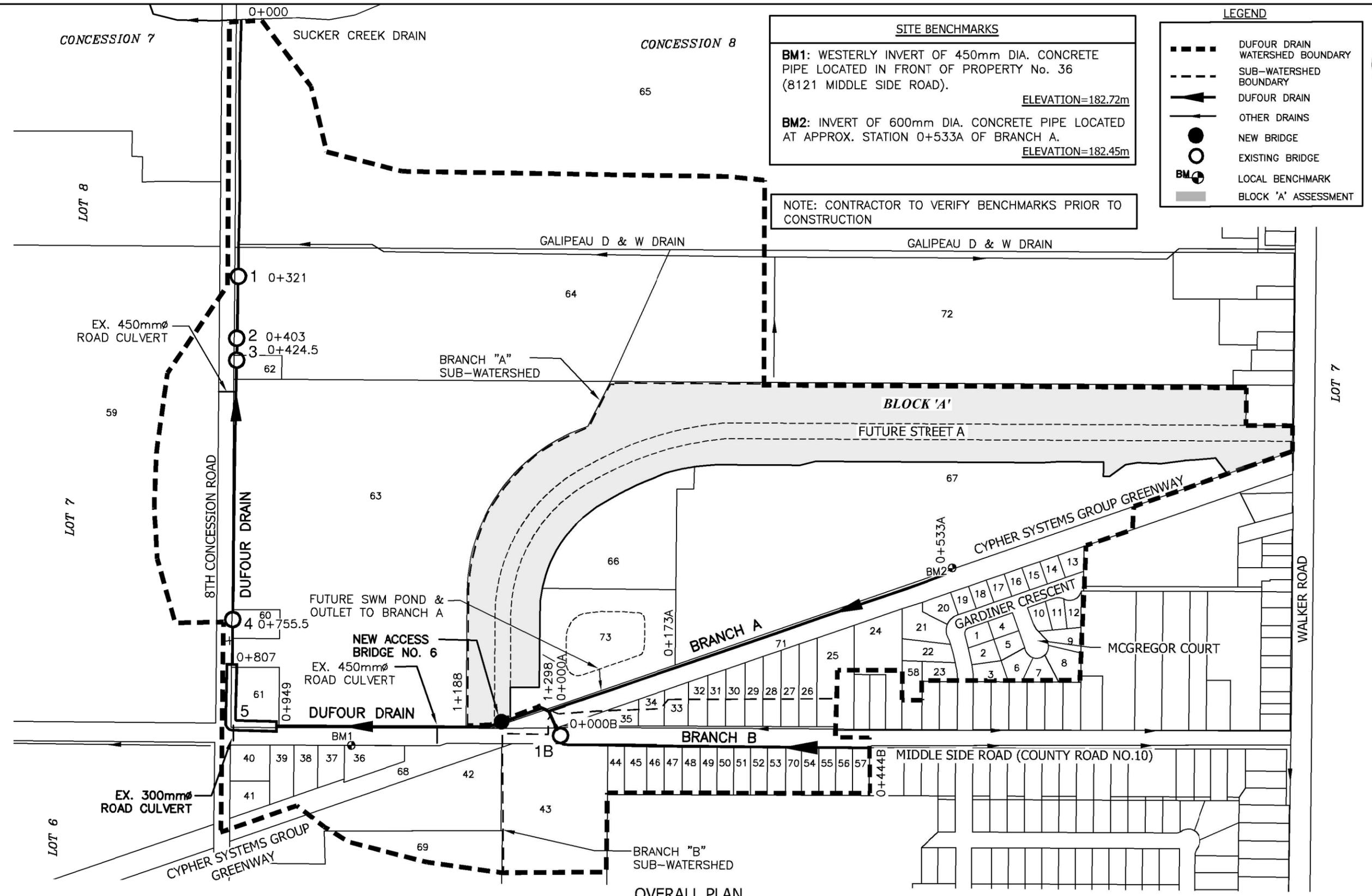
All work shall be carried out to the satisfaction of the Drainage Superintendent for the Municipality, in compliance with the specifications, drawings and the Drainage Act. Upon completion of the project, the work will be inspected by the Engineer and the Drainage Superintendent. Any deficiencies noted 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.

Jun 15, 2022 - 3:01pm C:\pwworking\directory\projects\2021\330eem\dms78012\212982-03-DRN-CON-UPDATED REPORT-LAND OWNERS.dwg



SITE BENCHMARKS

BM1: WESTERLY INVERT OF 450mm DIA. CONCRETE PIPE LOCATED IN FRONT OF PROPERTY No. 36 (8121 MIDDLE SIDE ROAD). ELEVATION=182.72m

BM2: INVERT OF 600mm DIA. CONCRETE PIPE LOCATED AT APPROX. STATION 0+533A OF BRANCH A. ELEVATION=182.45m

NOTE: CONTRACTOR TO VERIFY BENCHMARKS PRIOR TO CONSTRUCTION

LEGEND

- DUFOUR DRAIN WATERSHED BOUNDARY
- SUB-WATERSHED BOUNDARY
- DUFOUR DRAIN
- OTHER DRAINS
- NEW BRIDGE
- EXISTING BRIDGE
- LOCAL BENCHMARK
- BLOCK 'A' ASSESSMENT



OVERALL PLAN
1:5,000



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.

No.	ISSUED FOR	DATE	BY
2	FINAL REPORT SUBMISSION	15 JUN 22	TRO
1	CLIENT REVIEW	14 JUN 22	TRO

DESIGN	TRO	REVIEWED BY	JJT
DRAWN	MA	CHECKED BY	MDH
DATE	June 15, 2022		
SCALE	AS SHOWN		

DILLON CONSULTING

PROJECT NO. 21-2982

DRAWING SCALES BASED ON A 11" X 17" SHEET

'SCHEDULE G'

Drainage Report for
NEW ACCESS BRIDGE OVER THE DUFOUR DRAIN FOR
MGV DEVELOPMENT (McGREGOR) INC.
Town of Amherstburg

SHEET TITLE
OVERALL PLAN

PAGE NO.
1 of 3

DUFOR DRAIN PROPERTY INFORMATION	
PARCEL	OWNER
1	MARK A. PSZCZONAK & ROBYN J. NEASE
2	CHERIE H. DROUILLARD & RICHARD J. & DEBORAH A. DROUILLARD
3	MATTHEW B. & HEATHER E. ALLISON
4	MATTHEW F. CHARLEBOIS & CRYSTAL M. BARRON
5	ADAM J. LUCIER
6	WALLACE N. & ROSEMARY K. CHARETTE
7	LINDSAY CHARETTE & MICHAEL DEYOUNG
8	IGOR VARGA & SHIRLEY COUCH
9	KEVIN & PENNY VELDHUIS
10	JODY A. & MELISSA D. FLEMING
11	NISTOR & LIVIA SASCA
12	RICHARD H. & PATRICIA J. PRIEUR
13	DAVID W. & TERESE A. PITT
14	ROBERT J. & IRENE A. MCFARLANE
15	KENNETH & MARIE ALLEN
16	JOHN F. & JANINE N. WILLETT
17	JEROME & VICTORIA PARDO
18	PAULA C. CHARLEBOIS
19	ANTONIO & THERESA PIETRANGELO
20	MAREK & MARIOLA PIOTROWSKI
21	IZIDOR & MITZI FUJS
22	ALLEN C. & LORI A. STEWART
23	ALLAN J. & ALLAN C. & LORI STEWART
24	JASON J. & MICHELLE T. BULLARD
25	CHERYL L. MAJOR & LINDA A. BONDY
26	THOMAS J. & KAREN RENAUD
27	NELSON F. DROUILLARD
28	YOLLANDE MCINTYRE
29	ADAM J. & CANDACE R. HAMMOND
30	GILBERT H. BEAULIEU
31	DANIEL J. & MARGARET J. LEITHEAD
32	WANDA J. GAGNON & ROBERT H. DISHMAN
33	STEPHEN P. SKOV
34	HYDRO ONE NETWORKS INC.
35	KENNETH H. HOLDEN
36	BRIAN J. & CHRISTINE G. BEATON

DUFOR DRAIN PROPERTY INFORMATION	
PARCEL	OWNER
37	GREGORY G. GIRARD
38	KYLE P. KRIZAN
39	GRANT E. CHITTIM & ANDREA ELAINE
40	DANTE & MARISA DELRIZZO
41	ENRICO J. & KRISTA M. TRUANT
42	JEFFREY TALES & JAMI L. REAUME
43	JOSEPH MICELI
44	JUSTIN M. KILMOWICS & EMILY M. HILLMAN
45	JOHN T. & SANDRA M. AMATO
46	HENRY & DEBORAH A. SCHWAGER
47	MARTIN E. A. & COLLEEN B. NELSON
48	MARY ANN E. PAPIA ARCE
49	JESSE & KELLY BONE
50	TRAVIS W. R. & TINA B. MIDDLETON
51	ROGER H. & SHEILA A. BAILLARGEON
52	SARAH CHERIAN
53	SCOTT R. WARNOCK & PIERETTE A. WRAY
54	DEREK R. & JENNIFER M. AIKEN
55	DAVID CVETANOVSKI
56	COMMUNITY LIVING ESSEX COUNTY
57	BEVERLY A. SANTIN & NELSON J. ROCHELEAU
58	BARBARA BELLEMORE & BETTY JANE BELLEAU
59	VISCOUNT MOBILE HOMES LTD.
60	JAMES P. & MICHELLE C. POBEREZNY
61	KEVIN V. MURPHY & LINDA A. BAILEY
62	MADDALENA & ERIC SIMONE
63	MARY J. ARTS
64	CHRISTOPHER & ELAINE MANNINA
65	STS GEORGE & SHARBEL HOLDINGS LTD
66	MGV DEVELOPMENTS (MCGREGOR) INC.
67	MGV DEVELOPMENTS (MCGREGOR) INC.
68	ESSEX REGION CONSERVATION FOUNDATION
69	PAUL H. OUELLETTE
70	1473511 ONTARIO LIMITED
71	ESSEX REGION CONSERVATION FOUNDATION
72	MGV DEVELOPMENTS (MCGREGOR) INC.
73	MGV DEVELOPMENTS (MCGREGOR) INC.



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.

No.	ISSUED FOR	DATE	BY
2	FINAL REPORT SUBMISSION	15 JUN 22	TRO
1	CLIENT REVIEW	14 JUN 22	TRO

DESIGN	TRO	REVIEWED BY	JJT
DRAWN	MA	CHECKED BY	MDH
DATE	June 15, 2022		
SCALE	AS SHOWN		



PROJECT NO. 21-2982

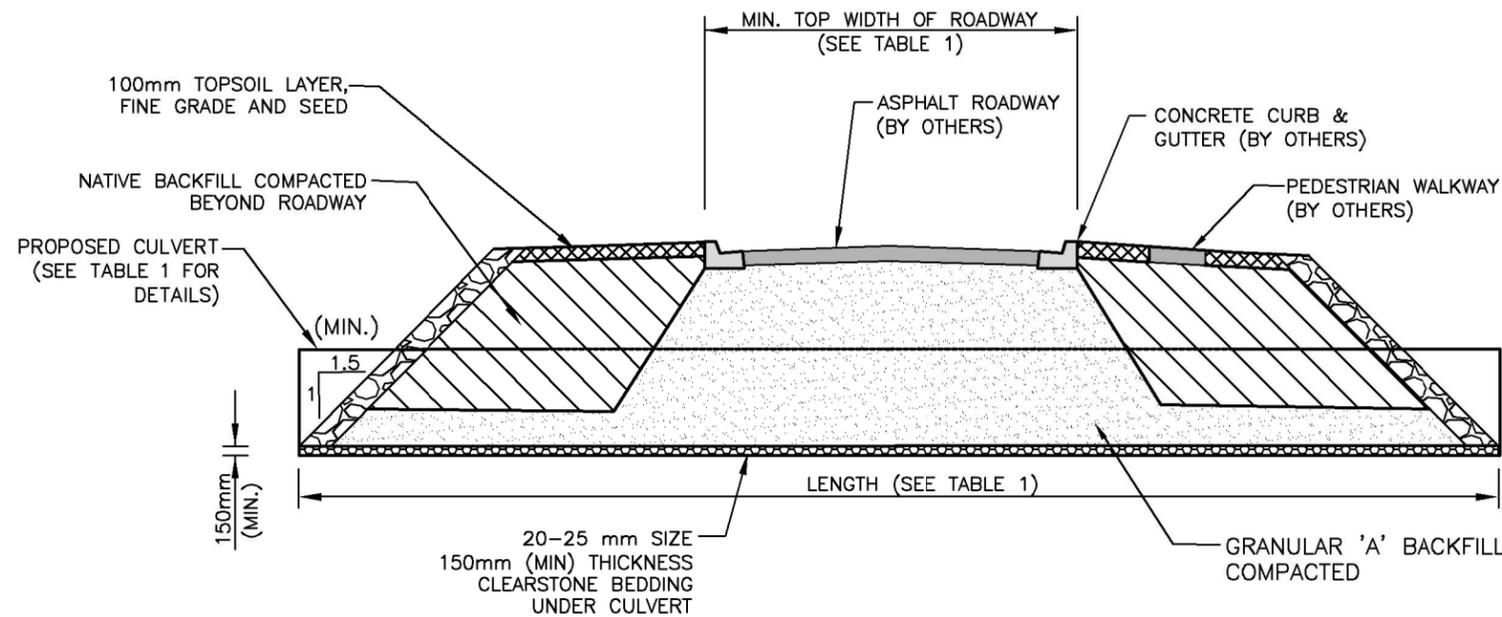
DRAWING SCALES BASED ON A 11" X 17" SHEET

Drainage Report for
NEW ACCESS BRIDGE OVER THE DUFOR DRAIN FOR
MGV DEVELOPMENT (MCGREGOR) INC.
Town of Amherstburg

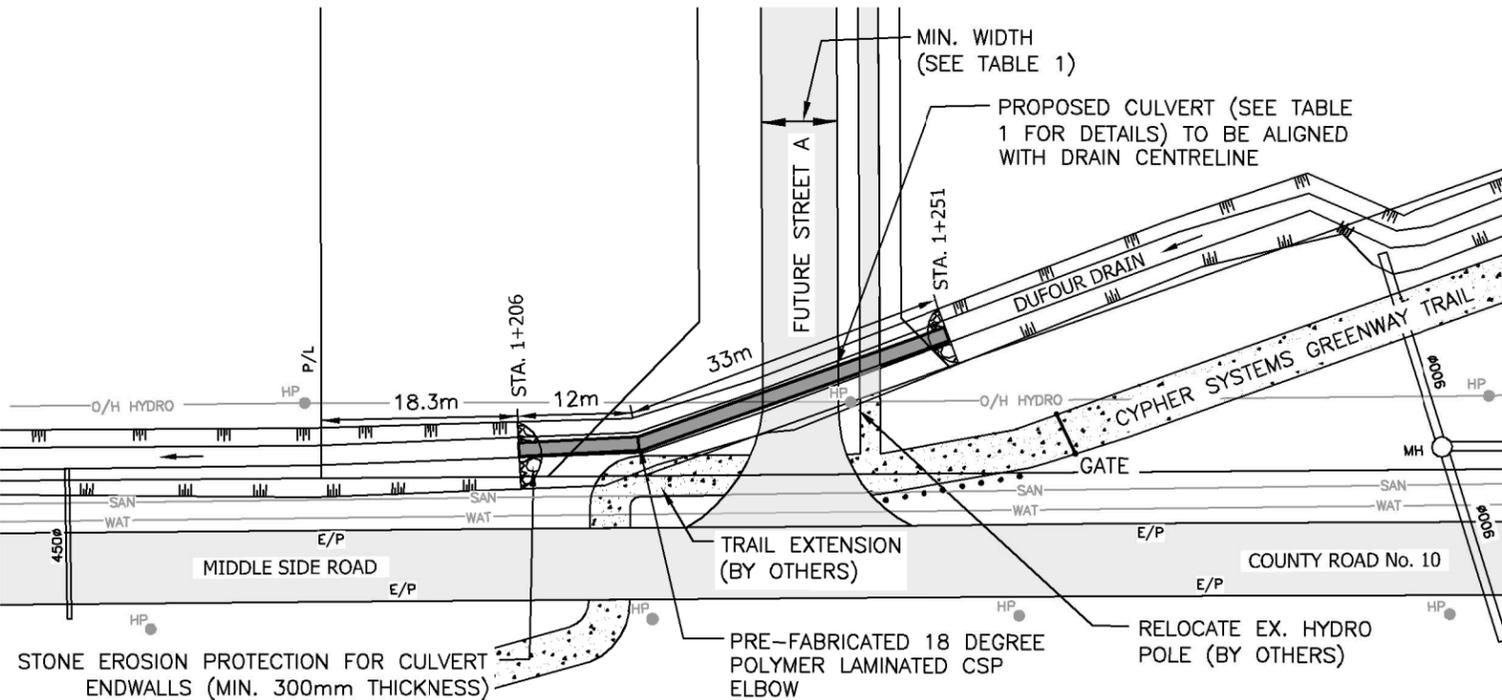
SHEET TITLE
PROPERTY INFORMATION

PAGE NO.
2 of 3

Jun 15, 2022 3:01pm C:\pwworking\directory\projects\2021\330em\dms78012\212982-03-DRN-CON-UPDATED REPORT-LAND OWNERS.dwg



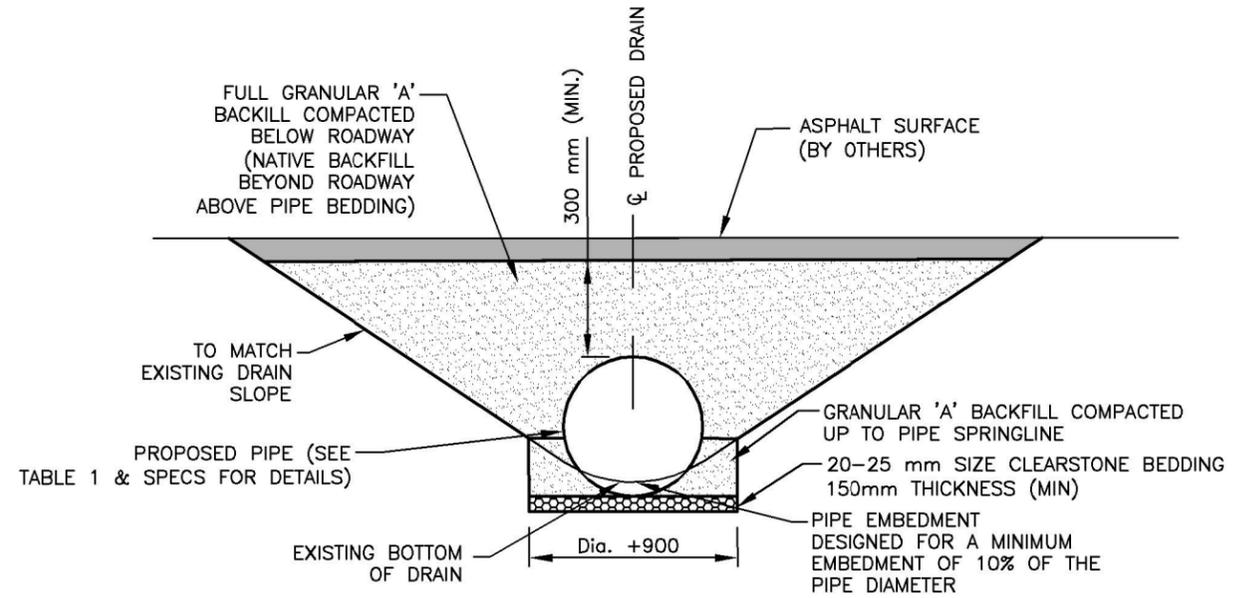
LONGITUDINAL SECTION
N.T.S.



BRIDGE PLAN
N.T.S.

TABLE 1 - ACCESS BRIDGE DESIGN INFORMATION	
DESCRIPTION	BRIDGE No. 6
BRIDGE LOCATION (STA.)	1+228
PIPE INVERT ELEV. U/S SIDE (m)	181.70
PIPE INVERT ELEV. D/S SIDE (m)	181.65
TOP OF ROADWAY SURFACE ELEV. (m)	183.74
DRAIN BOTTOM (m) (DESIGN) (AT CENTRELINE OF CULVERT)	181.82
ROADWAY WIDTH OF STREET A (m) (BACK OF CURB)	9.0
MIN. CULVERT GRADE (%)	0.10
PIPE SIZE (mm)	1400
CULVERT TYPE	C.S.P
CULVERT MATERIAL	POLY LAM.
CULVERT LENGTH (m)	45.0
CULVERT THICKNESS (mm)	2.8
CULVERT CORRUGATIONS (mm)	125X25
CULVERT END WALL TYPE	SLOPING

NOTE: CONTRACTOR IS RESPONSIBLE TO ARRANGE UTILITY LOCATES PRIOR TO CONSTRUCTION



CROSS SECTION
N.T.S.



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TRO	JJT
DRAWN	CHECKED BY
MA	MDH
DATE	June 15, 2022
SCALE	AS SHOWN

	PROJECT NO.	21-2982
	DRAWING SCALES BASED ON A 11" X 17" SHEET	

'SCHEDULE G'

Drainage Report for
NEW ACCESS BRIDGE OVER THE DUFOR DRAIN FOR
MGV DEVELOPMENT (McGREGOR) INC.
Town of Amherstburg

SHEET TITLE
BRIDGE No.6 DETAILS

PAGE NO.
3 of 3

THE CORPORATION OF THE TOWN OF AMHERSTBURG

BY-LAW NO. 2022 – 076

By-law to provide for a New Access Bridge over the Dufour Drain for MGV Development (McGregor) Inc. & New Maintenance Schedule of Assessment (Dufour Drain and Branch A) based on the Drainage Report by Dillon Consulting Ltd.

WHEREAS a request for improvement of the Dufour Drain was received under section 78 of the Drainage Act;

WHEREAS Council of the Corporation of the Town of Amherstburg appointed an engineer for the purpose of preparation of an engineer's report for the improvements of the Dufour Drain under section 78 of the Drainage Act;

WHEREAS Council of the Corporation of the Town of Amherstburg has authorized Tim Oliver, P. Eng., to prepare a report and said engineer's report dated June 15, 2022, can be referenced as Schedule A, as attached hereto;

WHEREAS \$87,600.00 is the estimated cost of improving the drainage works;

AND WHEREAS the report was considered by the Amherstburg Drainage Board at the meeting held on July 5, 2022.

NOW THEREFORE the Council of the Corporation of the Town of Amherstburg hereby enacts as follows:

1. AUTHORIZATION

The attached report is adopted and the drainage works is authorized and shall be completed as specified in the report

2. BORROWING

The Corporation of the Town of Amherstburg may borrow on the credit of the Corporation the amount of \$87,600.00 being the amount necessary for the improvements of the drainage works.

3. DEBENTURE(S)

The Corporation may issue debenture(s) for the amount borrowed less the total amount of:

- (a) Grants received under section 85 of the Drainage Act;
- (b) Monies paid as allowances;
- (c) Commuted payments made in respect of lands and roads assessed with the municipality;
- (d) Money paid under subsection 61(3) of the Drainage Act; and
- (e) Money assessed in and payable by another municipality.

4. PAYMENT

Such debenture(s) shall be made payable within 5 years from the date of the debenture(s) and shall bear interest at a rate not higher than 1% more than the municipal lending rates as posted by The Town of Amherstburg's Bank's Prime Lending Rate on the date of sale of such debenture(s).

- (1) A special equal annual rate sufficient to redeem the principal and interest on the debenture(s) shall be levied upon the lands and roads and shall be collected in the same manner and at the same as other taxes are collected in each year for 5 years after the passing of this by-law.

(2) All assessments of \$1000.00 or less are payable in the first year in which the assessments are imposed.

Read a first and second time and provisionally adopted this 11th day of July, 2022.

MAYOR – ALDO DICARLO

CLERK – VALERIE CRITCHLEY

Read a third time and finally passed this ___ day of _____, 2022.

MAYOR – ALDO DICARLO

CLERK – VALERIE CRITCHLEY