

### The Corporation of the Township of Malahide

### AGENDA

May 19, 2022 – 7:30 p.m.

### Springfield & Area Community Services Building 51221 Ron McNeil Line, Springfield

** Note:	Due to COVID-19 restrictions, this meeting will have limited
	seating capacity for Council and Municipal Staff only. The
	meeting will also be streamed live on YouTube.**

- (A) Call Meeting to Order
- (B) Disclosure of Pecuniary Interest
- (C) Approval of Previous Minutes **RES 1 (Pages 7-18)**
- (D) Presentations/Delegations/Petitions
  - Meeting to Consider Tate Drain Branch "E" 2021 relating to property at Lots 24 to 26, Concession 2, Geographic Township of Malahide RES 2-4 (Pages 19-20)
- (E) Reports of Departments
  - (i) Director of Fire & Emergency Services
    - Emergency Services Activity Report April RES 5 (Pages 21-24)
  - (ii) Director of Public Works
    - Petition for Drainage Dykxhoorn Petition RES 6 (Pages 25-28)
    - Road Safety Audit Phase 2 Implementation RES 7 (Pages 29-58)
    - Hacienda Road and Vienna Line Culvert Rehabilitation Consideration **RES 8 (Pages 59-104)**

- (iii) Director of Finance/Treasurer
- (iv) Clerk
- (v) Building/Planning/By-law
- (vi) CAO

- Shared Development Approvals Service Business Plan and Electronic Processing **RES 9 (Pages 105-123)** 

- (F) Reports of Committees/Outside Boards
  - (i) Long Point Region Conservation Authority Board of Directors– Minutes of May 4, 2022. **RES 10 (Pages 124-128)**
- (G) Correspondence RES 11
  - 1. Association of Municipalities of Ontario Watch File dated May 5, 2022 and May 12, 2022. (Pages C2-7)
  - Tay Valley Township Resolution supporting the Association of Municipalities of Ontario's letter to the Solicitor General of Ontario outlining their concerns with the draft regulations regarding firefighter certification. (Pages C8-11)
  - 3. Mohawk Nation of the Grand River Country- Further expansion of the Mohawk nation. (Pages C12-18)
  - Ministry of Northern Development, Mines, Natural Resources and Forestry

     Decision Notice of Proposed Regulation Changes under the Aggregate Resources Act. (Pages C19-20)
  - 5. Ministry of the Solicitor General Malahide Compliance in 2021 of the Emergency Management and Civil Protection Act (EMCPA). (Page C21)
  - 6. Municipality of Central Elgin Notice of Study Commencement Municipal Class Environmental Assessment. (Pages C22-23)
  - 7. Municipality of Central Elgin Notice of Passing Zoning By-law Amendment relating to the following: (Page C24)
    - 43315 Roberts Line
  - 8. Ministry of the Solicitor General Conclusion of COVID-19 Enforcement Support Line. (Page C25)
  - 9. Town of Aylmer Notice of Public Information Centre Replacement of the existing water storage facility. (Page C26)

- (H) Other Business
  - Malahide Firefighters Association Correspondence requesting permission for Fireworks on the Pier in Port Bruce. RES 12 (Page 129)
- (I) By-laws
- (J) Closed Session
- (K) Confirmatory By-law RES 13 (Page 130)
- (L) Adjournment RES 14

### **\*\*VIDEOCONFERENCE MEETING**

# Note for Members of the Public: IMPORTANT ---

Please note that the Regular Council Meeting scheduled to be held on May 19, 2022 will be via videoconference only for presenters, the press and the public.

Please note that, at this time, there is not an option for the public to call in to this meeting. However, we will be livestreaming the Council Meeting via YouTube. <u>Please click here to watch the Council Meeting</u>.

Written comments regarding the Council Agenda items are welcome – please forward such to the Clerk at <u>aadams@malahide.ca.</u>

PLEASE NOTE that the draft resolutions provided below DO NOT represent decisions already made by the Council. They are simply intended for the convenience of the Council to expedite the transaction of Council business. Members of Council will choose whether or not to move the proposed draft motions and the Council may also choose to amend or defeat them during the course of the Council meeting.

- 1. THAT the minutes of the regular meeting of the Council held on May 5, 2022, be adopted as printed and circulated.
- 2. THAT the Engineer's Report for the Tate Drain Branch "E" 2021, as prepared by Spriet Associates London Limited and dated April 23, 2021, be accepted;

AND THAT By-law No. 22-39 being a by-law to provide for the Tate Drain Branch "E" 2021 drainage works be read a first and second time and provisionally adopted.

- 3. THAT the Court of Revision for the Tate Drain Branch "E" 2021 be scheduled to be held on June 16, 2022, at 7:30 p.m.
- 4. THAT the tenders for the construction of the Tate Drain Branch "E" 2021 be requested for June 9, 2022 at 11:00 a.m.
- 5. THAT Report No. F-22-08 entitled "Emergency Services Activity Report April" be received.
- THAT Report No. PW-22-30 entitled "Petition for Drainage Dykxhoorn Petition" be received;

AND THAT George Vereyken, P. Eng., of Spriet Associates Ltd., be appointed to prepare an Engineer's Report for the Dykxhoorn petition, it being noted that the Petitioner is requesting this petition to be incorporated into the Engineers report currently being prepared for the construction of a new branch of the Burks Drain.

7. THAT Report No. PW-22-35 entitled "Road Safety Audit Phase 2 Implementation" be received;

AND THAT the Municipal Staff be authorized and directed to take the necessary steps to ensure that appropriate speed reductions are implemented on all Township roads;

AND THAT the Municipal Staff be authorized and directed to proceed with the installation of guiderail at the identified locations as budget limitations allow;

8. THAT Report No. PW-22-36 entitled "Hacienda Road and Vienna Line Culvert Rehabilitation Consideration" be received;

AND THAT Staff proceed with issuance of request for proposals for the design of concrete box culverts for the replacement of the C-15 Hacienda Road Culvert and C-17 Vienna Line Culvert in accordance with the 2022 Capital budget;

9. THAT Report No. CAO-22-07 entitled "Presentation #1 Re: Shared Development Approvals Service Business Plan and Electronic Processing" be received;

AND THAT Council support and give direction to Performance Concepts Inc. and Staff to proceed with a detailed build-out of a preferred model, subject to the Council for the Municipality of Bayham agreeing, whereby: the Township of Malahide sells Building Services to the Municipality of Bayham; the Municipality of Bayham sells By-Law Enforcement Services to Malahide; and, a Shared Services Board is established for Land-Use Planning Services between both municipalities.

- 10. THAT the following Reports of Committees/Outside Boards be noted and filed:
  - (i) Long Point Region Conservation Authority Board of Directors– Minutes of May 4, 2022
- 11. THAT the following correspondence be noted and filed:
- 1. Association of Municipalities of Ontario Watch File dated May 5, 2022 and May 12, 2022. (Pages C2-7)
- Tay Valley Township Resolution supporting the Association of Municipalities of Ontario's letter to the Solicitor General of Ontario outlining their concerns with the draft regulations regarding firefighter certification. (Pages C8-11)
- 3. Mohawk Nation of the Grand River Country- Further expansion of the Mohawk nation. (Pages C12-18)
- Ministry of Northern Development, Mines, Natural Resources and Forestry Decision Notice of Proposed Regulation Changes under the Aggregate Resources Act. (Pages C19-20)
- 5. Ministry of the Solicitor General Malahide Compliance in 2021 of the Emergency Management and Civil Protection Act (EMCPA). (Page C21)
- Municipality of Central Elgin Notice of Study Commencement Municipal Class Environmental Assessment. (Pages C22-23)
- 7. Municipality of Central Elgin Notice of Passing Zoning By-law Amendment relating to the following: (Page C24)
  - 43315 Roberts Line

- 8. Ministry of the Solicitor General Conclusion of COVID-19 Enforcement Support Line. (Page C25)
- 9. Town of Aylmer Notice of Public Information Centre Replacement of the existing water storage facility. (Page C26)
- 12. THAT Malahide Volunteer Firefighter Association be granted permission to utilize a portion of the pier in Port Bruce for the purpose of a fireworks display on May 22 or May 23; SUBJECT to providing the Township with proof of Event Liability Insurance naming the Township of Malahide as an additional insured.
- 13. THAT By-law No. 22-37, being a Confirmatory By-law, be given first, second and third readings, and be properly signed and sealed.
- 14. THAT the Council adjourn its meeting at \_\_\_\_\_ p.m. to meet again on June 2, 2022, at 7:30 p.m.

### The Corporation of the Township of Malahide

### May 5, 2022 – 7:30 p.m.

### Virtual Meeting - https://youtu.be/7NiSH6cCBB0

Due to COVID 19 and Public Health concerns, the Malahide Township Council met at the Springfield & Area Community Services Building, at 51221 Ron McNeil Line, Springfield, at 7:30 p.m. in order to allow for physical distancing. No public attendance was permitted. The following were present:

**Council:** Mayor D. Mennill, Deputy Mayor D. Giguère, Councillor M. Widner, Councillor M. Moore, Councillor S. Lewis, and Councillor C. Glinski.

**Staff:** Chief Administrative Officer A. Betteridge, Clerk A. Adams, Director of Public Works M. Sweetland, and Director of Finance A. Boylan.

Council via Zoom: N/A

Staff via Zoom: N/A

Absent: Councillor R. Cerna and Director of Fire and Emergency Services J. Spoor.

### CALL TO ORDER:

Mayor Mennill took the Chair and called the meeting to order at 7:30 p.m.

### **DISCLOSURE OF PECUNIARY INTEREST and the General Nature thereof:**

Councillor Widner disclosed a pecuniary interest with respect to Council Agenda Report item E-(iii) Harvest Bowl Grant Application. The nature of the conflict being that he is a Director on the Harvest Bowl Committee.

### MINUTES:

No. 22–173 Moved By: Max Moore Seconded By: Dominique Giguère

THAT the minutes of the regular meeting of the Council held on April 21, 2022, be adopted as printed and circulated.

Carried

### PRESENTATIONS/DELEGATIONS/PETITIONS:

- <u>Presentation – Derek Richmond – Expanding Services and Protecting Public</u> <u>Post Offices</u>

Mayor Mennill noted that at the request of Mr. Richmond his presentation for the meeting had been cancelled and would be rescheduled for a future Council meeting.

- <u>Public Meeting – Zoning By-law Amendment</u> – Applicant Margaret Goodhue (Authorized Agent: Helen R. Button – Gunn & Associates) relating to property at Part Lot 23, Concession 12, 47148 Ron McNeil Line.

No. 22–174 Moved By: Mark Widner Seconded By: Chester Glinski

THAT the Public Meeting concerning the Zoning By-law Amendment Application of Margaret Goodhue, relating to property at Part Lot 23, Concession 12, 47148 Ron McNeil Line; be called to order at 7:32p.m.

### Carried

Mayor Mennill advised that the purpose of this Public Meeting is to consider an application to amend the zoning of the subject property located at 47148 Ron McNeil Line from Large Lot Agricultural (A3) to "Small Lot Agricultural (A4) Zone" for the surplus farmhouse dwelling parcel; and, "Special Agricultural (A2) Zone" for the retained farmland parcel.

Mayor Mennill asked the Clerk to advise and confirm on the method and date of notice given for this meeting. The Clerk advised that this public meeting was advertised in the Aylmer Express on April 13, 2022 and April 20, 2022. In addition, affected property owners within 120 meters were sent a notice by mail that was posted at least twenty days prior to this meeting.

Mayor Mennill requested that CAO Betteridge provide an overview of the application. CAO Betteridge provided an overview of the zoning application as detailed in the report and that based on the review the proposal could be supported given the conditions outlined in the report.

Mayor Mennill asked if the agent for the applicant, Helen Button, wished to make any comments. Ms.Button noted that she had nothing further to add.

Mayor Mennill asked if any Council Members wished to make any comments regarding the application and there were none.

No. 22–175 Moved By: Mark Widner Seconded By: Max Moore

THAT the Public Meeting concerning the Zoning By-law Amendment Application of Margaret Goodhue, relating to property at Part Lot 23, Concession 12, 47148 Ron McNeil Line; be adjourned and the Council reconvene at 7:35p.m.

Carried

The Mayor thanked Ms. Button and she retired from the meeting.

No. 22-176 Moved By: Chester Glinski Seconded By: Scott Lewis

THAT Report No. DS-22-23 entitled "Zoning By-law Amendment Application of Margaret Goodhue" be received;

AND THAT the Zoning By-law Amendment Application No. D14-Z03-22 of Margaret Goodhue (Authorized Agent: Helen R. Button - Gunn & Associates), relating to the property located at Part Lot 23, Concession 12, (Former Township of South Dorchester), and known municipally as 47148 Ron McNeil Line, BE APPROVED for the reasons set out in this Report.

Carried

### **REPORTS**:

**Director of Public Works** 

- Tender Results: 2022 Supply & Place Surface Treatment

Councillor Widner inquired about the extra two-year warranty and if the other partners also acquire this option. Public Works Director Sweetland wasn't sure if other municipalities did but noted that the Township has done so in the past and has acquired the warranty this time as well.

No. 22–177 Moved By: Scott Lewis Seconded By: Mark Widner

THAT Report No. PW-22-26 entitled "Tender Results: 2022 Supply & Place Surface Treatment" be received;

AND THAT the 2022 Supply & Place Surface Treatment work be awarded to Duncor Enterprises Inc.;

AND THAT the Mayor and Clerk be authorized to enter into an agreement with Duncor Enterprises Inc. of Barrie, Ontario for the purpose of completing the 2022 Surface Treatment Program.

### Carried

- Tender Results: Road Line Painting Contract

Councillor Lewis inquired if it Centreline Painting was the same company that was obtained last time. Public Works Director Sweetland indicated it was the same company. Councillor Lewis noted there were some line painting issues last time. Director Sweetland said it is a difficult industry and not directed to any one company. If it's a quality control item within limits, staff will try to ensure that it's met. Councillor Widner noted that it was this company that tried to correct the errors of the company used a few years ago.

No. 22–178 Moved By: Max Moore Seconded By: Mark Widner

THAT Report No. PS-22-27 entitled "Tender Results: Road Line Painting Contract" be received;

AND THAT the Centerline Painting contract be awarded to RanN Maintenance (2228977 Ontario Ltd.);

AND THAT the Mayor and Clerk be authorized to enter into an agreement with RanN Maintenance (2228977 Ontario Ltd.) of Guelph, Ontario for the purpose of completing the Centerline Painting Program.

### Carried

-Tender Results: Supply and Apply Dust Control

Councillor Glinski inquired about the tender price. Director Sweetland noted that this was a cooperative price with Elgin County. He noted there was more than one tender bid submitted and that on these types of tenders the overall cost is presented and not the unit price.

No. 22–179 Moved By: Scott Lewis Seconded By: Dominique Giguère THAT Report No. PW-22-28 entitled "Tender Results: Supply and Apply Dust Control" be received;

AND THAT the Township's portion of the Supply and Apply Dust Control tender be awarded to Da-Lee Dust Control Ltd., of Stoney Creek, Ontario, in the amount of \$465.12 per flake tonne for 35% calcium chloride (excluding hst);

AND THAT the Mayor and Clerk be authorized to enter into an agreement with Da-Lee Dust Control Ltd. for the purpose of completing the 2022 Dust Suppressant Program.

### Carried

-Tender Results: Supply and Placement of Road Granulars

Councillor Glinski inquired if a cost comparison was done between using Township trucks versus this company. Director Sweetland noted that this type of comparison isn't completed annually but reviewing the supply of gravel required in the tender versus the supply and placement of the tender is reviewed and for these types of capital reconstruction projects using a tendered contract like this is time efficient while using Township fleet in other means.

No. 22–180 Moved By: Scott Lewis Seconded By: Dominique Giguère

THAT Report No. PW-22-29, entitled "Tender Results: Supply and Placement of Road Granulars" be received;

AND THAT, the tender for the Supply and Placement of Road Granulars Contract be awarded to McKenzie and Henderson Ltd. of Forest, Ontario in the amount of \$661,275.00 (plus HST);

AND THAT the Mayor and Clerk be authorized to enter into an agreement with McKenzie and Henderson Ltd. for the purpose of completing the Supply and Placement of Road Granulars Program.

Carried

### Director of Finance/Treasurer

- Development Charges & Reserve Fund

Deputy Mayor Giguère inquired about the \$266,204.29 funds listed in the report for three items but in the legislative reports you have to break it down over five categories and how this would be allocated. Director Boylan referred to the attachment of the

report presented that has the development charge usage broken down is in five categories.

No. 22–181 Moved By: Mark Widner Seconded By: Dominique Giguère

THAT Report No. FIN 22-14 entitled "2021 Development Charges and Reserve Fund" be received.

### Carried

- Harvest Bowl Grant Application

Councillor Widner disclosed a pecuniary interest with respect to Council Agenda Report item E-(iii) Harvest Bowl Grant Application. He retired from the meeting and abstained from all discussions and voting on the matter.

Director Boylan provided an overview of the report regarding the Harvest Bowl Grant Application. Mayor Mennill noted this group moving forward is seeking another location for its operations but that it should be communicated with the group that if future grant applications are submitted they will be required to meet the submission deadlines in order to keep the process consistent.

No. 22–182 Moved By: Chester Glinski Seconded By: Max Moore

THAT Report No. FIN 22-15 entitled "Harvest Bowl Grant Application" be received;

AND THAT Harvest Bowl's 2021 facility rental fees in the amount of \$1,968.57 be waived;

AND THAT the Director of Finance be directed to commit \$1,968.57 of 2021's projected surplus to fund Harvest Bowl's 2021 waiver of fees.

### Carried

Councillor Widner returned to his seat at the Council table.

### Building/Planning/By-law

- Site Plan Application No. D11-SP02-2022 and Zoning By-Law Amendment Application No. D14-Z04-22 – Edward Empey And Constance Camilleri No. 22–183 Moved By: Chester Glinski Seconded By: Mark Widner

THAT Report No. DS-22-22 entitled "Site Plan Application No. D11-SP02-2022 and Zoning By-Law Amendment Application No. D14-Z04-22 – Edward Empey And Constance Camilleri" be received;

AND THAT the Council APPROVE Site Plan Application No. D11-SP02-2022 and Zoning By-Law Amendment Application No. D14-Z04-22;

AND THAT Council proceed with the adoption of By-law 22-26 authorizing the Mayor and CAO/Clerk to sign the Site Plan Agreement; AND THAT the Zoning Bylaw Amendment Application No. D14-Z04-22 of Edward Empey and Constance Camilleri to remove the "-H-1" symbol from the current zone classification, BE APPROVED for the reasons set out in this Report.

Carried

- Delegated Approval for Site Plan Control Applications

CAO Betteridge noted there has been some recent legislative changes to the Planning Act in respect to site plan decisions where the Province at one time suggested or provided the option that the decisions could be delegated to staff but now is mandating this delegation to staff.

Councillor Glinski inquired about the reference to the number of portables that a school could have on the school grounds. CAO Betteridge provided a reference from his report that the Planning Act does not recognize the placement of a portable classroom on a school site as development. There have been some municipalities that do institute a cap on the number. In reference to what may happen at South Dorchester Public School there is nothing currently that would trigger a site plan approval but if this draft site plan by-law was approved it would cap the limit at two portable classrooms and any additional ones would require site plan control.

Deputy Mayor Giguère noted that there are typically reasons for processes and if there are any advantages to this approval authority change. CAO Betteridge stated there is an advantage for applicants as the process is not delayed by waiting for Council approval. This change of process would benefit those developing in our community as time is always of the essence. Staff will continue their due diligence when reviewing these applications and the quality of work will remain unchanged. CAO Betteridge stated the only difference if this approach was approved would be that the report would be sent to the CAO for review and approval instead of Council.

Deputy Mayor Giguère inquired if staff could provide updates to Council on a quarterly or semi-annual basis regarding the submissions. CAO Betteridge agreed this could be done as it's expected that site plan activity will increase with how the market is trending.

Councillor Glinski inquired if this staff review would result in using the Township's planner Monteith Brown less. CAO Betteridge stated that Monteith Brown would still be used in complex applications or if there in an influx of applications received but that the typical application could be reviewed internally.

No. 22–184 Moved By: Scott Lewis Seconded By: Dominique Giguère

THAT Report No. DS-22-24 entitled "Delegated Approval for Site Plan Control Applications" be received;

AND THAT the Council for the Township of Malahide adopt By-law No. 22-30 in order to provide administrative adjustments to the Site Plan Control process including delegating approval of site plans to the Township CAO.

AND THAT Council direct staff to provide a semi annual review of the number of applications received.

Carried

**REPORTS OF COMMITTEES/OUTSIDE BOARDS:** 

No. 22–185 Moved By: Max Moore Seconded By: Mark Widner

THAT the following Reports of Committees/Outside Boards be noted and filed:

(i) Malahide Budget Committee - Minutes of April 21, 2022

Carried

**CORRESPONDENCE:** 

No. 22–186 Moved By: Mark Widner Seconded By: Max Moore

THAT the Town of Gravenhurst – Resolution that the Town of Gravenhurst will not purchase any products originating from Russia and any future contracts for services with the Town abide by these limitations be supported.

Carried

No. 22–187 Moved By: Mark Widner Seconded By: Max Moore

THAT the following correspondence be noted and filed:

- 1. Association of Municipalities of Ontario Watch File dated April 14, 2022 and April 21, 2022. (Pages C2-5)
- Municipality Property Assessment Corporation (MPAC) 2021 Annual Report. (Click on links on MPAC email to review reports and financial statements). (Pages C6-7)
- Municipality of Thames Centre Notice of Open House & Public Meeting regarding an Official Plan Amendment to Implement Thames Centre's Five-Year Official Plan Review. (Page C8)
- Municipality of Mississippi Mills, City of Waterloo & Town of Halton Hills

   Resolution calling for all new buildings in the Province of Ontario to
   be built with the highest energy efficiency the first time. (Pages C11-19)
- 5. Ministry of the Environment, Conservation and Parks Notice of implementation of phase 2 regulations to improve Conservation Authority operations. (Pages C20-21)
- 6. Ontario Region Delivering Community Power Coordinator Canadian Union of Postal Workers – Request for Malahide Township to support service expansion at Canada Post. (Pages C22-23)

### Carried

### **OTHER BUSINESS:**

Councillor Glinski inquired about the status of the feasibility study. CAO Betteridge noted that it was being finalized by the consultants and that a presentation to Council will be scheduled when it's complete.

### **BY-LAWS:**

### No. 22–188 Moved By: Scott Lewis Seconded By: Chester Glinski

THAT By-law No. 22-27, being a By-law to set the 2022 tax rates and levies, be given first, second and third readings, and be properly signed and sealed.

### Carried

### No. 22–189 Moved By: Mark Widner Seconded By: Scott Lewis

THAT By-law No. 22-32, being a By-law to authorize the execution of an Agreement with 2228977 Ontario Ltd. (RanN Maintenance) for Centreline Painting on various Municipal Roads, be given first, second and third readings, and be properly signed and sealed

### Carried

### No. 22–190 Moved By: Dominique Giguère Seconded By: Mark Widner

THAT By-law No. 22-33, being a By-law to authorize the execution of an Agreement with Da-Lee Dust Control Ltd. for supply and apply Dust Control, be given first, second and third readings, and be properly signed and sealed.

### Carried

### No. 22–191 Moved By: Chester Glinski Seconded By: Dominique Giguère

THAT By-law No. 22-34, being a By-law to authorize the execution of an Agreement with McKenzie & Henderson Ltd. for supply and placement of road granulars, be given first, second and third readings, and be properly signed and sealed.

### Carried

### No. 22–192 Moved By: Scott Lewis Seconded By: Max Moore

THAT By-law No. 22-35, being a By-law to authorize the execution of an Agreement with Duncor Enterprises Inc. for the supply and placement of Micro Surfacing and Surface Treatment, be given first, second, and third readings, and be properly signed and sealed.

Carried

CLOSED SESSION:

No. 22–193 Moved By: Mark Widner Seconded By: Scott Lewis

THAT Council move into Closed Session at 8:16p.m., pursuant to Section 239(2) of the Municipal Act, 2001, as amended, to discuss the following

(i) Labour Relations or Employee Negotiations Matter relating to a staff recruitment matter relating to the I.T. department.

Carried

No. 22–194 Moved By: Chester Glinski Seconded By: Max Moore

THAT Council move out of Closed Session and reconvene at 8:31p.m. in order to continue with its deliberations.

### Carried

The Mayor advised that during the Closed Session, Council provided direction to Municipal Staff regarding labour relations or employee negotiations relating to a staff recruitment matter relating to the I.T. Department. There is nothing further to report.

### **CONFIRMATORY:**

No. 22–195 Moved By: Max Moore Seconded By: Scott Lewis

THAT By-law No. 22-31, being a Confirmatory By-law, be given first, second and third readings, and be properly signed and sealed.

Carried

**ADJOURNMENT:** 

No. 22–196 Moved By: Chester Glinski Seconded By: Mark Widner

THAT the Council adjourn its meeting at 8:32p.m. to meet again on May 19, 2022, at 7:30p.m.

Carried

Mayor – D. Mennill

Clerk – A. Adams



### **TOWNSHIP OF MALAHIDE**

### DRAINAGE BY-LAW NO. 22-39

*Drainage Act,* R. S.O. 1990, c. D17 Reg. 300/81, s.1, Form 6

Being a By-law to provide for a drainage works on the Tate Drain – Branch 'E' in the Township of Malahide, in the County of Elgin

\*\*\*\*\*\*\*

**WHEREAS** the requisite number of owners have petitioned the Council of the Township of Malahide in the County of Elgin in accordance with the provisions of the Drainage Act, requesting that the following lands and roads may be drained by a drainage works.

### Lots 24 to 26 Concession 2 In the geographic Township of Malahide

**AND WHEREAS** the Council for the Township of Malahide has procured a report made by Spriet Associates and the report is attached hereto and forms part of this by-law.

**AND WHEREAS** the estimated total cost of constructing the drainage works is \$43,000.00.

**AND WHEREAS** \$43,000.00 is the amount to be contributed by the municipality for construction of the drainage works.

**AND WHEREAS** \$43,000.00 is being assessed in the Township of Malahide in the County of Elgin.

**AND WHEREAS** the council is of the opinion that the drainage of the area is desirable.

NOW THEREFORE, THE COUNCIL OF THE CORPORATION OF THE TOWNSHIP OF MALAHIDE UNDER THE DRAINAGE ACT ENACTS AS FOLLOWS:

- 1. The report dated April 23, 2021, and attached hereto is hereby adopted and the drainage works as therein indicated and set forth is hereby authorized, and shall be completed in accordance therewith.
- 2.
- (a) The Corporation of the Township of Malahide may borrow on the credit of the Corporation the amount of \$43,000.00 being the amount necessary for construction of the drainage works.

19

- (b) The Corporation may issue debentures for the amount borrowed less the total amount of,
  - i. Grants received under section 85 of the Act;
  - ii. Commuted payments made in respect of lands and roads assessed within the municipality;
  - iii. Moneys paid under subsection 61(3) of the Act; and
  - iv. Moneys assessed in and payable by another municipality,
- (c) And such debentures shall be made payable within five years from the date of the debenture and shall bear interest at a rate not higher than the rate charged by The Ontario Municipal Improvement Corporation on the date of sale of such debentures.
- 3. A special equal amount rate sufficient to redeem the principal and interest on the debentures shall be levied upon the lands and roads as set forth in the Schedule to be collected in the same manner and at the same time as other taxes are collected in each year for five years after the passing of this by-law.
- 4. All assessments of \$500.00 or less are payable in the first year in which the assessment is imposed.
- 5. This By-law comes into force on the passing thereof and may be cited as the "Tate Drain Branch 'E'".

READ A FIRST AND SECOND TIME THIS 19th day of May, 2022.

Mayor

Clerk

READ A THIRD TIME AND FINALLY PASSED THIS 7th day of July, 2022.

Mayor

Clerk



21

# **Report to Council**

**REPORT NO.:** F-22-08

**DATE:** May 19, 2022

ATTACHMENT: None

SUBJECT: EMERGENCY SERVICES ACTIVITY REPORT - APRIL

### Recommendation:

# THAT Report No. F-22-08 entitled "Emergency Services Activity Report – April" be received.

### Comments:

This report provides information reported for the month of April, 2022 unless otherwise stated.

### **Department Responses**

The Malahide Fire Services responded to twenty-seven (27) incidents. A comparison of these incidents to the same month of previous years is shown in the bar graph at right:

Medical incidents accounted for approximately fifty-five (55%) of all incidents in the subject month. Incident by type is shown on the chart at right.



**Responses Month to Month** 

	22
Fire	3
Burn Complaint	3
Alarm Malfunction	1
CO Alarm	0
Public Hazard - Wires Down	4
Technical Rescue MVC	1
Technical Rescue Other	0
Medical	15
Assisting Other Fire Department	0
Total	27

The average age of persons requiring medical response was 65 with a 53/47 male/female ratio.

The split of incidents (North/South) was: South Station: 12 North Station: 15

### Fire Events Loss/Save, Fire Prevention, and Fire Safety Inspections

There were three fires with a combined estimated total dollar loss of \$14,000.00.

This month's fire safety message was "Inspect your Home for Fire Hazards".

Fire Prevention Staff had no activities for fire prevention instruction or public education.

22

For this month the Staff conducted no inspections. No inspection orders for noncompliance were issued.

### Ontario Police College ("OPC")

To date the Staff have not trained any Police Cadets. The current agreement with the OPC is that it will reimburse Malahide Fire Service \$2,000.00 per session, as well as cover the cost of any equipment that is damaged during any presentation.

The next training session at OPC has not been scheduled.

In the below bar graph, the total number of cadets trained per year is shown in red, and the amount invoiced to the OPC is shown in green:

#### \$6,000.00 \$6,000.00 3086 2096 \$2,000.00 1410 1000 726 830 489 475 0 0 \$-2015 2016 2017 2018 2019 2020 2021 2022

### **OPC Cadet Training - Year to Date Comparison**

Malahide Fire Services responded to one (1) motor vehicle collisions ("MVC"). Year-todate invoicing for services provided (e.g. to MTO and to non-residents of Malahide), and total for prior years, is provided below:



Accident Invoices - Year

### **Burn Permits**

Year-to-date permits issued, and total for prior years, is provided below:



### **Burn Permits Issued - Year**

### General

### Automatic Aid Agreement(s)

The Automatic Aid Agreement with Central Elgin was not activated in the subject month.

### Mutual Aid

Malahide Fire Services was not requested for Mutual Aid assistance nor was Mutual Aid requested in April.

### Emergency Management Program

### Emergency Response

Port Bruce Flooding Review of the EM processes continues to be discussed.

Public Education/Awareness, Training, and Emergency Management Program Committee

Public education/awareness included above as a part of Fire Prevention activities.

Training: TBD.

Next Emergency Management Program Committee meeting: TBD.

2022 Program Compliance Activities

EMPC Meeting – TBD ERP Review – TBD Annual Exercise – TBD Malahide Flood Plan Review – TBD Annual CCG Training – TBD

### **Relationship to Cultivating Malahide:**

The Cultivating Malahide Integrated Community Sustainability Plan (ICSP) is based upon four pillars of sustainability: Our Land, Our Economy, Our Community, and Our Government.

One of the goals that support the "Our Community" Strategic Pillar relates to "Keep Our Community Safe". By undertaking a long-range strategy, in consultation with the appropriate emergency services authorities, to identify resources required to optimize the provision of emergency services.

Submitted by:	Approved by:
Jeff Spoor	Adam Betteridge
Director of Fire & Emergency Services	Chief Administrative Officer



## **Report to Council**

SUBJECT:	PETITION FOR DRAINAGE – DYKXHOORN PETITION
ATTACHMENT:	Petition
DATE:	May 19, 2022
REPORT NO.:	PW-22-30

### **Recommendation:**

THAT Report No. PW-22-30 entitled "Petition for Drainage – Dykxhoorn Petition" be received;

AND THAT George Vereyken, P. Eng., of Spriet Associates Ltd., be appointed to prepare an Engineer's Report for the Dykxhoorn petition, it being noted that the Petitioner is requesting this petition to be incorporated into the Engineers report currently being prepared for the construction of a new branch of the Burks Drain.

### **Comments/Analysis:**

The Township of Malahide has received a request for drainage (petition attached). This petition is a result of the landowner being in the watershed for a proposed drain. As the Council will recall, Spriet Associates Ltd. was appointed to prepare an Engineer's Report for construction of a new branch of the Burks drain.

Landowner John Burks had petitioned to have a new drain constructed on the north side of Lyons Line, west of Springfield Road.

During the on-site meeting for the Burks petition the landowners were provided a review of the Drainage Act and the petition and were given an opportunity to comment on the new branch drain. Since then, one additional landowner expressed interest in obtaining a new branch/connection to the drain. To that end, Dan Dykxhoorn owner of 50729 Lyons Line has signed and submitted a petition.

The Staff are recommending that George Vereyken, P. Eng., of Spriet Associates Ltd., be appointed by the Council to prepare a report to address the Dykxhoorn petition, it being noted that Mr. Dykxhoorn is looking to have a new extension/connection on the municipal drain currently behind considered.

N/A.

### **Relationship to Cultivating Malahide:**

The Cultivating Malahide Integrated Community Sustainability Plan (ACSP) is based upon four pillars of sustainability: Our Land, Our Economy, Our Community, and Our Government.

One of the goals that support the "Our Local Government" Strategic Pillar is "Embody Financial Efficiency throughout Decision-Making". Ensuring that the cost of maintaining municipal infrastructure is equitably borne by current and future ratepayer's works to achieve this goal.

Submitted by:	Approved by:	Approved for Council:
Bob Lopez,	Matt Sweetland, P.Eng.,	Adam Betteridge,
Engineering Technologist/	Director of Public Works	Chief Administrative Officer
Drainage Superintendent		



Ministry of Agriculture, Food and Rural Affairs

### Petition for Drainage Works by Owners Form 1

Drainage Act, R.S.O. 1990, c. D.17, clause 4(1)(a) or (b)

This form is to be used to petition municipal council for a new drainage works under the Drainage Act. It is not to be used to request the improvement or modification of an existing drainage works under the Drainage Act.

27

of Malahide To: The Council of the Corporation of the Township

The area of land described below requires drainage (provide a description of the properties or the portions of properties that require drainage improvements)

See map

In accordance with section 9(2) of the Drainage Act, the description of the area requiring drainage will be confirmed or modified by an engineer at the on-site meeting.

As owners of land within the above described area requiring drainage, we hereby petition council under subsection 4(1) of the Drainage Act for a drainage works. In accordance with sections 10(4), 43 and 59(1) of the Drainage Act, if names are withdrawn from the petition to the point that it is no longer a valid petition, we acknowledge responsibility for costs.

Purpose of the Petitio	<b>n</b> (To be completed by o	ne of the petitioner	s. Please type/print)		
Contact Person (Last Nam	ne)	(First)	(First Name)		Telephone Number 6848
NKYHOORN	)		bn)		519 808 600
Address	1				
Road/Street Number	Road/Street Name	$\wedge$	/		
13289	WHITTAKER	RO	DPRINGAEL1	<b>&gt;</b>	
Location of Project					
Lot	Concession	Municipality		Former	Municipality (if applicable)
Part of Lot 7	11	Township of Ma	lahide		
What work do you requi	ire? (Check all appropria	te boxes)		1	
Construction of new	open channel				
Construction of new	<i>i</i> tile drain				
Deepening or wider	ning of existing watercoul	rse (not currently a	municipal drain)		
Enclosure of existin	g watercourse (not curre	ntly a municipal dra	ain)		
Other (provide desc	ription ▼)				
Name of watereaures (i	f len overn)				
Rurks Drain	r known)				
Estimated length of proj	iect				
10					
General description of s	oils in the area				
,					
What is the purpose of t	the proposed work? (Che	eck appropriate box	<)		
☐ Tile drainage only ☐ Surface water drainage only ☑ Both					
District March March 20122					
Petition filed this	day of <u>April</u>	, 20 <u>~</u>			
Name of Clerk (Last first name)					
ADAN	1S, ALLISON	3	F 1	Add	
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çur.	28		
Property Owners Signing The Petition			Page of
<ul> <li>Your municipal property tax bill will provide the property</li> <li>In rural areas, the property description should be in the</li> <li>In urban areas, the property description should be in th</li> </ul>	y description and pa form of (part) lot an e form of street add	rcel roll number. d concession and civ ress and lot and plan	ric address. number if available.
If you have more than two properties, please take copy	(les) of this page an	a continue to list the	n all.
Ward or Geographic Township	Parcel Roll N	umber	
Malaura	3408014010	18200	
I hereby petition for drainage for the land described and ac	knowledge my finan	cial obligations.	
Ownership		0	
Sole Ownership			
Owner Name (Last, First Name) (Type/Print)	Signature		Date (yyyy/mm/dd)
Partnership (Each partner in the ownership of the prope	erty must sign the pe	etition form)	
Owner Name (Last, First Name) (Type/Print)	Signature	()	Date (yyyy/mm/dd)
	Chartes	6 Juliphon	2022/0422
DIKXHOOM PUNKLIE	- Children		1000/01/00
WKXHOORN DAN			2032/04/22
		/	
Corporation (The individual with authority to bind the co	rporation must sign	the petition)	$\sim 1$
Name of Signing Officer (Last, First Name) (Type/Print)		Signature	
LAN DYK-200000			
Name of Corporation			
SLUERRIDGE FARMS LID		I have the authorit	y to bind the Corporation.
Position Title		Date (yyyy/mm/dd	
ILE RESIDENT		2022/04	4/22
Number Property Description		C .	
Ward or Geographic Township	Parcel Roll N	umber	
I hereby petition for drainage for the land described and acl	knowledge my finan	cial obligations.	Auman Angeler
Ownership			
Sole Ownership			
Owner Name (Last, First Name) (Type/Print)	Signature		Date (yyyy/mm/dd)
Partnership (Each partner in the ownership of the prope	erty must sign the pe	etition form)	1
Owner Name (Last, First Name) (Type/Print)	Signature		Date (yyyy/mm/dd)
Corporation (The individual with authority to bind the co	rporation must sign	the petition)	
Name of Signing Officer (Last, First Name) (Type/Print)		Signature	
Name of Corporation			
		I have the authorit	y to bind the Corporation.
Position Litle		Date (yyyy/mm/dd	)
			Clork initial
Li Uneck nere it additional sneets are attached	ian a potition		
Once the petition is accepted by council, an engineer is appointed	nted to respond to the	netition Drainage Act	RSO 1990 CD 17 eube 8(1)
<ul> <li>After the meeting to consider the preliminary report, if the petil petitioners are responsible in equal shares for the costs. <i>Drair</i></li> </ul>	tion does not comply v nage Act, R.S.O. 1990	vith section 4, the proje , c. D. 17 subs. 10(4).	ct is terminated and the original

- After the meeting to consider the final report, if the petition does not comply with section 4, the project is terminated and the original petitioners are responsible for the costs in shares proportional to their assessment in the engineer's report. *Drainage Act*, R.S.O. 1990, c. D. 17 s. 43.
- If the project proceeds to completion, a share of the cost of the project will be assessed to the involved properties in relation to the assessment schedule in the engineer's report, as amended on appeal. *Drainage Act*, R.S.O. 1990, c. D. 17 s. 61.

#### Notice of Collection of Personal Information

Any personal information collected on this form is collected under the authority of the *Drainage Act*, R.S.O. 1990, c. D.17 and will be used for the purposes of administering the Act. Questions concerning the collection of personal information should be directed to: where the form is addressed to a municipality (*municipality to complete*)

and where the form is addressed to a territory without municipal organization, the Drainage Coordinator, Ministry of Agriculture, Food and Rural Affairs, 1 Stone Rd W, Guelph ON N1G 4Y2, 519 826-3552.



# **Report to Council**

SUBJECT:	ROAD SAFETY AUDIT PHASE 2 IMPLEMENTATION
ATTACHMENT:	Speed Zones & Guiderail Maps
DATE:	May 19, 2022
REPORT NO.:	PW-22-35

### Recommendation:

THAT Report No. PW-22-35 entitled "Road Safety Audit Phase 2 Implementation" be received;

AND THAT the Municipal Staff be authorized and directed to take the necessary steps to ensure that appropriate speed reductions are implemented on all Township roads;

AND THAT the Municipal Staff be authorized and directed to proceed with the installation of guiderail at the identified locations as budget limitations allow;

### Background:

As the Council will recall, the Township commissioned a safety audit of its road network. CJDL Consulting Engineers presented the findings of the Road Safety Audit (Phase 2) in May 2021.

Municipal staff subsequently presented council with two reports (*PW-21-47 – Speed Limit Reduction Areas*, and *PW-22-48 – Guiderail Protection & Signage Requirements*) in September 2021 advising of the operational and financial constraints of implementing the Road Safety Audit (Phase 2) recommendations.

The Council then passed a resolution to include the implementation plans during the 2022 Budget Deliberations and requested that the Staff report back with a more detailed report showing the speed reduction and guiderail locations identified in the Roads Safety Audit (Phase 2).

### **Comments/Analysis:**

### **Speed Reduction Areas:**

The following locations were identified for speed reductions due to the geometrical restraints of the roadways identified:

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Drawing	Road	Orig. Speed (km/hr)	Prop. Speed (km/hr)	From	То:	
1.	Carter Road	80	60	North limit of John Wise Line right-of- way	South limit of Talbot Line right- of-way	
2.	Chalet Line	80	50	170 metres west of Anger Road right-of-way	West limit of Carter Road right- of-way	
2.	Chalet Line	80	60	East limit of Carter Road right-of-way	East Limit of Chalet Line (dead end)	
3.	Conservation Line	80	60	425 metres west of Imperial Road right-of-way	West Limit of Imperial Road right-of-way	
4.	Hacienda Road	80	60	North Limit of John Wise Line right-of- way	580 metres north of John Wise Line right-of-way	
5.	Rogers Road	80	50	885 metres South of Conservation Line right-of-way	South limit of Conservation Line right-of way	
6.	Rogers Road	80	60	North Limit of Talbot Line right- of-way	850 metres North of Talbot Line right-of-way	
7.	VanPatter Line	80	60	East Limit of Imperial Road right-of-way	West limit of Hacienda Road right-of-way	

### **Guiderail Locations:**

The following locations were identified for hazard protection (guiderail) due to roadside hazards:

Drawing	Road Name	Location	Year of Installation
8.	Glencolin Line	Near: 51604 Glencolin Line	2022
9.	Glencolin Line	Near: 53042 Glencolin Line	2022
10.	Hacienda Road	Across from: 8801 Hacienda Road	2022
11.	John Wise Line	Near: 51082 John Wise Line	2022
12.	John Wise Line	Near: 51240 John Wise Line	2022

Drawing	Road Name	Location	Year of Installation
13.	Conservation Line	Near: 49180 Conservation Line	2023
14.	Glencolin Line	Near: Hacienda Road Intersection	2023
15.	Glencolin Line	Near: 50727 Glencolin Line	2023
16.	Springerhill Road	Near: 9822 Springerhill Road	2024
17.	Springerhill Road	Near: 9851 Springerhill Road	2024
18.	Chalet Line	Near: 52516 Chalet Line	2025
19.	Springerhill Road	Near: 9931 Springerhill Road	2025
20.	Chalet Line	Near: 52574 Chalet Line	2026
21.	Carter Road	Near: 7900 Carter Road	2026
22.	College Line	Near: 51145 College Line	2027
23.	Carter Road	Near: 8403 Carter Road	2027
24.	Carter Road	Near: 8868 Carter Road	2028
25.	Chalet Line	Near: 52832 Chalet Line	2029

### Financial Implications to Budget:

The approved 2022 Capital Budget includes \$9,000 for Speed Reduction Signage. This amount will be sufficient for the installation of signage in the speed reduction areas.

The total current day value of all proposed guiderail locations is estimated to be \$850,000 plus applicable taxes. The approved 2022 Capital Budget includes \$200,000 for the installation of guiderail. The Staff propose implementing the following phased installation plan to reduce the impact on the current and future capital budgets.

ROAD NAME	LOCATION	2022
Glencolin Line	Near: 51604 Glencolin Line	\$21,900
Glencolin Line	Near: 53042 Glencolin Line	\$21,900
Hacienda Road	Across from: 8801 Hacienda Road	\$27,700
John Wise Line	Near: 51082 John Wise Line	\$46,100
John Wise Line	Near: 51240 John Wise Line	\$82,200

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SUB-TOTAL BEFORE HST	\$199,800
PROPOSED ANNUAL BUDGET	\$200,000

ROAD NAME	2023		
Conservation Line	Near: 49180 Conservation Line	\$21,600	
Glencolin Line	Near: Hacienda Road Intersection	\$33,300	
Glencolin Line Near: 50727 Glencolin Line		\$44,700	
	\$99,600		
	\$100,000		

ROAD NAME	LOCATION	2024
Springerhill Road	Near: 9822 Springerhill Road	\$25,200
Springerhill Road	Near: 9851 Springerhill Road	\$73,800
	\$99,000	
	\$100,000	

ROAD NAME	LOCATION 2025	
Chalet Line	Near: 52516 Chalet Line	\$27,300
Springerhill Road	Near: 9931 Springerhill Road	\$75,300
	\$102,600	
	PROPOSED ANNUAL BUDGET	\$100,000

ROAD NAME	LOCATION	2026
Chalet Line	Near: 52574 Chalet Line	\$27,800
Carter Road	Near: 7900 Carter Road	\$71,800
	\$99,600	
	PROPOSED ANNUAL BUDGET	\$100,000

ROAD NAME	LOCATION	2027
College Line	Near: 51145 College Line	\$54,900
Carter Road	Near: 8403 Carter Road	\$62,500
	\$117,400	
	\$115,000	

ROAD NAME	LOCATION	2028
Carter Road	Near: 8868 Carter Road	\$113,100
	SUB-TOTAL BEFORE HST	\$113,100

### PROPOSED ANNUAL BUDGET

\$115,000

ROAD NAME	LOCATION	2029
Chalet Line	Near: 52832 Chalet Line	\$72,800
TBD per RSA Phase 3		\$27,200
	SUB-TOTAL BEFORE HST	\$100,000
	PROPOSED ANNUAL BUDGET	\$100,000

ROAD NAME	OCATION 2030		
TBD per RSA Phase 3		\$100,000	
	SUB-TOTAL BEFORE HST	\$100,000	
	PROPOSED ANNUAL BUDGET	\$100,000	

The annual estimates above include a 2% inflation rate per year for each item over the current day unit pricing. The final unit price rate of increase is to be determined and may require fluctuations to the installation plan.

It should be noted that implementing the proposed phased installation plan for the Road Safety Audit (Phase 2) guiderail will delay the installation of any guiderail identified in the Road Safety Audit (Phase 3) until at least 2029.

### **Relationship to Cultivating Malahide:**

The Cultivating Malahide Integrated Community Sustainability Plan (ACSP) is based upon four pillars of sustainability: Our Land, Our Economy, Our Community, and Our Government.

One of the goals that support the "Our Local Government" Strategic Pillar is "Embody Financial Efficiency throughout Decision-Making". Ensuring that the cost of maintaining municipal infrastructure is equitably borne by current and future ratepayer's works to achieve this goal.

Submitted by:	Approved by:	Approved for Council:
Ryan DeSutter,	Matt Sweetland, P Eng.	Adam Betteridge,
Roads & Construction	Director of Public Works	Chief Administrative Officer
Manager		



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DRAWING #7

# **CHALET LINE**

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87 JOHN STREET S. - AYLMER, ONTARIO TEL. (519)773-5344 FAX (519)773-5334

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<b>DF MALAHIDE</b> EPARTMENT	SCALE HORIZONTAL: 1:500	GLENCOLIN LINE

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DRAWING #14

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TEL. (519)773-5344



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# **Report to Council**

REPORT NO.:	PW-22-36
DATE:	May 19, 2022
ATTACHMENT:	Spriet Associates Ltd. Report: Hacienda Road and Vienna Line Culvert Rehabilitation at Silver Creek

SUBJECT: HACIENDA ROAD AND VIENNA LINE CULVERT REHABILITATION CONSIDERATION

#### Recommendation:

THAT Report No. PW-22-36 entitled "Hacienda Road and Vienna Line Culvert Rehabilitation Consideration" be received;

AND THAT Staff proceed with issuance of request for proposals for the design of concrete box culverts for the replacement of the C-15 Hacienda Road Culvert and C-17 Vienna Line Culvert in accordance with the 2022 Capital budget;

#### Background:

As the Council is aware, the bi-annual review of the Township's bridges and culverts in excess of 3m span was last undertaken in 2020 per Ontario Regulation 104/97 (Standards for Bridges) and in accordance with the Ontario Structure Inspection Manual.

This 2020 OSIM review identified the C-15 Hacienda Road culvert and C-17 Vienna Line culvert as requiring replacement or major rehabilitation within the 1-5 year timeframe (2021 – 2025), and accordingly the Design and Environmental Assessment undertakings were approved in the 2021 capital budget.

Due to the constructability challenges and financial consideration of the noted culvert replacements, report PW-21-30 received by Council on May 20, 2021 identified the revised program to investigate the various alternatives measures available, and awarded the requisite review to the engineering firm Spriet Associates Ltd. ("Spriet").

Various funding sources are typically announced with tight timelines. Accordingly, the design consideration for these structures has been accommodated in the approved 2022 Capital Budget for the purpose of having shovel ready projects which can be

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planned for in multi-year budgeting and available for various funding opportunities when announced.

## Comments/Analysis:

Spriet has completed its evaluation of both the Hacienda Road and Vienna Line culverts. The final report is attached. The report provides context to the hydraulic analysis required to inform on proceeding with detailed design for various constructability options for large culverts, and provides design and construction cost estimates for each option available.

## Structure C-15 Hacienda Road

As noted in the report, existing hydraulic capacity <u>does</u> meet current design requirements and accordingly lining rehabilitation is a viable alternative to complete reconstruction.

Four design/construction alternatives were assessed to address this structure be	ing:
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Alternative	Estimated Cost	Expected Life	Annualized Cost
Steel Pipe	\$1,207,800	50 years	\$24,200
Replacement			
Concrete Box	\$2,005,300	75 years	\$26,700
Culvert			
Replacement			
(Precast)			
Concrete Box	\$1,790,200	75 years	\$23,900
Culvert			
Replacement (Cast			
in Place)			
Rehabilitation with	\$2,045,600	40 years	\$51,100
Structural Liner			
Rehabilitation with	\$1,269,400	35 years	\$36,300
Corrugated Pipe			
Insert			

As shown, the lowest cost immediate alternative is replacement of the existing culvert with corrugated steel pipe realizing an expectant life of 50 years, however noting there are limited options for extending the life of such replacement culvert beyond the expectant lifetime.

Alternatively, noting the lifetime expectation of concrete culvert replacement, a slightly lower annualized cost is realized for a cast-in-place structure, additionally noting that concrete structures have additional rehabilitation methods available to extend the lifecycle beyond the noted expectation Accordingly it is the recommendation of Staff to select a replacement cast-in-place concrete box culvert as the preferred alternative for proceeding with design consideration.

#### Structure C-17 Vienna Line

As noted in the report, existing hydraulic capacity <u>does not</u> meet current design requirements and accordingly lining rehabilitation is considered as a viable alternative to complete reconstruction, albeit additional constructability consideration is required to accommodate flow.

Alternative	Estimated Cost	Expected Life	Annualized Cost
Steel Pipe	\$1,384,200	50 years	\$27,700
Replacement			
Concrete Box	\$2,483,900	75 years	\$33,100
Culvert			
Replacement			
(Precast)			
Concrete Box	\$2,243,200	75 years	\$29,900
Culvert			
Replacement (Cast			
in Place)			
Rehabilitation with	\$2,196,900	40 years	\$54,900
Structural Liner			
Rehabilitation with	\$2,411,900	40 years	\$60,300
Fibreglass Pipe			
Insert			

Four design/construction alternatives were assessed to address this structure being:

Similar to the C-15 Hacienda Road structure, the lowest immediate cost alternative is replacement of the existing culvert with corrugated steel pipe realizing an expectant life of 50 years. Again, it is noted that there are limited options for extending the life of such replacement steel culverts beyond the expectant lifetime in comparison to concrete. Staff recommend to proceed with a replacement cast-in-place concrete box culvert noting the long-term benefit provided at a marginally higher expectant annualized cost.

## Financial Implications to Budget:

If Council moves forward with the recommendations provided herein, staff will proceed with issuing two separate Request for Proposal documents to undertake the final design works which will utilize the data prepared in the enclosed report and award of such design project will follow the terms of procurement bylaw 18-47, all in accordance with the accommodated design consideration in the adopted 2022 Capital Budget.

Noting the Draft Capital Forecast received by the budget committee accommodated a \$1,400,000 estimate for reconstruction of the Vienna Line culvert in 2023, and \$750,000 for rehabilitation of the Hacienda Road structure in 2024, such budgets will be updated for consideration in 2023 budget considerations based on the final design of such works. It is further noted that updated OSIM inspections will be undertaken in 2022 which will inform on the condition of these structures which will assist in considering

priorities at time of 2023 budget deliberations and whether such construction works may be deferred or are at risk if not undertaken immediately.

#### **Relationship to Cultivating Malahide:**

The Cultivating Malahide Integrated Community Sustainability Plan (ACSP) is based upon four pillars of sustainability: Our Land, Our Economy, Our Community, and Our Government.

One of the goals that support the "Our Local Government" Strategic Pillar is "Embody Financial Efficiency throughout Decision-Making". Ensuring that the cost of maintaining municipal infrastructure is equitably borne by current and future ratepayer's works to achieve this goal.

Submitted by:	Approved for Council:
Matt Sweetland, P.Eng.,	Adam Betteridge,
Director of Public Works	Chief Administrative Officer

Hacienda Road and Vienna Line Culvert Rehabilitation at Silver Creek

Township of Malahide





Table of Contents	
A. INTRODUCTION	1
B. BACKGROUND & EXISTING CONDITIONS	2
C. SCOPE AND METHODOLOGY	2
D. HYDRAULICS AND HYDROLOGY	2
Site 1 – HACIENDA ROAD	
Site 2 – VIENNA LINE	
E. RECOMMENDED ALTERNATIVES	
Site 1 – Hacienda Road	
Site 2 – Vienna Line	
Figure 1: Culvert Locations	
Figure 2: Hacienda Road – Alternative 1 Cross-Section	5
Figure 3: Hacienda Road – Alternative 2 Cross-Section	
Figure 4: Hacienda Road – Alternative 3 Cross-Section	
Figure 5: Hacienda Road – Alternative 4 Cross-Section	10 12
Figure 7: Vienna Line – Alternative 2 Cross-Section	۲۲ ۱۸
Figure 8: Vienna Line – Alternative 3 Cross-Section	
Figure 9: Vienna Line – Alternative 4 Cross-Section	
Table 1: Hydrology Summary	3
Table 2: Site 1 Cost Summary	
Table 3: Site 2 Cost Summary	
APPENDIX 1: Hydrology Calculations & Hydraulic Calculations	3

APPENDIX 1: Hydrology Calculations & Hydraulic Calculations APPENDIX 2: Drawing 01 – Survey of Existing Conditions APPENDIX 3: Site Inspection Photographs

#### A. INTRODUCTION

We are pleased to present our report on the evaluation of Hacienda Road and Vienna Line Culverts crossing the Silver Creek. The culvert under Hacienda Road is located on the road allowance between Lots 15 and 16, Concession 4, in the Township of Malahide with a tributary land area of approximately 1775 hectares. The culvert under Vienna Line is located on the road allowance between Concessions 2 and 3, Lot 14, in the Township of Malahide with a tributary land area of approximately 2485 hectares. See Figure 1 below for culvert locations and tributary watersheds.

Malahide Hacienda Road 45 John Wiee Line Fairview 1 Junboyne **Vienna Line** Π

Figure 1: Culvert Locations

#### **B. BACKGROUND & EXISTING CONDITIONS**

This project was commenced in response to a Request For Proposal issued by the Township of Malahide and awarded to Spriet Associates by Municipal Council. The Municipality had provided information regarding both culverts and a summary of each culvert is provided below with updated information from our investigation.

#### Site 1 – Hacienda Road

The Hacienda Road culvert was originally constructed circa 1965. Currently the culvert is a Structural Plate Corrugated Steel Round Pipe that has deformed with time and has begun to fail from corrosion due to its age. The culvert when originally installed was likely to have had a diameter of 3.96m. Over time the pipe has deformed (flattened) slightly and the span now appears to be approximately 4.25m wide in sections. The culvert was extended on both ends circa 2006 due to road improvements. The length of the existing culvert was measured to be 47 meters. The existing culvert invert has an approximate depth of 10.1 meters from the existing roadway.

#### Site 2 – Vienna Line

The Vienna Line culvert was originally constructed circa 1981. Currently the culvert is a Structural Plate Corrugated Steel Pipe Arch that has deformed with time and has begun to fail from corrosion due to its age. The culvert when originally installed had dimensions of 4720mm span by 3070mm rise. Over time the pipe has deformed (flattened) and the span now appears to be 4.8m wide in sections and the rise has flattened to approximately 2.90m. The length of the existing pipe was measured to be 44.5 meters. The existing culvert invert has an approximate depth of 11.6 meters from the existing roadway. The existing culvert was observed to be perched above the natural grade line of the Silver Creek.

#### C. SCOPE AND METHODOLOGY

The existing sites were investigated and surveyed to observe the culverts and to collect the necessary information to provide design alternatives. The Hydrology and Hydraulics of the culverts were then analyzed to assess the capacity of the existing culverts to evaluate what design alternatives may be appropriate. Field survey data and Hydraulic calculations were used to arrive at various design alternatives which were then reviewed with various contractors who specialize in this type of work and suppliers to prepare preliminary budgets for both sites. A meeting was held with the Conservation Authority and the Department of Fisheries and Oceans to ensure that the proposed design alternatives would be permittable and to give both agencies an opportunity to offer input.

#### D. HYDRAULICS AND HYDROLOGY

The objectives of the Hydrology and Hydraulic analysis for the two sites was to obtain the following information:

- Establish the hydrologic conditions for the two sites
- Establish the required hydraulic capacity for the culverts to meet current bridge and culvert standards (50-year design storm with minimum 300mm freeboard in accordance with the Canadian Highway Bridge Code)
- Review the hydraulic capacity of the existing culverts

• Design alternatives with adequate hydraulic capacity for proposed alternatives.

The majority of the soils present in the watershed were considered to be loamy sand, sandy loam, loam and silt loam with this information being collected through the mapping and reports issued by Ontario Ministry of Agriculture, Food and Rural Affairs. Smaller pockets of sandy clay loam were also observed. Site 1 – Hacienda Road was observed to have a watershed of approximately 1775 hectares according to Drainage Watershed compiled from the Drainage Map for Malahide Township. Site 2 – Vienna Line was observed to have a watershed of approximately 2485 hectares. Most of the land within the watershed is considered to be relatively flat with an average slope of approximately 0.38% for the main channel. The watershed contains minimal natural storage with the primary land use being rural agricultural.

The hydrology of the watershed was computed using the Rational Method and the Modified Index Flood Method published by the Ministry of Transportation Ontario and checked using the Ontario Flow Assessment Tool. Due to the watershed exceeding 1000 hectares (10 square kilometers), the rational method was determined to be overly simplistic and the Modified Index Flood was used as the primary calculation method with flow data being checked using the Rational Method and the Ontario Flow Assessment Tool.

Detailed calculations have been included in Appendix 1, but a summary of findings can be observed below:

Site/Location	Site 1 – Hacienda Road	Site 2 – Vienna Line
Watershed Area (hectare)	1775 ha	2485 ha
50 – Year Design Flow	19.8 m³/s	31.64 m³/s
Existing Culvert Capacity	20.5 m³/s	25.6 m³/s

Table 1: Hydrology Summary

## **E. ALTERNATIVES AND COSTS**

Both sites present unique challenges from a physical construction standpoint that would not be encountered during a typical culvert replacement. Both culverts are too large for low-cost lining alternatives which are commonly implemented in this region. Most culverts in the region are lined with H.D.P.E. liners which are limited by their structural capacity to spans of 3000mm which is insufficient for these sites. Culvert inserts can reduce the capacity of the existing pipe culvert which may lead to increased flooding to upstream lands so culvert liners are preferred. Also, both culverts are significantly deep compared to the roadway which requires large volumes of excavation to replace the culverts using traditional open cut methodology and long lengths for the culvert structure.

Site 1 – HACIENDA ROAD

The existing culvert on Hacienda Road has a capacity that meets the typical design requirement, as such, structural lining of the culvert is a viable alternative. Four alternatives were analysed for this site and the following alternatives and associated costs are summarized below as follows:

- 1. Open Cut Replacement Steel pipe
- 2. Open Cut Replacement Precast concrete box

4. Structure Rehabilitation – Corrugated Steel Pipe Insert

In the past the Municipality has obtained the property adjacent to the right of way in this location however, depending on the detailed design slopes required, some disturbance in private lands may be required which will requisite negotiations and an agreement with the landowner or the platform may need to be narrowed to allow for flatter slopes in open cut replacements. Epcor Gas has an existing 50mm gasmain along this portion of Hacienda Road which presents difficulty for open cut installations. For all alternatives, some consideration will be required to prepare for and remediate damages from large rain events that occur during construction.

## Alternative 1 – Steel Pipe Replacement – Open Cut

This proposal would replace the existing steel pipe with a new steel pipe of the same capacity by an open cut excavation. The recommended size would be a 3990mm diameter Structural Plate Corrugated Steel Pipe (SPCSP). The existing culvert has a significant amount of cover beneath the roadway, which results in a very large volume of excavation required to complete this work. This excavation process will require a much wider trench top width than a typical culvert replacement so that stable open cut side slopes can be constructed. Either platform benches along the cut slope will be required so that an excavator can sit on the bench to load excavated material up to trucks at the road level or alternatively, a contractor may construct a ramp approximately parallel with the road which cascades down the existing road slope. The excavated fill will need to be stored on a temporary basis to be reused as backfill. It is recommended that the Municipality negotiate with the landowner of a neighbouring farm parcel to obtain a temporary storage yard to save hauling costs. The existing block walls which are installed as endwalls on the culvert are in poor condition and the culvert should be extended to an approximate total length of 52 meters to allow for a steel cut-off wall to be installed to replace the existing block walls. The existing gasmain along Hacienda Road will need to be supported or relocated as part of the culvert replacement due to the width of the open cut. The cost to support the gasmain may be expensive depending on the elevation so it may be cheaper to relocate the gasmain in this section in advance of construction. An allowance to support/relocate the gasmain has been made in the cost estimate below, however when detailed design is completed and the depth of the gasmain is known, a lower elevation would result in lower costs.

A geotechnical investigation was not completed at this time and the following assumptions have been made for the preliminary cost estimate provided below; that the existing soils are stable (existing culvert does not show signs of an unstable slope) and that there is not contaminated fill. A geotechnical investigation and report would be required during detailed design which would make recommendations and should include a risk assessment/ management analysis regarding the stability of the relatively steep side slopes for the newly backfilled material as there will be more depth of unconsolidated fill upon completion than has occurred in the previous road work. If flatter slopes than the existing side slopes are required then the replacement culvert will need to be designed accordingly (ie. platform width and culvert length). The geotechnical report would need to address new excess soil regulation costs and potential of settlement due to depth, the suitability of the existing fill material that is anticipated to be reused, with only the culvert bedding and road base to be replaced with new granular material. Long term settlement is anticipated to be required depending on the quality of the fill used in the past including asphalt outside of the regular lifespan of the roadway.





Figure 2: Hacienda Road – Alternative 1 Cross-Section

A preliminary cost estimate has been completed for this alternative as follows:

Supply of 52m of 3990mm. dia. 5mm thick polymer S.P.C.S.P.	\$280,800.00
Installation by open cut including materials and dewatering	\$314,100.00
Surface restoration including straw blanket on slopes & asphalt	\$32,000.00
Support or relocate 50mm gasmain	\$75,000.00
Steel Cutoff wall and rip-rap quarry stone	\$65,000.00
Geotechnical investigation and testing	\$30,000.00
One additional roadway regrading and resurface for settlement	\$30,000.00
Contingency and unknown (10%)	\$81,500.00
Engineering and Project Administration (15%)	\$134,500.00
Contingency for large storm preparation and remediation	\$40,000.00
Contingency to address flatter slopes with guiderails	\$90,000.00
Net HST and financing (3%)	\$34,900.00
Total Replacement Cost	\$1,207,800.00

This estimated cost does not include the cost of an agreement with a landowner for use of their land for material storage and any costs associated with negotiations for disturbance on adjacent land. A conservative estimate of the lifespan of the replacement culvert would be approximately 50 years therefore making the effective annual cost of this alternative to be approximately \$24,200/annum. The estimated duration of road closure would be approximately 4 weeks.

#### Alternative 2 – Precast Concrete Box Replacement – Open Cut

This proposal would replace the existing steel pipe with a new concrete box culvert of the same capacity by an open cut excavation. The recommended size would be a 4m span by 3m rise box culvert. The existing culvert has a significant amount of cover beneath the roadway which results in a very large volume of excavation required to complete this work. This excavation process will require a much wider trench top width than a typical culvert replacement so that stable cut slopes can be constructed. Either platform benches along the slope will be required so that an excavator can sit on the bench to load excavated material up to trucks at the road level or alternatively, a contractor may construct a ramp approximately parallel with the road which cascades down the existing road slope. The excavated fill will need to be stored on a temporary basis to be reused as backfill. The Municipality should negotiate with the landowner of a neighbouring farm parcel to obtain a temporary storage yard to save hauling costs. The existing block walls which are installed as endwalls on the culvert are in poor condition and the culvert should be extended to approximately 52 meters to allow for a steel cut-off wall to be installed to replace the existing block walls. The existing gasmain along Hacienda Road will need to be supported or relocated as part of the culvert replacement due to the width of the open cut. The cost to support the gasmain may be expensive depending on the elevation so it may be cheaper to relocate the gasmain in this section in advance of construction.

A geotechnical investigation was not completed at this time and the following assumptions have been made for the preliminary cost estimate provided below; that the existing soils are stable (existing culvert does not show signs of unstable slopes) and that there is not contaminated fill. A geotechnical investigation and report would be required during detailed design which would make recommendations and should include a risk assessment/management analysis regarding the stability of the relatively steep side slopes for the newly backfilled material as there will be more depth of unconsolidated fill upon completion than has occurred in the previous road work. If flatter slopes than the existing side slopes are required then the replacement culvert will need to be designed accordingly (ie. platform width and culvert length). The geotechnical report would need to address new excess soil regulation costs and potential of settlement due to depth, the suitability of the existing fill material that is anticipated to be reused, with only the culvert bedding and road base to be replaced with new granular material. The geotechnical report will also need to identify if the soils at the culvert are suitable to support the loads that a concrete culvert requires to ensure this alternative is feasible. Long term settlement is expected and some remedial grading and asphalt work and possibly guardrail adjustment is anticipated to be required depending on the quality of the fill used in the past including asphalt outside of the regular lifespan of the roadway.



Figure 3: Hacienda Road – Alternative 2 Cross-Section

A preliminary cost estimate has been completed for this alternative as follows:

\$787,000.00
\$464,600.00
\$32,000.00
\$75,000.00
\$65,000.00
\$30,000.00
\$30,000.00
\$147,100.00
\$176,600.00
\$50,000.00
\$90,000.00
\$58,000.00
\$2,005,300.00

This estimated cost does not include the cost of an agreement with a landowner for use of their land for material storage and any costs associated with negotiations for disturbance on adjacent land. A conservative estimate of the lifespan of the replacement culvert would be approximately 75 years making the effective annual cost of this alternative to be approximately \$26,700/annum. The estimated duration of road closure would be approximately 5 weeks. A cast in place concrete culvert would offer significant cost savings but would require an estimated 6 additional weeks to construct. A cast in place alternative would provide an estimated savings of 215,100.00, reducing the total cost to \$1,790,200.00 reducing the effective annual cost of this alternative to be approximately \$23,900/annum.

The existing culvert has sufficient capacity of a typical design standard and as such may be a possible candidate for rehabilitation instead of replacement. A cost-effective rehabilitation method would be to install a structural liner. This method would include dewatering the existing structure and then installing a polyurea structural coating which is applied in place.

To complete the dewatering, a smaller diameter bypass pipe (ie. 900mm) would be recommended which would need to be installed by boring or directional drill. This rehabilitation method would have small impact on the capacity of the culvert. Spriet Associates does not have practical experience with this method as it is not typically applied in this area due to costs, however it is an approved method of rehabilitation in the City of Toronto where it has been implemented on various projects. It would be anticipated that the liner would be implemented through a design-build process with possible oversight from a consulting engineer for access, permits, and the bypass construction. No remedial work of the roadway would be required and minimal disturbance to traffic would be anticipated. Please note that this structural lining alternative does not address the fact that the existing headwall is in poor condition and that this will need to be addressed in addition to the culvert rehabilitation.



Figure 4: Hacienda Road – Alternative 3 Cross-Section

A preliminary cost estimate has been completed for this alternative as follows:

Supply and install bypass pipe including geotechnical report	\$180,000.00
Design/build structural Polyurea Coating Structural Liner	\$1,400,000.00
Access Ramp construction and restoration	\$40,000.00
Culvert extension and cutoff wall including access	\$140,000.00
Contingency and unknown (5%)	\$88,000.00
Engineering and Project Administration (5%)	\$88,000.00
Contingency for large storm preparation and remediation	\$50,000.00
Net HST and financing (3%)	\$59,600.00
Total Rehabilitation Cost	\$2,045,600.00
A conservative estimate of the lifespan of the culvert rehabilitation would be approximately 40 years therefore making the effective annual cost of this alternative to be approximately \$51,100.00 per annum. The estimated duration of the work would be approximately 8 weeks with minimal road closure.

#### Alternative 4 – Structure Rehabilitation via. Corrugated Steel Pipe Insert

The existing culvert has sufficient capacity of a typical design standard and as such would be a possible candidate for rehabilitation instead of replacement. A cost-effective rehabilitation method would be to insert a new pipe culvert into the existing pipe culvert. This method would include dewatering the existing structure and then installing a new pipe within the existing pipe. To complete the dewatering a smaller diameter bypass pipe (ie. 900mm) would be recommended which would need to be installed by boring or directional drill or supported within the culvert itself.

The existing pipe is a 3960mm dia. Structural Plate Steel Pipe however is has deformed with time and therefore installing a 3600mm dia. (the next largest commonly available size) would not be practical for installation and as such a 3300mm dia. corrugated steel pipe would be much more practical. The 3300mm dia. culvert has less capacity than is recommended by bridge code. This proposal was reviewed with the Conservation Authority and the Department of Fisheries and Oceans at an informal meeting and was found to be an acceptable alternative, however a Newbury weir at the upstream and downstream end of the culvert would be required to promote fish passage and be installed on private lands. Once dewatering is in place there would be two practical methods of installation for the new pipe culvert insert that could be employed. The first method would be to weld steel beams onto the bottom (floor) of the existing pipe culvert with a protective plate. Then an excavator would push/pull sections of pipe along the beams and into place under the road. These sections would then be fasted together using internal couplers and pressure grouting between the existing and new pipe could be completed. A slight extension with a steel cut-off wall would be recommended for both ends including a reconstruction of the endwalls.

Alternatively, a Structural Plate Corrugate Steel Pipe could be used which would be brought down in pieces and then assembled within the culvert. Once assembled the grouting process could be completed. No remedial work to the road surface would be required and minimal disturbance to traffic would be anticipated. When the pressure grout is completed between the two pipes it is imperative that all voids be filled for the structural integrity of the new culvert insert which also presents a substantial risk. Most local contractors do not have experience completing this type of work which poses a risk of finding competitive bids to complete this work. The risks involved with this level of capacity reduction results in this alternative not being recommended.



Figure 5: Hacienda Road – Alternative 4 Cross-Section

A preliminary cost estimate has been completed for this alternative as follows:

\$180,000.00
\$174,100.00
\$306,000.00
\$40,000.00
\$149,600.00
\$65,000.00
\$20,000.00
\$93,500.00
\$154,200.00
\$50,000.00
\$37,000.00
\$1,269,400.00

A conservative estimate of the lifespan of the culvert rehabilitation would be approximately 35 years therefore making the effective annual cost of this alternative to be approximately \$36,300/annum. The estimated duration of the work would be approximately 6 weeks with minimal road closure.

## **Cost Summary**

A summary for the preliminary cost estimates of all four alternatives for Site 1 – Hacienda Road including a cost on annual basis can be found in the table below.

	Cost	Annual Cost
Alternative 1 – Steel Pipe Replacement	\$1,207,800.00	\$24,200.00
Alternative 2A – Concrete Box Replacement (Precast)	\$2,005,300.00	\$26,700.00
Alternative 2B – Concrete Box Replacement (Cast in place)	\$1,790,200.00	\$23,900.00
Alternative 3 – Rehabilitation with Structural Liner	\$2,045,600.00	\$51,100.00
Alternative 4 – Rehabilitation with Corrugated Pipe Insert	\$1,269,400.00	\$36,300.00

Table 2: Site 1 Cost Summary

#### Site 2 – VIENNA LINE

The existing culvert on Vienna Line has a capacity which does not meet typical design requirements and as such design alternatives are limited by hydraulic capacity. Four alternatives were analyzed for this site and the following alternatives and associated costs are summarized below as follows:

- 1. Open Cut Replacement Steel pipe
- 2. Open Cut Replacement Precast concrete box
- 3. Structure Rehabilitation Structural Liner
- 4. Structure Rehabilitation Fiberglass Pipe Insert

In the past, the Municipality has legally obtained the property adjacent to the right of way in this location and no purchase of land will be required to implement these alternatives. Epcor Gas has an existing 100mm gasmain along Vienna Line which presents difficulty for open cut installations. There are existing Hydro lines present with a pole in the near vicinity of the culvert which will require support for open cut installations.

#### Alternative 1 – Steel Pipe Replacement via. Open Cut

This proposal would replace the existing steel pipe arch with a new steel pipe of greater capacity to meet typical design requirements by an open cut excavation. The recommended replacement size would be a 4300mm dia. Structural Plate Corrugated Steel Pipe (SPCSP). This offers better performance than the required design flow but was chosen to ensure that flow depths are maintained similar to existing flow depths to not have any adverse effect to upstream lands. The existing culvert has a significant amount of additional cover beneath the roadway when compared to a typical culvert, which results in a very large volume of excavation required to complete this work. This excavation process will require a much wider trench top width than a typical culvert replacement so that stable open cut side slopes can be constructed. Either platform benches along the slope will be required so that an excavator can sit on the bench to load excavated material up to trucks at the road level or alternatively, a contractor may construct a ramp approximately parallel with the road which cascades down the existing road slope. The excavated fill will need to be stored on a temporary basis to be reused as backfill. The Municipality should negotiate with the landowner of a neighbouring farm parcel to obtain a temporary storage yard to save hauling costs. The existing block walls which are installed as endwalls on the culvert are in poor condition and the culvert should be extended to approximately 52 meters to allow for a steel cut-off wall to be installed to replace the existing

block walls. The existing gasmain along Vienna Line will need to be supported or replaced as part of the culvert replacement. Due to the width of the open cut, supporting the gasmain may require columns or non-traditional methods or it may be cheaper to cut through and replace the gasmain in this section. An allowance to support/relocate the gasmain has been made in the cost estimate below, however when detailed design is completed and the depth of the gasmain is known, a lower elevation would result in lower costs.

A geotechnical investigation was not completed at this time and the following assumptions have been made for the preliminary cost estimate provided below; that the existing soils are stable (the existing culvert does not show signs of unstable slopes) and that there is not contaminated fill. A geotechnical investigation and report would be required during detailed design which would make recommendations and should include a risk assessment/management analysis regarding the stability of the relatively steep side slopes for the newly backfilled material as there will be more depth of unconsolidated fill upon completion than has occurred in the previous road work. If flatter slopes than the existing side slopes are required then the replacement culvert will need to be designed accordingly (ie. platform width and culvert length). The geotechnical report would need to address new excess soil regulation costs and potential of settlement due to depth, the suitability of the existing fill material that is anticipated to be reused, with only the culvert bedding and road base to be replaced with new granular material. Long term settlement is expected and some remedial grading and asphalt work and possibly guardrail adjustment is anticipated to be required depending on the quality of the fill used in the past including asphalt outside of the regular lifespan of the roadway.



Figure 6: Vienna Line – Alternative 1 Cross-Section

A preliminary cost estimate has been completed for this alternative as follows:

Total Replacement Cost	\$1,384,200.00
Net HST and financing (3%)	\$40,000.00
Contingency to address flatter slopes	\$35,000.00
Contingency for large storm preparation and remediation	\$50,000.00
Engineering and Project Administration (15%)	\$162,900.00
Contingency and unknown (10%)	\$98,800.00
One additional roadway regrading and resurface for settlement	\$20,000.00
Geotechnical investigation and testing	\$32,000.00
Steel Cutoff wall and rip-rap quarry stone	\$70,000.00
Support or relocate 100mm gasmain, hydro and fiber optic	\$130,000.00
Steel beam guiderail replacement	\$94,000.00
Surface restoration including straw blanket on slopes & asphalt	\$34,000.00
Installation by open cut including materials and dewatering	\$309,200.00
Supply of 52m of 4300mm. dia. 5mm thick polymer S.P.C.S.P.	\$298,300.00

This estimated cost does not include the cost of an agreement with a landowner for use of their land for material storage. A conservative estimate of the lifespan of the replacement culvert would be approximately 50 years therefore making the effective annual cost of this alternative to be approximately \$27,700/annum. The estimated duration of road closure would be approximately 5 weeks.

## Alternative 2 – Precast Concrete Box Replacement via. Open Cut

This proposal would replace the existing steel pipe arch with a new concrete box culvert of the same capacity by an open cut excavation. The recommended size would be a 6m span by 3m rise box culvert. The existing culvert has a significant amount of additional cover beneath the roadway which results in a very large volume of excavation required to complete this work. This excavation process will require a much wider trench top width than a typical culvert replacement so that stable cut slopes can be constructed. Either platform benches along the slope will be required so that an excavator can sit on the bench to load excavated material up to trucks at the road level or a contractor may construct a ramp approximately parallel with the road which cascades down the existing road slope. The excavated fill will need to be stored on a temporary basis to be reused as backfill. The Municipality should negotiate with the landowner of a neighbouring farm parcel to obtain a temporary storage yard to save hauling costs. The existing block walls which are installed as endwalls on the culvert are in poor condition and the culvert should be extended to approximately 52 meters to allow for a steel cut-off wall to be installed to replace the existing block walls. The existing gasmain along Vienna Line will need to be supported or relocated as part of the culvert replacement due to the width of the open cut. The cost to support the gasmain may be expensive depending on the elevation so it may be cheaper to relocate the gasmain in this section in advance of construction.

A geotechnical investigation was not completed at this time and the following assumptions have been made for the preliminary cost estimate provided below; that the existing soils are stable (the existing culvert does not show signs of poor soil) and that there is not contaminated fill. A geotechnical investigation and report would be required during detailed design which would make recommendations and should include a risk assessment/ management analysis regarding the stability of the relatively steep side slopes for the newly backfilled material as there will be more depth of unconsolidated fill upon competition than has occurred in the previous road work. If flatter slopes than the existing side slopes are required then the replacement culvert will need to be designed accordingly (ie. platform width and culvert length). The geotechnical report would need to address new excess soil regulation costs and potential of settlement due to depth, the suitability of the existing fill material that is anticipated to be reused, with only the culvert bedding and road base to be replaced with new granular material. The geotechnical report will also need to identify if the soils at the culvert are suitable to support the loads that a concrete culvert requires to ensure this alternative is feasible. Long term settlement is expected and some remedial grading and asphalt work and possibly guardrail adjustment is anticipated to be required depending on the quality of the fill used in the past including asphalt outside of the regular lifespan of the roadway.



Figure 7: Vienna Line – Alternative 2 Cross-Section

A preliminary cost estimate has been completed for this alternative as follows:

Supply of 52m of 6000x3000mm. box culvert	\$1,056,600.00
Installation by open cut including materials and dewatering	\$454,600.00
Surface restoration including straw blanket on slopes & asphalt	\$34,000.00
Steel beam guiderail replacement	\$94,000.00
Support or relocate 100mm gasmain, hydro and fiber optic	\$130,000.00
Steel cut-off wall and rip-rap quarry stone	\$70,000.00
Geotechnical investigation and testing	\$35,000.00
One additional roadway regrading and resurface for settlement	\$30,000.00
Contingency and unknown (10%)	\$189,400.00
Engineering and Project Administration (10%)	\$208,400.00
Contingency for large storm preparation and remediation	\$50,000.00
Contingency to address flatter slopes	\$60,000.00
Net HST and financing (3%)	\$71,900.00
Total Replacement Cost	\$2,483,900.00

This estimated cost does not include the cost of an agreement with a landowner for use of their land for material storage. A conservative estimate of the lifespan of the replacement culvert would be approximately 75 years therefore making the effective annual cost of this alternative to be approximately \$33,100/annum. The estimated duration of road closure would be

approximately 6 weeks. A cast in place concrete culvert would offer significant cost savings but would require an estimated 6 weeks to construct. A cast in place alternative would provide an estimated savings of 240,700.00, reducing the total cost to \$2,243,200.00 reducing the effective annual cost of this alternative to be approximately \$29,900/annum.

#### Alternative 3 – Structure Rehabilitation via. Structural Liner

The existing culvert does not have sufficient capacity, is perched and as such may not be a good candidate for rehabilitation instead of replacement. A cost-effective rehabilitation method would be to install a structural liner. This method would include dewatering the existing structure and then installing a polyurea structural coating which is applied in place. To complete the dewatering a smaller diameter bypass pipe (ie. 900mm) would be recommended which would need to be installed by boring or directional drill. This rehabilitation method would have small impact on the capacity of the culvert. Spriet Associates does not have practical experience with this method as it is not typically applied in this area due to costs, however it is an approved method of rehabilitation in City of Toronto where it has been implemented on various projects. It would be anticipated that the liner would be implemented through a design-build process possible oversight from a consulting engineer for access, permits, and the bypass construction. No remedial work would be required and minimal disturbance to traffic would be anticipated. Please note that this alternative does not address the fact that the existing headwall is beginning to fail and that this will need to be addressed in the future in addition to the culvert rehabilitation. The Conservation Authority and the Department of Fisheries and Oceans noted at an informal meeting that this culvert is currently prohibiting fish passage and they would prefer alternatives that addressed this and as such it is unknown whether this alternative would be permitted.



Figure 8: Vienna Line – Alternative 3 Cross-Section

A preliminary cost estimate has been completed for this alternative as follows:

Supply and install bypass pipe including geotechnical report	\$180,000.00
Design/build structural Polyurea Coating Structural Liner	\$1,500,000.00
Access Ramp construction and restoration	\$40,000.00
Culvert extension and cutoff wall including access	\$165,000.00
Contingency and unknown (5%)	\$94,000.00
Engineering and Project Administration (5%)	\$94,000.00
Contingency for large storm preparation and remediation	\$60,000.00
Net HST and financing (3%)	\$63,900.00
Total Rehabilitation Cost	\$2,196,900.00

A conservative estimate of the lifespan of the culvert rehabilitation would be approximately 40 years therefore making the effective annual cost of this alternative to be approximately \$54,900/annum. The estimated duration of the work would be approximately 8 weeks with minimal road closure.

#### Alternative 4 – Structure Rehabilitation via. Fiberglass Insert

The existing culvert has a capacity that does not meet current design standards and therefore is not a good candidate for rehabilitation instead of replacement. A cost-effective rehabilitation method would be to insert a new pipe culvert into the existing pipe culvert. This method would include dewatering the existing structure and then installed a new pipe within the existing pipe. To complete the dewatering a smaller diameter bypass pipe (ie. 900mm) would be recommended which would need to be installed by boring or directional drill or supported within the culvert itself. The existing pipe is a 4720 x 3070mm dia. Structural Plate Steel Pipe arch however is has deformed significantly with time and therefore installing a standard section would greatly reduce the capacity of the culvert in order to fit. An alternative to this is to have fiberglass sections manufactured to fit to minimize this loss of cross-sectional area and culvert capacity. This proposal was reviewed with the Conservation Authority and the Department of Fisheries and Oceans at an informal meeting where they expressed concerns and it is unlikely that alternative would be permittable. An extension with a concrete cutoff wall would be recommended for both ends including a reconstruction of the endwalls. The fiberglass pipe inserts would be brought down in pieces and then assembled within the culvert. Once assembled the grouting process could be completed. No remedial work would be required and minimal disturbance to traffic would be anticipated. Spriet Associates has never implemented this type of alternative and does not have experience with this method of rehabilitation however it has been implemented in many major cities throughout Europe and the United States. Due to the unique alternative and lack of contractors to tender, it would be anticipated that the insert would be implemented through a design-build process possible oversight from a consulting engineer for access, permits and the bypass construction. The reduction in capacity makes the Municipality exposed to risk of liability if flooding is experienced upstream and as such, this alternative is not recommended to be implemented.

When the pressure grout is completed between the two pipes, it is imperative that all voids be filled for the structural integrity of the new culvert insert which also presents a substantial risk. Most local contractors do not have experience completing this type of work which poses a risk of finding competitive bids to complete this work. The risks involved with this level of capacity reduction on a culvert that is already undersized results in this alternative not being recommended.





#### Figure 9: Vienna Line – Alternative 4 Cross-Section

A preliminary cost estimate has been completed for this alternative as follows:

Supply and install bypass pipe including geotechnical report	\$180,000.00
Supply and installation of structural fiberglass pipe insert	\$1,600,000.00
Extension, cutoff walls and end treatment.	\$142,500.00
Access Ramp construction and restoration	\$60,000.00
Pressure grouting between pipes	\$85,500.00
Contingency and unknown (10%)	\$206,800.00
Contingency for large storm preparation and remediation	\$70,000.00
Net HST and financing (3%)	\$67,100.00
Total Rehabilitation Cost	\$2,411,900.00

A conservative estimate of the lifespan of the culvert rehabilitation would be approximately 40 years therefore making the effective annual cost of this alternative to be approximately \$60,300/annum. The estimated duration of the work would be approximately 8 weeks with minimal road closure.

#### **Cost Summary**

A summary for the preliminary cost estimates of all four alternatives for Site 2 – Vienna Line including a cost on annual basis can be found in the table below:

	Cost	Annual Cost
Alternative 1 – Steel Pipe Replacement	\$1,384,200.00	\$27,700.00
Alternative 2A – Concrete Box Replacement (Precast)	\$2,483,900.00	\$33,100.00
Alternative 2B – Concrete Box Replacement (Cast in place)	\$2,243,200.00	\$29,900.00
Alternative 3 – Rehabilitation with Structural Liner	\$2,196,900.00	\$54,900.00
Alternative 4 – Rehabilitation with Fiberglass Pipe Insert	\$2,411,900.00	\$60,300.00
Table 2: Cite 2 Coat Cummon a	I	

Table 3: Site 2 Cost Summary

## **E. RECOMMENDED ALTERNATIVES**

The following recommended alternatives are based upon a comparison of the alternatives for each of the culverts. Priority was placed on project cost and how likely the alternatives would be able to be permitted and constructed efficiently as well as liability exposure for the Municipality. An informal meeting was held with Township staff to review the proposed alternatives and associated costs and the recommended alternatives include the feedback received. We recommended that the municipality pursue grant programs through the provincial government due to the large costs associated with these projects. The following recommendations are made assuming that grant funding will be available for these projects:

82

## Site 1 – Hacienda Road

The Hacienda Road culvert is recommended to be replaced with a 4 meter by 3 meter cast in place concrete culvert by open cut. The total cost of this replacement is estimated of \$1,790,200.00. This alternative offers the lowest annual cost and will provide a long service life. Cast in place is preferred over precast due to the difficulty of handling large precast culverts in deep cuts. Cast in place concrete culverts are cast as a singular unit which makes future rehabilitation more practical and cost effective, which may be utilized to extend the service life. Contractor availability can be limited for cast in place, so we recommend that the Municipality provide a longer than typical window for the contractor to begin work or allow precast as an alternative.

## Site 2 – Vienna Line

The Vienna Line culvert is recommended to be replaced with a 6 meter by 3 meter cast in place concrete culvert by open cut. The total cost of this replacement is estimated of \$2,243,200.00. This alternative offers the lowest annual cost and will provide a long service life. Cast in place is preferred over precast due to the difficulty of handling large precast culverts in deep cuts. Cast in place concrete culverts are cast as a singular unit which makes future rehabilitation more practical and cost effective, which may be utilized to extend the service life. Contractor availability can be limited for cast in place, so we recommend that the Municipality provide a longer than typical window for the contractor to begin work or allow precast as an alternative.

Respectfully submitted,

## SPRIET ASSOCIATES LONDON LIMITED

G. A. Vereyken, P. Eng.





## APPENDIX 1

## Hydrology Calculations & Hydraulic Calculations

		AVG	CN			68.28																	
		SUM	aCN	km²		21.3	70.8	95.9	30.7	166.4	200.0	87.6	86.5	113.2	41.6	68.2	23.7	78.5	38.5	41.3	23.3	23.5	
	221113	SUM	ŋ	km²		0.267	1.170	1.724	0.439	2.611	2.822	1.184	1.253	1.495	0.661	0.946	0.293	1.024	0.472	0.650	0.345	0.378	
	No.	ĸ	CN																			-	
eek	Jok	OTHE	ŋ	km²																			
lver Cr		TLAND	CN							50		50	×										
on at Si		LAKE/WE	ŋ	km²						0.004		0.046											
oilitati		AND	CN			71	50	50	54	50	58	71	58	65	50	58	71	65	71	50	54	50	
rt Rehak alahide		WOODL	ធ	km²		0.040	0.377	1.067	0.002	0.110	0.395	0.653	0.278	0.189	0.031	0.055	0.029	0.065	0.000	0.051	0.042	0.084	
Culve p of M	ſ	PASTURE	CN			76	58	58	62	58	65	76	65	71	58	65	76	71	76	58	62	58	
na Line ownshij			g	km²		0.021	0.053	0.102	0.000	0.511	0.275	0.141	0.193	0.138	0.197	0.108	0.000	0.070	0.036	0.101	0.021	0.019	
Vieni T		д.	CN		,	82	99	99	70	99	74	82	74	78	99	74	82	78	82	66	70	66	
oad and		HSG CRO	b	km²		0.206	0.740	0.555	0.437	1.986	2.152	0.344	0.782	1.168	0.433	0.783	0.264	0.889	0.436	0.498	0.282	0.275	
enda R			HSG	HSG				ပ	∢	∢	AB	∢	ш	υ	В	BC	∢	Ш	ပ	BC	ပ	∢	AB
Haciel		Soil Description				Walshear	Walsingham	Waterin	Tuscola	Plainfield	Normandale	Eroded Channel	Berrien TP	Gobles	Wattford	Gobles LP	Gobles CP	Tavistock TP	Muriel	Kintyre	Berrien	Fox	
	la Road	Soil	Sub-Area	km²		0.267	1.17	1.724	0.439	2.611	2.822	1.184	1.253	1.495	0.6613	0.9463	0.293	1.024	0.472	0.65	0.345	0.378	
	Haciend	Soil	Sub-Area	No.		~	2	ო	4	5	9	7	Ø	თ	10	13	14	15	16	17	18	19	
	Site 1	Watershed	Area	km²		17.735																	

					Ø		2 - year	i - year	0-year	25-year	50-year	00-year										
			r Flood				14 2	18.76 5	22.96	28 2	31.64 5	35.56 1										
		221113	Design		Freq. Con.	Factor	0.5	0.67	0.82	-	1.13	1.27										
		ob No.			Q25	m³/s	28	28	28	28	28	28										
		Ļ			Net	Class	8.90	8.90	8.90	8.90	8.90	8.90										
				sins	Net	Adj.	0.3	0.3	0.3	0.3	0.3	0.3										
				hern Bas	Ppn.		0.2	0.2	0.2	0.2	0.2	0.2										
Creek				for Sout	Det.		-0.2	-0.2	-0.2	-0.2	-0.2	-0.2										
Silver				ustemnts	Shape		0.40	0.40	0.40	0.40	0.40	0.40										
tion at			SS	Adjı	Slope		-0.1	- 0.1	- 1.0-	-0.1	-0.1	-0.1										
nabilita	de		ed Clas	Adj. for	Shield	Type																
<b>vert</b> Rel	f Malahi		Watersh		Bass	Class	8.6	8.6	8.6	8.6	8.6	8.6										
ine Cu	ship o				CN		69.7	69.7	69.7	69.7	69.7	69.7										
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and Vie					Stor.	%	0.201	0.201	0.201	0.201	0.201	0.201										
Road a														AD	km²	0.05	0.05	0.05	0.05	0.05	0.05	
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		ite 2 \		Area	-	km²	24.85	24.85	24.85	24.85	24.85	24.85										
		S		WS	Type		 S	د	s S	s S	s S	S	-									

## **Culvert Calculator Report Existing Hacienda Road**

Culvert Summary					
Allowable HW Elevation	209.96	m	Headwater Depth/Height	0.79	
Computed Headwater Elevation	n 209.96	m	Discharge	20.5009	m³/s
Inlet Control HW Elev.	209.56	m	Tailwater Elevation	0.00	m
Outlet Control HW Elev.	209.96	m	Control Type	Outlet Control	
Grades					
Upstream Invert	206.84	m	Downstream Invert	206.96	m
Length	47.00	m	Constructed Slope	-0.002574	m/m
Hydraulic Profile					
Profile	A2		Depth, Downstream	1.82	m
Slope Type	Adverse		Normal Depth	N/A	m
Flow Regime	Subcritical		Critical Depth	1.82	m
Velocity Downstream	3.71	m/s	Critical Slope	0.016320	m/m
Section					
Cection Change	Circular		Manninga Coofficient	0.022	
Section Snape	Urcular ural plate 47 lp CP		Span	0.033	m
Section Size	3960mm SPCSP		Rise	3.96	m
Number Sections	1		1000	0.00	
Outlet Control Properties					
Outlet Control HW Elev.	209.96	m	Upstream Velocity Head	0.26	m
Ке	0.50		Entrance Loss	0.13	m
		0			
Inlet Central Properties					
Inlet Control HW Elev.	209.56	m		Unsubmerged	
	Headwall		Area Full	12.3	m.,
ĸ	0.00780			2	
	2.00000		Equation Form	1	
v	0.03790			I	
I	0.03000				

## Culvert Calculator Report Proposed Hacienda Road Alternative 2

Culvert Summary					
Allowable HW Elevation	209.40	m	Headwater Depth/Height	0.93	
Computed Headwater Elevation	on 209.40	m	Discharge	24.8803	m³/s
Inlet Control HW Elev.	209.40	m	Tailwater Elevation	0.00	m
Outlet Control HW Elev.	209.39	m	Control Type	Inlet Control	
Grades					
Upstream Invert	206.60	m	Downstream Invert	206.70	m
Length	53.00	m	Constructed Slope	-0.001887	m/m
Hydraulic Profile					
Profile	Α2		Depth. Downstream	1.58	m
Slope Type	Adverse		Normal Depth	0.00	m
Flow Regime	Subcritical		Critical Depth	1.58	m
Velocity Downstream	3.94	m/s	Critical Slope	0.003093	m/m
Section					
Section Shape	Box		Mannings Coefficient	0.013	
Section Material	Concrete		Span	4.00	m
Section Size	4000 x 3000		Rise	3.00	m
Number Sections	1				
Outlet Control Properties					
Outlet Control HW Elev.	209.39	m	Upstream Velocity Head	0.43	m
Ке	0.50		Entrance Loss	0.22	m
Inlet Control Properties					
Inlet Control HW Elev.	209.40	m	Flow Control	N/A	
Inlet Type 90 and	d 15° wingwall flares		Area Full	12.0	m²
К	0.06100		HDS 5 Chart	8	
Μ	0.75000		HDS 5 Scale	2	
С	0.04000		Equation Form	1	
Y	0.80000				

## Culvert Calculator Report Proposed Hacienda Road Alternative 4

Culvert Summary					
Allowable HW Elevation	209.96	m	Headwater Depth/Height	0.78	
Computed Headwater Elevation	209.96	m	Discharge	14.9480	m³/s
Inlet Control HW Elev.	209.68	m	Tailwater Elevation	0.00	m
Outlet Control HW Elev.	209.96	m	Control Type	Outlet Control	
Overlag					
Grades				007.05	
Upstream Invert	207.35	m	Downstream Invert	207.25	m
Length	53.00	m	Constructed Slope	0.001887	m/m
Hydraulic Profile					
Profile	M2		Depth, Downstream	1.63	m
Slope Type	Mild		Normal Depth	2.94	m
Flow Regime	Subcritical		Critical Depth	1.63	m
Velocity Downstream	3.52	m/s	Critical Slope	0.009293	m/m
Section					
Section Shape	Circular		Mannings Coefficient	0.024	
Section Material	CMP		Span	3.35	m
Section Size	3300 mm		Rise	3.35	m
Number Sections	1				
Outlet Control Properties					
	200.06	m	Linstream Velocity Head	0.33	
Ke	209.90		Entrance Loss	0.17	m
	0.00				
Inlet Control Properties					
Inlet Control HW Elev.	209.68	m	Flow Control	Unsubmerged	
Inlet Type	Headwall		Area Full	8.8	m⁴
K	0.00780		HDS 5 Chart	2	
M	2.00000		HDS 5 Scale	1	
C	0.03790		Equation Form	1	
Y	0.69000				

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ŝnnś	a Line											Job No.	221113		
Soil	Soil	Soil Description	BSH	CRO	٩	PASTU	IRE	MOODL	AND.	LAKEWET	LAND	OTHER	SUM	SUM	AVG
ıb-Ar€	sa Sub-Are			ŋ	CN	ŋ	CN	ŋ	CN	ង	CN	a CN	g	aCN	CN
No.	km²			km²		km²		km²		km²		km²	km²	km²	
-	0.2666	Walshear	ပ	0.206	82	0.021	76	0.040	71				0.267	21.3	69.77
2	1.4202	Walsingham	۷	0.990	66	0.053	58	0.377	50				1.420	87.3	
ო	1.7237	Waterin	۷	0.555	66	0.102	58	1.067	50				1.724	95.9	
4	0.6426	Tuscola	AB	0.641	70	0.000	62	0.002	54				0.643	45.0	
ŝ	4.696	Plainfield	۷	4.071	66	0.511	58	0.110	50	0.004	50		4.696	304.0	
9	4.3769	Normandale	ш	3.707	74	0.275	65	0.395	58				4.377	315.1	
2	2.4086	Eroded Channel	U	1.569	82	0.141	76	0.653	71	0.046	50		2.409	188.0	
ω	1.3483	Berrien TP	Ш	0.877	74	0.193	65	0.278	58				1.348	93.6	
ი	2.3623	Gobles	BC	2.035	78	0.138	71	0.189	65				2.362	180.8	
10	0.7361	Wattford	۲	0.508	66	0.197	58	0.031	50				0.736	46.5	
1	0.0261	Kelvin	CD	0.026	84	0.000	79	0.000	74				0.026	2.2	
12	0.1148	Tavistock	ш	0.115	74	0.000	65	0.000	58				0.115	8.5	
13	1.7861	Gobles LP	Ш	1.623	74	0.108	65	0.055	58				1.786	130.3	
14	0.449	Gobles CP	υ	0.420	82	0.000	76	0.029	71				0.449	36.5	
15	1.0242	Tavistock TP	BC	0.889	78	0.070	71	0.065	65				1.024	78.6	
16	0.472	Muriel	U	0.436	82	0.036	76	0.000	71				0.472	38.5	
17	0.6498	Kintyre	∢	0.498	66	0.101	58	0.051	50				0.650	41.3	
18	0.3453	Berrien	AB	0.282	70	0.021	62	0.042	54				0.345	23.3	
19	0.378	Fox	A	0.275	99	0.019	58	0.084	50				0.378	23.5	

					Ø		- year	- year	0-year	5-year	0-year	00-year							
			Flood				8.75 2	11.73 5	14.35 1	17.5 2	19.78 5	22.23 1	_						
		221113	Design		Freq. Con.	Factor	0.5	0.67	0.82	-	1.13	1.27							
		b No.			Q25	m³/s	17.5	17.5	17.5	17.5	17.5	17.5							
		Jc			Net	Class	8.50	8.50	8.50	8.50	8.50	8.50							
				ins	Net	Adj.	0.05	0.05	0.05	0.05	0.05	0.05							
			0	hern Bas	Ppn.		0.2	0.2	0.2	0.2	0.2	0.2							
Creek			ed Class	for Sout	Det.		-0.3	-0.3	-0.3	-0.3	-0.3	-0.3							
Silver			atershe	ustemnts	Shape		0.35	0.35	0.35	0.35	0.35	0.35							
ation at			M	Adj	Slope		-0.2	-0.2	-0.2	-0.2	-0.2	-0.2							
habilita	de			Adj. for	Shield	Type													
vert Re	Malahi				Bass	Class	8.45	8.45	8.45	8.45	8.45	8.45							
ine Cul	ship of				CN		68.3	68.3	68.3	68.3	68.3	68.3							
enna L	Town				Stor.	Distr.	В	ш	ш	ш	ш	В							
and Vie					Stor.	%	0.282	0.282	0.282	0.282	0.282	0.282							
Road					AD	km²	0.05	0.05	0.05	0.05	0.05	0.05							
cienda			d Data Summary	d Data Summary	d Data Summary	d Data Summary		opn Inde	mm	100	100	100	100	100	100				
Ha							ed Data Summary	ed Data Summary		L <sup>2</sup> /A		2.661	2.661	2.661	2.661	2.661	2.661		
									ed Data S	d Data Si	d Data Sı	sins	Sw	m/m	0.0039	0.0039	0.0039	0.0039	0.0039
			Vatershe	vatersne outhern Ba	Ľf	km													
		q	>	S	_	km	6.87	6.87	6.87	6.87	6.87	6.87							
		la Roac	ua roa						na Nuc		hf	E	0	0	0	0	0	0	
		Hacien			Delta h	Е	20	20	20	20	20	20							
		Site 1		Area		km²	17.735	17.735	17.735	17.735	17.735	17.735							
				WS	Type		S	S	S	S	S	S							

## 91 Culvert Calculator Report Existing Vienna Line

Culvert Summary					
Allowable HW Elevation	198.11	m	Headwater Depth/Height	0.90	
Computed Headwater Elevation	198.11	m	Discharge	25.6688	m³/s
Inlet Control HW Elev.	197.81	m	Tailwater Elevation	0.00	m
Outlet Control HW Elev.	198.11	m	Control Type	Entrance Control	
Grades					
Upstream Invert	195.34	m	Downstream Invert	193.62	m
Length	44.50	m	Constructed Slope	0.038831	m/m
Hydraulic Profile					
Profile	S2		Depth, Downstream	1.25	m
Slope Type	Steep		Normal Depth	1.25	m
Flow Regime	Supercritical		Critical Depth	1.60	m
Velocity Downstream	5.08	m/s	Critical Slope	0.018688	m/m
0					
Section					
Section Shape	Arch		Mannings Coefficient	0.034	
Section Material Steel structural	I plate 31 In CR		Span	4.72	m
Section Size	4/20X30/0		Rise	3.07	m
Number Sections	1				
Outlet Control Properties					
Outlet Control HW Elev.	198.11	m	Upstream Velocity Head	0.78	m
Ke	0.50		Entrance Loss	0.39	m
		_			
Inlet Control Properties					
Inlet Control HW Elev.	197.81	m	Flow Control		
Inlet Type 31 inch CR structural p	olate, No bevels		Area Full	11.4	m²
К	0.00880		HDS 5 Chart	36	
Μ	2.00000		HDS 5 Scale	2	
С	0.03680		Equation Form	1	
Y	0.68000				

## Culvert Calculator Report Proposed Vienna Line Alternative 1

Culvert Summary					
Allowable HW Elevation	197.90	m	Headwater Depth/Height	0.91	
Computed Headwater Elevation	197.90	m	Discharge	37.6993	m³/s
Inlet Control HW Elev.	197.59	m	Tailwater Elevation	0.00	m
Outlet Control HW Elev.	197.90	m	Control Type	Outlet Control	
Grades					
Upstream Invert	194.00	m	Downstream Invert	193.50	m
Length	52.00	m	Constructed Slope	0.009615	m/m
Hydraulic Profile					
Profile	M2		Depth, Downstream	2.44	m
Slope Type	Mild		Normal Depth	3.00	m
Flow Regime	Subcritical		Critical Depth	2.44	m
Velocity Downstream	4.43	m/s	Critical Slope	0.017516	m/m
Section					
Section Shape	Circular		Mannings Coefficient	0.033	
Section Material	CMP		Span	4.30	m
Section Size	4300		Rise	4.30	m
Number Sections	1				
Outlet Control Properties					
Outlet Control HW Elev.	197.90	m	Upstream Velocity Head	0.67	m
Ke	0.50		Entrance Loss	0.34	m
-					
Inlet Control Properties					· · · · · · · · · · · · · · · · · · ·
Inlet Control HW Elev	107 50	m	Flow Control	NI/A	
	Headwall		Area Full	14.5	m²
K	0.00780		HDS 5 Chart	2	.u
M	2.00000		HDS 5 Scale	- 1	
C	0.03790		Equation Form	1	
Y	0.69000		e Constante e la presenta		

## 93 **Culvert Calculator Report Proposed Vienna Line Alternative 2**

Culvert Summary					
Allowable HW Elevation	196.70	m	Headwater Depth/Height	0.90	
Computed Headwater Elevation	196.70	m	Discharge	36.0081	m³/s
Inlet Control HW Elev.	196.43	m	Tailwater Elevation	0.00	m
Outlet Control HW Elev.	196.70	m	Control Type	Entrance Control	
Grades					
Upstream Invert	194.00	m	Downstream Invert	193.50	m
Length	52.00	m	Constructed Slope	0.009615	m/m
Hydraulic Profile					
Profile	S2		Depth, Downstream	1.13	m
Slope Type	Steep		Normal Depth	0.98	m
Flow Regime	Supercritical		Critical Depth	1.54	m
Velocity Downstream	5.30	m/s	Critical Slope	0.002494	m/m
Section					
Section Shape	Box		Mannings Coefficient	0.013	
Section Material	Concrete		Span	6.00	m
Section Size	6000x3000		Rise	3.00	m
Number Sections	1				
Outlet Control Properties					
Outlet Control HW Elev.	196.70	m	Upstream Velocity Head	0.77	m
Ke	0.50		Entrance Loss	0.39	m
Inlet Control Properties					
Inlet Control HW Elev.	196.43	m	Flow Control	N/A	
Inlet Type 90° headw	all w 45° bevels		Area Full	18.0	m²
κ	0.49500		HDS 5 Chart	10	
Μ	0.66700		HDS 5 Scale	2	
С	0.03140		Equation Form	2	
Y	0.82000				

APPENDIX 2

Drawing 01 – Survey of Existing Conditions



APPENDIX 3

Site Inspection Photos



Photo of barrel



Photo of barrel – Significant Localized Deformation



Photo of barrel – Significant Localized Deformation



Photo of End Treatment (Block Retaining Wall)





Photo of Inlet (Looking Upstream)



Photo of Barrel



Photo of Haunch Reinforcing (Deteriorated)



Photo of Downstream Embankment



Photo of End Treatment (Block Retaining Wall)



Photo of End Treatment (Block Retaining Wall)



## **Report to Council**

REPORT NO.:CAO-22-07DATE:May 19, 2022ATTACHMENT:Presentation Slides of Performance Concepts Consulting Inc.SUBJECT:PRESENTATION #1 RE: SHARED DEVELOPMENT<br/>APPROVALS SERVICE BUSINESS PLAN AND ELECTRONIC<br/>PROCESSING

## **Recommendation:**

THAT Report No. CAO-22-07 entitled "Presentation #1 Re: Shared Development Approvals Service Business Plan and Electronic Processing" be received;

AND THAT Council support and give direction to Performance Concepts Inc. and Staff to proceed with a detailed build-out of a preferred model, subject to the Council for the Municipality of Bayham agreeing, whereby:

the Township of Malahide sells Building Services to the Municipality of Bayham; the Municipality of Bayham sells By-Law Enforcement Services to Malahide; and, a Shared Services Board is established for Land-Use Planning Services between both municipalities.

## Background:

In 2021, and acting on one of the recommendations of the Township's Service Delivery and Organizational Review, the Township applied and received approval under the Province's Municipal Modernization Program – Intake 2 ("MMP- Intake 2") for interested consultants to complete a "Development Approvals Service Business Plan and Electronic Processing Project".

Although officially a Malahide project, the Municipality of Bayham is a partner in the review process so to determine whether such shared service can be mutually beneficial and successful.

Given the above, and in consultation with Bayham, the Township moved forward with issuance of a "Request for Proposals" (RFP). The work was awarded by Township Council to Performance Concepts Consulting Inc. ("the consultants") on April 7<sup>th</sup>, 2022.

## Comments/Analysis:

The consultants have assessed what the two municipalities have (and don't have), inclusive of interviews with both CAOs and applicable staff from Building, By-law Enforcement, and Planning.

Following such assessment and discussions, the consultants are prepared to present their preliminary findings and recommendations to both Councils.

The consultants are of the opinion that a preferred (but still preliminary) model can be one where:

- Building Services: The Township sells to the Municipality of Bayham;
- **By-Law Enforcement Services:** Bayham sells to Malahide (each through a purchased service agreement); and,
- **Planning Services:** A Shared Services Board is established for and between both municipalities through a shared service agreement.

If both Councils agree to the above preliminary model/option, the consultants will proceed to a detailed build-out of such model/option to be presented to both councils in June.

## Financial Implications to Budget:

The purpose of this report is to introduce the consultants' preliminary findings for a potential "Shared Development Approvals Service Business Plan and Electronic Processing" for Bayham and Malahide.

There are no implications to the Budget as a result of this report and presentation.

Submitted by:
Adam Betteridge.
Chief Administrative Officer

# TOWNSHIP OF MALAHIDE + MUNICIPALITY OF BAYHAM

## 2022 Service Sharing Review

## **Council Briefings**

May 18<sup>th</sup> /19<sup>th</sup> 2022





Kick-Off + Rapid Data Transfer + Malahide & Bayham Staff Consultations Preliminary Stage – Formulate Planning, Building and By-Law Enforcement Shared Service Delivery Models

Middle Stage – Deep Dive to Design Preferred Service Sharing Delivery Model Final Stage – Construct a Comprehensive Shared Service Agreement to Implement Preferred Model

TODAY




# Securing Economies of Scale

109

### Service Sharing Approaches Across Ontario Municipalities

#### Share staff positions (Buy, Sell or Fund in Common)

Share specialized equipment (Buy, Sell or Fund in Common)

#### Shared IT Tools/Platforms

Merge municipal service delivery systems within an expanded boundary (e.g., Winter Control borderless service or Fire Hub/Spoke)

Create a Special Purpose Body to serve multiple municipalities (e.g., Planning or Recreation Boards)

Bulk purchasing of Contracted Services/materials, etc. Shared Contractor Arrangements (consolidating around a sole contractor)

### Strategic/Implementation Challenges to Ponder

Balancing benefits received with cost allocation burden across sharing partners – Win/Win

- A technical measurement challenge
- Creating *clear win/wins*

### The politics of **Control vs Results**

- Who calls the shots? A documented process is critical!
- Say for Pay mitigating control anxiety with formal agreements/accountability mechanisms

### Malahide "AS IS" Service Delivery

	Building (Key Priority)	By-law Enforcement (Key Priority)	Planning (Second Level Priority)
Staff Team	Accredited CBO (.85 FTE)	Portion of CBO (.15 FTE) on complex files + contractor oversight	Development Services Coordinator
			Vacant Development Services Manager FTE
Contractor Resources	RSM Building Consultants (Billable Hours)	MEU Consulting (Billable Hours) utilized on as needed basis MEU has multiple municipal clients/frequent staff turnoverquestions re. longer term service delivery stability	Monteith Brown (Billable Hours as needed) No "go to" Dev Engineering Contractor
Service Levels	Legislated timeframes CloudPermit portal/workflow tool deployed but not universally used by Building applicants	Complaint driven service level No meaningful performance tracking/public reporting in place (e.g. closure rates) Actual performance results unclear/requiring added focus	Upcoming Planning Act/Bill 109 compliance challenges Medium term greenfield housing demand in Springfield (potentially) No CloudPermit deployment yet for Planning applications
\$ Model	Permit Fees + Building Reserve	Property tax supported	Relatively low Planning Fees + Deposit Draw Down (100% recovery contractor billable hours)

### Bayham "AS IS" Service Delivery

	Building (Key Priority)	By-law Enforcement (Key Priority)	Planning (Second Level Priority)
Staff Team	No accredited Building staff	Fire Chief .3FTE	Development Services Coordinator
Contractor Resources	Contractor CBO 3 days/week (fixed allotment of Billable Hours)	MEU Consulting (Billable Hours) utilized on as needed basis MEU has multiple municipal clients/frequent staff turnoverquestions re. longer term service delivery stability	IBI Group (billable hours as needed) CJDL Engineering Contractor (not always available given file conflicts)
Service Levels	Legislated timeframes No portal/workflow tool Significant level of low-tech applicant support	Complaint driven service level Reasonable performance tracking/public reporting in place (e.g. closure rates)	Upcoming Planning Act/Bill 109 compliance challenges Imminent greenfield Sub-division growth pressures/files (600-800 units) No DAP portal/workflow tool
\$ Model	Permit Fees + Building Reserve	Property tax supported	Relatively low Planning Fees + Deposit Draw Down (100% recovery contractor billable hours)

## Factors Affecting Design of Malahide/Bayham Shared Service Options

- By-law enforcement off "corner of the desk" negatively impacting Building Services capacity (Malahide) and Fire/Emergency Services capacity (Bayham)
- Accredited Building staff exceedingly difficult to find/retain (Sellers' market)
- Contractor driven Planning model is effective in mitigating Bill 109 risk
- Existing municipal staff provide customer service access points in both Malahide and Bayham Offices...need to preserve for Building/Planning applicants
- Securing stable/sustained resourcing capacity is the critical objective of Service Sharing in a constrained municipal sector labour market...
  - Shedding existing resources <u>not</u> appropriate...
  - Redeploying/reallocating contractor resources could be appropriate/necessary
- Governance and other aspects of Service Sharing can be phased in over the medium term once resourcing capacity risks have been mitigated

## Service Sharing Model Components to Mix & Match

Service Delivery Mechanisms	Governance Options	Resourcing: Staff vs Contractor	Cost Recovery Tools	Measurable Service Levels/Results
Βυγ	Purchased Service Agreement	Internal Staff Resource/FTE	Property Tax Supported	Provincially Regulated
Sell	Shared Services Board	Contracted Service Hours	DAP Fees	Council Mandated
Shared			Deposit Draw- Down model	Contractual Obligation
			Enforcement Revenues	Customer Service Level

### Service Sharing Options - Planning

	Buy/Sell/Shared Delivery	Governance	Resourcing – Staff v Contractor	Cost Recovery Tools	Measurable Service Levels/Results
Option A	Shared Delivery	<ul> <li>Shared Services Board</li> </ul>	<ul><li>Staff</li><li>Contractors</li></ul>	<ul> <li>Deposit Draw- Downs</li> </ul>	<ul> <li>Legislated</li> <li>Shared Service Agreement</li> </ul>
Option B	<ul><li>Malahide Sells</li><li>Bayham Buys</li></ul>	<ul> <li>Purchased Service Agreement</li> </ul>	<ul><li>Staff</li><li>Contractors</li></ul>	<ul> <li>Deposit Draw- Downs</li> </ul>	<ul> <li>Legislated</li> <li>Purchased</li> <li>Service</li> <li>Agreement</li> </ul>
Option C	<ul><li>Bayham Sells</li><li>Malahide Buys</li></ul>	<ul> <li>Purchased Service Agreement</li> </ul>	<ul><li>Staff</li><li>Contractors</li></ul>	<ul> <li>Deposit Draw- Downs</li> </ul>	<ul> <li>Legislated</li> <li>Purchased</li> <li>Service</li> <li>Agreement</li> </ul>

### Service Sharing Options - Building

	Buy/Sell/Shared Delivery	Governance	Resourcing – Staff v Contractor	Cost Recovery Tools	Measurable Service Levels/Results
Option A	Shared Delivery	<ul> <li>Shared Services Board</li> <li>Harmonized Building By-law</li> </ul>	<ul> <li>Accredited Staff</li> <li>Accredited Contractors</li> </ul>	<ul> <li>Common Permit Fee Schedule</li> <li>Reserve Balances</li> </ul>	• Legislated
Option B	<ul><li>Malahide Sells</li><li>Bayham Buys</li></ul>	<ul> <li>Purchased Service Agreement</li> <li>Harmonized Building By-law</li> </ul>	<ul> <li>Accredited Staff</li> <li>Accredited Contractors</li> </ul>	<ul> <li>Common Permit Fee Schedule</li> <li>Reserve Balances</li> </ul>	• Legislated
Option C	<ul><li>Bayham Sells</li><li>Malahide Buys</li></ul>	<ul> <li>Purchased Service Agreement</li> <li>Harmonized Building By-law</li> </ul>	<ul> <li>Accredited Staff</li> <li>Accredited Contractors</li> </ul>	<ul> <li>Common Permit Fee Schedule</li> <li>Reserve Balances</li> </ul>	• Legislated

117

### Service Sharing Options – By-Law Enforcement

	Buy/Sell/Shared Delivery	Governance	Resourcing – Staff v Contractor	Cost Recovery Tools	Measurable Service Levels/Results
Option A	Shared Delivery	<ul><li>Shared Services Board</li><li>Harmonized By-laws</li></ul>	<ul><li>Staff</li><li>Contractors</li></ul>	<ul> <li>Property Taxes</li> <li>Enforcement Revenues</li> </ul>	<ul> <li>Council Mandated</li> <li>Shared Service Agreement</li> </ul>
Option B	<ul><li>Malahide Sells</li><li>Bayham Buys</li></ul>	<ul><li>Purchased Service Agreement</li><li>Harmonized By-laws</li></ul>	<ul><li>Staff</li><li>Contractors</li></ul>	<ul><li>Property Taxes</li><li>Enforcement Revenues</li></ul>	<ul> <li>Council Mandated</li> <li>Purchased Service Agreement</li> </ul>
Option C	<ul><li>Bayham Sells</li><li>Malahide Buys</li></ul>	<ul><li>Purchased Service Agreement</li><li>Harmonized By-laws</li></ul>	<ul><li>Staff</li><li>Contractors</li></ul>	<ul><li>Property Taxes</li><li>Enforcement Revenues</li></ul>	<ul> <li>Council Mandated</li> <li>Purchased Service Agreement</li> </ul>

### **Evaluation of Sharing Model Options - Building**

	Option A: Shared Delivery	Option B: Malahide Sells	Option C: Bayham Sells
Strengths	<ul> <li>Retain existing Malahide's accredited staff capacity and Bayham's accredited contractor</li> <li>Both municipalities benefit from leveraging existing Cloud Permit license</li> </ul>	<ul> <li>Retain existing Malahide's accredited staff capacity</li> <li>Both municipalities benefit from leveraging existing Cloud Permit license</li> </ul>	<ul> <li>Retain competencies of the Bayham's accredited contractor</li> </ul>
lssues to Consider	<ul> <li>Challenges of harmonizing By-laws and Fee Schedules</li> </ul>	<ul> <li>Need to redeploy or expand accredited contractor capacity from Bayham (3 days per week)</li> </ul>	<ul> <li>Need to address accredited staff capacity for Malahide (Current CBO)</li> <li>No ability to leverage Cloud Permit</li> </ul>

### Evaluation of Sharing Model Options – By-law Enforcement

	Option A: Shared Delivery	Option B: Malahide Sells	Option C: Bayham Sells
Strengths	<ul> <li>A new BLEO would free up CBO and Fire Chief capacity</li> <li>Reduced contractor capacity required</li> <li>Improved oversight of contractor by dedicated BLEO</li> <li>Opportunity for service level improvement</li> </ul>	<ul> <li>A new Malahide BLEO would free up an estimated 20% of Building Staff capacity to address increasing demand</li> <li>Frees up capacity of Bayham Fire Chief</li> <li>Reduced contractor capacity required</li> </ul>	<ul> <li>A new Bayham BLEO would free up an estimated 33% of Fire Chief capacity to address legislated requirements (Fire Master Plan &amp; Community Risk Assessment)</li> <li>Frees up capacity of Malahide CBO</li> <li>Reduced contractor capacity required</li> </ul>
Issues to Consider	<ul> <li>A new BLEO 0.5 FTE required in both budgets</li> <li>Challenges of harmonizing By-laws</li> </ul>	<ul> <li>A new BLEO 1.0 FTE required in Malahide budget</li> <li>Challenges of harmonizing By-laws</li> </ul>	<ul> <li>A new 1.0 BLEO FTE required in Bayham budget</li> <li>Challenges of harmonizing By- laws</li> </ul>

120

# Evaluation of Sharing Model Options -Planning

	Option A: Shared Delivery	Option B: Malahide Sells	Option C: Bayham Sells
Strengths	<ul> <li>Retain internal Planning Tech capacity/expertise in both municipalities</li> <li>Retain competencies of Monteith Brown + IBI for both municipalities</li> <li>Opportunity for new shared Dev Eng. contractor</li> <li>Both municipalities benefit from leveraging existing Cloud Permit license</li> </ul>	<ul> <li>Malahide retains internal Planning Tech capacity/expertise</li> <li>Malahide retains competencies of Monteith Brown</li> <li>Both municipalities benefit from leveraging existing Cloud Permit license</li> </ul>	<ul> <li>Bayham retains internal Planning Tech capacity/expertise</li> <li>Bayham retains competencies of IBI</li> </ul>
lssues to Consider	<ul> <li>Complexity of two internal staff teams + two contractor teams across one borderless service area</li> </ul>	<ul> <li>Need to address staffing capacity at Bayham Office</li> </ul>	<ul> <li>Need to address staffing capacity at Malahide</li> <li>No ability to leverage Cloud Permit</li> </ul>

### A Workable Model to Consider

	Malahide Sells Building	Bayham Sells By-law Enforcement	Shared Planning
Approach Description	<ul> <li>Leverages current Malahide CBO</li> <li>Takes over Bayham's existing 3 days/week contractor (potentially expanded to 5 days)</li> <li>No erosion of Building capacity due to "off the corner of the desk" By-law Enforcement (critically important given forecast development activity)</li> </ul>	<ul> <li>New dedicated BLEO shared 50/50 (due to inability to forecast complaint-driven workload distribution between the 2 municipalities)</li> <li>Phased By-law harmonization</li> </ul>	<ul> <li>Each municipality retains existing "intake" Planning staff at respective Offices</li> <li>Each municipality retains/shares existing contractor resources (at least for now)</li> <li>Phased harmonization of DAP processes + deposit draw-down \$ models for upcoming development</li> <li>Shared implementation/usage of Cloud Permit tool</li> </ul>

# 123 Next Steps

- Bayham and Malahide Councils provide feedback/direction on core elements of a viable Shared Service Option (consensus needed)
- Performance Concepts/Dillon will proceed with Stage 2 Detailed Build-out of a go-forward Preferred Option
- Bayham and Malahide Councils to Review Stage 2 Detailed Build-out in June
- Performance Concepts will develop an Implementation Agreement for CAOS to further consider in early July



LONG POINT REGION CONSERVATION AUTHORITY Board of Directors Meeting Minutes of April 6, 2022 Approved May 4, 2022

Members in attendance: John Scholten, Chair Michael Columbus, Vice-Chair Dave Beres Robert Chambers Tom Masschaele Stewart Patterson Ian Rabbitts Peter Ypma

Township of Norwich Norfolk County Town of Tillsonburg County of Brant Norfolk County Haldimand County Norfolk County Township of South-West Oxford

<u>Regrets:</u> Kristal Chopp Valerie Donnell Ken Hewitt

Norfolk County Municipality of Bayham/Township of Malahide Haldimand County

Guest: Paul DeCloet, LPRCA Conservation Stewardship Award Winner

<u>Staff in attendance:</u> Judy Maxwell, General Manager Lorrie Minshall, Special Projects Zachary Cox, Marketing Coordinator Dana McLachlan, Executive Assistant

#### 1. Welcome and Call to Order

The chair called the meeting to order at 6:30 p.m., Wednesday, April 6, 2022.

#### 2. Additional Agenda Items

There were no additional agenda items.

#### 3. Declaration of Conflicts of Interest

None were declared.

#### 4. Presentation

#### a) LPRCA Conservation Stewardship Award – Paul DeCloet

Chair Scholten introduced and congratulated Mr. DeCloet for his environmental contributions to the watershed and presented him with the 2022 LPRCA Stewardship Award.

Board members were given the opportunity to congratulate Paul and provide details of the contributions he made within their communities.

Mr. DeCloet was very appreciative to be nominated by the Nature Conservancy of Canada, the LPRCA Stewardship Award, and all the kind words from the members.

#### 5. Minutes of the Previous Meeting

#### a) Board of Directors Annual General Meeting March 4, 2022

There were no questions or comments.

#### A-41/22

Moved by P. Ypma Seconded by I. Rabbitts

THAT the minutes of the LPRCA Board of Directors Annual General Meeting held March 4, 2022 be adopted as circulated.

CARRIED

#### 6. Business Arising

There was no business arising from the previous minutes.

#### 7. <u>Review of Committee Minutes</u>

There were no Committee Minutes presented.

#### 8. Correspondence

There was no correspondence presented for review.

#### 9. <u>Development Applications</u>

#### a) Section 28 Regulations Approved Permits

Through the General Manager's delegating authority, 45 applications were approved in the past month. LPRCA-13/22, LPRCA-15/22, LPRCA-16/22, LPRCA-17/22, LPRCA-18/22, LPRCA-20/22, LPRCA-21/22, LPRCA-23/22, LPRCA-25/22, LPRCA-26/22, LPRCA-27/22, LPRCA-28/22, LPRCA-29/22, LPRCA-30/22, LPRCA-31/22, LPRCA-32/22, LPRCA-33/22, LPRCA-34/22, LPRCA-35/22, LPRCA-36/22, LPRCA-37/22, LPRCA-38/22, LPRCA-39/22, LPRCA-40/22, LPRCA-41/22, LPRCA-42/22, LPRCA-43/22, LPRCA-49/22, LPRCA-45/22, LPRCA-46/22, LPRCA-47/22, LPRCA-48/22, LPRCA-49/22, LPRCA-50/22, LPRCA-51/22, LPRCA-53/22, LPRCA-53

LPRCA-64/22, and LPRCA-65/22.

All of the staff-approved applications met the requirements as set out in Section 28 of the *Conservation Authorities Act*.

#### A-42/22

Moved by T. Masschaele Seconded by S. Patterson

THAT the LPRCA Board of Directors receives the Staff Approved Section 28 Regulations Approved Permits report as information.

CARRIED

#### b) New Business

#### a) General Manager's Report

The General Manager provided an overview of operations this past month.

Planning staff completed 66 permits in the 1st quarter of 2022 compared to 55 last year.

Two flood watches were issued for riverine flooding, February 16 and February 21. The February 16 flood watch was updated to a flood warning on February 17.

All staff are back working in the office as of February 22.

Parks and campgrounds open May 1. Some of the park staff will start on April 11 while hiring for summer positions is ongoing. There are a few seasonal campsites remaining but we are very close to capacity.

#### A-43/22

Moved by P. Ypma Seconded by D. Beres

That the LPRCA Board of Directors receives the General Manager's Report for March 2022 as information.

#### CARRIED

#### b) Hearing Procedures Policy - Update

The changes to the policy include adding the new Ministers Zoning Order, changing all references to the Local Planning Appeal Tribunal to the new Ontario Land Tribunal, and, general administrative updates.

The *Conservation Authorities Act* requires the Authority to issue a permit under the Ministers Zoning Order but allows for a hearing to be conducted for the Board to consider any conditions recommended by staff.

A-44/22 Moved by T. Masschaele Seconded by D. Beres

THAT the LPRCA Board of Directors approves the Hearing Procedures Policy, Conservation Authorities Act, Section 28 as presented.

#### CARRIED

#### c) Enclosed Public Spaces Face Mask Covering Policy Update

Staff requested that the Enclosed Public Face Mask Covering Policy be repealed in alignment with the Ontario Government's mask mandate ending March 21, 2022. Disinfecting and enhanced cleaning will continue, and, hand hygiene will continue to be encouraged. Staff and visitors are welcome to continue wearing masks.

#### A-45/22

Moved by S. Patterson Seconded by P. Ypma

THAT the LPRCA Board of Directors repeals the Enclosed Public Spaces Face Mask Covering Policy adopted August 5, 2020.

CARRIED

#### d) 2022 Septic Disposal Services Tender

A tender was issued for septic disposal services for the five campgrounds and three bids were received by the deadline. The 2022 budget for septic disposal services is \$89,500 and, based on 2021 volumes, \$95,675 is the projected cost. Staff recommended splitting the tender to the lowest bidder for each park for cost efficiency.

#### A-46/22

Moved by I Rabbitts Seconded by P. Ypma

THAT the 2022 contract for septic services at Backus CA, Deer Creek CA and Norfolk CA be awarded to Bayside Septic Services 2012 Inc.,

AND

THAT the 2022 contract for septic services at Haldimand CA be awarded to Frankie's *Pumping.,* 

AND

THAT the 2022 contract for septic services at Waterford North CA be awarded to Bill's Septic Ltd.

CARRIED

#### 10. Closed Session

#### A-47/22

Moved by I. Rabbitts Seconded by D. Beres

> A trade secret or scientific, technical, commercial, financial or labour relations information, supplied in confidence to the Authority, which, if disclosed, could reasonably be expected to prejudice significantly the competitive position or interfere significantly with the contractual or other negotiations of a person, group of persons, or organization;

> > Carried

The board reconvened in open session at 7:14 p.m.

The Board approved the closed meeting minutes of February 23, 2022.

#### **Adjournment**

The Chair adjourned the meeting at 7:15 p.m.

John Scholten

John Scholten Chair

/dm

Judy Maxwell

Judy Maxwell General Manager/Secretary-Treasurer

To: Mayor Mennill and Members of Malahide Council

In previous years, the volunteer firefighters from Malahide #5 fire department have been very active in the community with various events (ie: Christmas food drives, blood donor clinics and several fundraisers for local causes) as well as putting on an amazing fireworks display for the village of Port Bruce.

Many residents from the village and throughout the Township really enjoyed the fireworks show and have been asking when we are doing another one. Last year, the firework show was in September however, the intention was to kick off the summer with a show on the May long weekend. The hope is for warmer and more stable weather as well as kicking off the summer on a high note. As always, safety is our top priority so we use an insured highly skilled fireworks technician, we have many firefighters on hand to monitor the crowd, we notify OPP about the increase in traffic and we control traffic as it clears out of town. The residents along with Township employees have done a lot of work to clean up the village after this Spring flooding and it is looking really good again. So, on Sunday May 22<sup>nd</sup> (rain date May 23th) we would like permission to use the pier again for the display.

This will be an awesome fun and safe display for Port Bruce and the residents of Malahide. If there are any questions, concerns or comments, feel free to contact me directly

Thank you for your time, Station #5 District Chief Randy Loewen

#### 130 THE CORPORATION OF THE TOWNSHIP OF MALAHIDE

#### BY-LAW NO. 22-37

Being a By-law to adopt, confirm and ratify matters dealt with by resolution of the Township of Malahide.

**WHEREAS** Section 5(3) of the Municipal Act, 2001, c. 25, as amended, provides that the powers of every council are to be exercised by by-law;

**AND WHEREAS** in many cases, action which is taken or authorized to be taken by the Township of Malahide does not lend itself to the passage of an individual by-law;

**AND WHEREAS** it is deemed expedient that the proceedings of the Council of the Township of Malahide at this meeting be confirmed and adopted by by-law;

**NOW THEREFORE** the Council of The Corporation of the Township of Malahide **HEREBY ENACTS AS FOLLOWS:** 

- 1. THAT the actions of the Council of the Township of Malahide, at its regular meeting held on May 19, 2022, in respect of each motion, resolution and other action taken by the Council of the Township of Malahide at such meeting is, except where the prior approval of the Ontario Municipal Board or other authority is required by law, is hereby adopted, ratified and confirmed as if all such proceedings were expressly embodied in this By-law.
- 2. THAT the Mayor and the appropriate officials of the Township of Malahide are hereby authorized and directed to do all things necessary to give effect to the action of the Council of the Township of Malahide referred to in the proceeding section.
- 3. THAT the Mayor and the Clerk are hereby authorized and directed to execute all documents necessary in that behalf and to affix thereto the corporate seal of the Township of Malahide.
- 4. THAT this By-law shall come into force and take effect upon the final passing thereof.

**READ** a **FIRST** and **SECOND** time this 19<sup>th</sup> day of May, 2022.

**READ** a **THIRD** time and **FINALLY PASSED** this 19<sup>th</sup> day of May, 2022.

Mayor, D. Mennill

Clerk, A. Adams