

**CORPORATION OF THE TOWNSHIP OF EAST ZORRA-TAVISTOCK COUNCIL
2022 - 2026**

AGENDA

**for the Meeting to be held on Wednesday June 7, 2023 at the
Innerkip Community Centre, 695566 17th Line, Innerkip, Ontario, at 9:00 a.m.**

1. Call to order and opening remarks
2. Approve Agenda
3. Disclosure of Pecuniary Interest and General Nature Thereof
4. General Business:
 - a) Confirm May 17, 2023, Council Meeting Minutes
 - b) ERTH – Spring 2023 Shareholder Newsletter
 - c) Woodstock – Request to Establish a Boundary Adjustment Committee
 - d) South-West Oxford – Call to End Homelessness Resolution
5. Delegations & Appointments:
 - a) 9:30 a.m. – Engineer’s Report (McLean Drain 2023)
6. Reports of Municipal Officers and Committees:
 - a) Conferences and Seminars
 - b) County Council – Updates & Questions
 - c) Staff Reports – Updates & Questions
 - d) May 10, 2023 Recreation Advisory Committee (RAC) Minutes
 - e) May 17, 2023 Police Services Board (PSB) Minutes
 - f) Staff Report - #HRSC2023 – 03 re: RZone Policy Implementation
 - g) Staff Report - #CBO2023 – 06 re: Building, Development & Drainage Reporting
 - h) Staff Report - #PW2023 – 06 re: Public Works Reporting
 - i) Staff Report - #FC2023 – 05 re: Fire Department Reporting
7. By-laws:
 - a) By-law #2023-18 – Budget and Tax Rates By-law
 - b) By-law #2023-19 - McLean Drain 2023 Provisional By-law (1st and 2nd Reading)
8. Other and Unfinished Business:
9. Closed to the Public Session *as authorized under s. 239 of the Municipal Act*:
 - a) March 1, 2023, Closed to the Public Session Minutes (s. 239 (2) (c))
 - b) Human Resources Matter (s. 239 (2) (b))
10. Confirming By-law
11. Adjourn

Placeholder Page for Agenda Item 1 –
Call to order and opening remarks

Use this page to note any opening remarks
you wish to make.

2.

Placeholder Page for Agenda Item 2 –
Approval of the Agenda

Use this page to note items you would like
added to the agenda.

3.

Placeholder Page for Agenda Item 3 – Disclosure of Pecuniary Interest

Use this page to note any Pecuniary Interests
you wish to declare at the meeting.

The Council of the Township of East Zorra-Tavistock met at the Innerkip Community Centre, Innerkip, Ontario at 7:00 p.m. on Wednesday May 17, 2023.

Members Present: Mayor Phil SCHAEFER, Deputy Mayor Brad SMITH and Councillors Matthew GILLESPIE, Scott RUDY, Jeremy SMITH, Steven VAN WYK and Scott ZEHR.

Members Absent: None.

Staff Present: CAO-Treasurer Karen DePrest, Clerk Will Jaques, Public Works Manager Tom Lightfoot, CBO John Scherer and Corporate Initiatives Officer Meaghan Vader.

Mayor SCHAEFER welcomed everyone to the meeting. Councillor SMITH advised that two of the four commercial units in the new plaza in Innerkip are now occupied. Councillor SMITH also advised of the upcoming annual Walk for Guide Dogs on May 28, 2023, in Innerkip, organized by the Innerkip and Woodstock Lions Clubs. Councillor SMITH further advised that the Innerkip Classic Car Cruise Nights are commencing again starting May 31, 2023. Lastly, Councillor SMITH drew attention to May 17th being International Day Against Homophobia, Biphobia and Transphobia. Mayor SCHAEFER advised that the 2023 World Crokinole Championship will be held on June 3, 2023, in Tavistock.

Approve
Agenda

1. Moved by: Scott ZEHR
Seconded by: Brad SMITH
Resolved that Council approve the agenda for the May 17, 2023, meeting as printed and circulated.

CARRIED.

PECUNIARY INTERESTS:

- None.

Confirm
Minutes -
Council

2. Moved by: Steven VAN WYK
Seconded by: Jeremy SMITH
Resolved that Council confirm the Minutes of the May 3, 2023, Council Meeting, as printed and circulated.

CARRIED.

- 3. Moved by: Scott ZEHR
 Seconded by: Scott RUDY
 Resolved that Council confirm the Minutes of the May 11, 2023, Special Council Meeting, as printed and circulated.

CARRIED.

Correspondence & Reports – No Resolutions:

- Staff Report - #BCO2023 – 04 re: By-law Compliance Reporting
- Staff Report - #CSM2023 – 07 re: Corporate Services Reporting
- Staff Report - #CAO2023 – 06 re: CAO-Treasury Reporting

Correspondence & Reports – Resolutions Following:

AORS – 2023 Trade Show

Council reviewed the correspondence from the Association of Ontario Road Supervisors (AORS) regarding the upcoming 2023 Trade Show.

County Council- Updates & Questions

Mayor SCHAEFER provided an update on County Council activities, including the recent employee survey results.

Staff Report #CIO2023 – 03 re: Municipal Alcohol Policy

Corporate Initiatives Officer Meaghan Vader presented her report to Council regarding the implementation of a Municipal Alcohol Policy, as revised following the April 19, 2023, Council meeting.

- 4. Moved by: Matthew GILLESPIE
 Seconded by: Scott ZEHR
 Resolved that Council adopt the Municipal Alcohol Policy, as attached to Staff Report #CIO2023-03;

And further that Council authorizes the Municipal Alcohol Policy be effective as of September 1, 2023.

CARRIED.

Public Hearing -
Minor Variance
Application
A-4-2023
(Feltz)

PUBLIC HEARING - MINOR VARIANCE
APPLICATION #A-4-2023 (FELTZ),
DESCRIBED AS PART LOT 26, CONCESSION 12
(EAST ZORRA), TOWNSHIP OF EAST ZORRA-
TAVISTOCK.

At 7:18 p.m., Council, constituted as the Committee of Adjustment, considered Minor Variance Application #A-4-2023 for Steve and Gwen Feltz. Planner Dustin Robson presented Planning Report #CP2023-148.

Members of the Committee asked questions of the Planner and Staff. The applicant was present for the hearing and spoke favourably of their application. The Committee considered the comments made in making its decision regarding this application.

5. Moved by: Brad SMITH
Seconded by: Steven VAN WYK
Resolved that Council, constituted as the Committee of Adjustment, approve Application A-4-2023, submitted by Steve and Gwen Feltz for lands described as Part Lot 26, Concession 14 (East Zorra), as it relates to:
 1. Relief from Section 5.1, Table 5.1.1.3 – Regulations for Accessory Uses, to increase the maximum height of a building accessory to a residential use from 5.5 m (18 ft) to 6.1 m (20 ft).

Subject to the following condition:

1. That the proposed relief shall only apply to a detached garage of the approximate size and location as depicted on Plates 3 & 4 of Report CP 2023-148

As the variance requested is considered to be:

- i. in keeping with the general intent and purpose of the Official Plan;
- ii. a minor variance from the provisions of the Township of East Zorra-Tavistock Zoning By-Law No. 2003-18;
- iii. desirable for the appropriate development or use of the land, building or structure; and,
- iv. in keeping with the general intent and purpose of the Township of East Zorra-Tavistock Zoning By-Law No. 2003-18.

CARRIED.

2023 Budget
Public Meeting -
Open

- 6. Moved by: Scott ZEHR
Seconded by: Jeremy SMITH
Resolved that Council does now adjourn to a Public Meeting for consideration of the 2023 Budget, at 7:25 p.m.

CARRIED.

CAO Karen DePrest highlighted the proposed 2023 budget. Members of Council discussed items related to the proposed 2023 budget. No members of the public present spoke regarding the proposed 2023 budget.

Adjourn Budget
Public Meeting -
Council
Reconvene

- 7. Moved by: Matthew GILLESPIE
Seconded by: Jeremy SMITH
Resolved that the Public Meeting does now adjourn and Council reconvenes at 7:31 p.m.

CARRIED.

At 7:33 p.m., Pam Antonio and Frank Gross presented to Council regarding the upcoming transition of the Blue Box Program to Extended Producer Responsibility.

Oxford County
Pride
Committee –
Flag Raising &
Sponsorship
Request

Council reviewed the correspondence from the Oxford County Pride Committee regarding their request for flag raising and Sponsorship. In light of the correspondence received from Brian Middleton regarding banning non-government and special interest group flags, which was also on the agenda for the meeting, Council reviewed and considered these two items of correspondence together.

Brian
Middleton-
Ban Non-
Government
and Special
Interest Group
Flags

After review and discussion on the matter, Council directed Staff to research and develop a policy for flags on municipal properties, as well as the potential of a community flagpole.

- 8. Moved by: Brad SMITH
Seconded by: Matthew GILLESPIE
Resolved that Council direct staff to research and develop a policy regarding flags on municipal properties, including the design of a Township flag, and the potential of a community flagpole;

And that the policy be brought back to Council for consideration at the September 6, 2023, Council meeting.

CARRIED.

Staff Report
#BCO2023 – 04
re: By-law
Compliance
Reporting

Council reviewed the Monthly By-law Compliance Report from By-law Compliance Officer Melanie Shiell.

Staff Report
#CSM2023 – 07
re: Corporate
Services
Reporting

Clerk Will Jaques reviewed the Monthly Corporate Services Report with Council.

Staff Report
#CAO2023 – 05
re: CAO-
Treasury
Reporting

CAO-Treasurer Karen DePrest reviewed the Monthly CAO-Treasury Report with Council.

By-law:

1st & 2nd
Reading

- 9. Moved by: Scott RUDY
Seconded by: Scott ZEHR
Resolved that the following by-law be read a first and second time:
 - 2023-16 – Hickson Sports and Recreation Inc. Agreement

CARRIED.

By-law: 10. Moved by: Jeremy SMITH
 Seconded by: Brad SMITH
 3rd & Final Resolved that the following by-law be read a third
 Reading and final time:
 • 2023-16 – Hickson Sports and Recreation Inc. Agreement

CARRIED.

Confirming 11. Moved by: Matthew GILLESPIE
 By-law Seconded by: Jeremy SMITH
 Resolved that By-law #2023-17 being a by-law to confirm the proceedings of Council held Wednesday May 17, 2023, be read a first, second and third time this 17th day of May, 2023;

And further that the Mayor and Clerk are hereby authorized to sign the same and affix the corporate seal thereto.

CARRIED.

Adjourn 12. Moved by: Brad SMITH
 Seconded by: Matthew GILLESPIE
 Resolved that Council does now adjourn at 9:38 p.m.

CARRIED.

Will Jaques, Clerk

Phil Schaefer, Mayor

Shareholder NEWSLETTER

2023 SPRING ISSUE

#4.b E R T H
CORPORATION

A message from the President & CEO

Spring is finally here! Since our last newsletter, a lot has happened within the ERTH group of companies and across our communities. Southwestern Ontario experienced a wide range of weather this past winter, from blizzard conditions to ice storms, which resulted in significant infrastructure damage and power outages in some communities. As always, ERTH worked together with its partners to restore power as quickly and safely as possible.

In other exciting news, ERTH was recognized with the Innovation Excellence Award for its Green Button solution at the Electricity Distributor Association (EDA) awards gala in March. This is a tremendous achievement for ERTH and everyone involved in developing and implementing the ERTH GB Connector Solution.

With Green Button data and the new Ultra-Low Overnight price plan coming into effect this year, 2023 is shaping up to be very busy for the ERTH Business Technologies and Solutions divisions.

On the utility construction and lighting front, ERTH crews have been steady over the winter and things are quickly ramping up heading into the summer months. ERTH's metering division also continues to experience significant growth.

Looking ahead, ERTH will once again host its Annual Charity Golf Tournament in June. This year's event proceeds will be donated to Operation Sharing to support people experiencing homelessness in our communities. As part of ERTH's sustainability commitment, we will also begin undertaking a comprehensive sustainability planning exercise, which involves identifying the key ESG metrics and commencing a baselining of those metrics.

On behalf of our Executive Management Team, I would like to thank our team, partners and shareholders for your continued support and dedication. Stay safe and enjoy the spring weather.



Chris White, President & CEO



Latest News & Events

ERTH Receives Innovation Excellence Award for its Green Button Solution – On Monday, March 27th, ERTH Power Corporation was recognized with the Innovation Excellence Award at the Electricity Distributors Association (EDA) annual awards gala in Toronto, Ontario. The award, sponsored by the Independent Electricity System Operator (IESO), recognizes outstanding achievement in innovation by an EDA member company. ERTH Power received the award in recognition of its Green Button solution, the ERTH GB Connector Powered by Savage Data Systems, which works to minimize the number of new applications and integrations required to deliver Green Button data to consumers. In addition to ERTH Power, 26 other Ontario utilities will be leveraging the ERTH GB Connector solution to deliver Green Button data to more than 650,000 end consumers across the province. Standardized Green Button data will enable consumers to leverage tools to analyze energy consumption, identify trends, and better manage energy use to help reduce their bills.



ERTH Sustainability Policy Approved – The ERTH board of directors approved a comprehensive Sustainability Policy in early 2023, which codifies ERTH’s commitment to measuring, monitoring and improving the environmental, social, and governance (ESG) performance of its group of companies. The new policy describes how ERTH’s operations, services and supply chain will be continually reviewed and improved, so that it can integrate environmental and social considerations into everyday practices and make a positive contribution to society. In addition, ERTH established a new standing ESG board committee, which will oversee ERTH’s environmental and social performance and guide management in its ESG planning and reporting efforts. In 2023, ERTH will commence a baselining exercise to establish the key metrics to be measured. Once completed, ERTH will develop and deploy a Climate Action Plan, which will establish net zero targets and sustainability strategies to achieve those goals, and a 10-year Diversity, Equity and Inclusion Plan. The results of ERTH’s performance against these plans will be reported in its first annual ESG report, expected in 2024.

ERTH Supports Huron Park Career Expo – On March 23rd, ERTH participated in the Huron Park Career Expo hosted by Community Employment Services Oxford. The event was held at Huron Park High School in Woodstock where senior students from six different high schools had the opportunity to explore different careers within Oxford County.



ERTH Solutions Updates

Green Button Solution Implementations – Since the last update, ERTH has added three new Green Button solution clients to its roster. ERTH now has over 50% of the market share in Ontario, with more than 25 utilities leveraging the ERTH GB Connector solution. To date, ERTH has certified eight LDCs with The Green Button Alliance, leaving the remainder to be certified by November 1, 2023.

Ultra-Low Overnight Rate Implementation – ERTH is currently in the process of implementing the new Ultra Low Overnight rate plan for all 20 ERTH-hosted utility customers. The new price plan must be implemented and offered to customers by or before November 2023.

AireOne Alliance On-boarded for Billing – ERTH recently signed AireOne Alliance, an Ontario-based water heater rental company, as a billing customer.

New Bill Print Customers – ERTH recently signed E.L.K. Energy and Orangeville Hydro for print and mail services. E.L.K. and Orangeville Hydro will both leverage a new bill design and layout that was originally developed and successfully implemented for Newmarket-Tay Power in 2022.

Newmarket-Tay Power Subscribes to Enhance Support Services – After a successful billing migration and onboarding, Newmarket-Tay Power has now subscribed to ERTH Enhanced Support Services.

New Quadra Contracts – Aqualogic, an Australian-based company, recently signed on to implement Quadra’s Service Call Quoting module and JF Petroleum has signed a Quadra Job Cost contract.

ERTH Solutions eBilling Initiative – ERTH is currently in the process of implementing a multi-phased eBilling initiative to convert ERTH Solutions water billing customers in Oxford and Norfolk counties to eBilling. Through this initiative, ERTH expects to convert nearly 4,000 additional accounts to paperless eBilling by August.

ERTH Academy Virtual Education Series – In 2023, ERTH is launching the ERTH Academy Virtual Education Series. The first session will be held on June 22nd.

ERTH Business Technologies Updates

Shell North America RMS Contract – ERTH recently signed well-known oil and gas provider, Shell North America, to a Retailer Managed Services (RMS) Gas contract.

ERTH Infrastructure Updates

ERTH Metering Shop Renovation – ERTH’s recent AMV metering shop renovation was featured in a blog on the Electricity Distributor Association (EDA) [website](#).

Weigh Station Projects Continued – ERTH continues to partner with Intelligent Imaging on its weigh station projects. Most recently ERTH completed the west bound Putnam weigh station, and has two more on the books to complete - East bound Putnam and Lancaster.

First Aclara Meter Order Processed - In early 2023, ERTH received and processed its first large electric meter order for Aclara, which included approximately 5,000 meters.

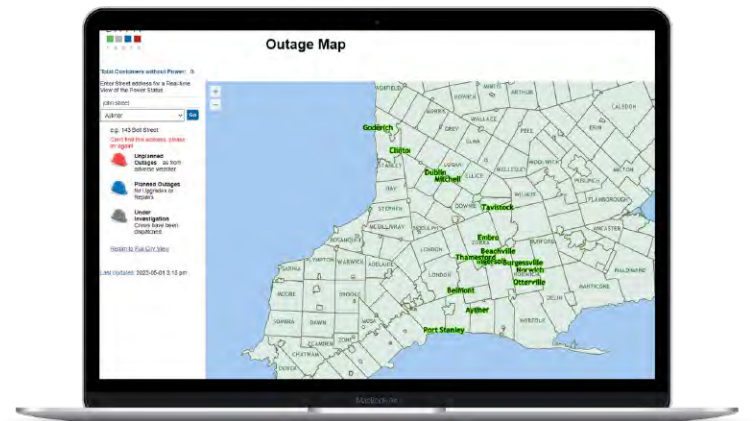
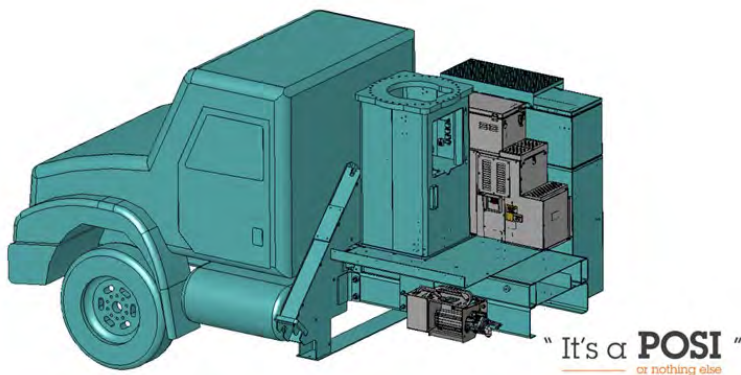
Continued Project Wins - ERTH continues to have strong project wins for traffic/street lighting and pole line construction in 2023.

February Ice Storm Leads to Power Outage for Port Stanley – On February 22-23, an ice storm made its way across Southwestern Ontario, including Elgin County. During the storm, significant amounts of ice accumulated on the distribution feeders at the east end of St. Thomas, which supply power to the entire town of Port Stanley. The ice accumulation eventually toppled 25 poles, cutting off power supply to a vast territory to the east and south of St. Thomas. Damage of this magnitude required significant effort and resources as all 25 poles had to be cleared, reset, hardware transferred, lines spliced, and restrung. When this type of damage occurs on a section of line that hosts multiple feeders it creates further challenges to restore power in a timely fashion. In this situation, ERTH Power was able to work with Hydro One to temporarily re-route power from another supply point to pick up the impacted customers. Kudos to everyone involved in this restoration effort!



ERTH Power Board Approves Purchase of ERTH's First Hybrid Bucket Truck – In alignment with our sustainability commitment, ERTH Power is excited to add a new hybrid bucket truck to its fleet. The hybrid technology will be an add-on to ERTH's standard Freightliner-POSI Plus bucket truck. It is a 23kW system that will power the boom and is capable of switching back to the traditional diesel engine-PTO as required. There will be cost savings associated with fuel usage, however, the primary drivers are the environment and health and safety of staff from reduced emissions and noise reduction enabling better communication on site. ERTH expects to receive the truck in 2024 but not certain when as the supply chain continues to cause delays.

ERTH Power Outage Map Now Live – After some minor delays, ERTH Power launched its new [outage map](#) in December 2022. The interactive outage map allows customers to view planned and unplanned outages across the ERTH Power services territory, along with estimated time of restoration where available.



ERTH Power Competes in Ontario Electric Utility Hockey Tournament - ERTH Power once again participated in the annual Ontario Electric Utility Hockey Tournament in London, Ontario. Each year the event brings together utility workers from across the province to compete in a friendly hockey tournament for a great cause. This year's event included 60 teams in six divisions. The tournament raised \$17,500 for KidSport London and \$2,500 for a Therapeutic Horse Farm in Minden. ERTH Power finished first overall in the D division, winning all of their round robin games. They went on to finish second in the playoff rounds, with a 3-1 loss to Newmarket-Tay Power.



ERTH and Savage Data Systems Partnership - ERTH continues to strengthen its strategic partnership with Savage Data Systems related to the Green Button initiative. ERTH and Savage recently established the new Ontario Utility GB Forum, a collaborative, outcome-focused forum led by ERTH Corporation and Savage Data Systems. The purpose of this forum is to provide Ontario utilities with a unique platform to collaborate, educate, and collectively work towards implementing the OEB Green Button requirements. The goal is to learn from each implementation so that, collectively, we can save time as a group. LDC participants have the opportunity to ask questions, share concerns and challenges, and gain updates on Green Button data implementation progress across the province.

BuildOps - ERTH is currently working on a partnership with BuildOps, an ERP system similar to Wennsoft, to integrate with Quadra quoting software.

Industry News

Ontario Launches New Ultra-Low Overnight Electricity Price Plan - On April 11, 2023 the Ontario Government launched the new Ultra-Low Overnight Price plan. Ontario LDCs must offer the new Ultra-Low Overnight price plan by November 2023. Read the [full news release](#) for more details.

Countdown to Green Button Deadline - The November 1, 2023 Green Button deadline is now less than a year away and utilities across the province are busy implementing solutions which must be certified to the NAESB ESPI version 3.3 standard for both Download My Data (DMD) and Connect My Data (CMD).

Coming Soon...

New ERTH Power Website Coming Soon!

Development is well underway on the new ERTH Power public facing website, which is expected to launch in Q3 of this year. The new website will feature an enhanced self-service menu, bold imagery, user-friendly navigation and improved accessibility.

New to the Team

Brock VanSlyke

Electrician
ERTH Holdings Inc.

Jennifer Gordon

Customer Solutions Consultant
ERTH Holdings Inc.

Kenzie LaPier

Design Technician
ERTH Holdings Inc.

Megan Gooding

Manager, Regulatory Affairs
ERTH Power Corporation

Ross Anderson

Quality Assurance Analyst
ERTH Business Technologies

Taylor Whalen

PT Customer Service Clerk
ERTH Power Corporation

Upcoming Events

May 18-19 | Charge Conference, Houston TX

May 30 - Jun 1 | EDIST, Markham ON

Jun 6-7 | OHUG, Niagara ON

Jun 8 | ERTH Annual Charity Golf Tournament

Jun 23 | ERTH Staff Golf Tournament

Sep 20-21 | ERTH Connects 2023

Sep 25-27 | WennSoft Synergy, San Antonio TX

Nov 25 | ERTH Staff Christmas Party

Stay Connected



ERTH Power Outages

Call: (877) 850-3128

erthpower.com/poweroutages



erthcorp.com

erthpower.com

thinkquadra.com



[/ERTHCorp](https://www.facebook.com/ERTHCorp)

[/ERTHPower](https://www.facebook.com/ERTHPower)

[/QuadraByERTH](https://www.facebook.com/QuadraByERTH)



[@ERTHCorp](https://twitter.com/ERTHCorp)

[@ERTHPower](https://twitter.com/ERTHPower)

[@QuadraByERTH](https://twitter.com/QuadraByERTH)

TOWNSHIP OF
EAST ZORRA-TAVISTOCK

MAY 19 2023

RECEIVED

y 9, 2023

Mayor Phil Schaefer & Members of Council
Township of East Zorra-Tavistock
90 Loveys Street East,
Hickson, Ontario
N0J 1L0

Dear Mayor Schaefer & Members of Council:

At the Council Meeting of May 4th, 2023, Woodstock City Council authorized Mayor Acchione to invite the Mayor and Council of the Township of East Zorra-Tavistock to enter into boundary adjustment discussions.

Woodstock City Council has established a Township of East Zorra-Tavistock Boundary Adjustment Negotiation Committee comprised of three members of Council including Mayor Jerry Acchione, Councillor Mark Schadenberg, and Councillor Bernia Wheaton.

I would like to invite you and members of your Council to establish a Boundary Adjustment Committee and respectfully request your Council to enter into boundary discussions.

Please give me a call at 519-532-2381, when you have a moment so we can discuss this further.

Sincerely,

Mayor Jerry Acchione

JA/aa

Cc. Members of Woodstock City Council
David Creery, CAO
Diane Campbell, Director Administrative Services



TOWNSHIP OF SOUTH-WEST OXFORD
R. R. # 1, Mount Elgin, ON N0J 1N0
312915 Dereham Line
Phone: (519) 877-2702; (519) 485-0477
Fax: (519) 485-2932

May 27th, 2023

Office of the Premier
Legislative Building
Queens Park
Toronto, ON M7A 1A1

Dear Premier Ford:

Re: Township of South-West Oxford Resolution re: Call to End Homelessness

This letter will confirm that the Council of the Township of South-West Oxford passed the following resolution at their meeting held on May 16th, 2023:

WHEREAS the homelessness crisis is taking a devastating toll on families and communities, undermining a healthy and prosperous Ontario;

WHEREAS the homelessness crisis is the result of the underinvestment and poor policy choices of successive provincial governments;

WHEREAS homelessness requires a range of housing, social service and health solutions from government;

WHEREAS homelessness is felt most at the level of local government and the residents that they serve;

WHEREAS municipalities and local social service providers are doing their part, but do not have the resources, capacity or tools to address this complex challenge; and,

WHEREAS leadership and urgent action is needed from the federal and provincial government on an emergency basis to develop, resource, and implement a comprehensive plan to prevent, reduce and ultimately end homelessness in Ontario.

THEREFORE BE IT RESOLVED THAT Council of the Township of South-West Oxford call on the federal and provincial governments to urgently:

- i. Acknowledge that homelessness in Ontario is a social, economic, and health crisis;
- ii. Commit to ending homelessness in Ontario;



TOWNSHIP OF SOUTH-WEST OXFORD
R. R. # 1, Mount Elgin, ON N0J 1N0
312915 Dereham Line
Phone: (519) 877-2702; (519) 485-0477
Fax: (519) 485-2932

- iii. Work with Association of Municipalities of Ontario (AMO) and a broad range of community, health, Indigenous and economic partners to develop, resource, and implement an action plan to achieve this goal.

AND FURTHER THAT a copy of this motion be sent to the Minister of Municipal Affairs and Housing; the Minister of Children, Community and Social Services, Ministry of the Solicitor General, the Minister of Health, MPP Ernie Hardeman and MP Dave MacKenzie; to the Association of Municipalities of Ontario; County of Oxford and all area municipalities.

Thank you.

Yours truly,

A handwritten signature in black ink, appearing to read 'Julie Middleton'.

Julie Middleton
Manager Legislative Services (Clerk)/Deputy CAO
Township of South-West Oxford

- cc. Oxford MPP Hon. Ernie Hardeman
Oxford MP Hon. Dave McKenzie
Hon. Steve Clark, Ministry of Municipal Affairs and Housing
Hon. Michael Parsa, Ministry of Children, Community and Social Services
Hon. Michael Kerzner, Solicitor General
Hon. Sylvia Jones, Ministry of Health

ENGINEERING REPORT

For

McLEAN DRAIN 2023

Township of East Zorra-Tavistock

Oxford County

Date: April 28, 2023

File No. 20-068



K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS & PLANNERS

85 McIntyre Drive
Kitchener, ON N2R 1H6

Tel: 519-748-1199
Fax: 519-748-6100

This page intentionally left blank

TABLE OF CONTENTS

1	EXECUTIVE SUMMARY	1
2	BACKGROUND	2
3	DRAINAGE HISTORY	2
3.1	McLean Drain (1972) – H. M. Gibson, P. Eng.....	2
3.2	McLean Drain 1996 – K. A. Smart, P. Eng.....	3
3.3	Agriculture, Food and Rural Affairs Appeal Tribunal (1998-25).....	4
3.4	McLean Drain 2021 – K. A. Smart, P. Eng.....	5
3.5	Section 40 Report (2019) – Ray Roscovich, P. Eng.	5
4	INVESTIGATION	6
4.1	On-Site Meeting.....	6
4.2	Phone Calls After the Meeting.....	7
4.3	Site Examination and Survey.....	8
4.4	Watershed Description.....	8
5	AUTHORITY FOR REPORT	8
6	RECOMMENDED WORK	9
6.1	Main Drain.....	9
6.2	Branch B.....	10
7	MEETING(S)	10
7.1	Additional Site Examination.....	12
8	DESIGN CONSIDERATIONS	12
8.1	Sufficient Outlet.....	12
8.2	Drain Capacity.....	12
8.3	Berms.....	13
8.4	Soil Conditions.....	14
9	ENVIRONMENTAL CONSIDERATIONS	14
9.1	Agency Consultation.....	14
10	CONSTRUCTION CONSIDERATIONS	15
10.1	Pre-Construction Approvals.....	15
10.2	Construction Scheduling.....	15
10.3	Minor Adjustments During Construction.....	15
10.4	Alignment of Drains.....	15
11	DRAWINGS AND SPECIFICATIONS	16
11.1	Drawings.....	16
11.2	Specifications.....	16
12	COST ESTIMATE	16
12.1	Allowances.....	16
12.2	Construction Cost Estimate.....	17
12.3	Engineering Cost Estimate.....	18
12.4	Estimate of Section 73 Costs.....	18
12.5	Harmonized Sales Tax.....	18
12.6	Estimated Cost Summary.....	19
13	ASSESSMENTS	21
13.1	Calculation of Assessments.....	21
13.2	Benefit Assessments (Section 22).....	21
13.3	Outlet Liability Assessments (Section 23).....	22
13.4	Increased Cost (Special) Assessment (Section 26).....	22
13.5	Assessment Schedules.....	23
14	GRANT	24
15	PRIVACY OF LANDS	24
16	MAINTENANCE	24
16.1	General.....	24
16.2	Updating Future Maintenance Schedules.....	25
16.3	Drains To Be Abandoned.....	25
17	BYLAW	25
	SCHEDULE A – SCHEDULE OF ASSESSMENTS	
	SCHEDULE B – SCHEDULE OF ASSESSMENTS FOR MAINTENANCE	
	SCHEDULE C – SCHEDULE FOR ACTUAL COST BYLAW	
	APPENDIX A – CALCULATION OF ASSESSMENTS	
	STANDARD SPECIFICATIONS	
	- Section 400 - Standard Specifications for Construction of Drains, Section 410 – Standard Specifications for Open Drains, Section 420 - Standard Specifications for Tile Drains	
	DRAWINGS 1 TO 7 (Includes SPECIAL PROVISIONS)	

Definitions:

- “Act” or “Drainage Act” means The Drainage Act RSO 1990
- “CSP” means corrugated steel pipe
- “Drain” means McLean Drain 2023
- “Grant” means grant paid under the Agricultural Drainage Infrastructure Program
- “HDPE” means high-density polyethylene
- “KSAL” means K. Smart Associates limited
- “Municipality” or “Township” means Township of East Zorra-Tavistock
- “OMAFRA” means the Ontario Ministry of Agriculture, Food and Rural Affairs
- “Tribunal” or “Drainage Tribunal” means Agriculture, Food and Rural Affairs Appeal Tribunal
- “ø” means diameter of a pipe or tile

Tables:

<i>Table 12.1-1 – Summary of Allowances</i>	17
<i>Table 12.6-1 – Estimated Cost Summary</i>	19
<i>Table 13.2-1 – Benefit Assessments</i>	21
<i>Table 13.3-1 – Runoff Factors</i>	22
<i>Table 13.4-1 - Estimated Special Assessments</i>	22



K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS & PLANNERS

85 McIntyre Drive
Kitchener, ON N2R 1H6

Tel: 519-748-1199
Fax: 519-748-6100

April 28, 2023

File No. 20-068

McLEAN DRAIN 2023
TOWNSHIP OF EAST ZORRA-TAVISTOCK

1 EXECUTIVE SUMMARY

This report is prepared pursuant to Section 4 of the Drainage Act RSO 1990 (the Act).

On January 23, 2020, the Township of East Zorra-Tavistock received a *Petition for Drainage Works by Owner* signed by seven (7) properties located in the area of Lots 11-12, Concession 18, as well as Lots 11-14, Concession 17, in the Township of East Zorra-Tavistock. On February 5, 2020, K. Smart Associates Limited was appointed by resolution of Council to prepare a report on the petition received.

To address the petition received, this report recommends the following:

Main Drain

- 203m of power brushing and ditch deepening
- One (1) – 750mm \varnothing solid plastic pipe crossing 18th Line by open cut
- 1,802m of new closed tile drain (250mm \varnothing to 525mm \varnothing)
- Seven (7) concrete junction boxes/catchbasins (600x600mm to 900x1500mm)
- Restoration of all berms to existing conditions

Branch B

- 17m of new closed tile drain (300mm \varnothing)
- One (1) – 300mm \varnothing solid plastic pipe crossing 18th Line by open cut
- Two (2) - 600x600mm concrete catchbasins

The estimated cost of this project is **\$327,000**.

The total watershed area is approximately 100.1 hectares (247 acres).

Assessment schedules included for construction/future maintenance of the Drain are as follows:

- Schedule A shows the assessment of the total estimated cost
- Schedule B is for prorating future maintenance cost
- Schedule C is for levying the final cost of the Drain
- Appendix A shows the calculation of assessments outline in Schedules A & B.

2 BACKGROUND

On January 23, 2020, the Township of East Zorra-Tavistock received a *Petition for Drainage Works by Owner* signed by the following seven (7) properties: William A. Chesney & Sons Ltd. (William S. Chesney), Paul Menary, Otterside Farm Ltd. (Maurie Clayton), 1474526 Ontario Ltd. (Lynn Chesney), Keith & Elizabeth Leeson, and two properties owned by William & Cornelia Vink. The petition was signed for the construction of a new tile drain within the McLean Drain watershed. Pursuant to Section 8 of the Act, on February 5, 2020, K. Smart Associates Limited was appointed by resolution of Council to prepare a report on the petition.

3 DRAINAGE HISTORY

The McLean Drain has been improved, in sections, several times over the previous 50 years. Most notably, the drain was improved in its entirety from the outlet at the Thames River to the most upstream property in 1972. Then, in 1996, an upsizing was undertaken adding additional capacity to the Drain at the bottom end through the properties currently owned by “Blaak” and “1474526 Ontario Ltd.”. A few years later, in 2001, this upsizing was extended through the southerly “Vink” property.

The visual below outlines the different stages of improvement to the drain and the capacity provided to each property.

<u>Property Owner (From Upstream to Downstream)</u>	<u>Drainage Coefficient (design) the current McLean Drain provides</u>	<u>Current Tile Size (diameter) & Year</u>	<u>Graphic of Stages of Improvement</u>
Otterside Farms Ltd.	3/8"	150mm (6") -1972	
Czerniawski	3/8"	150mm (6") -1972	
Vink (020-11900)	1"	200mm (8") -1972	
Vink (020-11910)	1"	250mm (10") -2001 & 200mm (8") -1972	
1474526 Ontario Ltd. (020-12100) *	1"	250mm/300mm (10"-12") -1996 & 200mm/250mm (8"-10") -1972	
1474526 Ontario Ltd. (020-12301) *	1"	350mm (14") -1996 & 300mm (12") -1972	
Blaak	1"	350mm (14") -1996 & 300mm (12") -1972	

* Properties merged at time of report filing

3.1 McLean Drain (1972) – H. M. Gibson, P. Eng.

Prior to 1972, the watershed of the McLean Drain was serviced by an award drain constructed in accordance of an award by F. Ure, dated 1904. No copy of the 1904 award by F. Ure was located.

In 1972, the area of the existing McLean Award was improved under a report by H. M. Gibson, P. Eng. The 1972 report provided for the construction of a Main Drain, as well as Branches A & B. Locations of these drains are shown on Drawing 1. It is understood the 1972 drain was constructed beside the 1904 tile, without destroying the original. Commentary in K. A. Smart's, P. Eng., 1996 report suggests that the 1972 tile may have provided for a 3/8" drainage coefficient design.

3.2 McLean Drain 1996 – K. A. Smart, P. Eng.

In 1996, the bottom end of the existing McLean Drain was improved under a report by K. A. Smart, P. Eng. The original appointment was made in accordance with Section 78, primarily for the purpose of removing the existing award drain, located in the west road ditch along the 18th Line. The Township desired the drain to be relocated off of the road allowance. As a result, the project improved the Main Drain of the McLean Drain from the open ditch outlet at the Thames River up to the property line divide from what is now the W. Vink & 1474526 Ontario Ltd. properties (middle of Lot 12, Concession 17). The report also provided for the construction of a new Branch C under Section 4.

One of the main features discussed at the meetings and subsequently proposed in the report was the construction of berms/terracing for surface water detention. Berms/terraces with hickenbottoms/catchbasins were constructed in six (6) locations. The first berm was located at what is now STA. 0+876 on the 1474526 Ontario Ltd property, at the junction of the Main Drain with Branch C. Two berms were located on the property line with W. Vink (one on the Main Drain at STA. 1+039, and one on the proposed Branch C at STA. 078). Two more berms were located within the W. Vink field (one at the top end of Branch C at STA. 232, and the other on the lot line between Lots 12 & 13 at STA. 1+382). The final terracing area was proposed to be a saucer shape (excavation only), located on the property line between W. & C. Vink and M. Czerniawski (STA. 1+734).

After construction was complete, an addendum report was prepared by K. A. Smart, P. Eng., to recognize alterations made to four of the six terracing areas. The report states that during construction the berm, at what is now STA. 1+382 (located on the lot line between Lots 12 & 13), was constructed significantly higher than originally proposed, creating an additional 1,000m³ of storage. The estimated total water storage at this berm in the addendum report was 1,600m³ (calculations show this berm actually stores approximately 1,307m³ – see Drawing No. 4 and *Section 8.3 Berms* below). As a result of this change, the owner requested the next upstream terracing area (the excavation only area centred on the property line at STA. 1+734) be excavated only on the neighbouring upstream property. No excavation on their own side.

The final change was a request from the owner of Roll No. 020-12100 to slide the crests of the two berms located along their northerly property line (STA. 1+039 and STA. 0+078 of Branch C) closer to the property line. The berms were also constructed slightly higher than originally proposed; however, a review suggests this height increase would lead to minimal increase in total storage.

3.3 Agriculture, Food and Rural Affairs Appeal Tribunal (1998-25)

Following the Addendum report, an appeal was made to the Agriculture, Food and Rural Affairs Appeal Tribunal by the owners of the property with Roll No. 020-11000 (Czerniawski) on the grounds that the drain was not constructed according to the Engineer's report.

The following are excerpts taken from the Tribunal Decision (File Number: 1998-25) to outline the background for contentious items that may be applicable to this report:

"Mr. Czerniawski said he and his wife are appealing the construction of terracing on the property line between himself and Mr. Vink. He said instead of the saucer that was to have been built straddling the Vink/Czerniawski property line, he has a half saucer on his property, and Mr. Vink has a berm on his property and no pond.... In his opinion, if the full saucer was built as agreed upon, it would be more effective."

"....Once the terracing work was started [Mr. Smart] was called out to site by Mr. Harmer. Mr. Chesney and Mr. Vink also attended the meeting to address the concern of damaging field tile on the Chesney and Vink property if terraces were built as specified in the report. It was agreed to construct a berm on the mid-location on the Vink property approximately 16 inches higher than what was required in the report. By creating a higher berm at that location more surface waters would be contained by that particular berm. He said he did not feel any changes were being made on the Czerniawski property, so no attempt was made to contact Mr. Czerniawski. Mr. Smart told the Tribunal that, in his opinion, it was an advantage to the drain to make the changes requested."

"....The Czerniawski's informed [Mr. Smart] they were not satisfied due to the fact that no part of the saucer had been constructed on the Vink side.... [Mr. Smart] said the water will overflow out of the constructed basin at about the same elevation as in the original report and by-law, so water will not pond into Mr. Czerniawski's field any further than the original design."

The following are excerpts of the Tribunal's findings in its decision:

"....However before the meeting broke up, the party walked up to the Czerniawski/Vink location and discussed possible changes. The Vink property is tiled at that point and so it was decided that the bottom elevation of the excavated saucer would be raised. To make up for lost capacity, a terrace was to be put in roughly following the perimeter location of the original proposed saucer on the Vink property. The engineer was agreeable to this change so long as water retention capacity was not compromised and no water trapped. The Czerniawski's were not told of this proposed change. In any event, Mr. Vink and the contractor did not carry through with the proposed changes. The half saucer on the Czerniawski property was excavated, but there was no half saucer excavated on the Vink property. Instead, almost all of the topsoil was spread out along the Vink/Czerniawski property line, on the Vink side. This resulted in a berm about one foot high extending for approximately 400 feet. The berm was graded back into the original surface on the Vink side over a strip about 18 feet wide. The contractor and Mr. Vink had no permission from the Drainage Superintendent, the Engineer or the Czerniawskis for this change...."

“...The tribunal accepts that overall the drain functions as well as the original design called for. The Tribunal accepts that at the Czerniawski/Vink boundary the water retention still works satisfactorily. There is no significant change in the volume of water to be stored on the Czerniawski property. Because there is less storage in the half saucer than there would have been in the whole saucer, in a runoff event the pond will overflow sooner and more often onto the downstream lands (Vink) but this will affect on Vink, who brought about the situation and not Czerniawski. Therefore, there is no need to order any changes to the work on the basis of technical considerations.”

“4. Mr. & Mrs. Vink pay the sum of \$500 to the Township to cover costs incurred by Mr. & Mrs. Czerniawski for this hearing.”

3.4 McLean Drain 2021 – K. A. Smart, P. Eng.

In 2001, the improved McLean Drain was subsequently extended upstream under a report by K. A. Smart, P. Eng. A 250mmø (10”) tile was extended through the southerly Vink property to the existing berm on the Lot 12/Lot 13 divide.

In addition to the improved drain extension, the overflow elevation of the berm at STA. 1+039 was slightly lowered because water was spilling over to the east, into the Branch C watershed. Further upstream berming was requested by Mr. Vink. Options were reviewed and presented by the engineer, however upstream owners were opposed to the proposal, and therefore no work upstream of Lot 12/Lot 13 was included.

3.5 Section 40 Report (2019) – Ray Roscovich, P. Eng.

On June 20, 2018, K. Smart Associates Limited was appointed by the Township of East Zorra-Tavistock to review improvements to the McLean Drain under Section 78 of the Drainage Act. The request for improvement was made by Mr. Vink. At the on-site meeting, Mr. Vink explained the berm at his westerly property line (STA. 1+734) was causing crop damage and erosion on his property.

After a review of survey and cross section, Ray Roscovich, P. Eng., determined that the berm had degraded since its original construction, but stated that the repair work could be completed as maintenance by the Drainage Superintendent. A report under Section 40 of the Drainage Act was filed stating that drainage improvements on the McLean Drain were not required at this time.

4 INVESTIGATION

4.1 On-Site Meeting

Attendees:

Bill Vink (Roll No. 020-11900 & 020-11910)	Connor Occleston (Twp. of EZT)
Dave Vink (Roll No. 020-11900 & 020-11910)	Claire Ohrling (Twp. of EZT)
Edward & Marie Czerniawski (Roll No. 020-11000)	Tom Lightfoot (Twp. of EZT)
Maurie & Tammy Clayton – Otterside Farm Ltd. (Roll No. 020-11200)	Curtis MacIntyre, P. Eng. (K. Smart Associates)
Lynn Chesney – 1474526 Ontario Ltd. (Roll No. 020-12100 & 020-12301)	Joel Miller, P. Eng. (K. Smart Associates)

On August 4, 2020, the on-site meeting for the Section 4 appointment was held at the pavilion of the Innerkip Community Centre. Those in attendance are listed above. The project engineer briefly explained the background of the petition received, as well as the documented history of the McLean Drain since its original construction in 1904.

All owners in attendance were given an opportunity to describe the drainage on their property and what they would like to see completed. General comments are listed below:

Dave Vink – (Roll No. 020-11900 & 020-11910) (Petitioner)

Dave Vink, speaking on behalf of his father Bill, explained the three main outcomes that they would like to see out of this project. First, he explained that they have washouts of the topsoil in their field downstream of the Lot 12/13 line and have brought in topsoil several times. Mr. Vink cited the hectares from the watershed plan as an example that the majority of water is not coming off of their land. They would like to see a berm constructed along their west property line shared with the Czerniawski farm. Secondly they would like to see a new berm on the property line between the Czerniawski farm and Otterside Farm Ltd., located upstream of their farm. Finally they believe the whole drain should be upsized going downstream to the outlet into the open ditch on the east side of 18th Line.

They also recalled the Littlejohns Drain being improved around the same time as the McLean Drain in the late 1990's and have observed no problems on that drain. They would like the McLean Drain to be sized to perform the same way. *After the meeting, the engineer reviewed the report on the Littlejohns Drain and determined the tile was sized to accommodate between a 25mm (1") to a 37mm (1.5") drainage coefficient, as opposed to the 3/8" drainage coefficient that the 200mm tile on Roll No. 020-11900 is currently sized for.*

Maurie & Tammy Clayton (Otterside Farm Ltd.) (Roll No. 020-11200) (Petitioner)

The Clayton's stated they moved to this property after the last substantial report (2001) had been completed on the McLean Drain, but they have not noticed significant runoff

from their farm onto the Czerniawski property. They have an approximate 10 ft. laneway along their southern property line left grassed and uncropped. They could see from the aerial plan that there were a few random tiles on their farm out-letting to the McLean Drain but did not have any tile plan and had no immediate plans for systematic tiling in the future.

Joel Miller made the comment that if the drain were to be reconstructed up to their property line, then the portion of the 1972 tile that continues into their farm may be abandoned of status.

Edward & Marie Czerniawski (Roll No. 020-11000)

The Czerniawski's believed that a larger tile would help the situation and that they would be okay with the terracing/saucer shaped design being implemented as per the previous report by Kenn Smart. Mr. Czerniawski believed there was no point in re-engineering something that had already been engineered once.

Lynn Chesney – 1474526 Ontario Ltd. (Roll No. 020-12100 & 12301) (Petitioner)

Lynn was in favour of looking into a tile drain with an increased drainage coefficient across her farm. She had no specific concerns about the drainage on her farms. She knew the property was systematically tile drained but did not have the tile plans.

Connor Occleston (Drainage Superintendent)

Connor recalled flushing out a portion of the existing Main Drain tile for 900 feet upstream of the junction box where Branch C meets the Main Drain (STA. 0+876).

4.2 Phone Calls After the Meeting

William Chesney – William A. Chesney & Sons (Roll No. 020-17200) (Petitioner)

A phone call was made to Mr. Chesney on August 7, 2020. He explained that normally the drainage on his farm has been alright but they had a big problem last year with wet ground at the southwest corner of his property. He is in favour of improving/upsizing Branch B that services his farm and the portion of the Main Drain downstream to the open ditch.

Greg Chesney – 1474526 Ontario Ltd. (Roll No. 020-12100 & 12301) (Petitioner)

A phone call was made to Greg Chesney (son of Lynn Chesney) on August 11, 2020 because he had more knowledge of the drainage specific to their farms. Greg recalled the situation discussed at the on-site meeting of the Township digging up the junction box in their field to flush out the plugged drain tile. He wondered if there was a possibility that the flushing pushed the blockages further downstream. He explained that within the past couple of years they had to dig up and fix a couple of their own plugged private tiles. Greg also recalled a time a couple of years ago where one of the tiles at this catchbasin wasn't flowing, but that both seem to be flowing now.

Greg was okay with reviewing an increased tile size.

4.3 Site Examination and Survey

The sections of the existing McLean Drain that were accessible and discussed as requiring potential drainage improvements were examined after the on-site meeting. The findings from this investigation are outlined below. Topographic (GPS) survey was later completed in February, 2021.

Otterside Farm Ltd. (Clayton)

- Located catchbasin on south property line. Tiles into and out of the catchbasin were quite deep.
- Reviewed top end of watershed and determined the break is approximately at the divide in cropping (wheat to corn)

Czerniawski/Vink property line

- Located the catchbasin and a 200mm \varnothing offset hickenbottom.
- Observed a berm constructed along the Vink side of the fencerow that appeared to be about 450mm-600mm in height.

4.4 Watershed Description

The perimeter watershed of the Drain was established using the existing 2001 watershed plan, then adjusted based on topographical survey and open source SWOOP Digital Elevation Model (DEM) data from the province. Historic reports of neighboring municipal drains were also reviewed to ensure accuracy.

The watershed for the McLean Drain is neighbored by the Littlejohns Drain Improvement 2006 to the east, and the Gillespie-Yeo Drainage Works to the west. The Chesney Drain & Pelton Drain watersheds also border the McLean Drain watershed to the north.

The watershed area for the McLean Drain is predominantly agricultural lands, with small forested lands at the bottom of the watershed.

5 AUTHORITY FOR REPORT

Section 4 of the Drainage Act provides for the construction of new drainage works for an area requiring drainage. As a result of discussions at the on-site meeting and site examination, the area requiring drainage has been determined to be three (3) areas.

The first area requiring drainage was determined to be the southwest corner of the property with Roll No. 020-17200, requiring an improved outlet for subsurface drainage, as petitioned and requested by the owner.

The second area requiring drainage was determined to be an area of approximately 5.0 hectares located on the property with Roll No. 020-11900 from the southern limits of Lot 13, Concession 17 to the midpoint of the concession.

The third area requiring drainage was determined to be the approximate SE1/4 of the W1/2 of Lot 14, Concession 17 on property with Roll No. 020-11200, requiring an improved outlet for subsurface drainage, as petitioned and requested by the owner.

For each of the three areas requiring drainage, the signatures on the petition represent greater than 60% of the area requiring drainage; thus, the petition is valid under Section 4(1)(b) of the Drainage Act.

6 RECOMMENDED WORK

A property by property description of the proposed McLean Drain 2023 for construction and future maintenance can be found in the Special Provisions (Drawings 6 & 7). A high level outline of the proposed Drain is as follows.

6.1 Main Drain

K. & E. Leeson (Roll No. 020-17400)

- Power brushing along ditch and approx. 6m wide right-of-way
- Existing ditch deepening

P. & P. Menary (Roll No. 020-17300)

- No work required. Equipment access to Leeson property will be required along maintenance corridor beside existing ditch.

18th Line (Township of East Zorra-Tavistock)

- 15m of 750mmØ solid plastic pipe crossing of 18th Line by open cut
- 900x1500mm ditch inlet catchbasin

J. & K. Blaak (Roll No. 020-12300)

- 57m of 525mmØ concrete tile

1474526 Ontario Ltd. (Roll No. 020-12100)

- 177m of 525mmØ concrete tile to junction box at Branch B
- 900x1500mm junction box at Branch B
- 190m of 350mmØ concrete tile, and 126m of 300mmØ concrete tile to junction box at Branch C
- 900x1200mm junction box at Branch C
- 163m of 300mmØ concrete tile to the north property line
- Restore berm on north property line to existing conditions

W. Vink (Roll No. 020-11910)

- 900x1200mm ditch inlet catchbasin
- 343m of 300mmØ concrete tile
- Restore berm in middle of the field to existing conditions

W. & C. Vink (Roll No. 020-11900)

- 900x1200mm catchbasin
- 352m of 350mmØ concrete tile
- Restore berm on westerly property line to existing conditions. Construct overflow rock spillway with 10m² of riprap.

M. Czerniawski (Roll No. 020-11000)

- 900x1200mm catchbasin
- 177m of 300mmØ concrete tile, and 217m of 250mmØ concrete tile
- Construct 10m long new berm at north property line

Otterside farm Ltd. (Roll No. 020-11200)

- 600x600mm catchbasin

6.2 Branch B**1474526 Ontario Ltd. (Roll No. 020-12100)**

- 17m of 300mmØ concrete tile from junction box to road

18th Line (Township of East Zorra-Tavistock)

- 600x600mm catchbasin
- 15m of 300mmØ solid plastic pipe crossing of 18th Line by open cut
- 600x600mm catchbasin

7 MEETING(S)**Attendees:**

Maurie Clayton (Otterside Farm Ltd.) (020-11200)	Curtis MacIntyre, P. Eng (K. Smart Associates)
Edward & Brenda Czerniawski (020-11000)	Joel Miller, P. Eng. (K. Smart Associates)
Bill Vink (020-11900 & 020-11910)	Connor Occleston (Twp. East Zorra Tavistock)
William Chesney (020-17200)	Tom Lightfoot (Twp. East Zorra Tavistock)

On September 13, 2022 an information meeting for the Section 4 appointment was held at the Innerkip Community Centre. At the meeting, the results of the investigation to-date were presented, along with a summary of the proposed work, and preliminary assessments. After presenting the information, the engineer offered the opportunity for all petitioners to provide their comments, followed by all other owners. The following is a summary of the general comments listed by property:

William Chesney (020-17200)

- Overall, William is in favour of the proposed work to upsize the McLean Drain. His main concern is to ensure that the improvement work to the drain stops the water from backing up into his tiles/field.
- William felt that the Township's cleanout of the open ditch earlier in 2022 helped his tiles (and Branch B) function better.
- He was not sure exactly where the Branch B crossed the road into his field. He stated that the previous tiling work was done by R.J. Vance and perhaps they may have information on this.

Bill Vink (020-11900 & 020-11910)

- Overall, Bill is in favour of the proposed work to upsize the McLean Drain.
- Bill asked about private tile connections to the old 1972 tile and if they would be connected to the new tile. The engineer commented that if many connections are found, we may decide to install a header tile beside the new drain and connect all the private tiles to this new header instead. Otherwise, individual tile connections would be tied into the new McLean Drain tile. The engineer further commented that the reason for proposing the new McLean Drain tile be located on the same side as the existing 1972 tile, not the 1996/2001 tile, is so that the contractor will uncover all the existing private connections into the 1972 tile as the new one is being installed (and before the 1972 tile is destroyed). If the new tile were to be on the opposite side of the 1996/2001 tile, there could be a greater chance of missed tile connections. Bill agreed with this approach.
- Bill requested a review of the location of the existing berms and catchbasins in relation to property lines. The engineer stated he would review all of these catchbasin/berm locations on the McLean Drain and if any required adjusting, it would be to make it consistent with others in the watershed.
- Bill commented on the existing large trees along the property line between 1474526 Ontario Ltd. and Blaak properties, near the location of the existing Drain. The engineer agreed this could be a concern, and that the existing 1996 tile could be exposed during construction at this location to inspect for roots plugging tiles.

Maurie Clayton (Otterside Farm Ltd.) (020-11200)

- Maurie confirmed they would like to see the upsized drain improvement work continue to their property.
- He was okay with the idea of a berm included behind the catchbasin on his property line.

Edward & Brenda Czerniawski (020-11000)

- Ed asked if the decision of the Tribunal from the work in 1996 was reviewed and considered in the proposed work for the berm at their property line. The engineer commented that he had read it several times, that it is considered in the evaluation of the berm & current drainage conditions, but that he did not feel an engineer is exactly required to follow a decision made by the tribunal many years ago. The engineer read aloud an excerpt from the third paragraph of the 9th page of said Tribunal decision, regarding the Tribunal's consideration of the technical aspects outlined in the hearing. He then outlined the primary reasoning for incorporating the berm as it currently exists, as later discussed in *Section 8.3 Berms* of this report.

Connor Occleston (Township Drainage Superintendent)

- Connor confirmed that the open ditch of the McLean Drain was cleaned out earlier in 2022. The cleanout ended at the east side of the Menary property and did not include the Leeson property to the Thames River.

- Connor also re-iterated the flushing work that was undertaken on the 1474526 Ontario Ltd. property in 2017 at the buried junction box. They flushed both upstream and downstream of this location. The engineer commented that since it is a long way from this junction box to the next structure, it is possible additional flushing of the 1996 tile could be necessary at the time of construction. All in attendance agreed.

7.1 Additional Site Examination

- Following the meeting, the open ditch was investigated from the 18th Line to its outlet at the Thames River. The ditch was observed to be dry for the full length. Many fallen trees were observed over top of the ditch on the Leeson property. Saplings were also observed to be growing in the centre of the ditch. Brushing/grubbing work should occur as a part of the project.
- Existing 600mmØ CSP Main Drain crossing of 18th Line rusting up to spring line. Reviewed with the Township and decision made to replace this crossing with one new pipe.

8 DESIGN CONSIDERATIONS

8.1 Sufficient Outlet

Section 15 of the Act requires that the proposed work be continued downstream to a sufficient outlet. Section 1 of the Act defines sufficient outlet as “a point at which water can be discharged safely so that it will do no damage to lands or roads.” For this project the Thames River represents a sufficient outlet for the McLean Drain 2023 work.

8.2 Drain Capacity

The size of the proposed tile drain was determined using the Drainage Coefficient Method outlined in the *Drainage Guide for Ontario*, published by OMAFRA. The drainage coefficient is a measure of the amount of runoff that a closed drain can remove from an upstream watershed in a 24-hour period. Based on the watershed examination and landowner discussions, the proposed tile drains on this project have been designed for a 38mm (1.5”) drainage coefficient. In the case of the Main Drain from STA. 0+326 to 1+382, it is the combination of the proposed 2023 tile and the existing 1996/2001 tiles totalling the 38mm drainage coefficient design.

The visual below outlines the proposed and existing tile sizes to remain a part of the Drain, and the new capacity provided to each property.

<u>Property Owner (From Upstream to Downstream)</u>	<u>Drainage Coefficient (design) the current McLean Drain provides</u>	<u>Current Tile Size (diameter) & Year</u>	<u>Graphic of Stages of Improvement</u>		
Otterside Farms Ltd.	3/8" 1.5"		1972 NEW TILE		
Czerniawski	3/8" 1.5"	150mm (6") -1972 250mm/300mm (10"-12) - New			
Vink (020-11900)	4" 1.5"	200mm (8") -1972 350mm (14") - New			
Vink (020-11910)	4" 1.5"	250mm (10") -2001 & 200mm (8") -1972 300mm (12") - New			2001 ↓
1474526 Ontario Ltd. (020-12100) *	4" 1.5"	250mm/300mm (10"-12") -1996 & 200mm/250mm (8"-10") -1972 300mm/350mm (12"-14") - New			↓
1474526 Ontario Ltd. (020-12301) *	4" 1.5"	350mm (14") -1996 & 300mm (12") -1972 525mm (21") - New		1996	
Blaak	4" 1.5"	350mm (14") -1996 & 300mm (12") -1972 525mm (21") - New			

* Properties merged at time of report filing

8.3 Berms

Berms/terracing are an important feature of the McLean Drain as documented in several reports. It has also been a contentious one.

At the on-site meeting, it was requested by Mr. Vink that a berm be constructed along his westerly property line (STA. 1+734). However following the meeting a site inspection completed by the engineer, observed there already is a berm constructed at this location approx. 450mm-600mm in height. Survey of this area shows the property line built up higher than the 1996 addendum report/as-built drawing depicted it to be.

An analysis of the berm at this location in its current state shows a maximum storage volume of 1,468m³ (after a minor proposed adjustment to the rock spillway elevation). This storage volume is comparable to the maximum water contained by the next downstream berm on the Vink property (1,307 m³ at STA. 1+382). Furthermore, the immediate upstream contributing areas to each of these berms are also comparable in size. The approximate contributing Czerniawski land area to the berm at STA. 1+734 is 10.3 hectares, while the Vink land area contributing to the berm at STA. 1+382 is approximately 10.8 hectares.

An excerpt from Herbert Todgham in the 1998 McLean Drain Tribunal reads: "An independent engineer designs the scheme, exercising his best judgment, free of favouritism..... When an Engineer's report is prepared and circulated, the basic

assumption is that the burdens of the drain are spread around as fairly as possible..... The perception of fairness is a factor in the acceptance of the report by the landowners, and the evaluation of the report by the Tribunal.”

With fairness in mind, this report proposes to incorporate the existing berm at STA. 1+734 as a part of the McLean Drain 2023, with the slight alteration of constructing a new rock spillway for overflow near the proposed catchbasin. The new rock spillway is to be only 0.02m below the existing low point of the berm, and is proposed at a better location for surface water to overflow (existing low point along the property line is approx. 60m south of the catchbasin). When requested by one owner to raise the berm, and the other to return it to its original 1996 design, the decision to incorporate the berm under its general existing condition is deemed to be the most fair for the watershed.

It is important to state, though berming is, and has been, important to the function of the McLean Drain watershed, the engineer believes the substantial increase in tile capacity of the proposed McLean Drain 2023 will provide the desired improvements of reducing overland flow that owners have previously relied on increased berm size for.

One new small berm is proposed to be constructed at the top end of the McLean Drain 2023 (STA. 2+128). The primary purpose of this berm is to direct surface flows toward the catchbasin. Storage capacity is considered negligible (25m³). All other berms along the McLean Drain are to be restored to existing conditions.

8.4 Soil Conditions

The 1996 report titled: “Upgrade of Soil Survey Information for Oxford County” indicates that the soils are well drained Guelph Loams for areas surrounding the ditch work on the Leeson property, and tile work north of the 1474526 Ontario Ltd. property. London Loams are shown to exist in between the two areas above, with imperfect drainage. Both soils are made up of a loamy till and contain slight surface stoniness.

Based on available information, as well as there being no documented soil problems during construction of the previous drainage projects, adverse subsurface conditions are not expected on this project. The use of conventional construction equipment is anticipated. Refer to the Standard Specifications for drain construction procedures when adverse subsurface conditions are encountered.

9 ENVIRONMENTAL CONSIDERATIONS

9.1 Agency Consultation

9.1.1 Upper Thames River Conservation Authority

The Upper Thames River Conservation Authority did not request an environmental appraisal under Section 6 of the Act. The Conservation Authority was sent notice for the on-site meeting. No comments regarding the petition or on-site meeting invitation were received.

Prior to construction, the Engineer will complete the necessary “*Notification of Drain Maintenance or Repair Form*” (Commonly referred to as “D.A.R.T.” form), as drain maintenance-type work is to be completed on the existing open ditch of the McLean Drain.

10 CONSTRUCTION CONSIDERATIONS

10.1 Pre-Construction Approvals

Before starting work, the Contractor shall ensure all public utilities are located and shall contact all landowners along the proposed drain route to determine the location of any private utilities. Other than the D.A.R.T. protocol described above to be completed by the Engineer, no other permits are expected to be required by the contractor for the proposed work.

10.2 Construction Scheduling

Construction cannot commence until ten days after a bylaw to adopt this report is given third reading in accordance with the Act.

10.3 Minor Adjustments During Construction

Changes to the drain requested by landowners, agencies or other authorities after the bylaw is passed cannot be undertaken unless the report is amended.

Section 84.1 of the Act and the associated regulation, O. Reg. 500/21, now provide a process to amend this report if design changes are required during construction. Design changes must: arise from unforeseen circumstances encountered during construction, comply with existing agency approvals, not increase the total project cost more than 133% of the tendered amount, and not impact the drain capacity. If design changes meet these criteria and are approved by the engineer, the report can be amended after construction with the as-constructed design before passing the actual cost bylaw.

Additional work desired by the landowner(s) which is not part of the drainage works may be arranged with the Contractor provided the cost of the work is paid fully by the landowner(s), and the engineer reviews the additional work in advance. Such additional work is not part of the drainage works for future maintenance. If a substantial alteration is required, a revised report can be prepared and processed through the Act, or an application can be made under the Act to the Drainage Tribunal to recognize the substantial alteration.

10.4 Alignment of Drains

All drains shall be constructed and maintained generally to the alignment, as noted on the plans and specified by the Special Provisions. In the absence of survey bars, existing fences and similar boundary features are assumed to represent property lines.

Should landowners desire a more precise location for the drains in relation to their property line or if there is a dispute about the location of any property line, landowners may obtain a legal survey at their own cost before construction.

11 DRAWINGS AND SPECIFICATIONS

11.1 Drawings

The location of the Drain, watershed boundary and the affected properties are shown on Drawing No. 1 included with this report. The numbers adjacent to the Drain are station numbers, which indicate, in metres, the distance along the Drain from the outlet.

The profiles for the Main Drain and Branch Drains are shown on Drawings 2 and 3. The profiles show the depth and grade for proposed work and future maintenance. Drawings 4 and 5 contain details at specific locations (such as catchbasins and road crossings). Finally, Drawings 6 and 7 contain the Construction Notes (Construction Specifications).

11.2 Specifications

This report incorporates the General Conditions, Standard Specifications and Special Provisions listed in the Table of Contents, which govern the construction and maintenance of the Drain.

12 COST ESTIMATE

The estimated cost of this project includes allowances to owners, construction costs, engineering costs, and other costs associated with the project.

12.1 Allowances

Sections 29 to 33 of the Drainage Act provides for allowances (compensation) to owners affected by proposed drain construction. On this project, there are only allowances for Section 30.

12.1.1 Section 30 - Damages

Section 30 provides for payment of an allowance to landowners along the Drain or designated access route for damages caused by the construction of the Drain or by access of equipment to the Drain. Section 30 allowances have also been considered where the implementation of new berming is expected to cause newly inundated areas and therefore damages to crops. In agricultural areas, crop damages are computed based on published crop values and declining productivity loss in the years following construction.

The allowance for damage to land and crops was calculated using a rate of \$2,000 per hectare applied to the defined working area. A 25m corridor width along the drain in the area of the proposed tile drain construction, as well as a 6m corridor width for proposed access routes was the basis for the Section 30 allowance calculations. There is a minimum Section 30 allowance of \$100.

A separate allowance of \$4,000 has been applied to the property with Roll No. 020-11000 to recognize damages to crops as a result of a berm constructed at STA. 1+734, after the previous report on the McLean Drain, and to be incorporated as a part of this report. This value was determined upon review of the 1996 report by K. A. Smart, P. Eng, in which the engineer identified an allowance for “terraces” (berms) to the property

with Roll No. 020-11000 of \$500. At the same time, the berm on the adjacent downstream property (Roll No. 020-11900) was provided \$2,100 in allowances. Under the 1996 report the inundated areas (areas of potential damages to crops) created by these two terraces/berms were very different. The terrace at STA. 1+734 was significantly smaller and centered across the property line. It is this engineer's opinion that if the berm at STA. 1+734 (shown on Drawing 5) had been constructed in its current state in 1996 under the K. A. Smart, P. Eng. report, the property with Roll No. 020-11000 would have been provided the same \$2,100 in allowances as their neighbour (therefore an additional \$1,600 in allowances).

Using the published OMAFRA crop statistics database, it can be approximately stated that average Ontario crop value over the previous 4-year period of available data (2018-2021) has increased/inflated by a factor of 2.5 compared to the 4-year period leading up to 1996 (1992-1995). Therefore, from an equity standpoint, an additional \$1,600 allowance in 1996 to property with Roll No. 020-11000 would be \$4,000 at this time.

12.1.2 Summary of Allowances

The table below summarizes the amounts of allowances to be provided.

Table 12.1-1 – Summary of Allowances

Roll Number	MAIN DRAIN			BRANCH B Along Drain (\$)	Total (\$)
	Along Drain (\$)	Berming (\$)	Access (\$)		
020-11000	2,000	4,000			6,000
020-11200	100		500		600
020-11900	1,800				1,800
020-11910	1,700				1,700
020-12100	3,250			100	3,350
020-12300	300				300
020-17200				100	100
TOTAL ALLOWANCES:	9,150	4,000	500	200	13,850

In accordance with Section 62(3) of the Act, the allowances shown may be deducted from the final assessment levied. Payment to the owner would only be made when the allowance is greater than the final assessment. The allowances are a fixed amount and are not adjusted due to construction.

12.2 Construction Cost Estimate

The estimated cost for labour, equipment and materials to construct the proposed Drain is outlined in detail in Table 12.6-1 – Estimated Cost Summary. The construction cost estimate is based on recent costs for comparable work. A contingency amount is included to cover additional work that may be required due to field conditions or minor alterations to the project.

The contract for the Drain will be awarded by public tender. If the contract price is more than 33% over the engineer's estimate, Section 59 of the Act requires a Council meeting with the petitioner(2) to determine if the project should proceed.

12.3 Engineering Cost Estimate

Engineering costs include report preparation and attending the Council meeting to consider the report and the Court of Revision.

Construction Phase Services may include: preparing tender documents and tender call, review of tenders, attending the pre-construction meeting, periodic construction inspection, payments, final inspection, post-construction follow-up, final cost analysis and preparation of the grant application.

The cost for report preparation is usually not altered at the conclusion of a project unless the report is referred back or the report is appealed to the Drainage Tribunal, which would result in additional costs. The amount shown for meetings is an estimate. The final cost will be based on the actual time required for meetings. The estimate shown for construction phase services is based on experience and assumes good construction conditions and a Contractor who efficiently completes the construction. The final cost for the construction phase will vary as per the actual time spent during and following drain construction. Engineering costs are summarized in Table 12.6-1 – Estimated Cost Summary.

12.4 Estimate of Section 73 Costs

Section 73(2) and 73(3) of the Act direct that the cost of services provided by municipal staff and the Council to carry out the Act process shall not form part of the final cost of the Drain. However, Section 73(1) outlines that the following costs incurred by the Municipality can be included in the cost of the Drain: “*cost of any application, reference or appeal and the cost of temporary financing.*”

The estimate of Section 73 costs is included to cover the above-referenced items from Section 73(1) and primarily provides for interest charges on financing the project until it is completed. This cost estimate may not be adequate to cover legal or engineering costs incurred by or assessed to the Municipality should the project be appealed beyond the Court of Revision though such costs will form part of the final drain cost.

Grant policy indicates that municipal cost for photo-copying and mailing required to carry out the required procedures under the Act can be included in the final drain cost. Section 73 costs are summarized in Table 12.6-1 – Estimated Cost Summary.

12.5 Harmonized Sales Tax

The Harmonized Sales Tax (HST) will apply to most costs on this project. The Municipality is eligible for a partial refund on HST paid, the net 1.76% HST is included in the cost estimates in this report.

12.6 Estimated Cost Summary**Table 12.6-1 – Estimated Cost Summary**

DESCRIPTION				TOTAL
ALLOWANCES:				\$13,850
CONSTRUCTION COST ESTIMATE				
Item	Stations	Description	Cost	
M) Main Drain				
M1	0+000 to 0+203	203m of power brushing (See S.S. 400.27) along ditch. Also remove growing/fallen tree obstructions within ditch. Logs to be piled neatly along edge of a clear 6m right-of-way. Also includes temporary straw bale dam/sediment trap at STA. 0+005.	9,135	
M2	0+000 to 0+203	203m of ditch bottom cleanout, 1m bottom width, 2:1 side slopes.	6,090	
M3	0+203 to 0+311	108m of existing open ditch to be incorporated.	--	
M4	0+311 to 0+326	15m of 750mm dia. solid plastic pipe crossing, with rodent grate, of 18th Line by open cut method. Road to be fully backfilled above pipe with granular B, 150mm granular A, 50mm HL8 asphalt, and 40mm of HL3 asphalt. Install 5m ² of riprap on downstream side of crossing.	30,000	
M5	0+326	900x1500mm concrete DICB, including all connections, birdcage grate and 5m ² of riprap. Also includes remove and disposal of existing 900x1200mm DICB.	5,000	
M6	0+326 to 2+128	Pre-locate existing McLean Drain 1972 tile.	3,500	
M7	0+326 to 0+383	57m of 525mm dia. concrete tile with joint wrap. Includes break up and burying (abandoning) the existing 300mm dia. concrete tile (1972).	4,800	
M8	0+383	Approx. 6m of 375mm dia. solid plastic pipe to replace section of existing 350mm dia. concrete tile drain at property line exposed to root blockage.	500	
M9	0+383 to 0+560	177m of 525mm dia. concrete tile with joint wrap. Includes break up and burying (abandoning) the existing 300mm dia. concrete tile (1972).	15,000	
M10	0+560	900x1500mm concrete JB, including connections and concrete lid.	4,000	
M11	0+560 to 0+750	190m of 350mm dia. concrete tile with joint wrap. Includes break up and burying (abandoning) the existing 300mm dia. concrete tile (1972).	11,400	
M12	0+750 to 0+876	126m of 300mm dia. concrete tile with joint wrap. Includes break up and burying (abandoning) the existing 250mm dia. concrete tile (1972).	6,900	
M13	0+876	900x1200mm concrete JB, including all connections and concrete lid. Also includes removal of existing 900x1200mm JB.	2,200	
M14	0+876 to 1+039	163m of 300mm dia. concrete tile with joint wrap. Includes break up and burying (abandoning) the existing 200mm dia. concrete tile (1972).	9,000	
M15	1+039	900x1200mm concrete DICB, including connections and birdcage grate. Also includes removal of existing 600x600mm DICB.	3,500	
M16	1+039	Repair berm/terracing to existing conditions.	1,000	
M17	1+039 to 1+382	343m of 300mm dia. concrete tile with joint wrap. Includes break up and burying (abandoning) the existing 200mm dia. concrete tile (1972).	18,900	
M18	1+382	900x1200mm concrete CB, including connections and birdcage grate. Also includes removal of existing 600x600mm DICB.	3,500	
M19	1+382	Repair berm/terracing to existing conditions.	1,000	
M20	1+382 to 1+734	352m of 350mm dia. concrete tile with joint wrap. Includes break up and burying (abandoning) the existing 200mm dia. concrete tile (1972).	21,200	
M21	1+734	900x1200mm concrete CB, including connections and birdcage grate. Also includes remove and disposal of existing 600x600mm CB.	3,500	
M22	1+734	Repair berm to existing conditions. Construct overflow rock spillway with 10m ² of riprap.	2,000	
M23	1+734 to 1+911	177m of 300mm dia. concrete tile with joint wrap. Includes break up and burying (abandoning) the existing 200mm dia. concrete tile (1972).	9,700	

DESCRIPTION			TOTAL
M24	1+911 to 2+128	217m of 250mm dia. concrete tile with joint wrap. Includes break up and burying (abandoning) the existing 200mm dia. concrete tile (1972).	8,700
M25	2+128	600x600mm concrete CB, including connections and birdcage grate. Also includes remove and disposal of existing 600x600mm CB.	2,400
M26	2+128	Construct 10m long new berm as per detail.	1,000
Sub Total Part M):			183,925
B) Branch B			
B1	0+000 to 0+032	Pre-locate existing McLean Drain Branch B on both sides of 18th Line.	300
B2	0+000 to 0+017	17m of 300mm dia. concrete tile with joint wrap. Includes break up and burying (abandoning) the existing 200mm dia. concrete tile (1972)	900
B3	0+017	600x600mm concrete CB, including connections, birdcage grate and 2m ² of riprap	2,500
B4	0+017 to 0+032	15m of 300mm dia. solid plastic pipe crossing of 18th Line by open cut method. Road to be fully backfilled above pipe with granular B, 150mm granular A, 50mm HL8 asphalt, and 40mm of HL3 asphalt	16,000
B5	0+032	600x600mm concrete CB, including connections, birdcage grate and 2m ² of riprap	2,500
Sub Total Part B):			22,200
C) Contingencies			
C1	Increased costs to install 100m of tile by backhoe in areas of muck or wet/unstable soils, including geotextile and 300mm of clear crushed stone. (Contingency is intended to be independent of tile size. If required and authorized, would be paid in addition to regular bid item above).		5,000
C2	Increased costs to install 250m of tile by backhoe in stony conditions, where authorized, and with thin bedding of clear crushed stone. (Contingency is intended to be independent of tile size. If required and authorized, would be in paid in addition to regular bid item above).		7,500
C3	Contingency allowance for lift-outs of wheel machine to allow for stone removal and restarting/continuing the wheel machine (based on 5 @ \$300/lift-out)		1,500
C4	Tile Connections (based on 20 @ \$150/connection).		3,000
C5	Flushing of existing tile when exposed at time of construction (based on 2 - 500 gallon tanks at \$400/tank)		800
C6	Grouting of existing Branch B (200mm dia. CSP) crossing under travelled portion of 18 th Line if left in tact after construction of new Branch B		800
C7	Lump sum contingency allowance		2,000
Sub Total Contingencies (Part C):			20,600
Total Construction (Parts M, B, & C):			226,725
Net HST (1.76%) (on Parts M, B, & C):			3,995
TOTAL CONSTRUCTION COST ESTIMATE:			\$230,720
ENGINEERING			
	Report Preparation		41,000
	Consideration of Report Meeting		2,000
	Court of Revision		2,000
	Construction Phase Services		27,000
	Net HST (1.76%)		1,265
TOTAL ENGINEERING COSTS:			73,265
SECTION 73 COSTS (Interest Estimate & Other Unforeseen Costs/Applications)			
TOTAL SECTION 73 COSTS:			9,165
TOTAL ESTIMATED COST:			\$327,000

13 ASSESSMENTS

The Drainage Act requires that the total estimated cost be assessed to the affected lands and roads under the categories of Benefit (Section 22), Outlet Liability (Section 23), Injuring Liability (Section 23), Special Benefit (Section 24) and Increased Cost (Section 26).

13.1 Calculation of Assessments

The first step in the assessment calculation is to determine the benefit assessments to the affected lands and roads, then special assessments to roads and utilities are determined, where applicable. After deducting the total benefit and special assessments from the total cost of each branch, the balance of the cost is then assessed as outlet liability on a per hectare basis to all lands and roads in the watershed.

13.2 Benefit Assessments (Section 22)

Benefit assessments are listed in Schedule A – Schedule of Assessments and shown on a per interval basis in Appendix A – Calculation of Assessments.

Section 22 benefits were determined based on the estimated value provided to the property by the works. Benefit assessments are generally balanced and applied on the following three criteria: Direct Outlet (ability of a property to connect directly to the new drain), Subsurface Service Area (size of land area that is or can be directly connected via subsurface tile drains), and Improved Drainage (improved drainage along the length of the drain crossing a property). Table 13.2-1 – Benefit Assessments provides a summary of the benefit assessments separated for each proposed branch.

Table 13.2-1 – Benefit Assessments

<u>Roll Number</u>	<u>Description</u>	<u>Main Drain</u>	<u>Branch B</u>	<u>Total</u>
020-11000	-for improved drainage along drain -for improved direct outlet -for improved sub-surface service area	8,600 3,000 9,300		20,900
020-11200	-for improved direct outlet -for improved sub-surface service area	3,000 6,800		9,800
020-11900	-for improved drainage along drain -for improved direct outlet -for improved sub-surface service area	12,300 4,500 9,500		26,300
020-11910	-for improved drainage along drain -for improved direct outlet -for improved sub-surface service area	17,200 3,000 9,600		29,800
020-12100	-for improved drainage along drain -for improved direct outlet -for improved sub-surface service area	36,300 6,000 11,600	900	54,800
020-12300	-for improved drainage along drain -for improved direct outlet -for improved sub-surface service area	3,900 1,500 800		6,200
020-17200	-for improved direct outlet -for improved sub-surface service area	1,000 2,200	2,000 4,400	9,600

<u>Roll Number</u>	<u>Description</u>	<u>Main Drain</u>	<u>Branch B</u>	<u>Total</u>
020-17300	-for improved drainage (ditch)	300		300
020-17400	-for improved drainage (ditch)	1,000		1,000
18 th Line	-for improved outlet (ditch)	5,000		5,000
Oxford Road 29	-for improved drainage along road (ditch)	1,000		1,000
TOTAL BENEFIT		157,400	7,300	164,700

13.3 Outlet Liability Assessments (Section 23)

Section 23(3) of the Drainage Act states that outlet liability assessment is to be based on the volume and rate of flow of the water artificially caused to flow. Therefore the lands and roads in the watershed are assessed on a per hectare basis, with adjustments made to recognize the different amount of runoff generated by different land uses. The basis for the adjustments is 1 hectare of cleared agricultural land contributing both surface and subsurface water to the Drain. Land uses with a different runoff rate are adjusted by the factors given in Table 13.3-1 – Runoff Factors.

Table 13.3-1 – Runoff Factors

Land Use	Runoff factor
Agricultural	1
Paved Roads	3
Bush lands	0.5

13.4 Increased Cost (Special) Assessment (Section 26)

Section 26 of the Drainage Act directs that any increased cost due to a public utility (utility) or road authority (road) shall be paid for by that utility or road. This assessment is known as a Special Assessment.

The estimated Special Assessments are presented in Table 13.4-1 - Estimated Special Assessments. The equivalent drain cost is based on the length of the Drain affected by the road allowance or utility right of way and the normal cost of drain construction. The increased cost caused by the road or utility is determined by subtracting the equivalent drain cost from the construction and engineering costs.

Table 13.4-1 - Estimated Special Assessments

	<u>Main Drain</u>	<u>Branch B</u>
Road/Railroad/Utility	18 th Line	18 th Line
Authority/Owner	Twp. of EZT	Twp. of EZT
Construction Cost	30,000 ¹	16,000 ²
+ Engineering Cost	7,510	3,880
- Equivalent Drain Cost	1,275	825
+ Net HST	640	335
= Estimated Special Assess.	36,875	19,390

¹Item M4 from the construction cost estimate.

²Item B4 from the construction cost estimate.

The actual special assessments will be determined after construction by inserting the actual construction and engineering costs in the Special Assessments Table. Any additional costs identified by the engineer will be added to the Special Assessment where appropriate.

The road authority or utility may elect to construct the Drain within their right of way with their forces. In this case, the special assessment is calculated by inserting zero for the construction cost.

If there are increased costs to the drain project at the time of construction due to a utility or road not listed in the table above, a Special Assessment will be based on the actual costs incurred.

Special Assessments do not apply to future maintenance assessments.

13.5 Assessment Schedules

For all assessment schedules, each parcel of land assessed has been identified by the municipal assessment roll number at the time of the preparation of this report. The size of each parcel was established using assessment roll information provided by the Township. If an "F" is shown in the first column, it denotes lands with current Farm Property Tax Class designation that may qualify for Grant. For convenience only, each parcel is also identified by the owner name(s) from the last revised assessment roll.

13.5.1 Schedule A- Schedule of Assessments

The estimated cost for the drainage works in this report is distributed among lands, roads and utilities, as shown in Schedule A, the Schedule of Assessments.

13.5.2 Schedule B -Schedule of Assessments for Maintenance

In accordance with Section 74 of the Act, the Drain shall be maintained by the Municipality, and the cost of maintenance shall be assessed to lands and roads upstream of the maintenance location, pro rata with the amounts in Schedule B. The \$ amounts in Schedule B are listed solely for calculating percentages (share of future maintenance costs) and will not be levied with the final cost of the drainage works.

Schedule B is divided into columns to reflect the different branches where maintenance work may be undertaken. The percentages shown in Schedule B determine the share of future maintenance to be levied to property or road. For example, a \$1,000 tile repair will result in a \$50 assessment to a property with a 5% maintenance assessment.

For portions of the McLean Drain not proposed to be improved by this report, the existing future maintenance assessment columns from the "Schedule B – Schedule for Future Maintenance" of the K. A. Smart, P. Eng. 1996 report, have been carried forward and included in Schedule B of this report (with slight modifications), so that review of the old schedule is no longer required. For more detail see Notes on Schedule B.

13.5.3 Schedule C – Schedule for Actual Cost Bylaw

After the construction of the Drain is certified, complete by the Engineer, the Municipality will determine the actual cost of the Drain. Actual assessments will be determined by prorating the actual cost of the Drain using Schedule C. Schedule C illustrates the estimated net assessments after deducting allowances and grants from the total assessments shown in Schedule A. Eligibility for the grant will be confirmed by the Municipality at the time the actual cost is levied. Actual assessments in Schedule C will be levied to the owner of the identified parcel at the time the Actual Cost Bylaw is passed.

14 GRANT

In accordance with the provisions of Section 85 of the Act, a grant not exceeding 1/3 (33-1/3%) may be available on the assessments against lands used for agricultural purposes. The current OMAFRA *Agricultural Drainage Infrastructure Program* (ADIP) policy defines agricultural lands as privately owned parcels of land which have the Farm Property Class Tax Rate. Based on Municipal assessment roll information, parcels that have the Farm Property Tax Class are identified with an 'F' in the first column of the assessment schedules.

Section 88 of the Act provides for the Municipality to apply for this grant after the construction of the Drain is certified complete by the Engineer. The Municipality must confirm the Farm Property Tax Class on the assessed parcels at the time the grant application is completed and submitted to OMAFRA. OMAFRA has the authority to determine grant eligibility regardless of the designation herein.

If any portion of the drainage works is not eligible for the grant, as per OMAFRA's ADIP policy, those ineligible costs have been separately identified in this report.

15 PRIVACY OF LANDS

A right of way for the Municipality will exist along the Drain once constructed on each property. However, the property on which the right of way is located remains private property. Other landowners or the public may not enter or use the drain right of way. Persons authorized to enter the drain right of way to carry out duties authorized under the Act include: Engineers, Contractors and the appointed Drainage Superintendent and/or their assistants.

16 MAINTENANCE

16.1 General

Section 74 of the Act requires the Drain, as outlined in this report, to be maintained by the Municipality, and the cost of maintenance to be assessed to the upstream lands and roads pro rata with the assessments in Schedule B.

All parties affected by the Drain, are encouraged to periodically inspect the Drain and report any visible or suspected problems to the Municipality. Any landowner making a new connection to the Drain shall notify the Drainage Superintendent before making the connection. If the Drainage Superintendent is not notified, the cost to remedy new connections that obstruct or otherwise damage the Drain will be the responsibility of the owner.

A right of way along the drain and access routes to the Drain exist for the Municipality to maintain the Drain. The right-of-way for the Drain, as described in the Allowances section of this report shall remain free of obstructions. The cost of removing obstructions is the responsibility of the owner.

The costs of cleaning through road crossings shall be assessed as drain maintenance to upstream lands/roads in accordance with Schedule B. The cost for future structural repair/replacement of road crossings shall be assessed fully to the road authority.

16.2 Updating Future Maintenance Schedules

To ensure future maintenance assessments are equitable, the assessments provided in this report should be reapportioned under Section 65 when severances or amalgamations occur when new lands are connected to the Drain or when a land-use change occurs that can be accommodated by the existing Drain. If a future land-use change will cause the drain capacity to be exceeded, a report under Section 4 or 78 may be required to provide increased capacity.

16.3 Drains To Be Abandoned

In accordance with Section 19 of the Act, the following drains are hereby abandoned of status under the Drainage Act and shall be broken up and buried during construction:

<u>Name of Drain</u>	<u>Branch Name</u>	<u>Stations (1972)</u>
McLean Municipal Drain 1972	Main Drain	6+00 to 68+00
McLean Municipal Drain 1972	"B" Branch	0+00 to 4+00

17 BYLAW

This report including the drawings, specifications, and assessment schedules, when adopted by bylaw in accordance with the Act, provides the basis for construction and maintenance of the Drain.

All of which is respectfully submitted,

K. SMART ASSOCIATES LTD.



Curtis MacIntyre, P. Eng.



**SCHEDULE A - SCHEDULE OF ASSESSMENTS FOR CONSTRUCTION
McLEAN DRAIN 2023
TOWNSHIP OF EAST ZORRA - TAVISTOCK**

Con	Lot	Roll No. (Owner)	Main Drain					Branch B					Gross Total Assessment (\$)
			Total ha affected	Benefit (Sec. 22)	Special (Sec. 26)	Outlet (Sec. 23)	Total	Total ha affected	Benefit (Sec. 22)	Special (Sec. 26)	Outlet (Sec. 23)	Total	
Township of East Zorra - Tavistock (Roll No. 32-38-010-)													
F 17	W Pt. Lot 13	020-11000 (M. Czerniawski)	10.3	20,900	0	24,701	45,601	0.0	0	0	0	0	45,601
F 17	W Pt. Lot 14	020-11200 (Otterside Farm Ltd.)	7.5	9,800	0	17,987	27,787	0.0	0	0	0	0	27,787
F 17	E Pt. Lot 13	020-11900 (W. & C. Vink)	15.3	26,300	0	20,281	46,581	0.0	0	0	0	0	46,581
F 17	N Pt. Lot 12	020-11910 (W. Vink)	19.6	29,800	0	15,686	45,486	0.0	0	0	0	0	45,486
17	N Pt. Lot 12	020-12000 (O. & C. Horn)	1.0	0	0	566	566	0.0	0	0	0	0	566
F 17	S Pt. Lot 12	020-12100 (1474526 Ontario Ltd.)	25.0	53,900	0	10,725	64,625	0.0	900	0	0	900	65,525
F 17	N Pt. Lot 11	020-12300 (J. & K. Blaak)	5.4	6,200	0	1,289	7,489	0.0	0	0	0	0	7,489
F 18	Lot 12	020-17200 (William A. Chesney & Sons)	7.4	3,200	0	4,191	7,391	7.4	6,400	0	4,894	11,294	18,685
17/18	Pt. Lot 12	020-17300 (P. & P. Menary)	2.4	300	0	214	514	0.0	0	0	0	0	514
18	Pt. Lot 11	020-17400 (K. & E. Leeson)	3.9	1,000	0	356	1,356	0.0	0	0	0	0	1,356
Subtotal (Lands):			97.8	151,400	0	95,996	247,396	7.4	7,300	0	4,894	12,194	259,590
18th Line (Township of East Zorra-Tavistock)			1.8	5,000	36,875	2,497	44,372	1.2	0	19,390	2,381	21,771	66,143
Oxford Road 29 (County of Oxford)			0.5	1,000	0	267	1,267	0.0	0	0	0	0	1,267
Subtotal (Roads & Utilities):			2.3	6,000	36,875	2,764	45,639	1.2	0	19,390	2,381	21,771	67,410
TOTAL ASSESSMENT McLEAN DRAIN 2023:			100.1	157,400	36,875	98,760	293,035	8.6	7,300	19,390	7,275	33,965	327,000

Notes:

- Lands noted with an "F" are classified as agricultural and according to current OMAFRA policy qualify for the 1/3 grant
Eligibility for the 1/3 grant will be confirmed at the time the final cost is levied.
- Section 21 of the Drainage Act, RSO 1990 requires that assessments be shown opposite each parcel of land and road affected.
The affected parcels of land have been identified using the roll number from the last revised assessment roll for the County/Township.
For convenience the owner's names as shown by the last revised assessment roll have also been included.

SCHEDULE B - Schedule of Assessment for Future Maintenance
McLEAN DRAIN 2023
TOWNSHIP OF EAST ZORRA - TAVISTOCK

For Ditch and Tile Work												Terracing Work										
		MAIN DRAIN										BRANCH A		BRANCH B		BRANCH C		MAIN DRAIN		BRANCH C		
		Interval 1		Interval 2		Interval 3		Interval 4		Interval 5		000 to 427		0+000 to 0+032		000 to 232		(on 1474526 Ontario Ltd., Vink & Czerniawski)		000 to 232		
Con	Lot	Roll No. (Owner)	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%		
Township of East Zorra - Tavistock (Roll No. 32-38-010-)																						
17	W Pt. Lot 13	020-11000 (M. Czerniawski)	750	8.23	2,400	5.96	1,596	8.48	5,250	12.60	19,069	35.84	0	0.00	0	0.00	0	0.00	930	9.39	505	5.10
17	W Pt. Lot 14	020-11200 (Otterside Farm Ltd.)	588	6.45	1,748	4.34	1,162	6.17	3,823	9.17	17,317	32.55	0	0.00	0	0.00	0	0.00	730	7.37	395	3.99
17	E Pt. Lot 13	020-11900 (W. & C. Vink)	1,345	14.77	3,566	8.86	2,371	12.59	10,453	25.08	16,814	31.61	12,400	100.00	0	0.00	2,633	17.79	1,668	16.85	1,310	13.22
17	N Pt. Lot 12	020-11910 (W. Vink)	1,236	13.56	4,568	11.35	5,137	27.28	14,387	34.52	0	0.00	0	0.00	0	0.00	7,687	51.94	1,532	15.47	2,955	29.83
17	N Pt. Lot 12	020-12000 (O. & C. Horn)	16	0.18	233	0.58	155	0.82	0	0.00	0	0.00	0	0.00	0	0.00	80	0.54	20	0.20	11	0.11
17	S Pt. Lot 12	020-12100 (1474526 Ontario Ltd.)	1,870	20.53	12,751	31.68	6,706	35.61	7,762	18.63	0	0.00	0	0.00	3,450	31.58	4,400	29.73	3,610	36.46	3,958	39.95
17	N Pt. Lot 11	020-12300 (J. & K. Blaak)	242	2.66	9,426	23.42	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	300	3.03	165	1.67
18	Lot 12	020-17200 (William A. Chesney & Sons)	427	4.69	3,325	8.26	1,147	6.09	0	0.00	0	0.00	0	0.00	5,094	46.63	0	0.00	530	5.35	286	2.89
17/18	Pt. Lot 12	020-17300 (P. & P. Menary)	750	8.23	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	60	0.61	36	0.36
18	Pt. Lot 11	020-17400 (K. & E. Leeson)	1,000	10.98	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	100	1.01	55	0.56
Total Assessments on Lands:			8,224	90.28	38,017	94.45	18,274	97.04	41,675	100.00	53,200	100.00	12,400	100.00	8,544	78.21	14,800	100.00	9,480	95.74	9,676	97.68
18th Line (Township of East Zorra-Tavistock)			572	6.27	2,228	5.55	556	2.96	0	0.00	0	0.00	0	0.00	2,381	21.79	0	0.00	400	4.06	220	2.21
Oxford Road 29 (County of Oxford)			314	3.45	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	0	0.00	20	0.20	11	0.11
Total Assessments on Roads:			886	9.72	2,228	5.55	556	2.96	0	0.00	0	0.00	0	0.00	2,381	21.79	0	0.00	420	4.26	231	2.32
TOTAL ASSESSMENTS			9,110	100.00	40,245	100.00	18,830	100.00	41,675	100.00	53,200	100.00	12,400	100.00	10,925	100.00	14,800	100.00	9,900	100.00	9,907	100.00
			2.1										2.2						2.3		2.4	2.5

Note:

- Agricultural designation not included as grant eligibility has to be confirmed at the time of maintenance cost levy.
- Replicated column from "Schedule B - Schedule for Future Maintenance" of K. A. Smart, P. Eng.'s 1996 report on the McLean Drain 1996
 - Merged assessments for Roll No.'s -121 & -123-01. Re-apportioned assessment for -119 due to the 020-11900 & 020-11910 severance. (Original 1996 Assessment for Future Maintenance to -119 was 2,581)
 - No reapportionments required. Increased 1996 assessments by multitude of 4 to relate better to other 2023 values.
 - Merged assessments for Roll No.'s -121 & -123-01. Re-apportioned assessment for -119 due to the 020-11900 & 020-11910 severance. (Original 1996 Assessment for Future Maintenance to -119 was 2,580)
Increased 1996 assessments by multitude of 4 to relate better to other 2023 values.
 - Merged assessments for Roll No.'s -121 & -123-01. Re-apportioned assessment for -119 due to the 020-11900 & 020-11910 severance. (Original 1996 Assessment for Future Maintenance to -119 was 3,200)
 - Merged assessments for Roll No.'s -121 & -123-01. Re-apportioned assessment for -119 due to the 020-11900 & 020-11910 severance. (Original 1996 Assessment for Future Maintenance to -119 was 4,265)

April 28, 2023

**SCHEDULE C - SCHEDULE FOR ACTUAL COST BY-LAW
McLEAN DRAIN 2023
TOWNSHIP OF EAST ZORRA - TAVISTOCK**

Page 28
File No. 20-068

Con	Lot	Roll No. (Owner)	Ha. Affected	Gross Assessment	1/3 Grant	Allowances	NET
<i>Township of East Zorra - Tavistock (Roll No. 32-38-010-)</i>							
F	17	W Pt. Lot 13 020-11000 (M. Czerniawski)	10.3	45,601	15,200	6,000	24,401
F	17	W Pt. Lot 14 020-11200 (Otterside Farm Ltd.)	7.5	27,787	9,262	600	17,925
F	17	E Pt. Lot 13 020-11900 (W. & C. Vink)	15.3	46,581	15,527	1,800	29,254
F	17	N Pt. Lot 12 020-11910 (W. Vink)	19.6	45,486	15,162	1,700	28,624
	17	N Pt. Lot 12 020-12000 (O. & C. Horn)	1.0	566	0		566
F	17	S Pt. Lot 12 020-12100 (1474526 Ontario Ltd.)	25.0	65,525	21,842	3,350	40,333
F	17	N Pt. Lot 11 020-12300 (J. & K. Blaak)	5.4	7,489	2,496	300	4,693
F	18	Lot 12 020-17200 (William A. Chesney & Sons)	7.4	18,685	6,228	100	12,357
	17/18	Pt. Lot 12 020-17300 (P. & P. Menary)	2.4	514	0		514
	18	Pt. Lot 11 020-17400 (K. & E. Leeson)	3.9	1,356	0		1,356
Subtotal (Lands):			97.8	259,590	85,717	13,850	160,023
18th Line (Township of East Zorra-Tavistock)			1.8	66,143	0		66,143
Oxford Road 29 (County of Oxford)			0.5	1,267	0		1,267
Subtotal (Roads & Utilities):			2.3	67,410	0	0	67,410
TOTAL ASSESSMENT McLEAN DRAIN 2023:			100.1	327,000	85,717	13,850	227,433

Notes:

- Lands noted with an "F" are classified as agricultural and according to current OMAFRA policy qualify for the 1/3 grant. Eligibility for the 1/3 grant will be confirmed at the time the final cost is levied.
- Section 21 of the Drainage Act, RSO 1990 requires that assessments be shown opposite each parcel of land and road affected. The affected parcels of land have been identified using the roll number from the last revised assessment roll for the County/Township. For convenience the owner's names as shown by the last revised assessment roll have also been included.
- Actual assessment is levied to the owner of the parcel at the time the final cost is levied.

APPENDIX A - Calculation of Assessments
McLEAN DRAIN 2023
TOWNSHIP OF EAST ZORRA - TAVISTOCK

ESTIMATED COST	Allowances	Main Drain																				Main Drain Total				BRANCH B				Grand Total									
		Interval 1				Interval 2				Interval 3				Interval 4				Interval 5				Total				Grand													
Roll No. (Owner)	Total Ha Affected	Run-off Factor	Total ha Adjusted	Benefit (Sec. 22)	Special (Sec. 26)	Adj Ha	Outlet (Sec. 23)	Benefit (Sec. 22)	Special (Sec. 26)	Adj Ha	Outlet (Sec. 23)	Benefit (Sec. 22)	Special (Sec. 26)	Adj Ha	Outlet (Sec. 23)	Benefit (Sec. 22)	Special (Sec. 26)	Adj Ha	Outlet (Sec. 23)	Benefit (Sec. 22)	Special (Sec. 26)	Adj Ha	Outlet (Sec. 23)	Total Benefit	Total Special	Total Outlet	Total	Benefit (Sec. 22)	Special (Sec. 26)	Adj Ha	Outlet (Sec. 23)	Total Benefits	Total Special	Total Outlets	TOTAL				
	0			1,150			1,600				2,800				8,100				13,650																				
	16,725			69,100			22,600				44,000				49,900				202,325																				
	3,300			14,000			4,500				8,800				9,500				40,100																				
	1,800			8,300			2,700				5,300				6,000				24,100																				
	700			2,865			900				1,700				2,000				8,165																				
	385			1,605			530				1,025				1,150				4,695																				
TOTAL	22,910			97,020			32,830				63,625				76,650				293,035																				
Township of East Zorra - Tavistock (Roll No. 32-38-010-)																																							
020-11000 (M. Czerniawski)	10.3	1.0	10.3				10.3	1,836			10.3	2,400			10.3	5,250			20,900	10.3	13,619			20,900	0	24,701	45,601					20,900	0	24,701	45,601				
020-11200 (Otterside Farm Ltd.)	7.5	1.0	7.5				7.5	1,337			7.5	1,162			7.5	3,823			9,800	7.5	9,917			9,800	0	17,987	27,787					9,800	0	17,987	27,787				
020-11900 (W. & C. Vink)	15.3	1.0	15.3				15.3	2,727			15.3	3,566			15.3	5,403			16,200	15.3	6,214			16,200	0	20,281	46,581					16,200	0	20,281	46,581				
020-11910 (W. Vink)	19.6	1.0	19.6				19.6	3,494			19.6	4,568	4,200		19.6	3,037	25,600			9.0	4,587			29,800	0	15,686	45,486					29,800	0	15,686	45,486				
020-12000 (O. & C. Horn)	1.0	1.0	1.0				1.0	178			1.0	233			1.0	155			0.0	0.0			0	0	0	566	566					0	0	566	566				
020-12100 (1474526 Ontario Ltd.)	25.0	1.0	25.0				25.0	4,456	27,900		20.6	4,801	17,800		5.2	806	8,200			1.3	662			53,900	0	10,725	64,625			900	0.0	54,800	0	10,725	65,525				
020-12300 (J. & K. Blaak)	5.4	1.0	5.4				5.4	963	6,200		1.4	326			0.0	0			0.0	0.0			6,200	0	1,289	7,489					6,200	0	1,289	7,489					
020-17200 (William A. Chesney & Sons)	7.4	1.0	7.4				7.4	1,319	3,200		7.4	1,725			7.4	1,147			0.0	0.0			3,200	0	4,191	7,391			6,400	7.4	4,894	9,600	0	9,085	18,685				
020-17300 (P. & P. Menary)	2.4	0.5	1.2			300	1.2	214			0.0	0		0.0	0				0.0	0.0			300	0	214	514					300	0	214	514					
020-17400 (K. & E. Leeson)	3.9	0.5	2.0			1,000	2.0	356			0.0	0		0.0	0				1,000	0			1,000	0	356	1,356					1,000	0	356	1,356					
Subtotal (Lands):	97.8		94.7				1,300	0	94.7	16,880	37,300	0	83.1	19,367	22,000	0	66.3	10,274	43,900	0	38.7	19,725	46,900	0	22.5	29,750	151,400	0	95,996	247,396			7,300	0	7.4	4,894			
18th Line (Township of East Zorra-Tavistock)	1.8	3.0	5.4			2,500	5.4	963			2,500	36,875	4.2	978			3.6	556			0.0	0		5,000	36,875	2,497	44,372					5,000	56,265	4,878	66,143				
Oxford Road 29 (County of Oxford)	0.5	3.0	1.5			1,000	1.5	267			0.0	0		0.0	0				1,000	0			1,000	0	267	1,267					1,000	0	267	1,267					
Subtotal (Roads & Utilities):	2.3		6.9			3,500	0	6.9	1,230	2,500	36,875	4.2	978	0	0	3.6	556	0	0	0.0	0	0	6,000	36,875	2,764	45,639			0	19,390	3.6	2,381	6,000	56,265	5,145	67,410			
TOTAL ASSESSMENT McLEAN DRAIN 2023:	100.1		101.6			4,800	0	101.6	18,110	39,800	36,875	87.3	20,345	22,000	0	69.9	10,830	43,900	0	38.7	19,725	46,900	0	22.5	29,750	157,400	36,875	98,760	293,035			7,300	19,390	11.0	7,275	164,700	56,265	106,035	327,000

400 STANDARD SPECIFICATIONS FOR CONSTRUCTION OF DRAINS

TABLE OF CONTENTS

400.1	ABBREVIATIONS	1
400.2	PRE CONSTRUCTION MEETING	1
400.3	COLD WEATHER	1
400.4	WORKING AREA	1
400.5	ACCESS.....	1
400.6	ACCESS TO PROPERTIES ADJOINING THE WORK	2
400.7	DRAINAGE SUPERINTENDENT	2
400.8	ALTERATIONS TO WORK	2
400.9	ERRORS AND UNUSUAL CONDITIONS	2
400.10	TESTS	2
400.11	BENCHMARKS AND STAKES	3
400.12	OPENING UP OF FINISHED WORK	3
400.13	FINAL INSPECTION	3
400.14	WARRANTY	3
400.15	MATERIALS	4
400.16	RIPRAP	5
400.17	GEOTEXTILE	5
400.18	DISPOSAL OF MATERIALS.....	5
400.19	NOTIFICATION OF RAILROADS, ROAD AUTHORITIES AND UTILITIES	5
400.20	WORKING IN ROAD ALLOWANCES	6
400.21	LOCATIONS OF EXISTING UTILITIES	6
400.22	LANEWAYS.....	7
400.23	EXISTING CROSSING CLEANOUT	7
400.24	FENCES.....	7
400.25	LIVESTOCK.....	8
400.26	STANDING CROPS	8
400.27	CLEARING VEGETATION	8
400.28	ROCK REMOVAL	9
400.29	SEEDING.....	10
400.30	EROSION CONTROL BLANKETS	11
400.31	SEDIMENT CONTROL	11
400.32	GRASSED WATERWAYS AND OVERFLOW SWALES	12
400.33	BUFFER STRIPS	13
400.34	MAINTENANCE CORRIDOR	13
400.35	POLLUTION	13
400.36	SPECIES AT RISK	13

400 STANDARD SPECIFICATIONS FOR CONSTRUCTION OF DRAINS**400.1 ABBREVIATIONS**

- i) MTO means the Ministry of Transportation of Ontario.
- ii) ASTM means the American Society for Testing Materials.
- iii) CSA means the Canadian Standard Association.
- iv) OPSD means Ontario Provincial Standard Drawings
- v) OPSS means Ontario Provincial Standard Specifications
- vi) DFO means Fisheries and Oceans Canada
- vii) MNRF means Ministry of Natural Resources and Forestry
- viii) MECP means Ministry of Environment, Conservation and Parks

400.2 PRE CONSTRUCTION MEETING

The Contractor should arrange a pre-construction meeting with the Engineer, Municipality, affected landowners prior to commencement of construction.

If there is no pre-construction meeting or if a landowner is not present at the pre-construction meeting, the following shall apply. The drain is to be walked by the Contractor and each landowner prior to construction to ensure that both agree on the work to be done. Any difference of opinion shall be referred to the Engineer for decision. If the landowner is not contacted for such review, they are to advise the Engineer and/or Municipality.

400.3 COLD WEATHER

When working in cold weather is approved by the Engineer, the Contractor shall provide suitable means for heating, protection, and snow and ice removal. All work completed in cold weather conditions shall be to the satisfaction of the Engineer and any additional cost to remedy unsatisfactory work, or protect the work shall be borne by the Contractor. All backfilling operations shall be done as soon as possible to avoid backfilling with ground containing frozen particles. The Contractor will assume all responsibility for damages to any tile drains and for settlements or bank slippages that may result from work in cold weather.

400.4 WORKING AREA

Where any part of the drain is on a road allowance, the road allowance shall be the working area. For a closed drain the working area shall be a 10 metre width on either side of the trench or any combination not exceeding 20 metres. A 10m x 10m working area shall exist around any catchbasin, junction box or access point. For an open drain the working area shall be 17 metres on the side for leveling and 3 metres on the opposite side. A 10m working area shall exist for any overflow swale or grassed waterway. If any part of the drain is close to a property line then the fence line shall be one of the limits of the work area. Reduced or increased working areas will be described in detail on the Drawings.

400.5 ACCESS

The Contractor shall have access to the drain by entering the working area directly from road allowances or along access routes shown on the Drawings. All specifications governing fences, livestock and crops during drain construction apply to access routes. No other access routes shall be used unless first approved by the Engineer and the affected landowner. The Contractor shall contact each landowner prior to using the designated access routes. Contractor shall make good any damages caused by using the designated access routes.

400.6 ACCESS TO PROPERTIES ADJOINING THE WORK

The Contractor shall provide at all times and at no additional cost, adequate pedestrian access to private homes and commercial establishments unless otherwise authorized by the Engineer. Where interruptions to access have been authorized by the Engineer, reasonable notice shall be given by the Contractor to the affected landowners and such interruptions shall be arranged to minimize interference to those affected.

400.7 DRAINAGE SUPERINTENDENT

Where a Drainage Superintendent (Superintendent) is appointed by the Municipality, the Engineer may designate the Superintendent to act as the Engineer's representative. If so designated, the Superintendent will have the power to inspect and direct the execution of the work.

Any instructions given by the Superintendent which change the proposed work or with which the Contractor does not agree shall be referred to the Engineer for final decision.

400.8 ALTERATIONS TO WORK

The Engineer shall have the power to make alterations, additions and/or deletions in the work as shown or described in the Drawings or Specifications and the Contractor shall proceed to implement such changes without delay. Alterations ordered by the Engineer shall in no way render the contract void.

If a landowner desires deviations from the work described on the Drawings, the landowner shall submit a written request to the Engineer, at least 48 hours in advance of the work in question.

In every such case, the contract amount shall be increased or decreased as required according to a fair evaluation of the work completed. Where such changes involve additional work similar to items in the contract, the price for additional work shall be determined after consideration is given to the tendered price for similar items.

In no case shall the Contractor commence work considered to be extra work without the Engineer's approval. Payment for extra work is contingent on receipt of documentation to the satisfaction of the Engineer. Refer to the Extra Work Summary included in the Special Provisions.

400.9 ERRORS AND UNUSUAL CONDITIONS

The Contractor shall notify the Engineer immediately of any error or unusual conditions which may be found. Any attempt by the Contractor to correct the error without notice shall be done at the Contractor's risk. Any additional cost incurred by the Contractor to remedy an error or unusual condition without notice shall be borne by the Contractor. The Engineer shall direct the alteration necessary to correct errors or unusual conditions. The contract amount shall be adjusted in accordance with a fair evaluation of documentation for the work added, deleted or adjusted.

400.10 TESTS

The Engineer reserves the right to subject any materials to a competent testing laboratory for compliance with the standard. If any materials supplied by the Contractor are determined to be inadequate to meet the applicable standards, the Contractor shall bear full responsibility to remove and/or replace all such inadequate materials with materials capable of meeting the standards.

The cost of testing the materials supplied by the Contractor shall be borne by the Contractor.

400.11 BENCHMARKS AND STAKES

Prior to construction, the Engineer will confirm the benchmarks. The Contractor shall be held liable for the cost of replacing any benchmarks destroyed during construction.

If the Engineer provides layout stakes, the Contractor shall be held liable for the cost of replacing any layout stakes destroyed during construction.

Where property bars are shown on the Drawings, they are to be protected and if damaged by the Contractor, they will be reinstated by an Ontario Land Surveyor at the expense of the Contractor. Where property bars not shown on the Drawings are damaged, they will be reinstated by an Ontario Land Surveyor at the expense of the project.

400.12 OPENING UP OF FINISHED WORK

If ordered by the Engineer, the Contractor shall make such openings in the work as are needed to re-examine the work, and shall forthwith make the work good again. Should the Engineer find the work so opened up to be faulty in any respect, the whole of the expense of opening, inspecting and making the work good shall be borne by the Contractor. Should the Engineer find the work opened up to be in an acceptable condition the Contractor shall be paid for the expense of opening and making the work good, unless the Contractor has been obligated by any specification or by the direction of the Engineer to leave the work open for the Engineer's inspection.

400.13 FINAL INSPECTION

Final inspection by the Engineer will be made within twenty (20) days after receiving notice in writing from the Contractor that work is complete, or as soon thereafter as weather conditions permit. All the work included in the contract must at the time of final inspection have the full dimensions and cross-sections.

Prior to commencing the final inspection an on-site meeting may be held by the Engineer and landowners directly affected by the construction of the drain. The Contractor will attend this meeting upon notice by the Engineer.

If there is no on-site meeting with the Engineer and landowners, the Contractor shall obtain from each landowner a written statement indicating that the work has been performed to the owner's satisfaction. If the Contractor is unable to obtain a written statement from the landowner, the Engineer will determine if further work is required prior to issuing the Completion Certificate.

400.14 WARRANTY

There shall be a one-year warranty period on all completed work. The warranty period will commence on the date of the Completion Certificate.

When directed by the Engineer, the Contractor shall repair and make good any deficiencies in the work that may appear during the warranty period.

Before the work shall be finally accepted by the Municipality, the Contractor shall complete all work as directed by the Engineer and remove all debris and surplus materials and leave the work neat and presentable.

400.15 MATERIALS**400.15.1 Concrete Drain Tile**

Concrete drain tile shall conform to the requirements of the most recent ASTM C412 specifications for heavy duty extra quality, unless a stronger concrete tile is required by the Special Provisions or Drawings. All tile furnished shall be subject to the approval of the Engineer.

The minimum nominal lengths of the tile shall be 750mm for 150 to 350mm diameter tile and 1200mm for 400 to 900mm diameter tile.

All tile should be of good quality, free from distortions and cracks and shall meet the standards specified. The ends should be smooth and free from cracks or checks. All rejected tile are to be immediately removed from the site.

Granular backfill, where required, shall consist of approved sand or gravel having no particles retained on a screen having 50mm square openings.

Earth backfill shall consist of approved material having no large lumps or boulders.

400.15.2 Corrugated Plastic Tubing

Corrugated plastic tubing shall conform to the *Land Improvement Contractors of Ontario Standard Specification for Corrugated Plastic Drainage Tubing, 2006*. Type of material (solid or perforated) and need for filter sock will be specified on the Drawings or in the description of the work in the Special Provisions. Filter sock where specified shall be a standard synthetic filter material as provided by a recognized plastic tubing manufacturer unless noted differently on the contract drawings or elsewhere in the contract document. Protect coils of plastic tubing from damage and deformation.

400.15.3 Corrugated Steel Pipe

Corrugated Steel Pipe (CSP) shall be according to OPSS 1801 (CSA G401). Unless stated otherwise in the Special Provisions the pipe shall be:

- galvanized
- helical corrugation with lock seam and re-rolled annular ends
- 68mm x 13mm corrugation profile for diameters up to 1200mm
- 125mm x 25mm corrugation profile for diameters 1200mm and larger
- minimum wall thickness of 1.6mm for diameters up to 500mm
- minimum wall thickness of 2.0mm for diameters 600mm and larger
- joined using standard couplers matching the pipe diameter and material

Other coatings that may be specified include aluminized Type 2 or polymer. Polymer coating shall be a 254mm polymer film laminated to both sides of the pipe.

400.15.4 Plastic Pipe

Plastic Pipe shall be a high density polyethylene (HDPE) double wall corrugated pipe with smooth inner wall, solid with no perforations in accordance with OPSS 1840.

A minimum stiffness of 320 KPa at 5% deflection

The pipe shall be joined with snap-on or split couplers.

400.15.5 Concrete Sewer Pipe

Concrete sewer pipe shall be in accordance with OPSS 1820.

Non-reinforced concrete sewer pipe shall be used for pipe 375mm in diameter and smaller and reinforced concrete sewer pipe shall be used for pipe over 375mm.

Classes shall be as shown on the Contract Drawings or as described in the Form of Tender.

All new concrete sewer pipe shall have rubber-type gasket joints.

Where concrete sewer pipe “seconds” are specified, the pipe should exhibit no damage or cracks on the barrel section and shall be capable of satisfying the crushing strength requirements of OPSS 1820. The pipe may contain cracks or chips in the bell or spigot which prevent the use of rubber gaskets but the joints must be protected with filter cloth.

400.16 RIPRAP

All riprap is to be placed on a geotextile underlay (Terrafix 360R or equal) unless directed otherwise in the specific construction notes. The riprap is to be graded heavy angular stone (quarry stone is recommended) with particles averaging in size from 200mm to 300mm and is to be placed at 300mm thickness. Fine particles may be included to fill voids. Along upstream edges of riprap, where surface water will enter, underlay is to extend a minimum of 300mm upstream from riprap and then be keyed down a minimum of 300mm. Wherever riprap is placed, the area is to be over-dug so that finished top of riprap is at design cross-section, at design elevation or flush with existing ground.

400.17 GEOTEXTILE

To be non-woven fabric that is rot proof, non-biodegradable, chemically resistant to acidic or alkaline soils and is dimensionally stable under different hydraulic conditions. The filter fabric is to be a material whose primary function is to act as a highly permeable, non-clogging soil separator for fine soils (Terrafix 360R or equal). Contractor is to follow the manufacturer's recommendations for cutting, installation and precautions necessary to avoid damage to fabric. Other approved equals will be considered by the Engineer prior to construction.

400.18 DISPOSAL OF MATERIALS

The Contractor shall remove all surplus materials from the job site at the end of the project. The Contractor shall locate the disposal site for all materials to be disposed of. Disposal of materials shall comply with applicable regulations.

400.19 NOTIFICATION OF RAILROADS, ROAD AUTHORITIES AND UTILITIES

Contractor will notify any Railroad, Road Authority or Utility at least 48 hours in advance regarding work to be performed on their property or affecting their infrastructure. The notice will be in writing and is exclusive of Saturdays, Sundays and Holidays.

A utility includes any entity supplying the general public with necessities or conveniences.

400.20 WORKING IN ROAD ALLOWANCES**400.20.1 General**

Work within public road allowances shall be done in accordance with the Ontario Traffic Manual Book 7, latest edition.

400.20.2 Road Crossings

If no specific detail is provided for road crossings on the drawings or in the specifications the following shall apply:

- A Road Authority will supply no labour, equipment or materials for the construction of the road crossing.
- Contractor will not commence road crossing work until any required permits have been obtained. The Engineer may apply for any required permits prior to construction.
- Contractor will notify the Road Authority at least 72 hours in advance of any construction in the road allowance.
- Road crossings may be made with an open cut unless otherwise noted.
- Exact location of crossing shall be verified with the Road Authority and the Engineer.
- Pipe shall be placed on a minimum 150mm depth of Granular A shaped for the pipe.
- Pipe backfill shall be compacted Granular A and extend 300mm above the top of the pipe.
- Trench shall be backfilled with acceptable native material for the base width of the road bed.
- The material shall be placed in lifts not exceeding 300mm in depth and shall be thoroughly compacted with an approved mechanical vibrating compactor.
- Top 600mm of the road bed backfill shall consist of 450mm Granular B and 150mm of Granular A placed in lifts and fully compacted.
- Any surplus excavated material within the road allowance may be spread on the right-of-way with consent of the Road Superintendent otherwise the surplus material shall be hauled away.
- Existing asphalt or concrete pavement or surface treatment shall be replaced by the Contractor to the satisfaction of the Engineer and Road Authority.
- Contractor shall be responsible for correcting any backfill settlement during construction and during the warranty period. Upon approval of the road authority, surplus gravel shall be stockpiled near gravel road crossings to provide backfill for future trench settlement.
- All road crossings shall meet the approval of the Road Authority.
- If any road crossing is not left in a safe manner at the end of the working day barricades and warning signs shall be erected to guarantee the safety of the travelling public.
- If the Engineer deems a road to surface to have been damaged by the construction of a drain, either across or along the road, the Engineer may direct the Contractor to restore the road surface to existing or better condition at no additional cost.

400.20.3 Maintenance of Traffic

Unless directed otherwise on the drawings or in the specifications the Contractor shall keep the road open to traffic at all times. The Contractor shall provide suitable warning signs and/or flagging to the satisfaction of the Road Authority to notify of the construction work.

If a detour is required, the Contractor shall submit a proposal as to the details of the detour for approval by the Road Authority. If necessary to close the road to through traffic, the Contractor shall provide for and adequately sign the detour route. Contractor shall undertake all notifications required for a road closure in consultation with the Municipality.

400.21 LOCATIONS OF EXISTING UTILITIES

The position of pole lines, conduits, watermains, sewers and other underground and overhead utilities are not necessarily shown on the Contract Drawings, and, where shown, the accuracy of the position of such utilities and structures is not guaranteed. Before starting work, the Contractor shall have all utilities located in accordance with the Ontario Underground Infrastructure Notification System Act.

All utilities shall be exposed to the satisfaction of the utility company to verify that the construction proposed will not conflict with the utility structure. Additional payment will be allowed for relocation of utilities if conflicts should occur.

The Contractor is responsible for protecting all located and exposed utilities from damage during construction. The Contractor shall assume liability for damage caused to all properly located utilities.

400.22 LANEWAYS

If no specific detail is provided for laneway crossings on the Drawings or in the Specifications the following shall apply:

- Pipe backfill shall be acceptable native material that can be compacted in place.
- Top 450mm of laneway backfill shall consist of 300mm Granular B and 150mm of Granular A placed in lifts and fully compacted.
- Minimum cover on laneway culverts shall be 300mm.
- Existing asphalt or concrete pavement or surface treatment shall be replaced by the Contractor.
- The width of surface restoration shall match the existing laneway.
- Contractor shall be responsible for correcting any backfill settlement during construction and during the warranty period.

The timing of laneway closures will be coordinated by the Contractor to the satisfaction of the landowner.

400.23 EXISTING CROSSING CLEANOUT

Where the Special Provisions require an existing crossing to be cleaned, the Contractor shall provide a bottom width and depth that provides capacity equivalent to the capacity of the channel on either side. Excavated materials shall be hauled away unless adjacent landowners give permission for leveling. Care shall be taken to ensure that existing abutments or any portion of the structure are not damaged or undercut. The method of removing the material is to be pre-approved by the Engineer.

400.24 FENCES

If the Contractor is responsible to remove and install fences, the following shall apply:

- All fences removed by a Contractor are to be re-erected in as good a condition as existing materials permit.
- All fences shall be properly stretched and fastened. Where directed by the Engineer, additional steel posts shall be placed to adequately support a fence upon re-erection.
- Where practical and where required by the landowner, the Contractor shall take down an existing fence at the nearest anchor post and roll the fence back rather than cutting the fence and attempting to patch it.
- Where fence materials are in such poor condition that re-erection is not possible, the Contractor shall replace the fence using equivalent materials. Such fence material shall be approved by the Engineer and the landowner. Where the Engineer approves new fence material, additional payment will be provided.

Any fences paralleling an open drain, that are not line fences, that hinder the proper working of the excavating machinery for drain construction or maintenance shall be removed and rebuilt by the landowner at their own expense. If such parallel fences are line fences they shall be removed and reinstalled by the Contractor.

No excavated or cleared material shall be placed against fences.

The installation of all fences shall be done to the satisfaction of the Engineer and the landowner.

400.25 LIVESTOCK

If any construction will be within a fenced field containing livestock that are evident or have been made known to the Contractor, the Contractor shall notify the owner of the livestock 48 hours in advance of access into the field. Thereafter, the owner shall be responsible for the protection of the livestock in the field during construction and shall also be liable for any damage to or by the livestock.

Where the owner so directs or where the Contractor has failed to reach the owner, the Contractor shall adequately re-erect all fences at the end of each working day. No field containing livestock shall have a trench left open at the end of the working day, unless the trench has been adequately backfilled or protected. Failure of the Contractor to comply with this paragraph shall render the Contractor liable for any damage to or by the livestock.

Where livestock may be encountered on any property the Contractor shall notify the Engineer to arrange for inspection of the work prior to backfilling.

400.26 STANDING CROPS

The Contractor shall not be held responsible for damages to standing crops within the working area for the drain. However, the Contractor shall notify the owner of the crops 48 hours prior to commencement of construction so as to allow the owner an opportunity to harvest or salvage the crop within the drain working area. If this advance notice is not given the Contractor may be liable for the loss of the standing crops.

400.27 CLEARING VEGETATION

400.27.1 General

The area for clearing, if not defined elsewhere, shall be 15m on each side of the drain.

400.27.2 Trees to Remain

Where it is feasible to work around existing trees that do not impede the function of the drainage works, the Contractor shall not remove any deciduous tree larger than 300mm and any coniferous tree larger than 200mm, unless authorized by the Engineer.

400.27.3 Incidental Clearing

Incidental clearing includes removal of trees, brush or other vegetation with an excavator during construction activities, and the cost is to be included in the price for the related construction activity.

400.27.4 Power Brushing

Power brushing includes removal of above-ground vegetation with a rotary brush cutter or other mechanical means. Stump and root removal is not required. Power brushed vegetation in a channel cross-section shall be removed and leveled in the working area. Excavated material may be placed and leveled on power brushed vegetation.

400.27.5 Close-Cut Clearing

Close-cut clearing includes removal of above-ground vegetation cut flush with the ground. Stump and root removal is not required.

400.27.6 Clearing And Grubbing

Clearing and grubbing includes removal of vegetation, including stumps and roots. Removal of earth from the grubbed area into the windrows or piles is to be minimized.

400.27.7 Disposal of Cleared Vegetation**400.27.7.1 In Bush Areas**

Cleared vegetation is to be pushed into windrows or piles at the edge of the cleared area. Stumps and roots are to be piled first at the edge of the cleared area, followed by other vegetation (trunks, branches, etc.). Provisions for lateral drainage are required through all windrows. Windrows are not to block any laneways or trails. After removing cleared vegetation, the working area shall be leveled to the satisfaction of the Engineer.

400.27.7.2 In Field Areas

Cleared vegetation resulting from incidental clearing or power brushing may be hauled away, mulched in place or reduced to a size that permits cultivation using conventional equipment without causing undue hardship on farm machinery.

Cleared vegetation resulting from close-cut clearing or clearing and grubbing is to be hauled away to an approved location. Disposal sites may be in bush areas or other approved locations on the same farm. No excavated material shall be levelled over any logs, brush or rubbish of any kind.

400.27.8 Landowner Requested Salvage

A landowner may request that wood be separated from the windrows for the landowner's future use. This additional work would be eligible for extra payment, subject to the approval of the Engineer. The cost of the additional work would be assessed to the landowner.

400.27.9 Clearing by Landowner

Wherever the Special Provisions indicate that clearing may be undertaken by the landowner, work by the landowner shall be in accordance with the Clearing Vegetation requirements of this specification and must be completed so as not to cause delay for the Contractor. If the landowner does not complete clearing in accordance with these requirements, the Contractor will undertake the clearing at a price approved by the Engineer.

400.28 ROCK REMOVAL**400.28.1 General**

Rock shall be defined as bedrock and boulders that are greater than one-half cubic metre in size and that require blasting or hoe-ram removal. Bedrock or boulders that can be removed with a standard excavator bucket are not considered rock removal.

400.28.2 Blasting Requirements

All blasting shall be performed by a competent, qualified blaster in accordance with OPSS 120. Blasting mats are required. A pre-blast survey meeting the requirements of OPSS 120 must be completed for any structure within 200m of any blasting. The cost for pre-blast survey shall be included in the tender price for rock removal.

400.28.3 Typical Sections and Pay Limits

For tile drains and road culverts, rock shall be removed to 150mm below the proposed grade shown on the profile so that pipes are not in direct contact with rock. The width of rock removal shall be 1m minimum or the diameter of the pipe plus 600mm.

For open drains, rock removal shall match the proposed grade and bottom width shown on the Drawings. Side slopes shall be vertical or sloped outward. Side slopes shall be free of loose rock when excavation is completed.

Payment for the quantity of rock removed will be based on the typical sections described in these specifications and confirmed by field measurements. There will be no payment for overbreak.

400.28.4 Disposal of Rock

Excavated rock shall be piled at the edge of the working area at locations designated by the landowner. The cost to pile excavated rock shall be included in the tender price for rock removal. If the Special Provisions or the landowner require excavated rock to be hauled away, additional payment will be considered.

Where approved by the Engineer, excavated rock may be used in place of imported riprap.

400.29 SEEDING

400.29.1 General

Contractor responsible for re-seeding as necessary for uniform catch during warranty period. Areas that remain grassed after construction may not need to be seeded unless directed otherwise by the Engineer.

400.29.2 Drainage Works and Road Allowances

All disturbed ditch banks, berms and road allowances are to be seeded at the end of the day.

The following seed mixture shall be applied at 60kg/ha using a mechanical (cyclone) spreader:

- 35% Creeping Red Fescue
- 25% Birdsfoot Trefoil
- 25% Kentucky Bluegrass
- 10% Cover Crop (Oats, Rye, Barley, Wheat)
- 5% White Clover

Provide temporary cover for late fall planting by adding an additional 10 kg/ha of rye or winter wheat.

400.29.3 Hydroseeding

Where hydroseeding is specified, disturbed areas will be restored by the uniform application of a standard roadside mix, fertilizer, mulch and water at a rate of 2,000 kg/ha and be in accordance with OPSS 804.

400.29.4 Seeding Lawns

Unless specified otherwise, lawn areas shall be seeded with Canada No. 1 lawn grass mixture applied at 300 kg/ha using a mechanical (cyclone) spreader on 100mm of topsoil. Fertilizer shall be 5:20:20 or 10:10:10 applied at 300 kg/ha. Seed and fertilizer shall be applied together. Contractor shall arrange for watering with landowners.

400.29.5 Sod

Where sod is specified, sod is to be commercial grade turfgrass nursery sod, Kentucky Bluegrass placed on 50mm of topsoil. Fertilizer shall be 5-20-20 applied at 10kg/ha. Place sod in accordance with supplier instructions. Contractor is responsible for saturating the sod with water on the day of sod placement. Subsequent watering is the responsibility of the landowner.

400.30 EROSION CONTROL BLANKETS

Erosion Control Blankets (ECB) shall be biodegradable and made of straw/coconut (Terrafix SC200, Nilex SC32 or equal) or coconut (Terrafix C200, Nilex C32 or equal) with photodegradable, double net construction. The blanket and the staples shall be supplied and installed as per OPSS 804.

Erosion control blanket shall be placed and stapled into position as per the manufacturer's installation instructions on slopes as directed by the Engineer. Blankets shall be installed in direct contact with the ground surface to form a uniform, cohesive mat over the seeded earth area. The blankets are to be single course with 150mm overlap between blankets and joints are to be staggered. The Contractor shall ensure that the ECB is anchored to the soil and that tenting of the ECB does not occur.

On slopes, when the ECB cannot be extended 1m beyond the crest of the slope, the uppermost edge of the ECB shall be anchored in a 150mm wide by 150mm deep trench. The trench shall be backfilled with earth and compacted.

400.31 SEDIMENT CONTROL

400.31.1 General

Contractor shall install sediment control features at the downstream limits of the project and at other locations as shown on the drawings or directed by the Engineer.

Sediment control features shall be installed prior to any excavation taking place upstream of that location. The Contractor shall maintain all sediment control features throughout construction and the warranty period.

Sediment that accumulates during construction shall be removed and levelled as required.

400.31.2 Flow Check Dams

400.31.2.1 Temporary Straw Bale Flow Check Dam

The straw bale flow check dam shall consist of a minimum of 3 bales. Each bale is to be embedded at least 150mm into the channel bottom and shall be anchored in place with 2 T-bar fence posts or 1.2m wooden stakes driven through the bale.

Straw bales shall be hauled away at the end of the warranty period. Accumulated sediments shall be excavated and levelled when the temporary straw bale flow check dam is removed.

400.31.2.2 Temporary Rock Flow Check Dam

The temporary rock flow check dam shall extend to the top of the banks so that dam overtopping does not cause bank erosion. Rock shall be embedded a minimum of 150mm into the ditch bottom and banks. No geotextile is required for temporary rock flow check dams.

Accumulated sediments shall be excavated and levelled when the temporary rock flow check dam is removed at the conclusion of the warranty period.

400.31.2.3 Permanent Rock Flow Check Dam

The requirements of temporary rock flow check dams shall apply except rock shall be placed on geotextile and the dam shall remain in place permanently.

400.31.3 Sediment Traps

400.31.3.1 General

The channel bottom shall be deepened in accordance with the dimensions provided in the Drawings or Special Provisions. If dimensions are not specified on the Drawings, the sediment trap shall be excavated within the channel cross-section at least 0.3m below the design grade.

The Contractor will monitor the sediment trap during construction and cleanout accumulated sediments as required to maintain the function of the sediment trap.

If specified to be temporary, no sediment trap maintenance is required after construction is complete.

If specified to be permanent, the contractor will clean out the sediment trap at the conclusion of the warranty period, unless directed otherwise by the Engineer.

400.31.3.2 Sediment Trap with Flow Check Dam

A permanent rock sediment trap shall include a permanent sediment trap and a rock flow check dam.

A temporary rock/straw sediment trap shall include a temporary sediment trap and a rock/straw flow check dam.

400.31.4 Turbidity Curtains

A turbidity curtain is required when there is permanent water level/flow and a sediment trap is not feasible.

Turbidity curtains shall be in accordance with OPSS 805 and installed per manufacturer's instructions.

Turbidity curtains shall be sized and anchored to ensure the bottom edge of the curtain is continuously in contact with the waterbody bed so that sediment passage from the enclosed area is prevented. The curtain must be free of tears and capable of passing the base flow from the drainage works. Turbidity curtain locations may be approved by the Engineer.

Turbidity curtains are to remain functional until work in the enclosed area is completed. Prior to relocating or removing turbidity curtains, accumulated sediment is to be removed from the drain and levelled.

Where a turbidity curtain remains in place for more than two weeks it shall be inspected for damage or clogging and replaced, repaired or cleaned as required.

400.31.5 Silt Fence

Silt fence shall be in accordance with OPSS 805.07.02.02 and OPSD 219.110 (light-duty).

400.32 GRASSED WATERWAYS AND OVERFLOW SWALES

Grassed waterways and overflow swales typically follow low ground along the historic flow route. The cross-section shall be saucer shaped with a nominal 1m bottom width, 8:1 side slopes and 300mm depth unless stated otherwise in the Special Provisions.

All grassed waterways are to be permanently vegetated. Grassed waterways shall be seeded with the following permanent seed mixture: 50% red fescue, 45% perennial ryegrass and 5% white clover, broadcast at 80 kg/ha. Fertilizer to be 7-7-7 applied at 80 kg/ha.

Provide temporary cover for late fall planting by adding an additional 10 kg/ha of rye or winter wheat.

Overflow swales may be cropped using conventional farming practice.

400.33 BUFFER STRIPS

Open drains shall include minimum 3m wide, permanently vegetated buffer strips on each side of the drain. Catchbasins shall include a minimum 1m radius, vegetated buffer strip around the catchbasin.

Cultivation of buffer strips using conventional farming practice may be undertaken, provided sediment transport into the drain is minimized.

400.34 MAINTENANCE CORRIDOR

The maintenance corridor along the route of the drain, as established in the report, shall be kept free of obstructions, ornamental vegetation and structures. When future maintenance is undertaken, the cost of removing such items from the corridor shall be assessed to the landowner.

400.35 POLLUTION

The Contractor shall keep their equipment in good repair. The Contractor or any landowner shall not spill or cause to flow any polluted material into the drain that is not acceptable to the MECP. The local MECP office and the Engineer shall be contacted if a polluted material enters the drain. The Contractor shall refill or repair equipment away from open water. If the Contractor causes a spill, the Contractor is responsible to clean-up the spill in accordance with MECP clean-up protocols.

400.36 SPECIES AT RISK

If a Contractor encounters a known Species At Risk designated by the MECP, MNRF or DFO, the Contractor shall notify the Engineer immediately and follow the Ministry's guidelines for work around the species.

410

STANDARD SPECIFICATIONS

FOR

OPEN DRAINS

TABLE OF CONTENTS

410.1	DESCRIPTION.....	1
410.2	MATERIALS.....	1
410.3	CONSTRUCTION.....	1
410.3.1	Excavation.....	1
410.3.2	Low Flow Channels.....	1
410.3.3	Line.....	1
410.3.4	Grade Control.....	1
410.3.5	Variation from Design Grade.....	2
410.3.6	Excavated Material.....	2
410.3.7	Excavation at Existing Bridge and Culvert Sites.....	3
410.3.8	Bridges and Culverts.....	3
410.3.9	Obstructions.....	3
410.3.10	Tile Outlets.....	4
410.3.11	Completion.....	4

410.1 DESCRIPTION

Work under this item shall include the supply of labour, equipment and materials required for: channel excavation to the cross-section specified, leveling or disposal of all excavated material (spoil) as directed, reconstruction of all intercepted drains as required and any other items related to open drain construction as required by the Schedule of Tender Prices, Special Provisions or the Drawings.

410.2 MATERIALS

Refer to Section 400, Standard Specifications for Drain Construction for any materials required for open drain construction.

410.3 CONSTRUCTION**410.3.1 Excavation**

The bottom width and the side slopes of the ditch shall be as shown on the profile drawing. If the channel cross-section is not specified in the Special Provisions it shall be a 1m bottom width with 1.5m horizontal to 1m vertical (1.5:1) bank slope. At locations along the drain where the specified side slopes change there shall be a transitional length of not less than 5m between the varying side slopes. At locations along the drain where the specified bottom width changes there shall be a transitional length of not less than 5m. In all cases there shall be a smooth transition between changes in any part of the channel cross-section. Where the bottom width of the existing ditch matches the specified bottom width, ditch excavation shall be completed without disturbing existing banks.

410.3.2 Low Flow Channels

Unless specified otherwise in the Special Provisions, all intermittent open drains with a bottom width greater than 1.8m and a grade less than 0.07%, shall have a low flow channel. The bottom of the low flow channel shall be the grade shown on the profiles.

The low flow channel shall have a U-shaped cross-section with an average top width of 0.5m and a minimum depth of 0.3m. The low flow channel will not be seeded and may meander along the main channel bottom provided it remains at least .3m from the toe of main channel bank slope.

410.3.3 Line

The drain shall be constructed according to the alignment shown on the drawings or shall follow the course of the existing ditch. All bends shall have a minimum inside radius of 2m. There shall be a smooth transition between changes in the channel alignment. The Contractor shall contact the Engineer before removing any bends or irregularities in an existing ditch.

410.3.4 Grade Control

The profile shows the grade line for the bottom of the ditch. Cuts may be shown on the profile from the existing top of bank and/or from the existing ditch bottom to the new ditch bottom. These cuts are shown for the convenience of the Contractor and are not recommended for quantity estimate or grade control. Accurate grade control must be maintained by the Contractor during ditch excavation. The ditch bottom elevation should be checked every 50 metres and compared to the elevation on the profile.

Benchmarks are identified on the Contract Drawings. The Engineer will confirm all benchmark elevations prior to construction.

410.3.5 Variation from Design Grade

A variation of greater than 25mm above the design grade line may require re-excavation. Excavation below design grade up to 150mm is recommended so that sediment accumulation during or following excavation will not place the ditch bottom above the design grade at completion. Under some circumstances the Engineer may direct that over excavation greater than 200mm will have to be backfilled. No additional payment will be made if backfilling is required to remedy over excavation.

410.3.6 Excavated Material

Excavated material (spoil) shall be deposited on either or both sides of the drain within the specified working area as directed in the Special Provisions. The Contractor shall verify the location for the spoil with each landowner before commencing work on their property. If not specified, spoil shall be placed on the low side of the ditch or opposite trees and fences. The spoil shall be placed a minimum 1m from the top of the bank. No excavated material shall be placed in tributary drains, depressions, or low areas such that water is trapped behind the spoil bank. Swales shall be provided through the leveled or piled spoil at approximately 60m intervals to prevent trapping water behind the spoil bank.

The excavated material shall be placed and leveled to a maximum depth of 250mm; unless otherwise instructed. If excavating more than 450mm topsoil shall be stripped, stockpiled separately and replaced over the leveled spoil, unless stated otherwise in the Special Provisions. The edge of the spoil bank furthest from the ditch shall be feathered down to existing ground. The edge of the spoil bank nearest the ditch shall have a maximum slope of 2:1. The material shall be leveled such that it may be cultivated with conventional equipment without causing undue hardship on farm machinery.

Wherever clearing is necessary prior to leveling, the Contractor shall remove all stumps and roots from the working area. No excavated material shall cover any logs, brush or rubbish of any kind. Large stones in the leveled spoil that are greater than 300mm in diameter shall be moved to the edge of the spoil bank nearest to the ditch but in general no closer than 1m to the top of bank.

Lateral channels that outlet into the drain shall be tapered over a distance of 10m to match the grade of drain excavation. No additional payment will be made for this work.

Where the elevation difference between the lateral channel and the drain is greater than 450mm, a rock chute or similar bank protection approved by the Engineer shall be provided. Additional payment may be allowed for this work.

Where it is specified to straighten any bends or irregularities in the alignment of the ditch or to relocate any portion of an existing ditch, the excavation from the new cut shall be used for backfilling the original ditch. Regardless of the distance between the new ditch and old ditch, no additional payment will be allowed for backfilling the existing ditch.

The Contractor shall contact the Engineer if a landowner indicates in writing that spoil on the owner's property does not need to be leveled. The Engineer may release the Contractor from the obligation to level the spoil and the Engineer shall determine the credit to be applied to the Contractor's payment. No additional compensation is provided to the owner if the spoil is not leveled.

The Engineer may require the Contractor to obtain written statements from any or all of the landowners affected by the leveling of the spoil. Final determination on whether or not the leveling of spoil meets the specification shall be made by the Engineer.

410.3.7 Excavation at Existing Bridge and Culvert Sites

The Contractor shall excavate the drain to the specified depth under all bridges and to the full width of the structure unless specified otherwise in the Special Provisions. All necessary care and precautions shall be taken to protect permanent structures. Temporary bridges may be removed and left on the bank of the drain. In cases where the design grade line falls below the top of footings, the Contractor shall take care to not over-excavate below the grade line. The Contractor shall notify the Engineer if excavation of the channel exposes the footings of the bridge or culvert, so the Engineer can make an evaluation.

The Contractor shall clean through all pipe culverts to the grade line and width specified on the profile. The Contractor shall immediately contact the Engineer after a culvert cleanout if it is found that the culvert bottom is above the grade line or where the structural integrity of the culvert is questionable.

Material resulting from cleanout through bridges or culverts shall be levelled on the adjacent private lands or hauled offsite at the expense of the bridge/culvert owner.

410.3.8 Bridges and Culverts

The size and material for any new ditch crossings shall be as outlined in the Special Provisions.

For culvert installation instructions, refer to the General Specifications for Drain Construction and the Drawings.

Any crossings assembled on-site shall be assembled in accordance with the manufacturer's specifications.

If directed on the drawings that the existing crossing is to be salvaged for the owner, the Contractor shall carefully remove the existing crossing and place it beside the ditch or haul to a location as specified by the owner. If the existing crossing is not to be saved then the Contractor shall remove and dispose of the existing crossing. Disposal by burying on-site must be approved by the Engineer and the owner.

All new pipe crossings shall be installed at the invert elevations as specified on the Drawings, usually a minimum of 50mm below design grade. If the ditch is over excavated greater than 200mm below design grade the Contractor shall confirm with the Engineer the elevations for installation of the new pipe crossing.

For backfill and surface restoration, refer to the General Specifications for Drain Construction and the Drawings.

Installation of private crossings during construction must be approved by the Engineer.

410.3.9 Obstructions

All trees, brush, fallen timber and debris shall be removed from the ditch cross-section and as required for spreading of the spoil. The roots shall be left in the banks if no bank excavation is required as part of the new channel excavation. In wooded or heavily overgrown areas all cleared material may be pushed into piles or rows along the edge of the cleared path and away from leveled spoil. All dead trees along either side of the drain that may impede the performance of the drain if allowed to remain and fall into the ditch, shall be removed and put in piles, unless directed otherwise by the Engineer.

410.3.10 Tile Outlets

The location of all existing tile outlets may not be shown on the profile for the drain. The Contractor shall contact each owner and ensure that all tile outlets are marked prior to commencing excavation on the owner's property. If a marked tile outlet or the tile upstream is damaged due to construction, it shall be replaced at the Contractor's expense. Additional payment will be allowed for the repair or replacement of any unmarked tile outlets encountered during excavation. In all cases, if an existing tile outlet requires replacement the Contractor shall confirm the replacement tile outlet with the Engineer. Where riprap protection exists at any existing tile outlet such protection shall be removed and replaced as necessary to protect the outlet after reconstruction of the channel.

If any tile outlet becomes plugged as a result of construction, the Contractor shall remove the obstruction.

410.3.11 Completion

At the time of final inspection, all work in the contract shall have the full dimensions and cross-sections specified.

420

STANDARD SPECIFICATIONS

FOR

TILE DRAINS

TABLE OF CONTENTS

420.1	DESCRIPTION	1
420.2	MATERIALS	1
420.3	CONSTRUCTION.....	1
420.3.1	Outlet	1
420.3.2	Line	1
420.3.3	Grade Control	2
420.3.4	Variation from Design Grade.....	2
420.3.5	Installation	2
420.3.6	Backfilling	3
420.3.7	Tile Connections.....	3
420.3.8	Stones and Rock	4
420.3.9	Brush, Trees and Debris	4
420.3.10	Subsoil Instability.....	4
420.3.11	Broken or Damaged Tile	4
420.3.12	Excess Tile	4
420.3.13	Catchbasins	5
420.3.14	Junction Boxes	5

420 STANDARD SPECIFICATIONS FOR TILE DRAINS**420.1 DESCRIPTION**

Work under this specification will consist of supplying, hauling, laying and backfilling subsurface drainage conduit with the conduit materials as described on the Drawings and in the location, depth and invert grade as shown on the Drawings. In this specification the word "tile" will apply to all described conduit materials. Lengths are in millimeters (mm) and meters (m).

The work shall include the supplying of all labour, tools, equipment and extra materials required for the installation of the tile; the excavation and backfilling of the trenches; the hauling, handling, placing and compaction of the excavated material for backfill, the loading, hauling, handling and disposal of surplus excavation material; the removal and replacing of topsoil and sod where required by the Engineer.

All existing laterals crossed by the new line shall be reconnected in an approved manner. Either special manufactured connections shall be used or another method of sealing connections as approved by the Engineer. The Contractor shall also construct catchbasins, junction boxes and other structures where directed by the Engineer.

Except where complete removal of an existing pipe is required by new construction, existing pipes to be abandoned shall be sealed with a concrete or mortar plug with a minimum length of 300mm to the satisfaction of the Engineer.

Sections 6 and 7 of the current version of the *Drainage Guide for Ontario*, OMAFRA Publication 29 shall provide a general guide to all methods and materials to be used in the construction of tile drains except where superseded by this Contract.

The licensing requirements of the *Agricultural Tile Drainage Installation Act, 1990* will not be applicable to this Contract unless specified otherwise by this Contract.

420.2 MATERIALS

Refer to Section 400, Standard Specifications for Drain Construction for any materials required for tile drain construction.

420.3 CONSTRUCTION**420.3.1 Outlet**

A tile drain outlet into a ditch or creek shall be protected using a 6m length of rigid pipe with a hinged grate for rodent protection. Maximum spacing between bars on the rodent grate shall be 50mm. Material for rigid pipe will be specified in the Special Provisions, plastic pipe is preferred. The joint between the rigid pipe and the tile drain shall be wrapped with filter fabric. All outlets will be protected with rock riprap to protect the bank cut and as a splash apron. In some locations riprap may also be required on the bank opposite the outlet. The quantity of riprap required will be specified in the Special Provisions. A marker stake as approved by the Engineer shall be placed at each tile outlet.

420.3.2 Line

The Engineer will designate the general location of the new drain. A landowner may indicate a revised location for the drain which must be approved by the Engineer. Where a change in alignment is required that is not accommodated in a catchbasin, junction box or similar structure the alignment change shall run on a curve with a radius not less than the minimum installation radius specified for the tile material.

The Contractor shall exercise care to not disturb any existing tile drains which parallel the course of the new drain, particularly where the new and existing tile act together to provide the necessary capacity. Where an existing tile is disturbed or damaged the Contractor shall perform the necessary correction or repair with no additional compensation.

NOTE: It is the Contractor's responsibility to ascertain the location of, and to contact the owners of all utility lines, pipes and cables in the vicinity of drain excavations. The Contractor shall be completely responsible for all damages incurred.

420.3.3 Grade Control

Tile is to be installed to the elevation and grade shown on the profiles. Accurate grade control must be maintained by the Contractor at all times during tile installation. The tile invert elevation should be checked every 50m and compared to the elevation on the profile.

Benchmarks are identified on the Contract Drawings. The Engineer will confirm all benchmark elevations prior to construction.

420.3.4 Variation from Design Grade

No reverse grade will be allowed. A small variation in grade can be tolerated where the actual capacity of the drain exceeds the required capacity. The constructed grade should be such that the drain will provide the capacity required for the drainage area. Constructed grade should not deviate from design grade by more than 10% of the internal diameter for more than 25m. Grade corrections shall be made gradually over a distance not less than 10m.

420.3.5 Installation

At each work stoppage, the exposed end of the tile shall be covered by a tight fitting board or metal plate. No installed tile shall be left exposed overnight. Any tile damaged or plugged during construction shall be replaced or repaired at the Contractor's expense.

Topsoil over the trench shall be stripped, stockpiled separately and replaced after the trench is backfilled. Where installation is across a residential lawn, existing sod over the trench shall be cut, lifted and replaced in a workmanlike manner or new sod laid to match pre-construction conditions.

420.3.5.1 Installation of Concrete Tile

Concrete tile shall be installed by a wheel trencher unless an alternate method of construction is noted on the Drawings.

Digging of the trench shall start at the outlet end and proceed upstream. The location and grade shall be as shown on Drawings but shall be liable to adjustment or change by the Engineer on site with no additional payment allowed except where the change involves increased depth of cut beyond the limitation of the wheel trencher in use at the time of the change. The trench width measured at the top of the tile should be at least 150mm greater than the tile diameter.

The bottom of the trench is to be cut accurately to grade and shaped so that the tile will be embedded in undisturbed soil or in a compacted bed at least for 10% of its overall height. Where hard shale, boulders or other unsuitable bedding material is encountered, the trench shall be excavated to 75mm below grade and backfilled with granular material compacted to a shaped, firm foundation. If the trench is overcut below the proposed grade, it is to be backfilled with granular material to the correct grade and compacted to a shaped, firm foundation.

Where the depth for the tile installation exceeds the depth capacity of the wheel trencher the Contractor shall excavate a trench of sufficient depth so that the wheel trencher can install the tile at the correct depth

and grade. The tender price shall include the cost of the additional excavation and backfilling and stripping and replacing topsoil over the trench.

The inside of the tile is to be kept clean during installation. All soil and debris should be removed before the next tile is laid. Maximum spacing at joints between tiles should be about 3mm. Directional changes can be made without fittings or structures provided the centre-line radius of the bend is not less than 15m radius. The tiles are to be beveled, if necessary, to ensure close joints on all bends.

All tile joints and connections with other pipe materials are to be fully and tightly wrapped with a minimum 300mm width of geotextile drain wrap. A 150mm overlap on top is required. No additional payment will be made for joint wrapping.

420.3.5.2 *Installation of Corrugated Plastic Tubing*

Corrugated plastic tubing shall be installed by a drainage plow or wheel trencher unless an alternate method of construction is specified on the Drawings. For other installation methods, proper bedding and backfill is required to maintain the structural integrity of the plastic tubing so that surface and earth loads do not deflect the tubing by more than 20% of its nominal diameter.

For all installation methods:

- the plastic tubing should not be stretched by more than 7% of its normal length
- protect tubing from floating off grade when installing in saturated soil conditions
- directional changes can be made without fittings provided the centre-line radius of the bend is not less than five times the tubing diameter

Drainage plow equipment should construct a smooth bottomed opening in the soil and maintain the opening until the tubing is properly installed. The size of the opening in the soil should conform closely to the outside diameter of the tubing.

420.3.5.3 *Installation of Concrete Sewer Pipe or Plastic Pipe*

The Contractor may install pipe using a wheel trencher. For concrete sewer pipe, the bells must be recessed.

The Contractor may install pipe using an excavator by shaping the bottom of the trench to receive and support the pipe over 10% of its diameter if the trench is backfilled with native material. Shaping the trench bottom is not required where 150mm of granular bedding is placed to the satisfaction of the engineer.

420.3.6 **Backfilling**

All tile should be blinded by the end of the day's work to protect and hold them in place against disturbances. After tile is inspected, it shall initially be backfilled with a minimum cover of 300mm.

For blinding and initial backfilling use clean native soil with no organic matter. Initial backfill shall be tamped around the pipe by backhoe bucket or similar if directed by the Engineer.

The tile shall be backfilled with native material such that there is a minimum cover of 600mm. In addition, a sufficient mound must be placed over the trench to ensure that no depression occurs after settling along the trench.

420.3.7 **Tile Connections**

All lateral drains encountered along the route of the new tile drain are to be connected to the new drain if the intercepted tile are clean and do not contain polluted water. Lateral drains that are full of sediments or contain polluted waters will be addressed by the Engineer at the time of construction. All lateral drains are to be connected to the new tile using a pipe material and size that will provide the same flow capacity as the existing lateral drain unless a different connection is described in the Special Provisions. Corrugated plastic tubing can be used for all tile connections. Tubing can be solid or perforated, filter sock is not required.

Contractor is responsible for installation and backfilling in a manner than maintains the structural integrity of the connection. Manufactured fittings should be used to ensure tight connections. Where an opening must be made in the new tile drain for a connection, the opening shall be field cut or cored. After the opening is cut in the new tile any gaps or voids around the connection shall be sealed with mortar, low-expanding spray foam or geotextile. Lateral tubing shall not protrude more than 25mm beyond the inside wall of the new tile drain. The Contractor shall ensure than any material used to seal the connection does not protrude beyond the inside wall of the new tile drain.

All connections that are described in the Special Provisions are considered to be part of the original Contract price. For all other connections the Contractor will be paid in accordance with the price established in the Schedule of Tender Prices. The Contractor must list all connections on the Lateral Connection Summary sheet, if included in the Special Provisions, in order to qualify for payment. The Lateral Connection Summary sheet describes all tile encountered based on location (station), side of trench, size and type of tile and approximate length and type of material used for the connection.

420.3.8 Stones and Rock

The Contractor shall immediately contact the Engineer if bedrock or stones of sufficient size and number are encountered such that installation by wheel trencher cannot continue. The Engineer may direct the Contractor to use some other method of excavation to install the tile. The basis of payment for such extra work shall be determined by the Engineer. Stones greater than 300mm in diameter that are removed during excavation shall be disposed of by the Contractor at an offsite location. No additional payment for excavating or hauling these stones will be provided.

420.3.9 Brush, Trees and Debris

Unless stated otherwise in the Special Provisions, the following requirements shall apply for installation of a tile drain in a wooded area. The Contractor will clear and grub a minimum corridor width of 30m centered on the tile drain alignment. The resulting debris shall be placed in a windrow along the edge of the working area. No additional payment will be made for such work.

420.3.10 Subsoil Instability

If poor subsoil conditions are encountered during tile installation by wheel trencher an attempt shall be made to install the tile with a continuous geotextile underlay in the trench bottom. The cost of the underlay, if approved by the Engineer, will be paid as an extra. If the continuous geotextile underlay is not sufficient then the tile will be installed by backhoe or excavator on a bedding of 19mm clear crushed stone (300mm depth) to achieve trench bottom stability for the new tile. If approved, the above work will be paid based on the unit price provided on the Form of Tender. The unit price shall include the cost to supply and place the stone. If more than 300mm depth of stone is required for bottom stability, additional payment will be allowed for the additional depth of stone. The additional quantity of stone shall be supported by weigh tickets and the suppliers invoice.

If poor subsoil conditions are encountered during tile installation by backhoe or excavator, the tile shall be installed on stone bedding as noted above. For this installation only the material cost of the stone will be paid as an extra. Supply of stone and cost to be supported by weigh tickets and supplier's invoice.

If the subsoil is a fine grained soil it may necessary to place the stone on a geotextile with the geotextile wrapped over the stone before laying the tile. Additional payment will be allowed to supply and install the geotextile.

420.3.11 Broken or Damaged Tile

The Contractor shall dispose of all damaged or broken tile and broken tile pieces off-site.

420.3.12 Excess Tile

All excess tile shall be removed from the job site.

420.3.13 Catchbasins**420.3.13.1 General**

All catchbasins shall have minimum inside dimensions matching the dimensions shown on the Drawings. Contractor is responsible for ordering catchbasins to match the inlet and outlet connections and top elevations required by the Special Provisions and the Drawings.

420.3.13.2 Materials

Requirements in this section apply to catchbasins in non-travelled locations. Where catchbasins are proposed for travelled locations, refer to the Special Provisions and the Drawings for applicable OPSD information.

Precast concrete catchbasins shall be manufactured by as Coldstream Concrete or approved equal. Minimum wall thickness for catchbasins without reinforcement is 150mm and with reinforcement 100mm. The joints between precast catchbasin sections shall be protected with geotextile to prevent soil material from entering into the catchbasin. Joint protection using mortar or water tight barrier is also acceptable. Grates are to be birdcage grates as manufactured by Coldstream Concrete or approved equal unless specified otherwise on the Drawings. All grates to be secured with corrosion resistant hardware.

HDPE catchbasins shall be as fabricated by ADS, Armtec, Hancor or approved equal. Steel catchbasins shall be the Heavy Duty Steel Catch Basin as manufactured by AgriDrain or approved equal. PVC catchbasins shall be Nyloplast as manufactured by ADS or approved equal. HDPE, steel and PVC catchbasins shall be supplied with integral stubouts fabricated by the manufacturer and sized according to the pipe connections shown on the Drawings. Grates for HDPE, steel or PVC catchbasins shall be in accordance with the Special Provisions and manufacturer recommendations.

Marker stakes as supplied by Coldstream Concrete or equal are to be placed beside each catchbasin unless specified otherwise on the Drawings.

420.3.13.3 Installation

All tile or pipe connected to concrete catchbasins shall be mortared or secured in place so that no gaps remain at the connection. Mortar is to be applied on both the inside and outside wall surfaces.

Backfill around all new catchbasins is recommended to be 19mm clear crushed stone to avoid future settlements. The Contractor shall be responsible for backfilling all settlement areas around catchbasins during the contract warranty period. No additional payment will be provided for adding backfill to settlement areas around catchbasins.

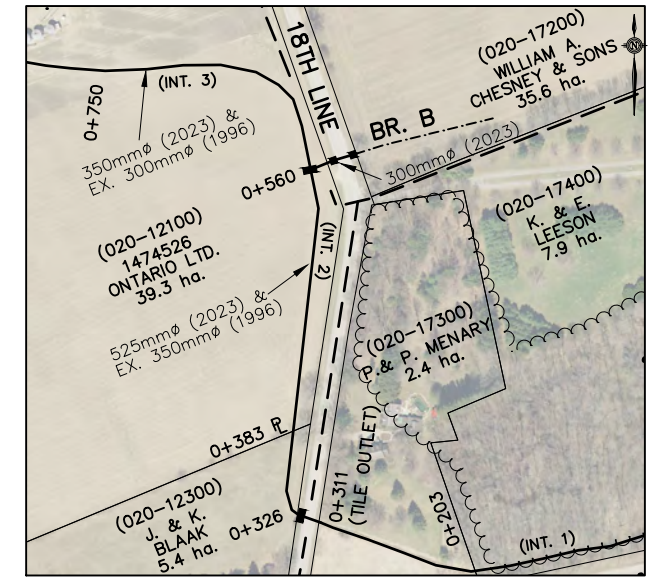
All catchbasin sumps to be fully cleaned by the Contractor after completion of drain installation and backfilling.

420.3.14 Junction Boxes

Junction boxes shall be precast concrete to the same specification as above for catchbasins except that the junction box shall have a solid lid. The lid shall be a minimum of 125mm thick with wire mesh reinforcement and 2 lifting handles. The top of the junction box should have a minimum ground cover of 450mm.



BENCHMARKS	
BM#1 "WATER SURVEY OF CANADA" TABLET AT NW CORNER OF CTY RD. 29 BRIDGE ELEV. 297.922	BM#5 CUT CROSS NE CORNER 600x600mm CB ON "CZERNIAWSKI" & "VINK" R ELEV. 309.603
BM#3 SPIKE IN S/SIDE H.P.#C76MXJ WEST SIDE 17th LINE ELEV. 313.788	BM#6 NAIL IN W. SIDE HP #CD8X8D 24m EAST OF STA. 0+540 ELEV. 298.047
BM#4 CUT CROSS NW CORNER 600x600mm CB ON "OTTERSIDE" & "CZERNIAWSKI" R ELEV. 314.226	BM#7 TOP SW CORNER OF CONC. PAD FOR HYDRO VAULT ELEV. 301.505

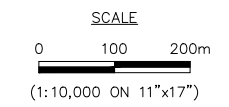


PLAN ENLARGEMENT
SCALE 1:5,000

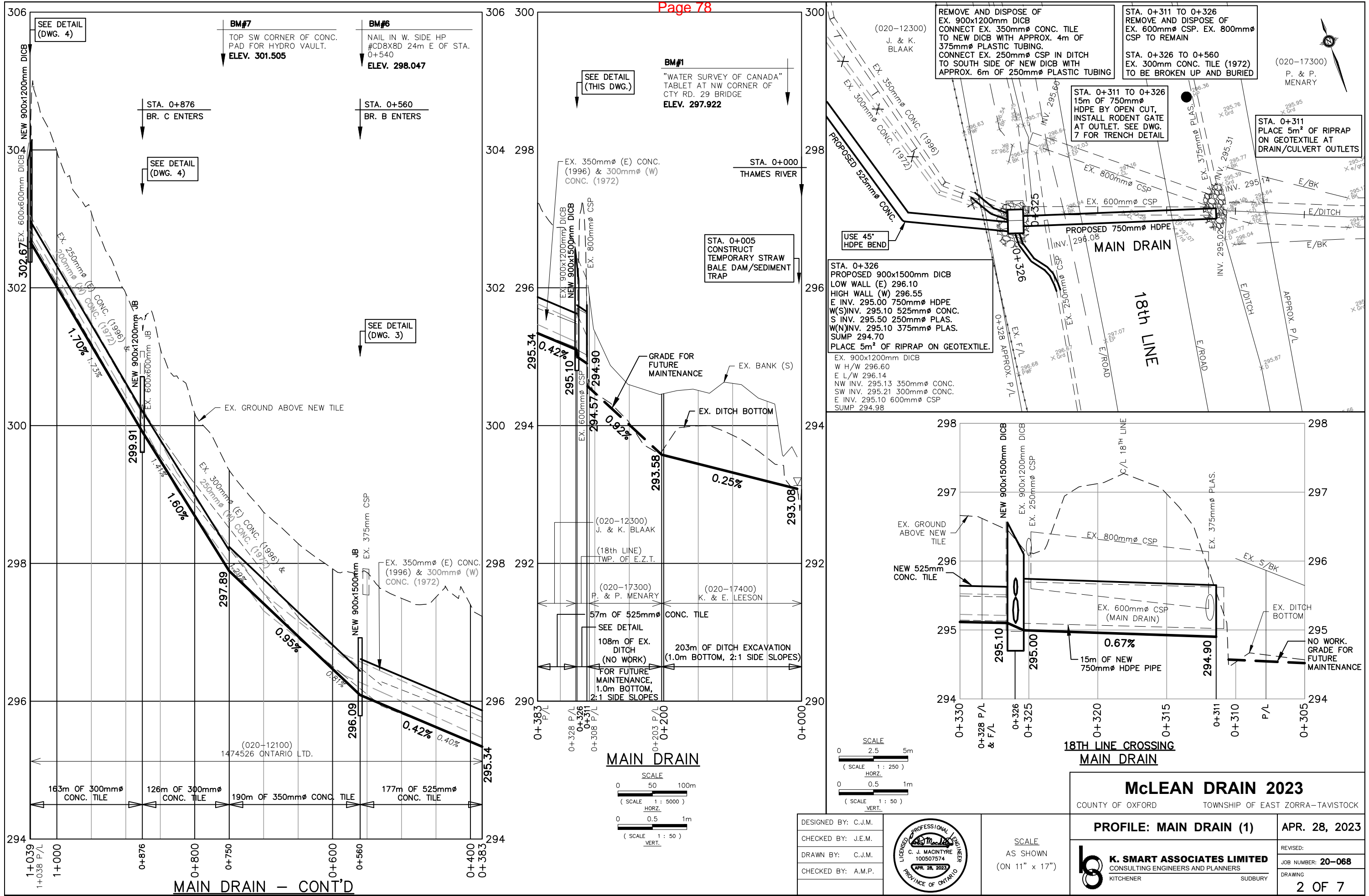
PLAN LEGEND	
	MAJOR WATERSHED
	INTERMEDIATE WATERSHED
	PROPOSED WORK OR INCORPORATION
	EXISTING DRAIN
	EXISTING DRAIN TO BE ABANDONED OF STATUS UNDER DRAINAGE ACT
	ACCESS
	APPROXIMATE HECTARES IN WATERSHED
	HECTARES OWNED
	ASSESSMENT ROLL NUMBER
	BUSH AREA

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

DESIGNED BY: C.J.M.
CHECKED BY: J.E.M.
DRAWN BY: C.J.M.
CHECKED BY: A.M.P.



McLEAN DRAIN 2023	
COUNTY OF OXFORD TOWNSHIP OF EAST ZORRA-TAVISTOCK	
WATERSHED PLAN	APR. 28, 2023
K. SMART ASSOCIATES LIMITED CONSULTING ENGINEERS AND PLANNERS KITCHENER SUDBURY	REVISED:
	JOB NUMBER: 20-068
	DRAWING
	1 OF 7

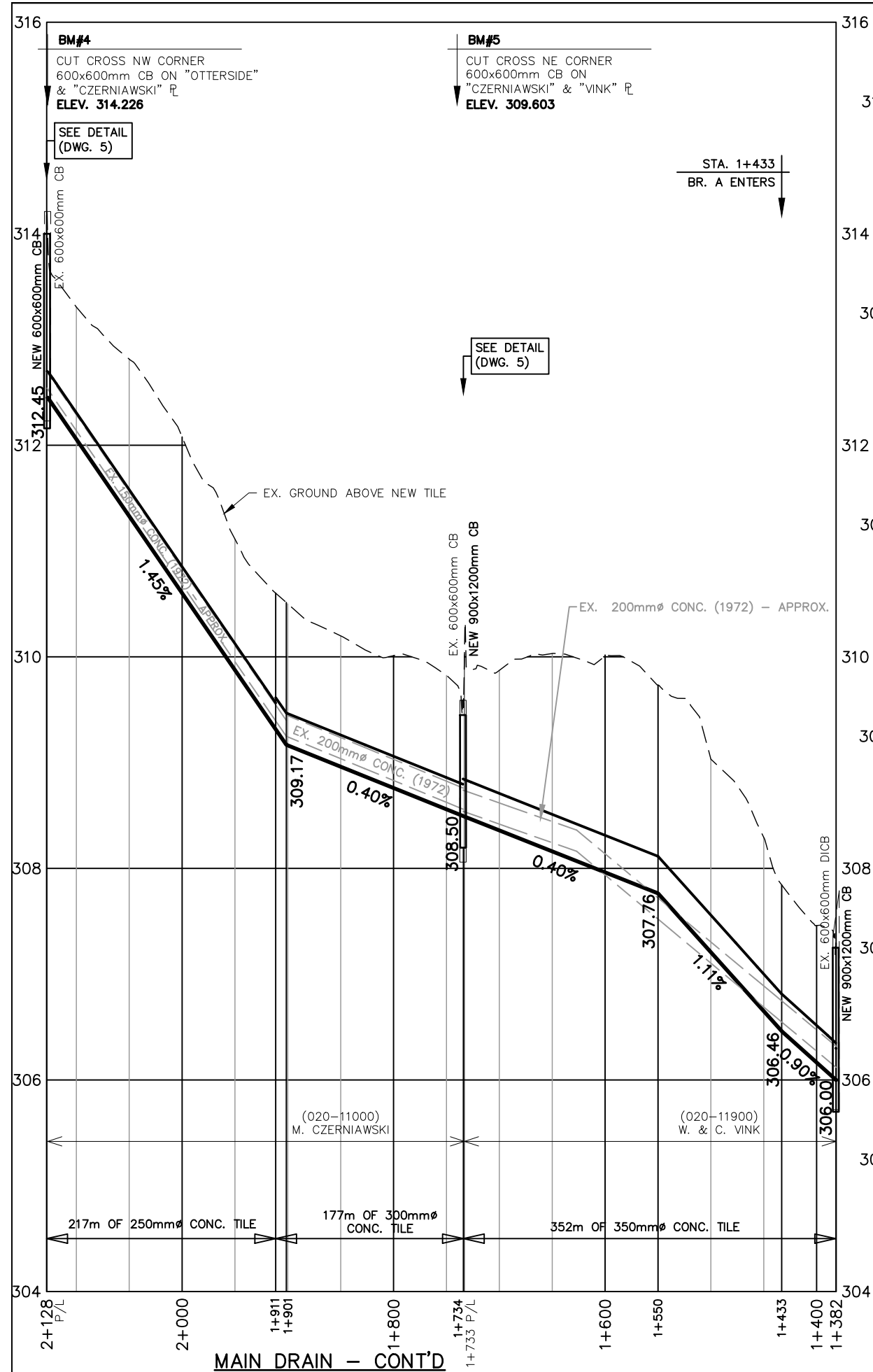


DESIGNED BY: C.J.M.
 CHECKED BY: J.E.M.
 DRAWN BY: C.J.M.
 CHECKED BY: A.M.P.

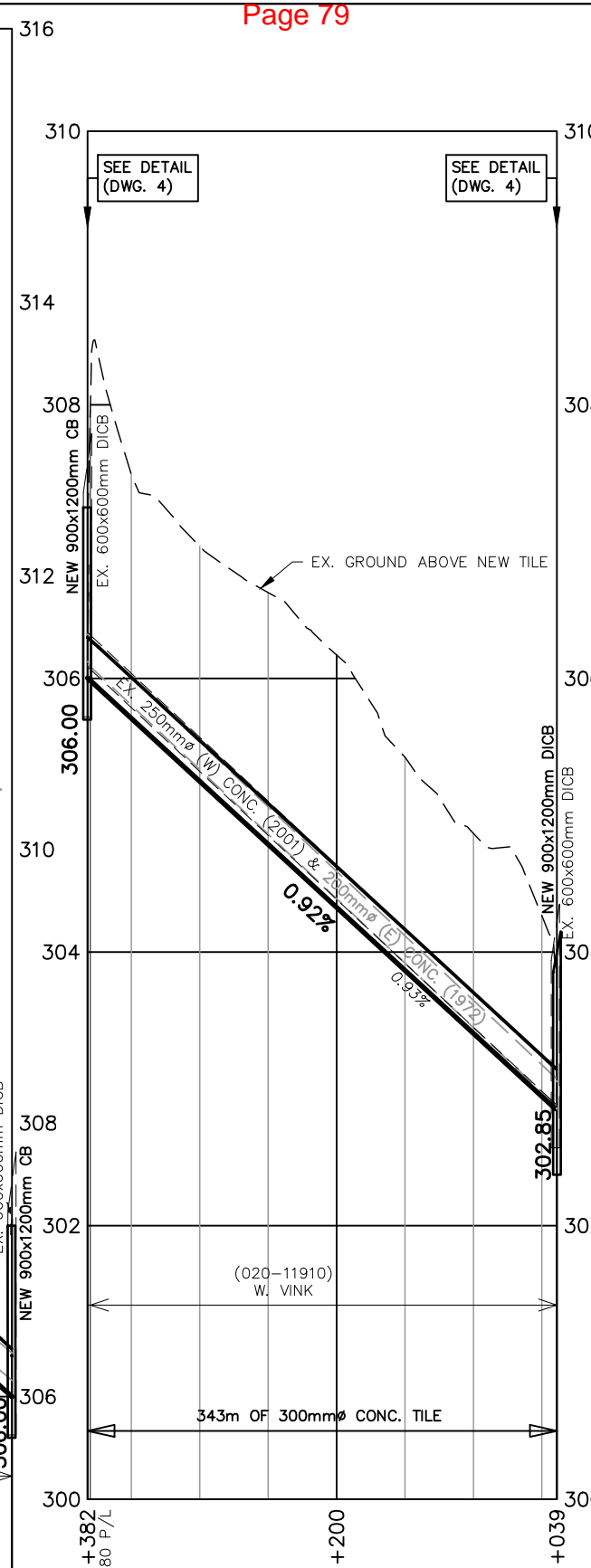


SCALE AS SHOWN (ON 11" x 17")

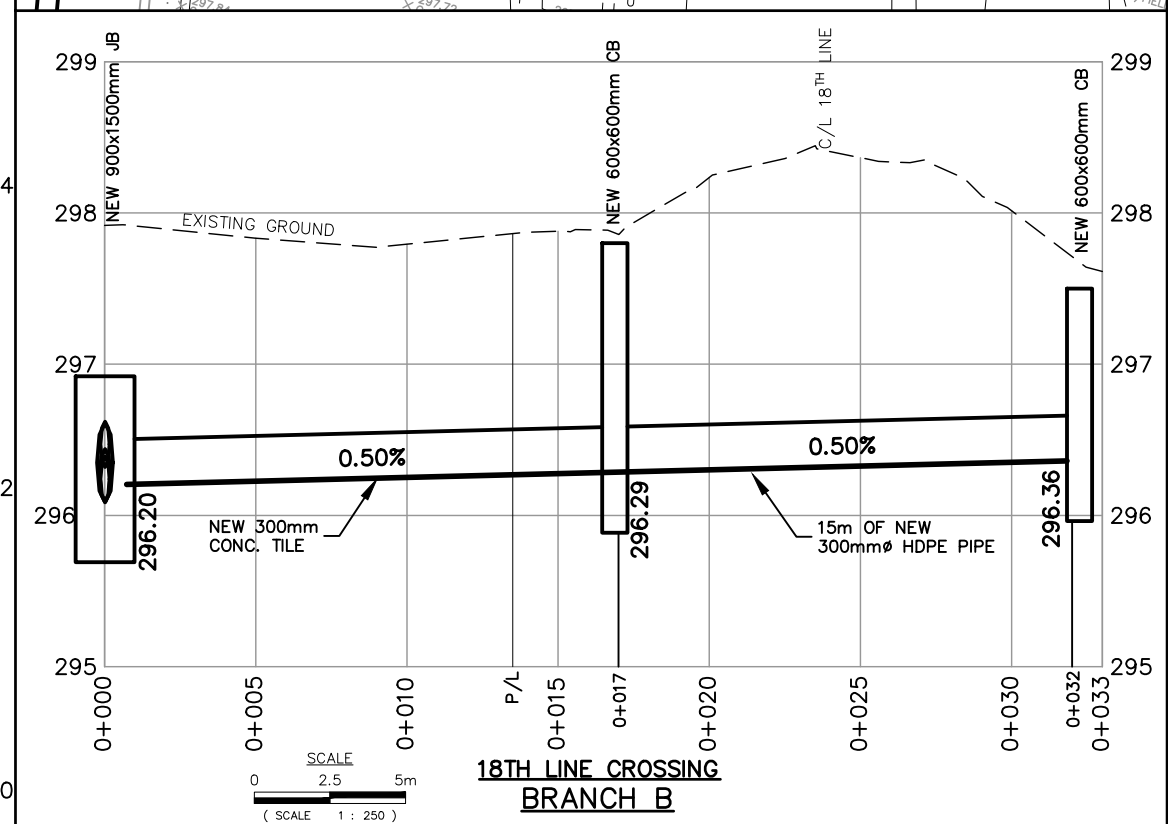
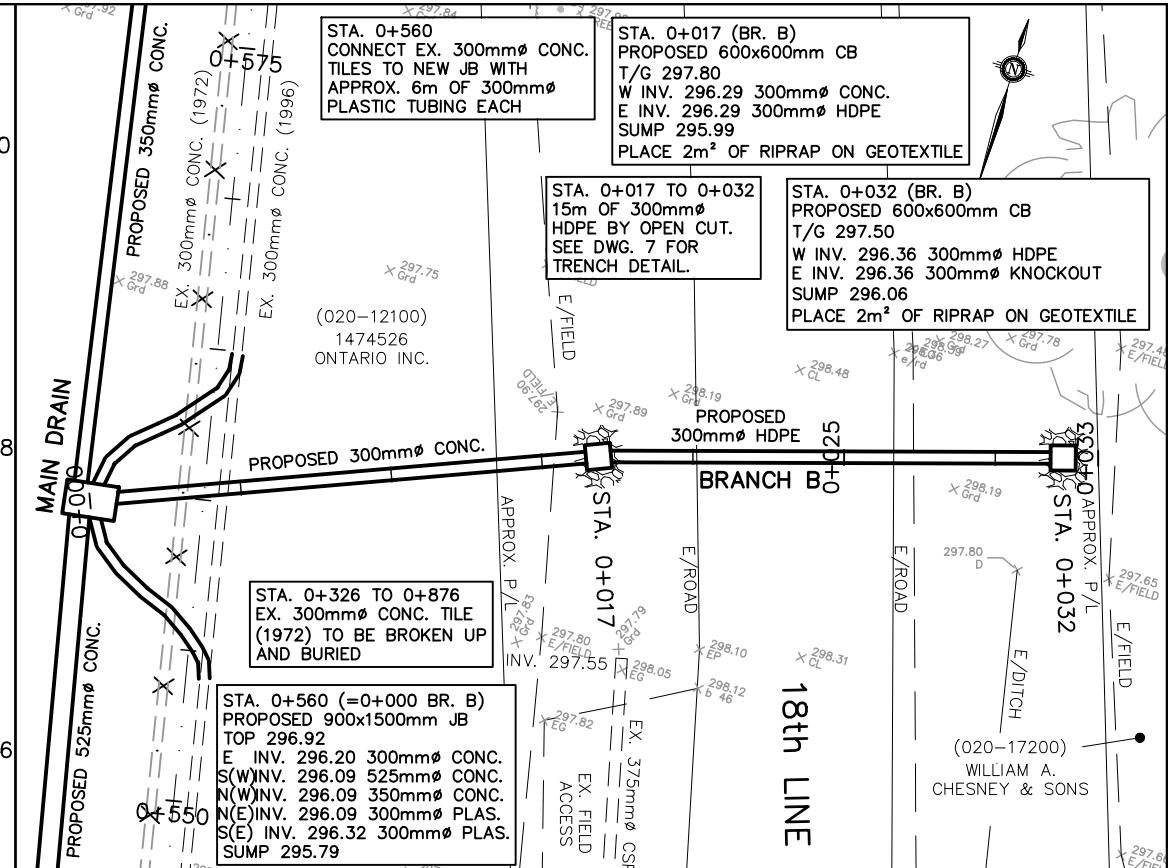
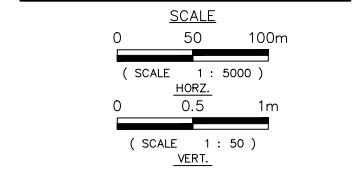
McLEAN DRAIN 2023	
COUNTY OF OXFORD TOWNSHIP OF EAST ZORRA-TAVISTOCK	
PROFILE: MAIN DRAIN (1)	APR. 28, 2023
K. SMART ASSOCIATES LIMITED CONSULTING ENGINEERS AND PLANNERS KITCHENER SUDBURY	REVISED:
	JOB NUMBER: 20-068
DRAWING 2 OF 7	



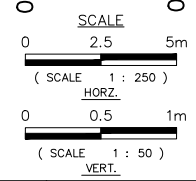
MAIN DRAIN - CONT'D



MAIN DRAIN - CONT'D




18TH LINE CROSSING BRANCH B

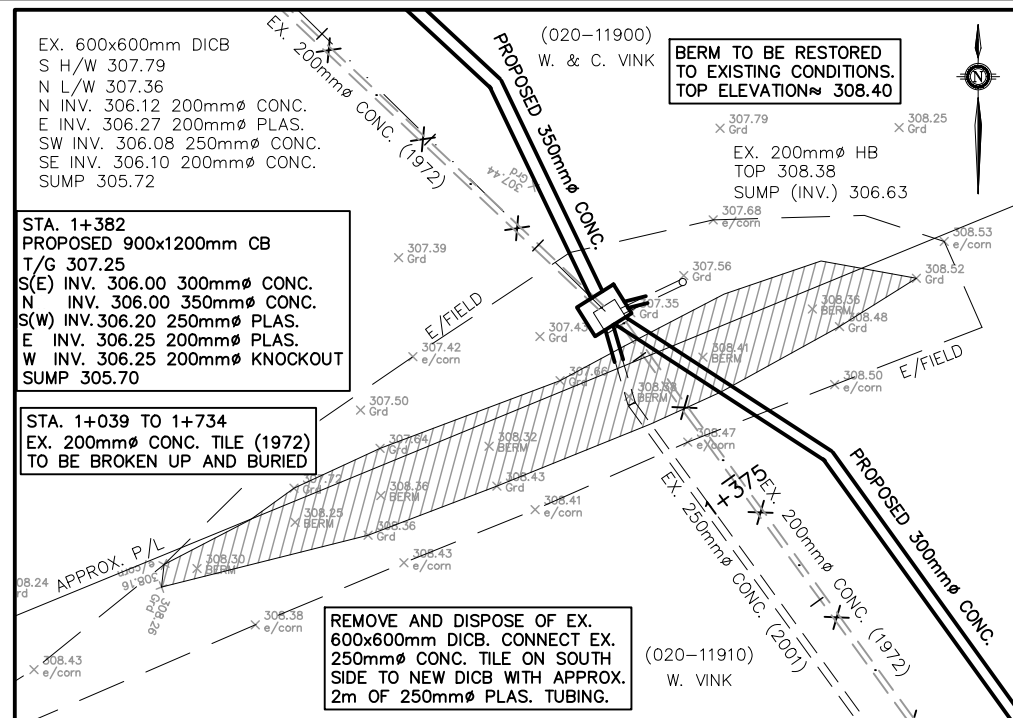


DESIGNED BY: C.J.M.
 CHECKED BY: J.E.M.
 DRAWN BY: C.J.M.
 CHECKED BY: A.M.P.

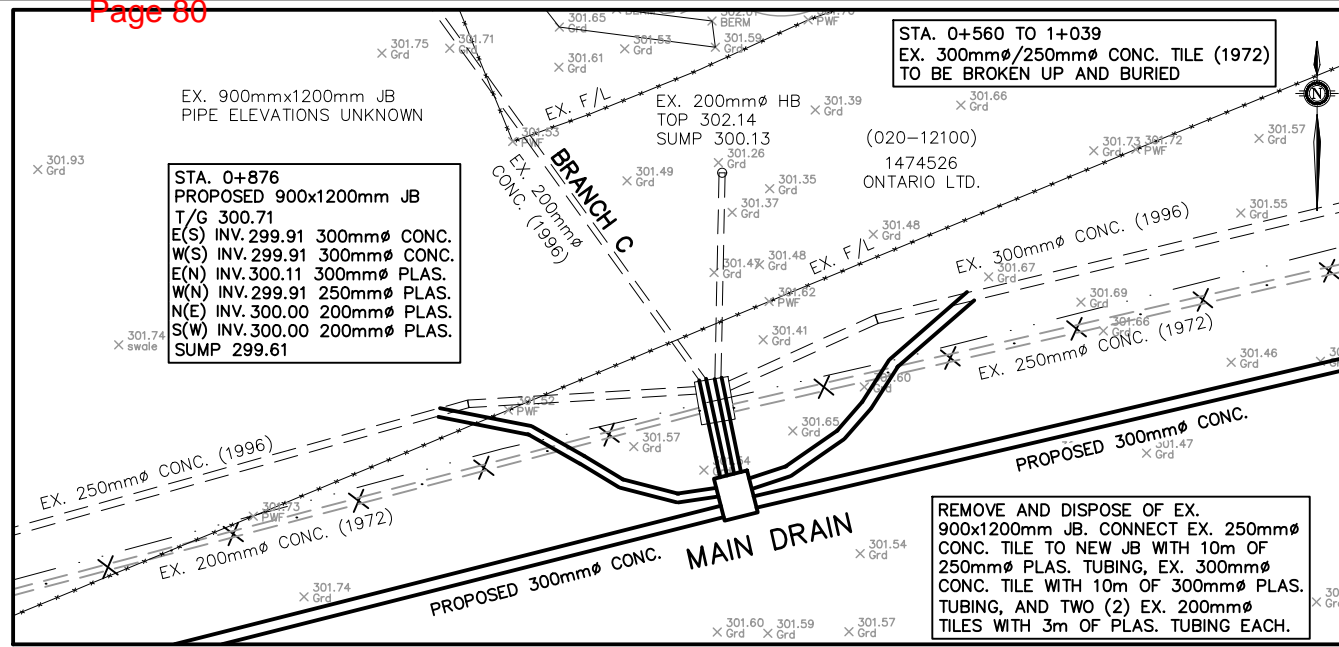


SCALE AS SHOWN (ON 11"x17")

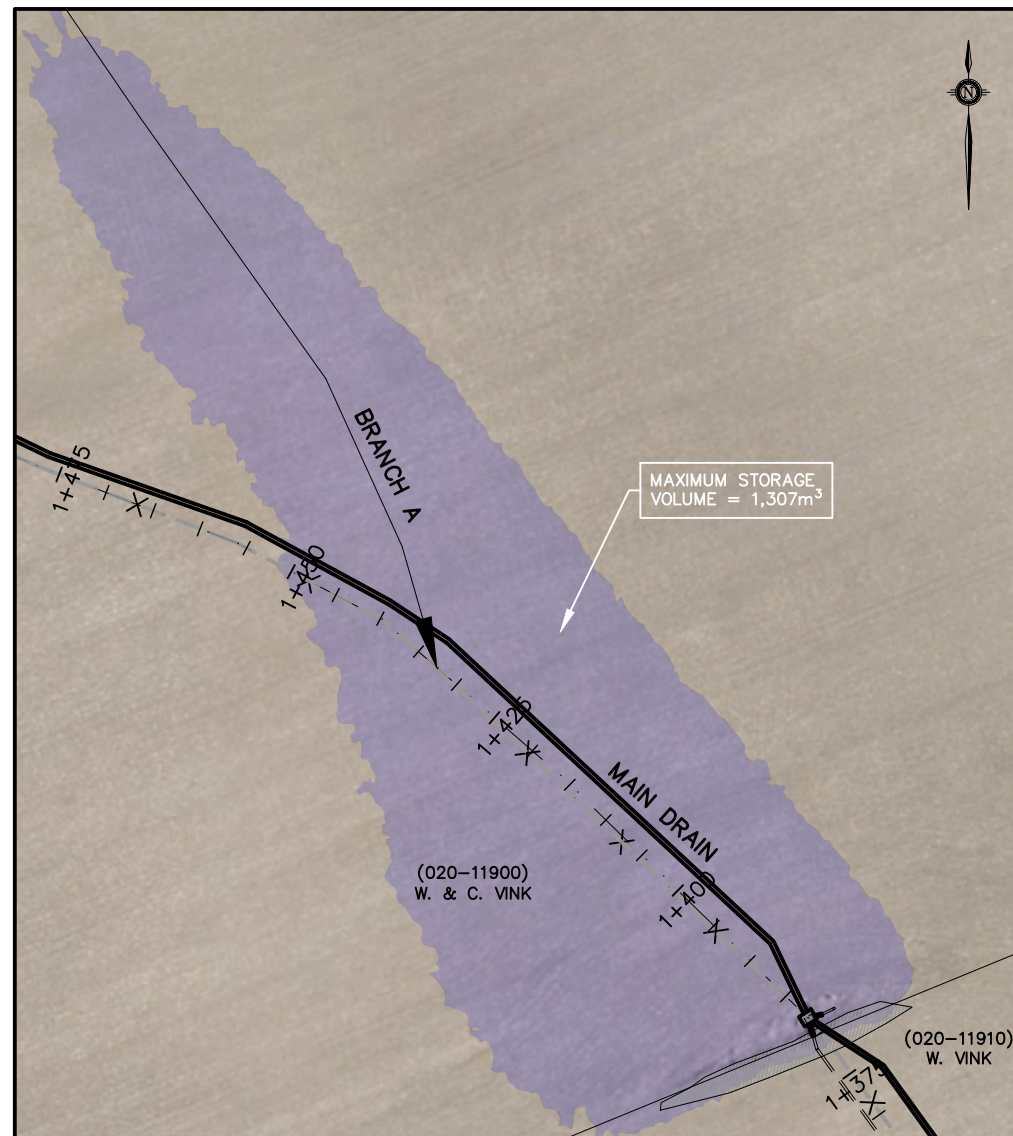
McLEAN DRAIN 2023	
COUNTY OF OXFORD TOWNSHIP OF EAST ZORRA-TAVISTOCK	
PROFILE: MAIN DRAIN (2) & BRANCH B	APR. 28, 2023
 K. SMART ASSOCIATES LIMITED CONSULTING ENGINEERS AND PLANNERS KITCHENER SUDBURY	REVISED:
	JOB NUMBER: 20-068
DRAWING 3 OF 7	



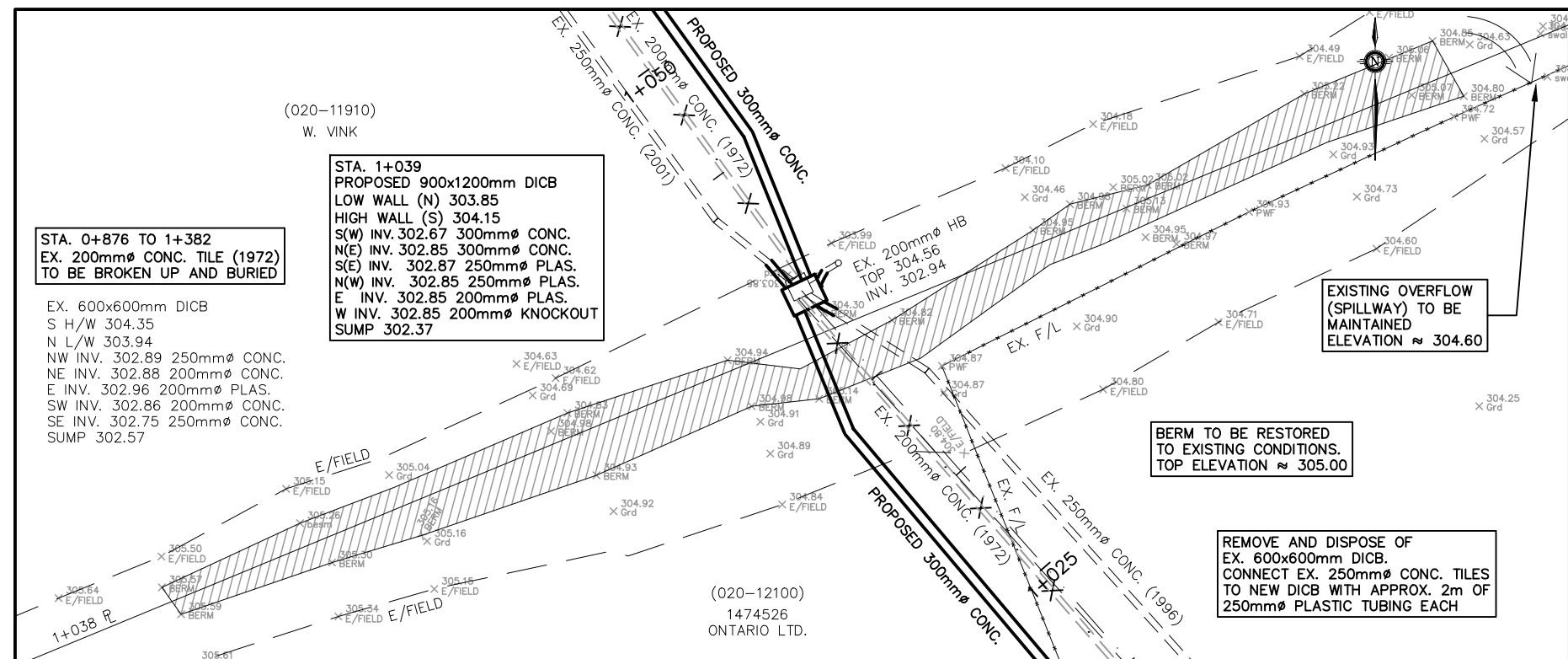
STA. 1+382: DETAIL



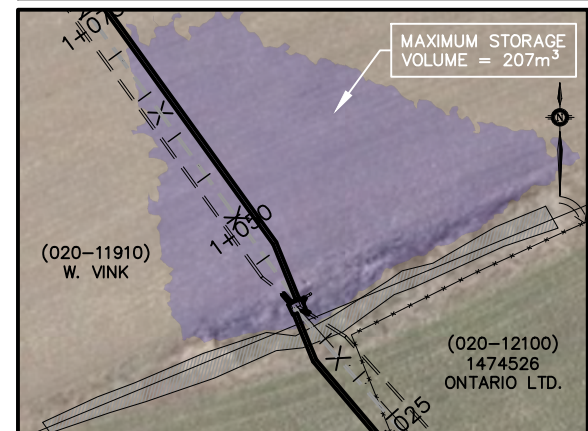
STA. 0+876: DETAIL



STA. 1+382: INUNDATION IMPACT AREA



STA. 1+039: DETAIL



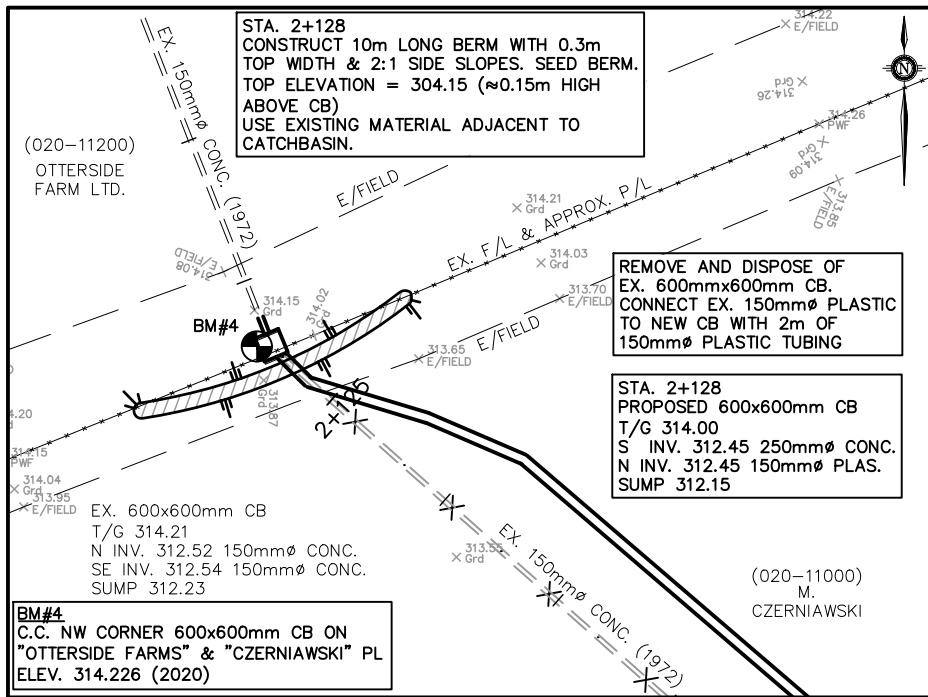
STA. 1+039: INUNDATION IMPACT AREA

DESIGNED BY: C.J.M.
CHECKED BY: J.E.M.
DRAWN BY: C.J.M.
CHECKED BY: A.M.P.



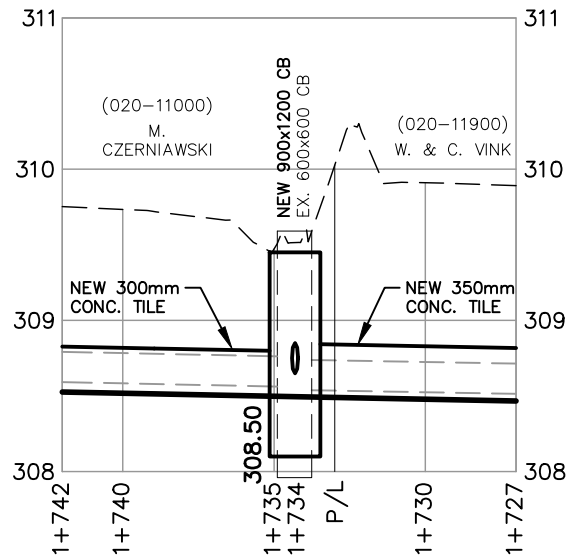
SCALE (ON 11"x17")
0 2.5 5m
(SCALE 1:250)
DETAILS
0 7.5 15m
(SCALE 1:750)
INUNDATION IMPACT AREAS

McLEAN DRAIN 2023	
COUNTY OF OXFORD	TOWNSHIP OF EAST ZORRA-TAVISTOCK
DETAILS (1)	APR. 28, 2023
K. SMART ASSOCIATES LIMITED CONSULTING ENGINEERS AND PLANNERS KITCHENER SUDBURY	REVISED: JOB NUMBER: 20-068 DRAWING 4 OF 7



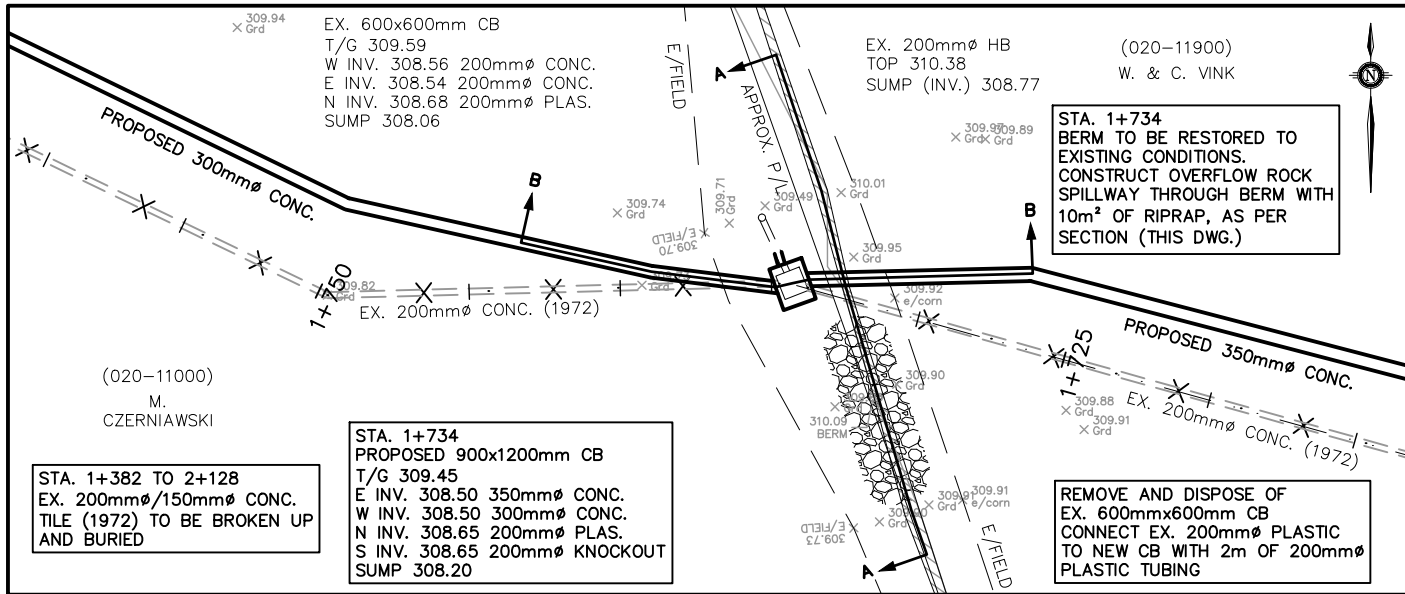
STA. 2+128: DETAIL

SCALE 1:250



STA. 1+734: SECTION B: B

SCALE
(VERT. 1 : 50)
(HORIZ. 1 : 250)



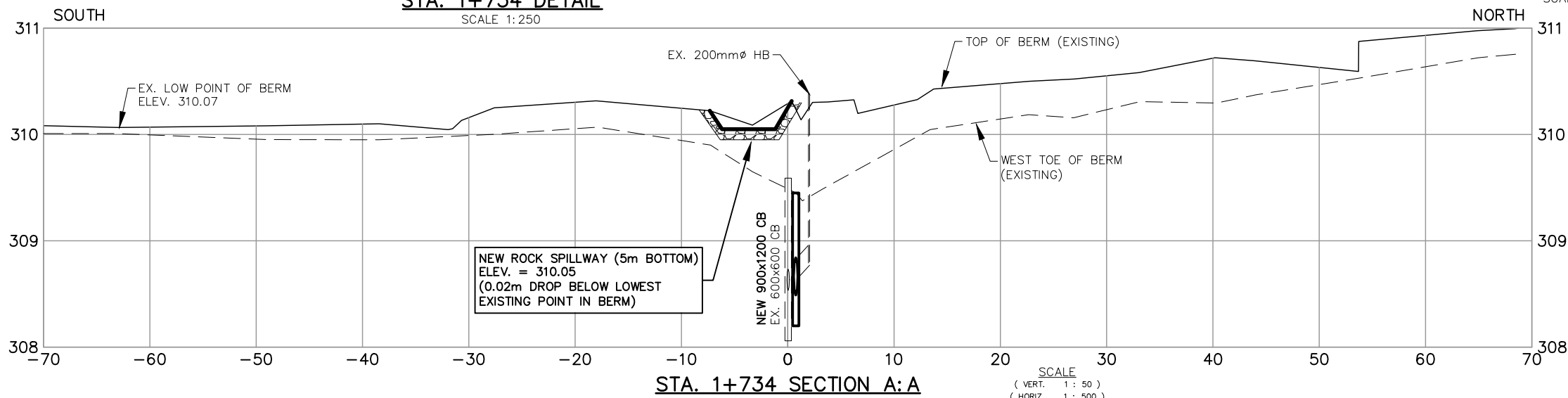
STA. 1+734 DETAIL

SCALE 1:250



STA. 1+734: INUNDATION IMPACT AREA

SCALE 1:750



STA. 1+734 SECTION A: A

SCALE
(VERT. 1 : 50)
(HORIZ. 1 : 500)

DESIGNED BY: C.J.M.		SCALE AS SHOWN (ON 11"x17")
CHECKED BY: J.E.M.		
DRAWN BY: C.J.M.		
CHECKED BY: A.M.P.		
McLEAN DRAIN 2023		
COUNTY OF OXFORD TOWNSHIP OF EAST ZORRA-TAVISTOCK		
DETAILS (2)		APR. 28, 2023
	REVISED:	
	JOB NUMBER: 20-068	
DRAWING		5 OF 7

300) CONSTRUCTION NOTES (SPECIAL PROVISIONS)**300.1) CONSTRUCTION SPECIFICATIONS - SPECIFIC NOTES****j) MAIN DRAIN****K. & E. Leeson (Roll No. 020-17400)**

- 0+000 - Construct straw bale dam/sediment trap prior to any brushing or construction work upstream.
- Straw bale dam/sediment trap to be cleaned out at the end of construction and removed.
- 0+000 to 0+203 - 203m of power brushing of 6m wide path along existing ditch (See S.S. 400.27). Logs to be piled neatly along outside edge of cleared right-of-way. Brushing to be on north side of existing ditch to limit debris directed toward Oxford Road 29.
- 203m of ditch excavation (1.0m bottom, 2:1 side slopes). Spoil to be spread on north bank.

P. & P. Menary (Roll No. 020-17300)

- 0+203 to 0+311 - No work. Existing open ditch to be incorporated as a part of McLean Drain 2023 (1.0m bottom, 2:1 side slopes).

Township of East Zorra-Tavistock (18th Line Main Drain Crossing)

- 0+311 - Place 5m² of riprap on geotextile at drain/culvert outlets.

- 0+311 to 0+326 - Remove and disposal of existing 600mm (24") dia. CSP under 18th Line.
- Install 15m of 750mm (30") dia. solid plastic pipe (HDPE) with rodent grate at outlet across 18th Line by open cut including full granular backfill and road restoration (see Drawing 2 & detail on Drawing 7).
- Bedding & Backfill for this crossing:
- Bedding to be 150mm granular A, shaped for pipe.
 - Pipe and excavation to be fully backfilled with granular B, compacted under haunches.
- Reconstruction of road for this crossing:
- 150mm of granular A at road surface.
 - 50mm thickness of HL8 base coarse, 40mm thickness of HL3 surface course.
- Existing 800mm (32") dia. CSP under 18th Line to be protected during construction and remain in place.

- 0+326 - Construct 900 x 1500mm concrete DICB, including connections and birdcage grate. Also includes Remove and disposal of existing 900 x 1200mm DICB (see detail on Drawing 2).
- Place 5m² of riprap on geotextile around proposed DICB.

J. & K. Blaak (Roll No. 020-12300)

- 0+326 to 0+383 - Install 57m of 525mm (21") dia. concrete tile with joint wrap. Includes breaking up and burying existing 300mm dia. concrete tile (1972).
- Use 45° 525mm dia. HDPE bend to turn concrete tile after DICB at Sta. 0+326 (see detail on Drawing 2).

1474526 Ontario Ltd. (Roll No. 020-12100)

- 0+383 to 0+560 - Install 177m of 525mm (21") dia. concrete tile with joint wrap. Includes breaking up and burying existing 300mm dia. concrete tile (1972).

- 0+560 - Construct 900 x 1500mm concrete JB, including connections and concrete top (see detail on Drawing 3).

- 0+560 to 0+750 - Install 190m of 350mm (14") dia. concrete tile with joint wrap. Includes breaking up and burying existing 300mm / 250mm dia. concrete tile (1972).

- 0+750 to 0+876 - Install 126m of 300mm (12") dia. concrete tile with joint wrap. Includes breaking up and burying existing 250mm dia. concrete tile (1972).

- 0+876 - Construct 900 x 1200mm concrete JB, including connections and concrete top. Also includes removal and disposal of existing 900 x 1200mm JB (see detail on Drawing 4).

- 0+876 to 1+039 - Install 163m of 300mm (12") dia. concrete tile with joint wrap. Includes breaking up and burying existing 250mm dia. concrete tile (1972).

- 1+039 - Construct 900 x 1200mm concrete DICB, including connections and birdcage grate. Also includes removal and disposal of existing 600 x 600mm DICB (see detail on Drawing 4).
- Berm to be restored to existing conditions. Seed berm.

W. Vink (Roll No. 020-11910)

- 1+039 to 1+382 - Install 343m of 300mm (12") dia. concrete tile with joint wrap. Includes breaking up and burying existing 200mm dia. concrete tile (1972).

- 1+382 - Construct 900 x 1200mm concrete CB, including connections and birdcage grate. Also includes removal and disposal of existing 600 x 600mm DICB (see detail on Drawing 4).
- Berm to be restored to existing conditions. Seed berm.

W. & C. Vink (Roll No. 020-11900)

- 1+382 to 1+734 - Install 352m of 350mm (14") dia. concrete tile with joint wrap. Includes breaking up and burying existing 200mm dia. concrete tile (1972).

- 1+433 - Connect existing 150mm dia. concrete tile (Branch A) to proposed 350mm (14") dia. concrete tile by field cut or coring. Connection to be wrapped with geotextile and paid as per "tile connections" in tender.

M. Czerniawski (Roll No. 020-11000)

- 1+734 - Construct 900 x 1200mm concrete CB, including connections and birdcage grate. Also includes removal and disposal of existing 600 x 600mm CB (see detail on Drawing 5).
- Berm to be restored to existing conditions. Overflow rock spillway to be notched into existing berm with 10m² of riprap as per sections on Drawing 5. Seed berm.

- 1+734 to 1+911 - Install 177m of 300mm (14") dia. concrete tile with joint wrap. Includes breaking up and burying existing 200mm dia. concrete tile (1972).

- 1+911 to 2+128 - Install 217m of 250mm (10") dia. concrete tile with joint wrap. Includes breaking up and burying existing 150mm dia. concrete tile (1972).

Otterside Farm Ltd. (Roll No. 020-11200)

- 2+128 - Construct 600 x 600mm CB including birdcage grate and connections. Also includes removal and disposal of existing 600 x 600mm CB (see detail on Drawing 5).
- Construct 10m of new berm as per detail (0.3m top width, 2:1 side slopes) (see Drawing 5). Seed berm.

iv) BRANCH B**1474526 Ontario Ltd. (Roll No. 020-12100)**

- 0+000 to 0+017 - Install 17m of 300mm (12") dia. concrete tile with joint wrap. Includes breaking up and burying existing 150mm dia. concrete tile (if found in this proposed Branch B location).

Township of East Zorra-Tavistock (18th Line Branch C Crossing)

- 0+017 - Construct 600 x 600mm concrete CB, including connections and birdcage grate (see Drawing 9).

- 0+017 to 0+032 - Remove and disposal of existing 200mm (8") dia. CSP under 18th Line (if found in this proposed Branch B crossing location). The Township may alternatively require the existing pipe to be grouted if found to cross at a different location.
- Install 15m of 300mm (12") dia. solid plastic pipe (HDPE) across 18th Line by open cut including full granular backfill and road restoration (see Drawing 3 & detail on Drawing 7).
- Bedding & Backfill for this crossing:
- Bedding to be 150mm granular A, shaped for pipe.
 - Pipe and excavation to be fully backfilled with granular B, compacted under haunches.
- Reconstruction of road for this crossing:
- 150mm of granular A at road surface.
 - 50mm thickness of HL8 base coarse, 40mm thickness of HL3 surface course.

- 0+032 - Construct 600 x 600mm concrete CB, including connections and birdcage grate (see detail on Drawing 3).

300.2) CONSTRUCTION SPECIFICATIONS – GENERAL NOTES**1. Working Area for Construction**

For a closed drain the working area shall be a 12.5m width on either side of the trench or any combination not exceeding 25m.

For an open drain the working area shall be a 9m width.

2. Access

Access to the working area shall be from road allowances and as designated on the drawings and/or specific notes. No other access routes shall be used unless first approved by the Engineer and the affected landowner. Specifications related to construction will apply to the access routes. Contractor shall make good any damages caused by using the designated access routes.

3. Pre and Post Construction Meetings

The Contractor may be required to attend pre-and post-construction site meetings with the Engineer and landowners before starting and after finishing the work if requested.

4. Pre-locates

Cross trenches to be dug along entire length of Main Drain route at 100 to 200m intervals (minimum) prior to commencing construction so that true alignment of new

McLEAN DRAIN 2023

County of Oxford
File No. 20-068

Township of East Zorra-Tavistock
April 28, 2023
Drawing 6 of 7

drain may be established alongside existing drain without cutting off private lateral tiles. The frequency of pre-locating will depend on the alignment of the existing drains. More pre-locates will be necessary in a meandering route than in a route that is consistently straight.

5. Tile Drain Work

Refer to Specific Notes and 420 – Standard Specifications for Tile Drains.

TYPICAL NOTES FOR EACH NEW TILE LENGTH

1. Maintain all existing headers. Locate as part of "4. Pre-locates"
2. Ensure any connections to the old drain are connected/outletted to the new drain. All intercepted lateral tile are to be flagged so the Engineer can GPS.
3. On straight runs, ensure tile joints are parallel (maximum 12mm (1/2") gap), and tile wrap is flat, covers joint evenly and has overlap.
4. On curved runs, ensure tile joints are touching on one side with maximum gap of 12mm (1/2") on opposite side. Bevel cut tile or use elbow sections where curves are greater. Tile wrap to be flat, cover joints evenly and have overlap.

6. Concrete Tile Installation

New tile to be installed by tiling (wheel) machine with joints tightly wrapped and topsoils to be separately stripped and replaced to width of machine plus width of spoil pile. For further materials information, refer to Standard Specification for Construction of Drains, Section 400.15.1. For information regarding installation procedure of concrete tile, refer to Standard Specification for Tile Drains, Section 420.3.5.1.

If backhoe methods are approved by engineer, the following shall be attended to: additional topsoils may need to be stripped and replaced, a shaped bottom to be provided and careful tamping around the tile is necessary. Final excavation to grade to be by hand and a shaped bottom to be provided. The Engineer may require a thin lift of stone bedding also as part of usage of backhoe if the native ground/shaped bottom is not satisfactory for long term integrity of the tile.

7. Solid Plastic Pipe or High Density Polyethylene Pipe (HDPE)

Solid plastic pipe to be high density polyethylene (HDPE) double wall (corrugated on the outside and smooth wall on the inside), such as BOSS 2000 Series 320 kPa or equal. Pipe material shall conform to CSA B182.8. Refer to Standard Specification for Tile Drains, Section 420.3.5.3 for installation on plastic pipe.

8. Tile Connections

The Contractor is to verify with each owner prior to starting, any systematic drainage scheme existing on each property and is to make provisions for connecting all headers and laterals.

All subsurface drainage tile encountered along the route of the proposed closed drain are to be connected up to the new drain if the intercepted tile are clean and do not contain polluted water.

All tile connections are to be flagged by the Contractor so the Engineer can GPS the location for future reference. The payment for connections is to be as set out in the tender form.

Refer to Standard Specification of Tile Drains, Section 420.3.7 for further information on tile connections.

9. Catchbasins and Junction Boxes

Catchbasins shall have secured grates and marker stakes. Grates are to be birdcage grates as manufactured by Coldstream Concrete or approved equal, unless otherwise specified in the Specific Notes. All grates are to be secured with non-corrosive fasteners. Marker stakes as supplied by Coldstream Concrete or equal are to be placed beside each catchbasin. Backfill around all new catchbasins and junction boxes is recommended to be compacted 19mm clear crushed stone to avoid future settlements

and Contractor obligations to repair such and to ensure connected tile has granular backfill. All catchbasin sumps to be fully cleaned by the Contractor after completion of drain installation and backfilling.

Refer to Standard Specification for Tile Drains, Section 420.3.13 and 420.3.14 for more details.

10. Utilities

The Contractor shall arrange with all local utility companies (telephone, gas, hydro) to verify the location of all utilities within road allowances and on private lands. All utilities shall be exposed to the satisfaction of the utility company to verify that their elevations will not conflict with the construction of the drain at the specified elevations. Provisions for protection and relocation of utilities that conflict with the drain as designed will be determined at the time of construction.

11. Seeding of Non-Lawn Areas

For seeding use mechanical (cyclone) spreader (or approved equal) and the following shall apply:

Seed mixture to be applied at 60kg/ha and to be as follows:

- i) Ditch banks and roadside ditches
 - 35% Creeping Red Fescue
 - 25% Birdsfoot Trefoil
 - 25% Kentucky Bluegrass
 - 10% Cover Crop (Oats, Rye, Barley, Wheat)
 - 5% White Clover

To provide temporary cover for late fall planting add as additional 10 kg/ha of rye or winter wheat. Areas that remain grassed after excavation may not need to be seeded as directed by the Engineer. Contractor responsible for additional seeding to provide uniform catch during one year maintenance period.

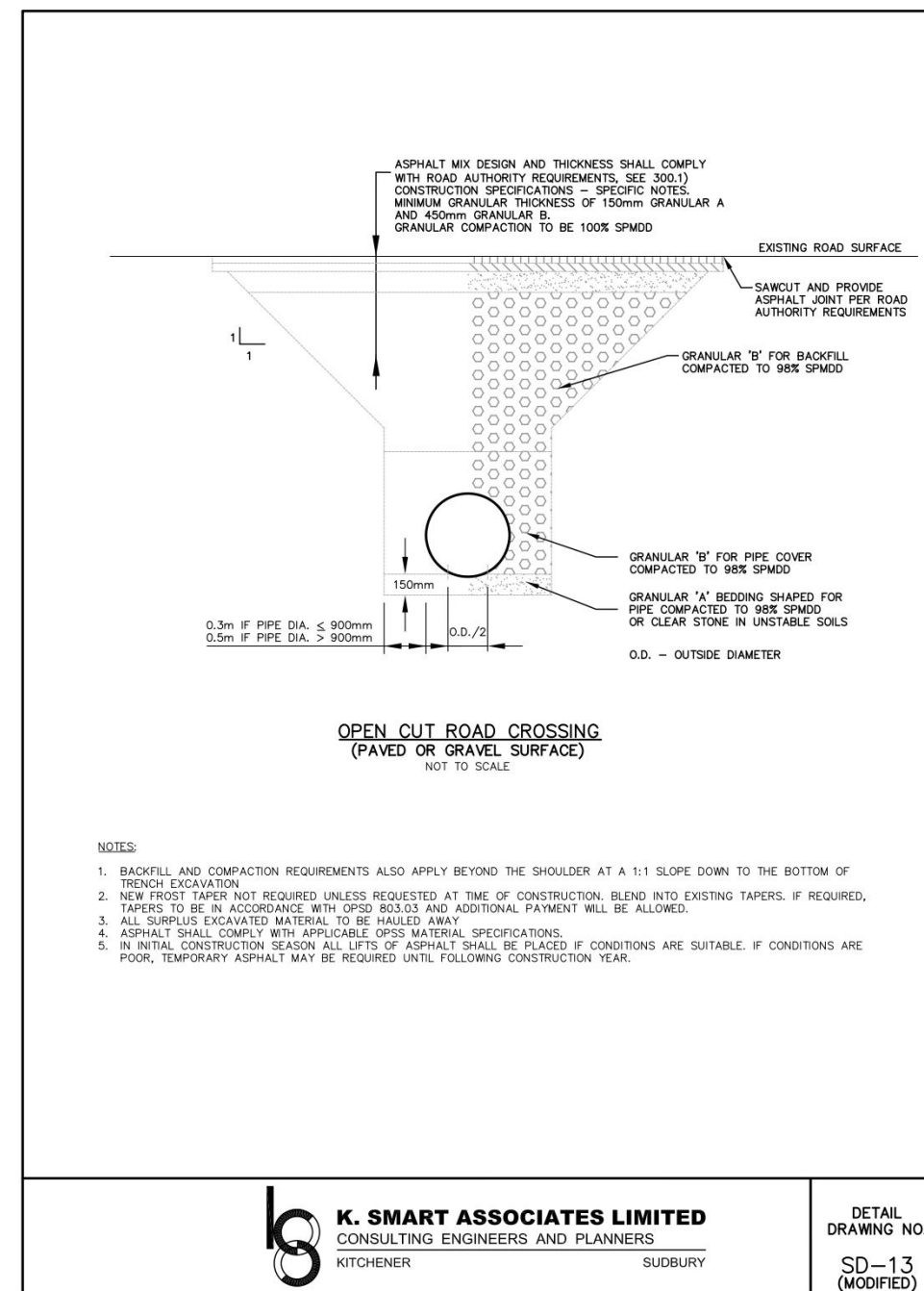
12. Open Cut Road Crossings (Township Roads)

The Road Authority is to be given 72 hours' notice of construction within their right-of-way. Proper detour signing in accordance with MTO signing manual to be used where roads are closed or restricted. Contractor is responsible to repair any settlement which occurs within warranty period. The location of the road crossing shall be confirmed with the Engineer and Road Authority prior to excavation. The Trench Detail on this drawing and the special construction notes shall also apply. If the Road Authority requires granular rather than native material backfill where native is allowed on the Trench Detail, additional payment will be allowed. Where granular is shown to be required, such is to be included as part of the tender. All surplus materials are to be hauled away. In the boulevards, topsoils shall be separately stripped and replaced. Seeding is required. All backfill to be compacted to 98% SPMDD. Pipe materials are to be as noted in the specific construction notes. All old crossings are to be located, removed and disposed of. If so noted, some may remain but are to be fully sealed with pumped concrete as part of the tender.

13. Subsoil Instability

If poor subsoil conditions are encountered during tile installation by wheel trencher an attempt shall be made to install the tile with a continuous geotextile underlay in the trench bottom. The cost of the underlay, if approved by the engineer, will be paid as an extra.

If the continuous geotextile underlay is not sufficient then the tile will be installed by backhoe or excavator on a bedding of 19mm clear crushed stone (300mm depth to achieve trench bottom stability for the new tile. If approved, the above work will be paid based on the unit price provided on the Form of Tender. The unit price shall include the cost to supply and place the stone. If more than 300mm depth of stone is required for bottom stability, additional payment will be allowed for the additional depth of stone. The additional quantity of stone shall be supported by weight tickets and the suppliers invoice.



 <p>K. SMART ASSOCIATES LIMITED CONSULTING ENGINEERS AND PLANNERS KITCHENER SUDBURY</p>	DETAIL DRAWING NO.
	SD-13 (MODIFIED)

#6.a

Placeholder page for Agenda Item 6.a –
Conferences & Seminars

#6.b

Placeholder page for Agenda Item 6.b - County Council – Update & Questions

#6.c

Placeholder page for Agenda Item 6.c –
Staff Reports and Questions for Staff

East Zorra-Tavistock Recreation Advisory Committee Meeting of May 10, 2023

The East Zorra-Tavistock Recreation Advisory Committee met at the Tavistock Arena (Upper Hall) on Wednesday May 10, 2023, at 7:00 p.m.

Members Present: Neil Butler, Matthew Gillespie, Erica Hawkins, Meagan Lichti, Holly Powell, Scott Rudy (chair), Kyle Smith, Steven Van Wyk.

Members Absent: Kristen Cook.

Township Staff Present: Jennifer Albrecht, Karen DePrest, Will Jaques, Matt Lamers, Tom Lightfoot, Amy Pfaff.

1. Chairperson Scott Rudy called the meeting to order.
2. Approval of Agenda:
 - Moved by: Kyle Smith
Seconded by: Matthew Gillespie
Resolved that the Committee approves the agenda for the May 10, 2023 meeting, and further that the following be added to the agenda for this meeting:
 - i. Jessica Harvey – Queen’s Park Booth
 - ii. Jennifer Albrecht – R-Zone Policy

CARRIED.

3. Disclosure of Pecuniary Interest:
 - None.
4. Confirm Minutes of Previous Meeting:
 - Moved by: Meagan Lichti
Seconded by: Erica Hawkins
Resolved that the Committee confirm the minutes of the March 22, 2023 meeting, as printed and circulated. ***CARRIED.***
5. Delegations & Correspondence:
 - None.

6. General Business:

- Matthew Gillespie:
 - i. Disc Golf: requires long, open spaces. Possible location suggestions are the Arboretum south of Innerkip, and Innerkip Park. Suggestions also made that it could be located adjacent to a walking trail, and starting small scale. This item is to be carried over to a future meeting for discussion.

- Erica Hawkins:
 - i. Pickleball in Innerkip: Concept would be an all ages pickleball drop-in community program. Possible locations suggested include the Lions Pavilion, the existing basketball court, or inside Innerkip Community Centre. Trial run to see interest. Would need a community “champion” to organize the event.

- Steven Van Wyk:
 - i. Queen’s Park Pavilion: Line painting for pickleball and other sports. Could try taping lines on the floor first in order to determine if there is community interest prior to painting lines. Also discussed was the possibility of laying an acrylic playing surface – prices on this surface application would be required in order to determine feasibility.

 - ii. Public roller skating at Arena during the summer months: Suggested that the arena floor to be used. Look into a company that offers roller skating and skate rentals, as well as what the cost of renting the arena by a company/group could be. A trial run could be implemented to see what level of community interest is present.

 - iii. Paving of trail(s) within Queen’s Parks: Suggested paving the trails for accessibility purposes. The Committee was advised that it would be necessary to dig out and build up the base of the trail, prior to paving.

 - iv. Swimming Program & Day Camp opportunities: Possible swimming locations could include the Lions Pool or YMCA/YWCA, both in Woodstock. Transportation to and from swimming lessons could also be investigated. For Day Camp opportunities, suggestion of camps being location in each village (Hickson, Innerkip and Tavistock). Also, discussion was had regarding having a private professional company coming in to run the camps.

- v. Inventory of existing/ possible future green spaces in the Township, as well as creating an inventory of Parks & Recreation Master Plan recommendations: CAO-Treasurer Karen DePrest has a spreadsheet with current recommended priority action items, along with their status. Discussion of having the inventory saved as PDF to share with Committee members. Community requests to date of disc golf, pickleball, roller skating, swimming program and summer camps could be added to the inventory.
- Meagan Lichti:
 - i. Review of Parks & Recreation Master Plan: The Plan will be reviewed as the Committee's work continues to progress.
- Jessica Harvey:
 - i. Suggestion of using the Queen's Pavilion kitchen as a concession booth during the baseball season.
- Jennifer Albrecht:
 - i. The Township is creating a respect and responsibility policy for Township facilities called "R-Zone". Other municipalities have implemented such a policy. The policy would define expectations around inappropriate behaviour, violence, and respect for public property, and would create an enforcement tool for municipal recreation staff (as well as other Township staff at other Township facilities).

7. Next Meeting Date/Time and Location:

- August 9, 2023, at 7:00 p.m., at the Innerkip Community Centre (Innerkip)

8. Adjourn:

- Moved by: Meagan Lichti
Seconded by: Kyle Smith
Resolved that the Committee does now adjourn at 8:30 p.m.

Chair

Secretary



EAST ZORRA - TAVISTOCK POLICE SERVICES BOARD

MINUTES of the Meeting held

May 17, 2023



The Police Services Board met at the Innerkip Community Centre at 1:15 p.m. on Wednesday May 17, 2023.

Present: Robert Rudy
Liam McCreery
Matthew Gillespie
Tony Hymers, Detachment Commander (Oxford OPP)
Will Jaques, Secretary

Regrets: N/A

Confirm Agenda Moved by: Liam McCreery
Seconded by: Matthew Gillespie
Resolved that the Board approves the agenda for the May 17, 2023 meeting, as printed and circulated.

CARRIED

Pecuniary Interest None declared.

Confirm Minutes Moved by: Liam McCreery
Seconded by: Matthew Gillespie
Resolved that the Board approves the minutes of the March 15, 2023 meeting, as printed and circulated.

CARRIED

Correspondence

- OAPSB Zone 4 - February 22, 2023 Meeting Minutes

Delegations &
Appointments

- None.

Reports

OPP Policing Reports

- March 2023 Police Reports
- April 2023 Police Reports
 - Oxford OPP Detachment Commander Tony Hymers presented the March and April, 2023, policing reports to the Board.
 - Tony Hymers advised that Oxford OPP personnel are available to present a 'fraud' related seminar to the community, especially targeted to the senior population.
- Verbal Reports from Meetings/Conferences/Seminars etc.
 - Robert Rudy commented on his attendance at the Oxford County OPP PSB Chairs meeting, held May 2, 2023.
 - Robert Rudy commented on his attendance at the OAPSB Zone 4 meeting, held May 3, 2023.
 - Robert Rudy advised that he will be attending the OAPSB Annual Conference, being held May 29-31, 2023.

Other Business

Adjourn

Moved by: Liam McCreery
Seconded by: Matthew Gillespie
Resolved that the Board does now adjourn at 1:52 p.m.

CARRIED

Will Jaques, Secretary

Robert Rudy, Chairperson

STAFF REPORT

Report #HRSC2023-03

To: His Worship the Mayor and Members of Council

From: Jennifer Albrecht, Human Resources and Safety Coordinator

Subject: RZone Policy Implementation

Date: May 31, 2023

Background:

The first RZone policy was created several years ago by the Town of Oakville to help promote respect and responsibility for residents and patrons of municipal facilities. In the years since, this type of policy has been instituted at many municipalities across the Province and after researching and speaking with nearby centres, staff felt that it could be beneficial to have such a policy for East Zorra-Tavistock.

Discussion:

The goal of this policy is to create a positive, safe, and supportive environment for all members of the public and staff. In addition, this procedure is intended to encourage respect, commitment and considerate relationships between the Township and members of the public.

A policy such as this is also in keeping with a recommendation of the Parks and Recreation Master Plan as an Affiliation policy, setting guidelines for the public for responsible and appropriate behaviour while using the municipal facilities.

The attached policy clearly outlines the expected roles of any member of the public that attends any of our municipal facilities, and the responsibilities of both staff and the public in the event that something does occur. Also clearly defined are the enforcement guidelines and consequential actions that can be taken, if necessary.

East Zorra-Tavistock does not have a history of public disturbances at our facilities and staff does not anticipate an influx of those type of behaviours. However, it would be considered a best practice to have a proactive strategy in place, such as the RZone Policy, should the need arise.

Part of this strategy would also include an educational campaign to advise the public of the RZone policy, what it includes and why it is beneficial, so that everyone can enjoy their time at **the Township's** facilities. This could be achieved by signage in the arena, parks, pavilions, ball diamonds and other facilities, as well as information disseminated through **the Township's** social media platforms.

Attachments:

1. **Appendix 'A'** – RZone Policy and Appendices

Recommendations:

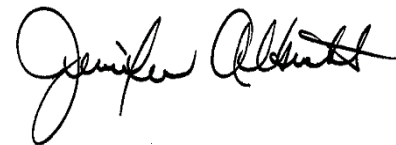
1. That Council adopt the RZone policy and appendices;
2. That Council instruct staff to prepare and post signage for all municipal facilities with regards to the RZone policy, and further that staff engage with the public through an education campaign on what the RZone policy represents and the benefits to all residents of the Township and those visiting the **Township's** facilities.

Reviewed by:



Karen DePrest
Chief Administrative Officer

Report Prepared and Submitted by:



Jennifer Albrecht
Human Resources and Safety Coordinator

Appendix 'A'



Township of East Zorra-Tavistock

Health and Safety Manual

Title: R Zone Policy	
Section: Health and Safety Policies	Number: 50.18
Version: 1.0	Review Frequency: As required
Approved by: Council	Approval Date: 2023-05-17
Application: For all members of the Public, Council, Township staff, Volunteers and Contractors.	
Notes:	

PURPOSE:

The Township of East Zorra-Tavistock (the Township) is committed to fostering an environment where there is Respect for yourself; Respect for others; and Responsibility for your actions.

The Township discourages any form of inappropriate behaviour at all Township facilities, properties, sponsored events, programs, in written or verbal communications (including email or phone), in Township vehicles, or at any other location where Township staff are present.

This procedure outlines the measures and enforcement steps to be taken in order to address inappropriate behaviour.

The goal of this procedure is to promote a positive, safe, and supportive environment for all members of the public and staff. In addition, this procedure will encourage respect, commitment and considerate relationships between the Township and members of the public.

SCOPE:

This procedure applies to all members of the public and staff at all Township facilities, properties, Township sponsored events, programs, in written or verbal communications (including email or phone), in Township vehicles, or at any other location where Township staff are present including but not limited to patrons, guests, spectators, fans, coaches, players, parents, volunteers and staff. It covers structured (i.e. permit issued) and unstructured (i.e. no permit issued) activities.

Staff are not expected to put themselves at risk or jeopardize anyone's safety when dealing with any real or perceived situation. If at anytime staff feels threatened, they are to call the Ontario Provincial Police for assistance.

Inappropriate behaviour or actions for the purpose of this procedure includes, but is not limited to, the following behaviours:

- a. Aggressive or intimidating approaches to another individual (verbal assault)
- b. Threats
- c. Attempts to goad or incite anger in others
- d. Throwing of articles in a deliberate or aggressive manner
- e. Physical striking of another individual
- f. Theft of property
- g. Possession of weapons
- h. Illegal consumption of alcohol or drugs
- i. Contravention of Municipal by-laws, policies, or procedures
- j. Vandalism: the deliberate destruction, damage or defacing of property owned or leased through the Municipality
- k. Harassment: "engaging in a course of vexatious comment or conduct that is known or ought reasonably to be known to be unwelcome" as defined by the Ontario Human Rights Code and covered by the Township's Respect in the Workplace Policy.

If the nature of an issue is known in advance to be contentious (at a meeting, event, or any other location where Township staff is present) staff is to alert the police. Depending on the nature of the issue, staff may request the attendance of the police.

This procedure is designed to provide members of the public and staff with a positive approach to promoting appropriate behaviour and actions. Township departments may use this procedure as a guiding principle.

PROCEDURE

Public Notification:

The Township will undertake a promotional and educational campaign aimed at raising awareness among parents, visitors, participants, volunteers, officials, spectators and patrons of the R zone operating procedures and, in particular, the importance of their role in creating a positive atmosphere;

The Township of East Zorra-Tavistock may ensure that the public is notified by signage that they are entering an R-Zone property, however it is assumed by the individual that any Township facility entered is under the R-Zone policy.

In addition, necessary and required ongoing training and education will be provided to staff and volunteers to support the implementation of this procedure.

Reporting an incident – where staff has witnessed an incident

When instances of inappropriate behaviour or actions occur, staff shall act in the following manner

1. Report acts of inappropriate behaviour to the most senior staff person present at the incident
2. Without jeopardizing anyone's safety, advise the identified individual(s) to stop the activity immediately or they will be asked to leave ("verbal warning")
3. If the individual(s) does not co-operate, inform the individual(s) that they are now trespassing and the police will be called
4. . If the individual(s) refuses to leave, do not engage in an argument or physical confrontation, call the police, and wait for them to arrive while ensuring that you and any others in jeopardy, are in a safe location
5. Prepare a RZone Incident Report (Appendix A) on all incidents addressed in this procedure

Reporting an incident – where staff has not witnessed an incident being reported

When instances of inappropriate behaviour or actions are reported to staff, staff shall act in the following manner:

1. Report any act(s) of inappropriate behaviour to the most senior staff person of the appropriate department within 24 hours of the incident being reported
2. Prepare a RZone Incident Report (Appendix A) on all incidents addressed in this procedure

Members of the public are to report acts of inappropriate behaviour to a Township staff member within 24 hours of the incident.

The Township's primary concern is the safety of members of the public and staff. If at any time members of the public or staff feel personally threatened, they are to call the police immediately. It is NOT the expectation that members of the public or staff put themselves at risk or jeopardize anyone's safety when dealing with any perceived or real situation.

Ontario Provincial Police
Emergency Contact: 911
Non-Emergency Contact: 1-888-310-1122

Reporting an incident – where staff is receiving inappropriate written or verbal communication

When instances of inappropriate behaviour or actions occur, staff shall act in the following manner:

1. Report acts of inappropriate behaviour to the most senior staff person of the appropriate department within 24 hours of inappropriate written or verbal communication
2. Advise the individual to stop the inappropriate activity immediately or you will end the communication
3. If the individual does not co-operate, inform the individual that you are ending the communication, and do not reply to any further attempts made by the individual to contact you
4. Prepare a RZone Incident Report (Appendix A) on all incidents addressed in this procedure

Reporting Process

1. Staff shall fill out a RZone Incident Report (Appendix A) and forward it to the appropriate Manager within 24 hours of the incident.
2. The appropriate Manager should forward the Report to the CAO within 48 hours of the incident
3. The CAO or designate should provide Notice to the identified individual of Action to be Taken, within 14 days of the incident
4. Appropriate staff will be notified of any individual(s) who has been subject to remedial action under this procedure as well as the action taken
5. The original RZone Incident Report shall be kept in the Human Resources office.

Consequences of Non-Compliance

1. Individuals who engage in any inappropriate behaviour, as defined in this procedure, may, depending on the severity, be removed immediately from the premises. A letter of warning may be sent to an individual advising them of appropriate behaviour (Appendix C). If necessary, an individual may be banned from Township premises for a period of time. Length of the ban will be determined by the appropriate Manager and will depend on the severity of the situation (Appendix D). Enforcement guidelines are referenced in Appendix B
2. In addition to any other measures taken, where any damage to Township Property has occurred, the individual(s) responsible will be required to reimburse the Municipality for all costs associated with any repairs, an administration fee, as well as any lost revenues or where appropriate, be required to repair the damage.

Notice

Where there has been a violation of this procedure, a letter may be issued to the identified individual providing details of the specific behaviour that is not tolerated and any Action To Be Taken.

Action To Be Taken – depending on the severity of the incident:

- (a) A “Letter of Warning” (Appendix C) may be issued to the identified individual for any behaviour that is in violation of this procedure.
- (b) For incidents where behaviour is grossly inappropriate, or threatening to another member of the public or staff or for repeated incidents, a “Letter of Trespass (Appendix D) may be issued to the identified individual indicating that further participation is no longer welcome. A temporary or permanent ban is to be determined by the appropriate Manager.

Appeal Process

1. If an individual wishes to appeal any action taken by the Township, the individual may present their case in writing to the CAO of the Township of East Zorra-Tavistock within 14 days of the decision.
2. The appeal will be reviewed by the CAO of the Township of East Zorra-Tavistock, and any decision made is final.

Responsibilities

1. Staff and participants are responsible for behaving and acting in a manner that respects the rights of others in order to promote an environment that can be enjoyed by all.
2. The Township shall work in partnership with the community to ensure everyone has the opportunity to enjoy a respectful and positive environment.
3. Training and education by departments will be provided to staff (e.g. RZone orientation) to support the procedure.
4. The Human Resources Department is responsible for monitoring violations of this procedure and following up with appropriate staff members as necessary.



Township of East Zorra-Tavistock
RZone / Incident Report Form



Respect and Responsibility

Individual Reporting Details:

Note - all parts of this form must be completed or report will not be received.

Name:	Department:
Position:	Date incident was reported:

Incident Information:

Date:	Time:
Location of incident:	
Incident information:	

Participant(s) Involved: If there are more participants involved, please attach extra pages.

(a) Complainant

Name:	Phone:
Address:	
Town:	Postal Code:

(b) Respondent

Name:	Phone:
Address:	
Town:	Postal Code:

Category (please check all that apply)

- | | | |
|--|---|--|
| <input type="checkbox"/> verbal assault | <input type="checkbox"/> possession of weapons | <input type="checkbox"/> threats |
| <input type="checkbox"/> use of alcohol or drugs | <input type="checkbox"/> physical assault/harm | <input type="checkbox"/> harassment |
| <input type="checkbox"/> vandalism | <input type="checkbox"/> other (please specify in detail) | <input type="checkbox"/> theft of property |

Other: _____

Describe in detail what happened: _____

Other relevant information: _____

Who else was made aware of the incident?

If there are more individuals involved, please attach extra pages.

Name:	Phone:
Address:	
Town:	Postal Code:

If another individual was made aware of the incident, how were they informed?

<input type="checkbox"/> In-person	<input type="checkbox"/> Phone	<input type="checkbox"/> Email
<input type="checkbox"/> Other (please specify in detail):		
Date the individual was informed:		

Please identify if another individual witnessed the incident.

If there are more individuals who witnessed the incident, please attach extra pages.

Name:	Phone:
Address:	
Town:	Postal Code:

For Office Use Only:

Action Taken (please check):

Verbal Warning - Date: _____ Letter of Warning - Date: _____
 Letter of Trespass - Date: _____ Appeal: No Yes Date: _____

Outcome: _____

Date File Closed: _____ Name: _____

Position: _____ Signature: _____

Personal information on this form is collected pursuant to the Municipal Freedom of Information and Protection of Privacy Act and will be used for the purpose of program registration and administration only. Questions about this collection should be directed to the Township of East Zorra-Tavistock, Clerk's Office, 90 Loveys Street Hickson, Ontario N0J 1L0.



Township of East Zorra-Tavistock



RZone Enforcement Guidelines

The following chart represents guidelines, and outlines the consequences for acts of inappropriate behaviour at all Township facilities, properties, sponsored events, programs, in written or verbal communication (including email or phone), in vehicles, or any other location where Township staff are present. **It is understood that these guidelines do not include all types of behaviour, that each incident will be reviewed based on information available. Consequences may be more severe or escalated depending on the circumstances of the inappropriate conduct.**

INCIDENT	1 ST OCCURANCE	2 ND OCCURANCE	3 RD OCCURANCE
<ul style="list-style-type: none"> - Aggressive or intimidating approaches to another individual (verbal assault) - Attempts to goad or incite anger in others 	Warning letter	Minimum 3-month ban and review to determine if further consequences are warranted.	Minimum 1-year ban and review to determine if further consequences are warranted.
<ul style="list-style-type: none"> - Threats - Harassment 	Minimum 3-month ban	Minimum 6-month ban and review to determine if further consequences are warranted.	Minimum 3-year ban and review to determine if further consequences are warranted.
<ul style="list-style-type: none"> - Throwing of articles in a deliberate or aggressive manner - Physical striking of another individual - Illegal consumption of alcohol or drugs - Possession of weapons 	Minimum 6-month ban	Minimum 1-year ban and review to determine if further consequences are warranted.	Minimum 3-year ban and review to determine if further consequences are warranted.
<ul style="list-style-type: none"> - Vandalism to building or property/theft 	Minimum 1-month ban plus payment of repair costs and 20% administration fee.	Minimum 6-month ban plus payment of repair costs and 20% administration fee and review to determine if further consequences are warranted.	Minimum 3-year ban plus payment of repair costs and 20% administration fee and review to determine if further consequences are warranted.



TOWNSHIP OF EAST ZORRA-TAVISTOCK

90 LOVEY'S STREET, PO BOX 100 HICKSON, ONTARIO, N0L 1J0
519-462-2697 . WWW.EZT.CA . EZT@EZT.CA

Appendix C

Date

Individual's Name
Address
Town/Postal Code

Delivered by Registered Mail

Re: Inappropriate Behaviour Incident at the Township of East Zorra-Tavistock

Dear

The Municipality of East Zorra-Tavistock has implemented an RZone procedure to promote a positive, safe, and supportive environment for all members of the public and staff. The "R" in RZone stands for Respect and Responsibility - **Respect** for yourself; **Respect** for others; and **Responsibility** for your actions. The RZone enforces zero tolerance of inappropriate behaviour and action, violence and vandalism at all Municipal facilities, properties, Municipal sponsored events, programs, in written or verbal communications (including email or phone), in Municipal vehicles, or any other location where Municipal staff are present.

This is to advise you that your behaviour on _____ at
Date
_____ is in violation of our RZone procedure and in particular, your
Property
conduct in _____.
Description of incident

Any future incidents of this nature will not be tolerated.

For your reference, a copy of the Municipal RZone policy is enclosed. If you have any questions or require any additional information, feel free to contact me at the phone number listed above.

Yours truly,

Manager
Department
Township of East Zorra-Tavistock



TOWNSHIP OF EAST ZORRA-TAVISTOCK

90 LOVEY'S STREET, PO BOX 100 HICKSON, ONTARIO, N0L 1J0
519-462-2697 . WWW.EZT.CA . EZT@EZT.CA

Appendix D

Date

Individual's Name
Address
Town/Postal Code

Delivered by Registered Mail

Re: Inappropriate Behaviour Incident at the Township of East Zorra-Tavistock

Dear

The Municipality of East Zorra-Tavistock has implemented an RZone procedure to promote a positive, safe, and supportive environment for all members of the public and staff. The "R" in RZone stands for Respect and Responsibility - **Respect** for yourself; **Respect** for others; and **Responsibility** for your actions. The RZone enforces zero tolerance of inappropriate behaviour and action, violence and vandalism at all Municipal facilities, properties, Municipal sponsored events, programs, in written or verbal communications (including email or phone), in Municipal vehicles, or any other location where Municipal staff are present.

This letter is to inform you that we have reviewed the incident which you were involved in on

_____ at _____ and in particular, your
Date Property

conduct in _____
Description of incident

Based on our review of the incident, you are hereby given notice pursuant to the Trespass to Property Act, R.S.O. 1990, C. T.21, that we are issuing you a _____ month ban, effective _____ from all Municipal facilities, properties, Municipal sponsored events, programs, in Municipal vehicles, or any other location where Municipal staff are present.

If you do enter onto any of these premises it will be considered trespassing and we will request you leave the premises. If required, we will involve the Oxford County OPP to enforce this trespass notice.

I have attached a copy of the Township of East Zorra-Tavistock RZone policy for your information. You have 14 days to appeal this suspension in writing to the Township of East Zorra-Tavistock, at the municipal office in Hickson. Your appeal will be reviewed and the decision will be final.

Yours truly,

Manager
Department
Township of East Zorra-Tavistock

STAFF REPORT

Report #CBO2023-06

To: His Worship the Mayor and Members of Council
 From: John Scherer, Chief Building Official
 Re: Building, Development & Drainage – June 2023 Council Report
 Date: May 31, 2023

Departmental Highlights:

- Tavistock Master Drainage Plan Update – initial modeling completed, combining legacy data with new development data.
- Innerkip Master Drainage Plan – Draft Tender completed and being reviewed by staff.

Legislative Updates:

- None.

Monthly Permit Activity:

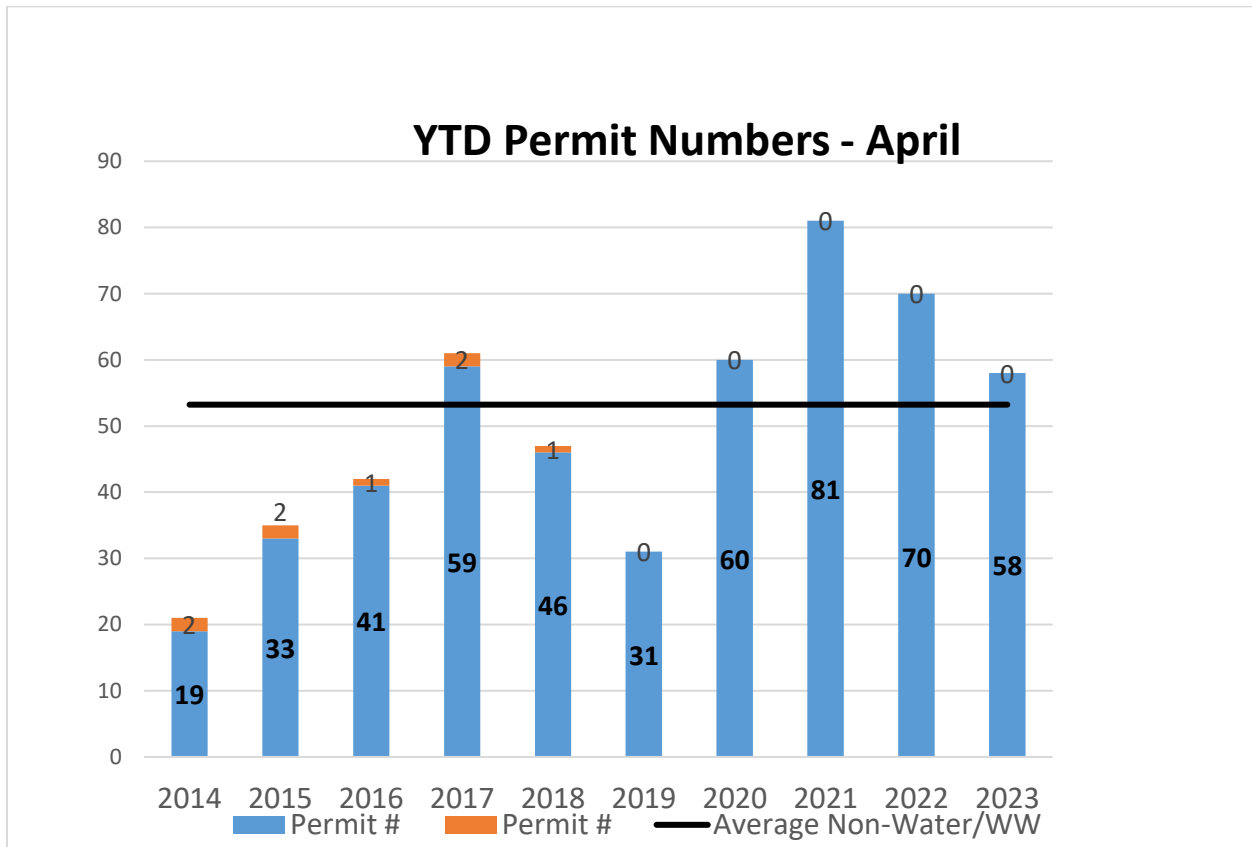
Permit Summary

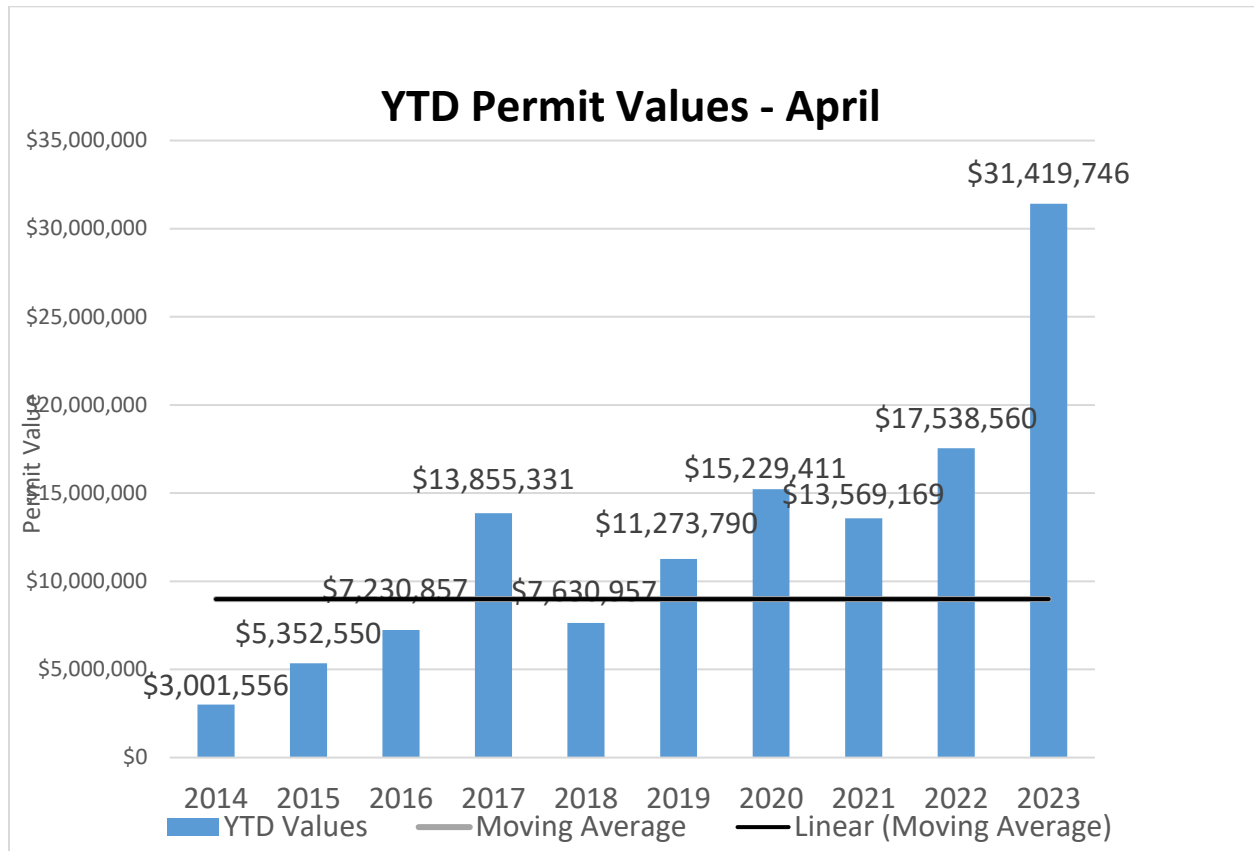
	No. of Permits	Permit Value	Permit Fees
April 2023	21	\$24,986,926	\$85,105.42
Year to Date – April 30, 2023	58	\$31,419,746	\$128,401.68

Permit Values and Fees

Project	Cost of Construction	Building Fees
New SFD	675,000	5,976.93
New 128-bed long-term care home	22,000,000	64,594.19
SFD addition & covered deck	300,000	1,263.55
New SFD	600,000	3,580.22
Deck	36,000	174.00
Above ground pool	14,734	116.00
Detached garage	40,000	202.00
New SFD	862,235	3,365.84
Roof over existing deck	13,457	174.00
Foundation only detached garage	20,000	202.00
Deck	4,000	174.00
Solar panels	26,000	397.23
Addition to SFD	40,000	2,296.46

Inground pool	110,000	133.00
Sign - dental office	3,500	266.00
Finished basement	50,000	398.00
Finished basement	50,000	398.00
Finished basement	50,000	398.00
Finished basement	50,000	398.00
Covered porch out back	20,000	200.00
Finish basement	22,000	398.00
Total	24,986,926	85,105.42





Status of Development Matters:

Ward 1 - TAVISTOCK

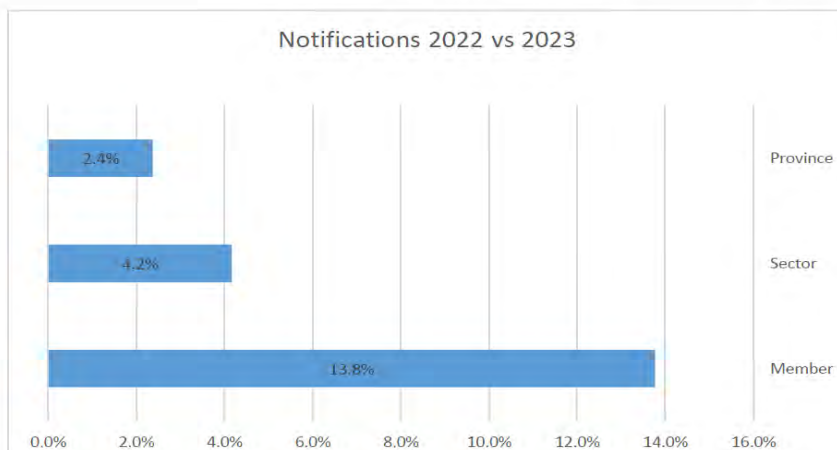
*The Ponds (Phase 3)	33 SFD	Plan 41M-335 Plan 44M-68 Minor Items remain outstanding.
The Orchards (Phase 1)	16 SFD 6 Semi Units 39 Condo Towns	Plan 41M-321 Warranty item identified for developer.
The Orchards (Phase 2)	48 SFD 2 Semi Units	Plan 41M-353 Warranty items identified.
The Orchards (Phase 3)	52 SFD 6 Semi Units	Plan 41M-371 Permits Issued.
Gateman Homes (Jacob St E)	13 SFD 10 Semi Units	Plan 41M-363 Permits Issued.
Mill-Gate Homes (Phase 1)	61 SFD 1 Infill Lot	Plan 41M-390 Permits Issued

Ward 3 - INNERKIP

Innerkip Meadows (P3 – Curtis St)	24 SFD + Semi detached units now proposed.	Plan 41M-313
Innerkip Meadows (P4– Lock St)	24 SFD	Plan 41M-325
Innerkip Meadows (P5 -Queen/Curtis)	25 SFD	Plan 41M-339
Innerkip Meadows (P6 - Lock)	19 SFD	Plan 41M-355
Innerkip Meadows (P7 - Matheson)	32 Semi detached units 1 SDD Unit	Plan 41M-313 Permits issued.
*Majestic Homes Development (James/Main St)	Condo Block on Main St (25 units)	Plan 41M-322 Unit construction underway.
Oxford Road Developments 5 Inc.	29 SFD + 1 Block for Future Dev.	Plan 41M - 352 Revised Grading Plan.

Drain & Streetlight Locate Summary:

Member	MUNICIPALITY OF EAST ZORRA TAVISTOCK (EZRTVS01)		2022	2023	Change
Sector	Government		Notifications	Notifications	
Month	3				
		Member	138	157	13.8%
		Sector	303,154	315,781	4.2%
		Province	1,017,032	1,041,203	2.4%
		CB Clear	1	4	300.0%
		ALA	0	2	N/A
		Suppressed	17	7	-58.8%



Status of Drainage Matters:

Drain Name	Status
McLean Drain	Section 78 received, and Section 40 received. Petition restarted – Section 4 Proposed (New Drain). Report to council.
Tavistock 1974 & 1979 Drains	Relocation of drains proposed for new residential developments. Walkthrough complete, minor deficiencies noted and will be corrected in Spring 2023.
Parker Drain	Tender process complete. Construction to be completed by late summer 2023. Installation in process.
Witzel Drain	Report complete. Installation in process. Completed by late summer 2023.
Tavistock Drain No. 1	In process of abandonment.

Attachments:

- None

Recommendation:

1. None. For Council information only.

Reviewed by C.A.O.:



Karen DePrest
Chief Administrative Officer

Report prepared and
submitted by:



John Scherer
Building, Drainage and Development
Manager
(Chief Building Official)

STAFF REPORT

Report #PW2023-06

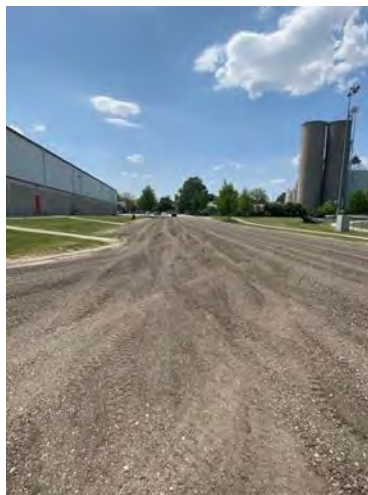
To: His Worship the Mayor and Members of Council
From: Tom Lightfoot, Public Works Manager
Re: Public Works – June 2023 Council Report
Date: May 31, 2023

Departmental Highlights:

- Public Works staff have now completed the annual gravel and dust suppressant applications. With the lack of precipitation during the gravel application, the roads still have some loose stone on the surface. This stone will continue to migrate to the edge of the roadway or pack into the base, as we get some moisture. This year the Township continued with trying different application techniques and application volumes. Staff used the 8 miles of gravel on the 13th Line to try 4 different application rates and product types. Staff will report back to Council in the fall with the findings. Staff also tried a couple of different road sections where we sprayed the product then worked the road and came back to top up the product. Our supplier suggested the Township also try putting product down on a roadway that was very wet - while staff was hesitant to try this, shortly after the road dried out, it did set up quite well. As an additional test, the Township rented a construction packer, as discussed with Council, and rolled 2 miles of the 10th Line. Staff will continue to monitor all areas this summer.



- Over the last month, staff have seen an increase in the amount of illegal dumping in the Township. We have seen bags of garbage dumped in multiple locations, dump trailer loads of soil dumped on our rural roads, construction debris dumped in a municipal waterway and 15 tires dumped on one of our roads. This is a concerning trend that takes considerable staff time to clean up.
- Street sweeping in Innerkip and Tavistock has been completed, with the next sweeping to occur in the fall.
- Roadside grass cutting has begun and will continue through the fall.
- Bridge washing will be completed in June. This usually takes one week to complete.
- Township staff has completed some ditching work, which was done to protect infrastructure in the ground and allow better drainage for our roads. Staff plans to continue with this work as fiber-optic lines are installed on our rural roads.
- **The Township's** annual regulatory sign inspection has been completed. Staff has reviewed the report and we have approximately 30 signs that need to be replaced. Staff will be finalizing our sign order and getting the signs changed out, once the order is received.
- Public Works staff worked at the Arena on May 31st placing and packing recycled asphalt on the gravel parking lot. This material is from past road projects and was crushed to "A" gravel size last year. **This will help with dust and assist with holding the shape of the parking lot.**



- Public Works staff will be attending the AORS Trade Show in Strathroy June 7th and 8th. The staff will be split up between the two days. This is a great opportunity for staff to learn about new equipment and talk to operators from other municipalities on techniques and materials they have tried in road construction and maintenance.
- Public Works staff will be completing a few driveway widenings and installations this coming month.
- If weather and scheduling permits, the Township will be completing some hot mix asphalt padding later in June or early in July, in the rural areas.

Status of Significant Capital Projects:

Capital Project	Current Status
Tavistock Arena Chiller	Ordered
Tavistock Arena Wi-Fi	Installed
Utility Truck	In service
16 th Line FiberMat	Tender Awarded

Attachment:

1. **Appendix 'A'** - Armadillo Report (Hendershot Street West)

Recommendation:

1. None. For Council information only.

Reviewed by C.A.O.:



Karen DePrest
Chief Administrative Officer

Report prepared and submitted by:



Tom Lightfoot
Public Works Manager

TRAFFIC ANALYSIS REPORT

For Project: Hendershot Street
Direction: Both Directions
Speed limit: 40 km/h

Traffic Report From 2023-05-15 11:00 AM through 2023-05-25 9:59:59 AM

Speed:

Average Speed: 37.84 km/h

85th Percentile Speed: 45 km/h

Max Speed = 73 km/h on 2023-05-19 - 4:12:36 PM (incoming – westbound)
= 84 km/h on 2023-05-23 - 11:39:02 AM (outgoing – eastbound)

Total Vehicle Counts:

Total Vehicles = 8,436 (2,925 incoming; 5,512 outgoing)

AADT = 847 (293 incoming; 553 outgoing)

Average Daily Vehicle Counts (both directions):

	<u>Time</u>	<u>5 Day</u>	<u>7 Day</u>
Average Daily		843	718
AM peak	8:00 AM	75	57
PM peak	3:00 PM	115	93

Vehicle Class Counts (both directions):

	<u>Number</u>	<u>%</u>
Small	138	1.6
Medium	8161	96.7
Large	137	1.6

[Small = motorcycle; Medium = sedan; Large = truck]

STAFF REPORT

Report #FC2023-05

To: His Worship the Mayor and Members of Council
From: Scott Alexander, Township Fire Chief
Re: Fire & Protective Services – May 2023 Council Report
Date: May 31, 2023

Departmental Highlights:

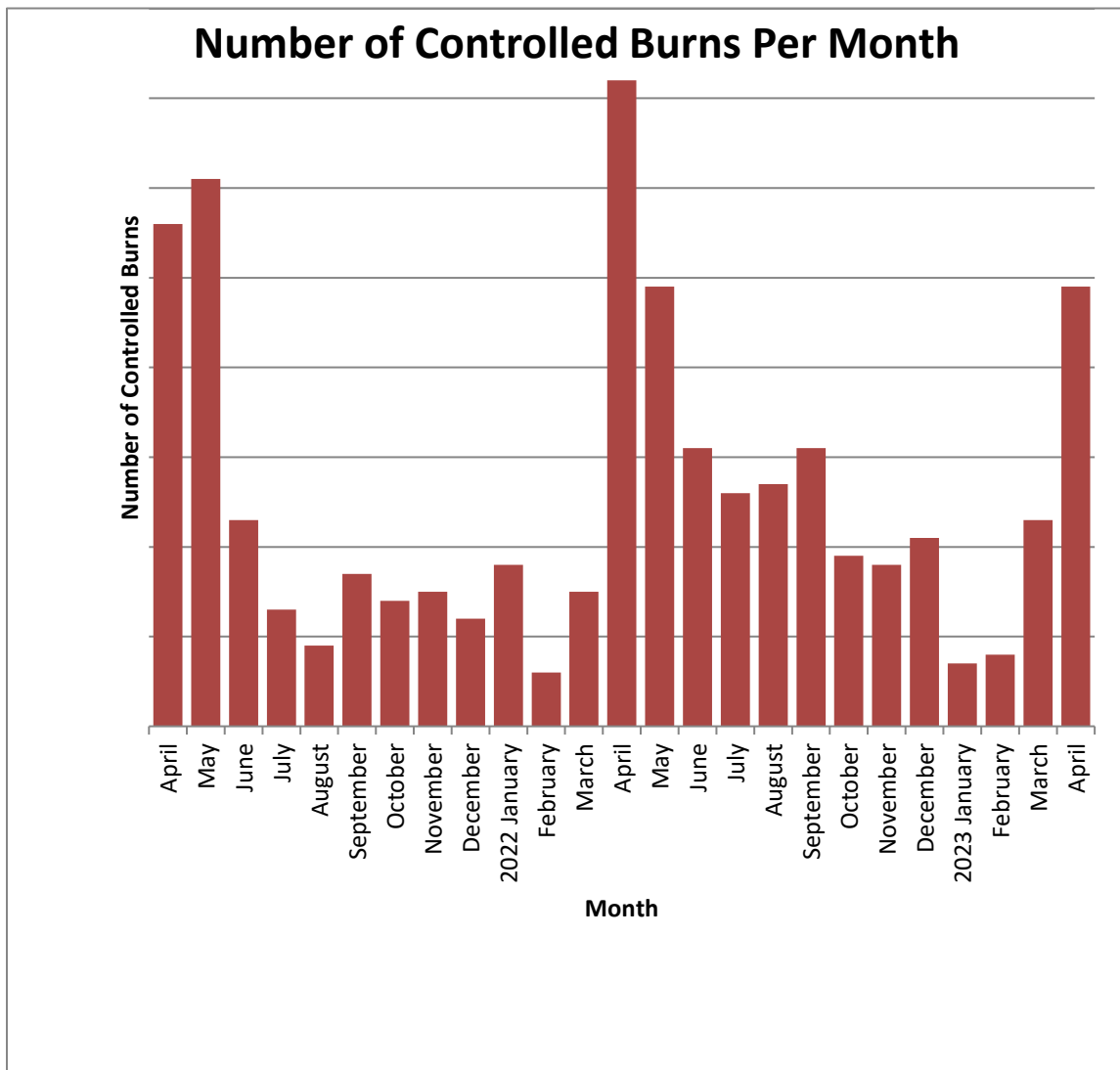
Fire Department:

- The 2023 recruit class has completed practical testing and as its final part of training will begin Haz Mat Awareness & Operations instruction. Testing for these two courses is scheduled for June 24th. The 2023 Recruit Class Graduation is scheduled for July 5th at the Embro Community Centre.
- Township firefighters are becoming more involved with instructing at the RFSOC school as five firefighters assisted with live fire training, Gen Rescue and participated as proctors/monitors for Firefighter 1 & 2 practical testing.
- FPO Hayman had a busy month of May. He conducted a lengthy Fire Safety Plan and RSMP review (risk and safety management plan) for a propane filling station. He also inspected two rental properties (24 & 12 units respectively), two restaurants and followed up with two schools with inspection orders. Finally, he assessed one liquor license application and followed up on four fire pit/controlled burn concerns.
- Staff is registered to attend Operation Safer on June 13th and 14th. This is a two-day provincial summit where strategies will be discussed to increase awareness, shift attitudes and consider innovative ideas on the importance of smoke alarms. This conference was planned in response to the record number of fire fatalities recorded in 2022.

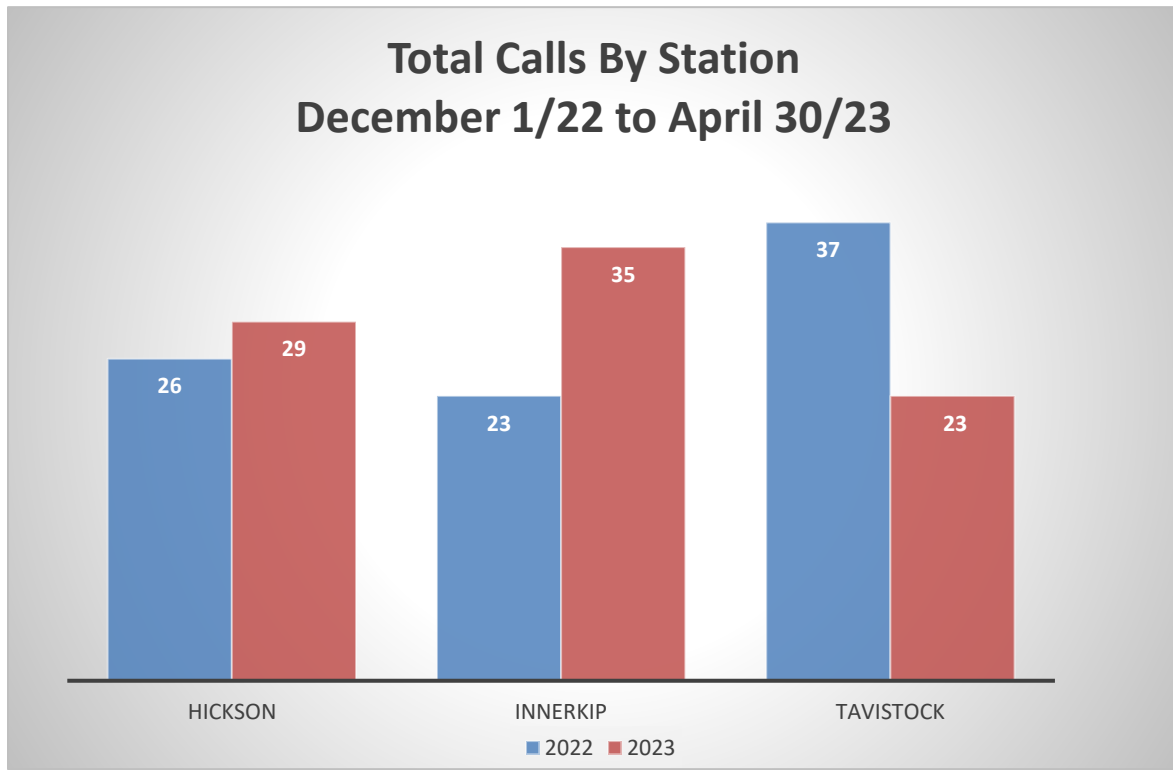
- A Long Service Awards Ceremony will be held on June 22nd at the Craigowan Golf Course in appreciation of current and retired firefighters who achieved both provincial and federal milestones. Due to COVID-19 restrictions, these individuals were not able to be properly recognized over the last few years. The service will include recognition for 20, 30 and 40 year milestones as well as significant retirements from the Township fire service.
- Tavistock Station will be hosting a drive-thru chicken BBQ on June 3rd at the station from 4:00 pm to 7:00 PM.

Controlled Burn Approvals:

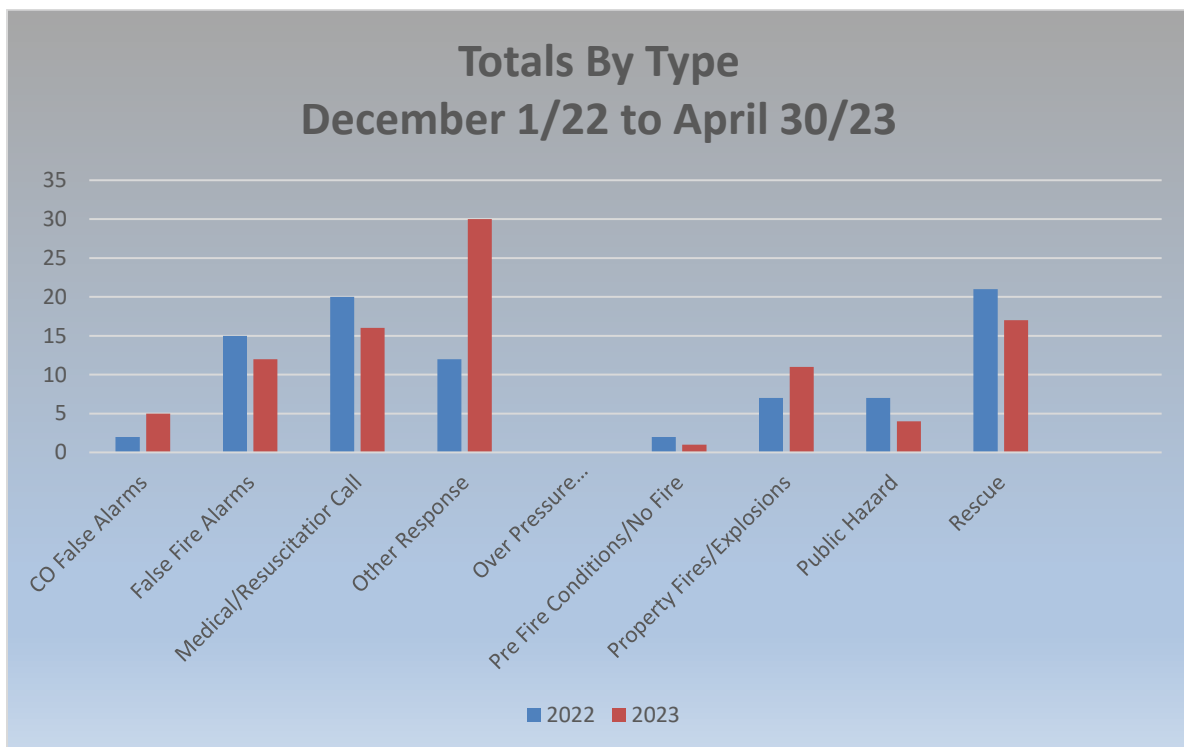
- April (2023): 49
- Year to Date: 87



TOTAL FIRE CALLS FOR 2023 (December 1/22 to April 30/23)



TOTALS BY TYPE-2 YEAR COMPARISON (Dec. 1/21 to April 30/23)



Emergency Management:

- The Township received notice on May 4th that the Township achieved 2022 compliance with the Emergency Management and Civil Protection Act (EMCPA).
- During Emergency Preparedness Week, the Township posted various social media messages as part of its emergency management public education program.

Legislation

- On May 15th, the Province announced that they would be investing \$700,000 to provide free training opportunities for professional and volunteer firefighters, focusing on fighting fires involving ground rescue and wildfire scenarios that evolve into Mayday situations. There will also be courses created specifically for automobile extraction, boating and water safety, and elevator rescue. More details can be found here:

<https://news.ontario.ca/en/release/1003049/ontario-investing-in-life-saving-training-for-firefighters>

Recommendation:

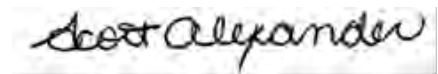
1. None. For Council information only.

Reviewed by C.A.O.:



Karen DePrest
Chief Administrative Officer

Report prepared and submitted by:



Scott Alexander
Township Fire Chief

**THE CORPORATION OF THE
TOWNSHIP OF EAST ZORRA-TAVISTOCK
COUNTY OF OXFORD
By-law #2023 – 18**

Being a By-law to adopt the 2023 Estimate of Revenues and Expenditures and to provide for adoption of tax rates and to further provide for penalty and interest in default of payment thereof for 2023 and to provide for other matters related to taxation and to adopt user fees.

WHEREAS Section 290 of The Municipal Act, 2001 S.O. 2001, c. 25, as amended, requires that a local municipality shall in each year prepare and adopt a budget;

AND WHEREAS a municipality shall give public notice of its intention to adopt or amend the budget at a council meeting specified in the notice;

AND WHEREAS the Council of the Township of East Zorra-Tavistock has provided such notice;

AND WHEREAS Section 340 of the Municipal Act S.O. 2001, c.25, as amended, provides that the Treasurer of a local municipality shall prepare a tax roll for each year based on the last returned assessment roll for the year and that the Tax Collector shall collect the taxes once the tax roll has been prepared;

AND WHEREAS certain regulations require reductions in certain tax rates for certain classes or subclasses of property, and;

AND WHEREAS County and Education tax rates and/or levies have been provided;

NOW THEREFORE the Council of the Corporation of the Township of East Zorra-Tavistock hereby ENACTS AS FOLLOWS:

1. That the 2023 levy for municipal purposes shall be \$7,243,196.
2. That the 2023 Estimate of Revenues and Expenditures for the Township of East Zorra-Tavistock as set out in Schedule "A" attached hereto and forming part of this by-law is hereby adopted.
3. That the 2023 Tax Rates required to levy the amounts as set out in Section 1, not including local improvement rates or other special rates collected as taxes, shall be as set out in Schedule "B" attached hereto and forming part of this by-law.
4. That Municipal Drainage levies and debentures, and Tile Loan debentures due in 2023 shall be collected on the roll.

5. That the Treasurer pay over to the various School Boards and to the County of Oxford, on or before the due dates, the amounts due.

6. That every owner shall be taxed according to the tax rates in this by-law.

7. Taxes for all Property Classes shall become due and payable in two (2) instalments as follows:

First Instalment	August 31, 2023
Second Instalment	November 30, 2023

8. That notice of such taxes due shall be sent by first class mail by the Treasurer to those persons liable for the payment of taxes.

9. That a charge as a penalty of 1¼ per cent on the amount of any outstanding taxes levied in 2023, shall be made on the first day of default and on the first day of each calendar month thereafter in which default continues until December 31, 2023, and any such additional amount shall be levied and collected in the same manner as if it had been originally imposed with and formed part of the taxes levied under this by-law.

10. That interest of 1¼ per cent on the amount of any taxes due and unpaid after December 31, 2023, shall be charged on the first day of each calendar month thereafter in which the default continues.

READ A FIRST, SECOND AND THIRD TIME AND FINALLY PASSED THIS 7th DAY OF JUNE, 2023.

seal

Phil Schaefer, Mayor

Will Jaques, Clerk

Schedule 'A'

Township of East Zorra-Tavistock
SUMMARY OF NET DEPARTMENTAL BUDGETARY TAX IMPACTS
2023 Proposed Operating and Capital Budgets Summary

Net Budgets By Department	2022 Approved	2022 Actuals	2023 Proposed	Difference (2023 - 2022)	% Change (2023-2022)
Building, Locates and Drainage	428,355	417,800	358,264	(70,091)	-1.10%
Corporate Services	2,202,771	2,446,749	2,503,187	300,416	4.72%
Fire and Protective Services	1,292,950	1,179,078	1,311,282	18,332	0.29%
Parks and Recreation	515,182	486,095	832,686	317,504	4.99%
Public Works	3,158,117	3,210,773	3,127,430	(30,687)	-0.48%
Treasury Services	(944,423)	(1,374,327)	(889,653)	54,770	0.86%
tax-Supported Budget Summary	6,652,952	6,366,168	7,243,196	590,244	8.87%

2023 Assessment @ 2022 Tax Rates	6,652,072	6,652,072	4.38% Assessment Portion
Tax Levy	6,652,072	-6,061,828	4.49% Tax Rate
		590,244	8.87% Levy Rate Change

SUMMARY OF EXPENDITURES OFFSET BY SOURCES OF FINANCING

Expenditures

By Department	2022 Approved	2023 Proposed	Difference (2023 - 2022)
Building, Locates and Drainage	1,079,599	1,110,911	31,312
Corporate Services	5,271,656	4,058,430	(1,213,226)
Fire and Protective Services	1,412,959	1,453,906	40,948
Parks and Recreation	1,124,802	1,878,917	754,116
Public Works	5,231,878	4,256,914	(974,964)
Treasury Services	455,090	481,918	26,829
Expenditures	14,575,982	13,240,997	-1,334,985

Sources of Financing

By Department	2022 Approved	2023 Proposed	Difference (2023 - 2022)
Tax Levy	(6,652,952)	(7,243,196)	(590,244)
City of Woodstock Boundary Adju:	(115,771)	(115,771)	0
Contributions from Developers	(57,058)	(183,810)	(126,752)
Contributions from Other Municipa:	(525,992)	(122,468)	403,524
Cost Recoveries	(49,961)	(46,784)	3,177
Deferred Building Code Act Rever	-	(124,719)	(124,719)
Donations	-	(102,960)	(102,960)
Federal Gas Tax	(593,681)	(226,097)	367,584
Fines and Penalties	(56,006)	(52,974)	3,032
Investment Income	(171,485)	(235,181)	(63,696)
Landowner Recovery	(41,064)	(41,064)	(0)
Licences, Permits and Rents	(609,205)	(612,169)	(2,964)
Ontario Municipal Partnership Fur	(726,500)	(792,700)	(66,200)
Ontario Specific Grants	(333,923)	(274,678)	59,245
Ontario Wildlife Damage Compen:	-	(500)	(500)
Payments in Lieu	(29,203)	(30,242)	(1,039)
Revenue from Oxford County	(32,500)	(7,500)	25,000
Sundry Revenue	(3,500)	(7,052)	(3,553)
Supplemental Taxation	(294,050)	(139,401)	154,649
Transfers from Reserves and Res	(3,813,599)	(2,239,104)	1,574,495
Trillium Grant	-	(150,000)	(150,000)
User Fees and Charges	(469,533)	(492,628)	(23,095)
Sources of Financing	(14,575,981)	(13,240,997)	1,334,984

Schedule "B"
Township of East Zorra Tavistock
2023 COMBINED TAX RATES

		2023	2023	2023	2023	
TAX CLASS	CODE	LOWER	UPPER	EDUCATION	TOTAL	Due Dates
Residential	RT	0.00517220	0.00426167	0.00153000	0.01096387	INTERIM
Multi-Residential	MT	0.01034441	0.00852334	0.00153000	0.02039775	2023-02-28
Commercial Full	CT	0.00983650	0.00810484	0.00880000	0.02674134	2023-05-31
Comm New Construction	XT	0.00983650	0.00810484	0.00880000	0.02674134	
Commercial Vacant Units	CU	0.00688555	0.00567339	0.00880000	0.02135894	
Commercial Excess Land	CX	0.00688555	0.00567339	0.00880000	0.02135894	
Commercial Parking Lot	GT	0.00983650	0.00810484	0.00880000	0.02674134	FINAL
Industrial Full	IT	0.01360289	0.01120819	0.00880000	0.03361109	2023-08-31
Industrial Vacant Units	IU	0.00884188	0.00728532	0.00880000	0.02492721	2023-11-30
Industrial Excess Land	IX	0.00884188	0.00728532	0.00880000	0.02492721	
Industrial New Construction	JT	0.01360289	0.01120819	0.00880000	0.03361109	
Large Industrial Full	LT	0.01360289	0.01120819	0.00880000	0.03361109	
Large Industrial Vacant	LU	0.00884188	0.00728532	0.00880000	0.02492721	
Pipelines	PT	0.00651335	0.00536672	0.00880000	0.02068008	
Farmlands	FT	0.00112599	0.00185553	0.00038250	0.00336402	
Managed Forests	TT	0.00129305	0.00106542	0.00038250	0.00274097	

**THE CORPORATION OF THE
TOWNSHIP OF EAST ZORRA-TAVISTOCK
COUNTY OF OXFORD
MCLEAN DRAIN 2023
BY-LAW #2023 - 19**

BEING a by-law to provide for drainage works in the Township of East Zorra-Tavistock, in the County of Oxford.

WHEREAS in accordance with the provisions of The Drainage Act, R.S.O. 1990, certain drainage works has been requested on the following lands:

Pt. Lots 11 & 12, Concession 18 and Lots 11-14, Concession 17 in the
Township of East Zorra-Tavistock.

AND WHEREAS the Council of the Township of East Zorra-Tavistock in the County of Oxford has procured a report by Mr. Curtis MacIntyre of the firm of K. Smart & Associates Ltd. of Kitchener, Ontario and the report shall be attached hereto and form part of this by-law;

AND WHEREAS the estimated total cost of constructing the drainage works is \$327,000.00;

AND WHEREAS the Council is of the opinion that drainage of the area is desirable;

THEREFORE the Council of the Township of East Zorra-Tavistock, pursuant to The Drainage Act, R.S.O. 1990 ENACTS AS FOLLOWS:

1. The report dated April 28, 2023, is hereby adopted and the drainage works as therein set forth is hereby authorized, and shall be completed in accordance therewith.

2. (1) The Corporation of the Township of East Zorra-Tavistock may borrow on the credit of the Corporation the amount of \$327,00.00 being the amount necessary for the Engineering and Construction of the drainage works.

- (2) The Corporation may arrange for the issue of debentures in the name of the County of Oxford for the amount borrowed less the total amount of
 - (a) grants received under Section 85 of The Act;
 - (b) commuted payments made in respect of lands and roads assessed within the municipality;
 - (c) moneys paid under Subsection 61(3) of The Act; and
 - (d) moneys assessed in and payable by another municipality

and such debentures shall be made payable within five (5) or ten (10) years from the date of the debenture and shall bear interest at the prevailing rates at the time the said debenture is sold by the County of Oxford.

- 3. For paying the amount of \$260,857.00 being
 - (a) the amount assessed upon the lands and roads in the Township of East Zorra-Tavistock, except the lands and roads belonging to or controlled by the Municipality and
 - (b) the amount required to pay interest on the portion of the amount borrowed represented by the amount in Clause (a)

Less the total amount of \$85,717.00

- (c) grants under Section 85 of The Act
- (d) commuted payments made in respect of the lands and roads assessed

- 4. For paying the amount of \$66,143.00 being
 - a) the amount assessed upon the lands and roads belonging to or controlled by the Municipality
 - b) the amount required to pay interest on the portion of the amount borrowed represented by the amount in Clause (a)

A special rate shall be levied upon lands and roads as set forth in "Schedule of Assessments" to be collected in the same manner and at the same time as other taxes are collected.

The amount of the special rate levied upon each parcel of land or part thereof shall be divided into five (5) or ten (10) equal amounts and one such amount shall be collected in each year for five (5) or ten (10) years after the passing of this by-law.

5. This by-law shall come into force on the passing thereof, and may be cited as the MCLEAN DRAIN 2023.

READ A FIRST AND SECOND TIME THIS 7th DAY OF JUNE, 2023.

Will Jaques, Clerk

Phil Schaefer, Mayor

**READ A THIRD TIME AND FINALLY PASSED THIS ____ DAY OF _____,
2023.**

Will Jaques, Clerk

Phil Schaefer, Mayor

**NOTICE OF COURT OF REVISION
MCLEAN DRAIN 2023**

You are hereby advised that the Drainage Court of Revision for the MCLEAN DRAIN 2023 will be held on Wednesday, July 5, 2023, at the Innerkip Community Centre, 695566 17th Line, Innerkip, Ontario at 9:15 a.m. Any owner may appeal his/her assessment to the Court of Revision by giving written notice to the undersigned on or before Monday June 26, 2023, at 4:30 p.m.

Will Jaques, Clerk
Township of East Zorra-Tavistock
Hickson, Ontario N0J 1L0

Also take notice that in accordance with The Drainage Act any owner or public utility affected by the drainage works, if dissatisfied with the report of the Engineer on the grounds that:

- (a) the benefits to be derived from the drainage work are not commensurate with the estimated cost thereof;
- (b) the drainage works should be modified on the grounds to be stated;
- (c) the compensation or allowances as provided by the Engineer are inadequate or excessive;

may appeal to the Tribunal. In every case, a written notice of appeal shall be served upon the Council of the initiating municipality within forty (40) days after the mailing of this notice.

DATED: June 7, 2023

**THE CORPORATION OF THE
TOWNSHIP OF EAST ZORRA-TAVISTOCK
COUNTY OF OXFORD
BY-LAW # 2023 - 19**

Being a by-law to confirm all actions and proceedings of the Council.

NOW THEREFORE THE COUNCIL OF THE TOWNSHIP OF EAST ZORRA-TAVISTOCK ENACTS AS FOLLOWS:

All actions and proceedings of the Council taken at its meeting held on the 7th day of June, 2023 except those taken by By-law and those required by law to be done by resolution are hereby sanctioned, ratified and confirmed as though set out herein provided, however, that any member of this Council who has dissented from any action or proceeding or has abstained from discussion and voting thereon shall be deemed to have dissented or abstained, as the case may be, in respect of this By-law as it applies to such action or proceeding.

READ A FIRST, SECOND AND THIRD TIME AND FINALLY PASSED THIS 7th DAY OF JUNE, 2023.

Phil Schaefer, Mayor

seal

Will Jaques, Clerk