

TOWNSHIP OF BLANDFORD-BLENHEIM

COUNCIL MEETING AGENDA

Wednesday, February 7th, 2024

Watch via Live Stream on Township's YouTube:
<https://www.youtube.com/channel/UCdKRV0GAEuFaGbWHRPzoEXA>

4:00 p.m.

1. Welcome

2. Call to Order

3. Approval of the Agenda

Recommendation:

That the agenda for the February 7th, 2024 Regular Meeting of Council be adopted as printed, and circulated.

4. Disclosure of Pecuniary Interest

5. Minutes

a. [January 17th, 2024 Minutes of Council](#)

Recommendation:

That the minutes of the January 17th, 2024 Regular Meeting of Council be adopted, as printed and circulated.

b. [January 24th, 2024 Minutes of Council](#)

Recommendation:

That the minutes of the January 24th, 2024 Regular Meeting of Council be adopted, as printed and circulated.

6. Business Arising from the Minutes

7. Public Meetings

a. Public Meeting under the Planning Act, Committee of Adjustment

i. Minutes

[January 24, 2024 Meeting of the Committee of Adjustment](#)

ii. Application

[MVA-01-24, Bretz Farms Ltd., 896829 Washington Road](#)

Recommendation:

That the Township of Blandford-Blenheim Committee of Adjustment approve Application File A11-23, Cleon Martin on behalf of Bretz Farms Ltd. for lands described as Part Lot 13, Concession 14 in the Township of Blandford-Blenheim as it relates to:

1. Relief from Section 6.2.1 to reduce the Minimum Distance Separation II (MDS II) requirement to the nearest Type A land use (residential dwelling located at 896832 Washington Road) from 188 m (616.7 ft) to 132 m (433 ft) to facilitate the construction of a new livestock barn; and,
2. Relief from Section 6.2.2 to reduce the Minimum Distance Separation II (MDS II) requirement to the nearest Type A land use (residential dwelling located at 896832 Washington Road) from 188 m (616.7 ft) to 182 m (597.1 ft) to facilitate the construction of a new manure storage facility to service the proposed livestock barn.

The proposed relief meets the four tests of a minor variance as set out in Section 45(1) of the Planning Act as follows:

- i) deemed to be minor variances from the provisions of the Township of Blandford-Blenheim Zoning By-law No. 1360-2002;
- ii) desirable for the appropriate development or use of the land;
- iii) in keeping with the general intent and purpose of the Township of Blandford-Blenheim Zoning By-law No. 1360-2002, and;
- iv) in keeping with the general intent and purpose of the Official Plan of the County of Oxford.

8. Delegations / Presentations

- i. [Curtis McIntyre, Drainage Engineer, K. Smart Associates, Re: Mitchell Drain](#)
- ii. [Curtis McIntyre, Drainage Engineer, K. Smart Associates, Re: Baker Drain](#)

Resolutions to be passed under Staff Reports [DS-24-02](#) & [DS-24-03](#).

9. Correspondence

a. Specific

None.

b. General

- i. [Frank Gross, Manager of Transportation and Waste Management Services, Oxford County, Re: Reduced Load Limit By-law Amendment.](#)

- ii. [Travis Lockhart, Woodlands Conservation Municipal Enforcement Officer, Oxford County, Re: Amendments to County Forests and County Lands Recreation By-law and Woodlands Conservation By-law](#)

Recommendation:

That the general correspondence items be received as information.

10. Staff Reports

a. Adam Degier – Drainage Superintendent

- i. [DS-24-02 - Consideration of Report Section 4 and 78 for the Mitchell Drain 2023](#)

Recommendation:

That Report DS 24-02 be received as information; and,

That Council gives consideration to By-Law No. 2416-2024 for the Mitchell Drain 2023 and give first and second reading (provisional by-laws); and,

That the Court of Revision be set for Wednesday March 6, 2024 at 4:00 p.m.; and further,

That the Engineer be directed to invite tenders for the Mitchell Drain 2023 with tender closing Wednesday March 13, 2024 at noon.

- ii. [DS-24-03 – Consideration of Report Section 4 for the Baker Drain 2024](#)

Recommendation:

That Report DS 24-03 be received as information; and,

Further that Council gives consideration to By-Law No. 2417-2024 for the Baker Drain 2024 and give first and second reading (provisional by-laws); and,

Further that the Court of Revision be set for Wednesday March 6, 2024 at 4:00 p.m.; and further,

That the Engineer be directed to invite tenders for the Baker Drain 2024 with tender closing Wednesday March 13, 2024 at noon.

- iii. [DS-24-04 – Monthly Report](#)

Recommendation:

That Report DS-24-04 be received as information.

- iv. [DS-24-05 – Petition for Drainage Appointment of Engineer- Cressridge](#)

Recommendation:

That Report DS-24-05 be received as Information; and,

Whereas the Grand River Conservation Authority have not registered any comments to the petition for drainage work for the Part of Lot 17, Concession 13 (Blenheim), to incorporate the drains that were installed by Greg Voisin Investment Corporation for Cress-Ridge Development as included in Plan 41M10323 parts 1,2,3;

Be it resolved that Council appoints K Smart & Associates Ltd., 85 McIntyre Dr. Kitchener, Ont. N2R 1H6, to prepare a new drainage report as per the petition accordance with Section 4 of the Drainage Act.

v. [DS-24-06 – Petition for Drainage Appointment of Engineer- Carson Ried](#)

Recommendation:

That Report DS-24-06 be received as Information; and,

Whereas the Grand River Conservation Authority have not registered any comments to the petition for drainage work for the Part of Lot 24, Concession 10 (Blenheim) to incorporate the drains that were installed by Carson Reid Homes (Cambridge) Ltd as included in Plan 41M388, Carson Reid Homes (Cambridge) Ltd. where the storm sewers, catch basins and laterals provide to service the lots and 2 streets to be incorporated as a municipal Drain;

Be it resolved that Council appoints K Smart & Associates Ltd., 85 McIntyre Dr. Kitchener, Ont. N2R 1H6, to prepare a new drainage report as per the petition in accordance with Section 4 of the Drainage Act.

b. Jim Borton – Director of Public Works

i. [PW-24-02 – Monthly Report](#)

Recommendation:

That Report PW-24-02 be received as information.

ii. [PW-24-03 – Township Road 12 Paving \(RR Sand and Gravel\)](#)

Recommendation:

That Report PW-24-03 be received for information; and,

That the Township grants permission to RR Sand and Gravel for the purpose of paving Township Road 12 from Oxford Road 22 to the East boundary of their property (Approximately 831 meters).

c. Trevor Baer – Director of Community Services

i. [CS-24-02 – Monthly Report](#)

Recommendation:

That Report CS-24-02 be received as information.

d. Denise Krug – Director of Finance

i. TR-24-02 – 2024 Council Grant Subsidy Requests

Recommendation:

That Report TR-24-02 be received as information; and,

That Council direct staff to allocate Grant & Subsidy Funds as recommended.

e. Josh Brick – Chief Administrative Officer

i. CAO-24-08 – Municipal Budget Update

Recommendation:

That Report CAO-24-08 be received as information; and,

That Council endorses the draft budget amendment as presented; and further,

That Council directs the Director of Finance/ Treasurer to prepare the final Budget By-Law with noted amendments.

11. Reports from Council Members

12. Unfinished Business

13. Motions and Notices of Motion

14. New Business

15. Closed Session

- a. Report CAO-24-07 - Personal matters about an identifiable individual, including municipal employees [s. 239(2)(b)]

Re: Legacy Agreement

16. By-laws

- a. 2415-2024, Being a By-law to amend Zoning By-Law Number 1360-2002, as amended (Ross Roth Sand & Gravel);

b. 2416-2024, Being a By-law to provide for drainage works in the Township of Blandford-Blenheim in the Restructured County of Oxford (Mitchel Drain 2023) (1st & 2nd reading only);

c. 2417-2024, Being a By-law to provide for drainage works in the Township of Blandford-Blenheim in the Restructured County of Oxford (Mitchel Drain 2023) (1st & 2nd reading only);

d. 2418-2024, Being a By-law to confirm the proceedings of Council.

Recommendation:

That the following By-laws be now read a first and second time: 2415-2024, 2416-2024, 2417-2024 & 2418-2024.

Recommendation:

That the following By-laws be now given a third and final reading: 2415-2024 & 2418-2024.

17. Other

18. Adjournment and Next Meeting

Wednesday, February 21st, 2024 at 4:00 p.m.

Recommendation:

Whereas business before Council has been completed at _____ pm;

That Council adjourn to meet again on Wednesday, February 21st, 2024 at 4:00 p.m.

MINUTES

Council met at 4:00 p.m. for the 2024 Budget deliberations.

Present: Mayor Peterson, Councillors Banbury, Barnes, Demarest and Young.

Staff: Baer, Borton, Brick, Davidson, Degier, Harmer, and Krug.

Mayor Peterson in the Chair.

1. Welcome

2. Call to Order

3. Approval of the Agenda

RESOLUTION #1

Moved by – Councillor Barnes

Seconded by – Councillor Demarest

Be it hereby resolved that the agenda for the January 17th, 2024 Regular Meeting of Council be adopted as printed and circulated.

.Carried

4. Disclosure of Pecuniary Interest

None.

5. Adoption of Minutes

a. January 10th, 2024 Minutes of Council

RESOLUTION #2

Moved by – Councillor Barnes

Seconded by – Councillor Demarest

Be it hereby resolved that the minutes for the January 10th, 2024 Meeting of Council be adopted as printed and circulated.

.Carried

6. Business Arising from the Minutes

None.

7. Public Meetings

None.

8. Delegations / Presentations

- a. Township of Blandford-Blenheim Chief Administrative Officer & Directors, Re:
2024 Draft Budget, Operating and Capital

RESOLUTION #3

Moved by – Councillor Demarest
Seconded by – Councillor Barnes

Be it hereby resolved that the 2024 Draft Budget be received; and,

That staff be directed to make the necessary revisions to the estimates for presentation at a future Council meeting.

.Carried

9. Correspondence

- a. Specific

None.

- b. General

None.

10. Staff Reports

None.

11. Reports from Council Members

None.

12. Unfinished Business

None.

13. Motions and Notices of Motion

None.

14. New Business

None.

15. Closed Session

None.

16. Other Business

None.

17. By-laws

- a. 2413-2024, Being a By-law to confirm the proceedings of Council.

RESOLUTION #4

Moved by – Councillor Demarest
Seconded by – Councillor Barnes

Be it hereby resolved that the following By-law be now read a first and second time: 2413-2024.

.Carried

RESOLUTION #5

Moved by – Councillor Banbury
Seconded by – Councillor Young

Be it hereby resolved that the following By-law be now read a third and final time: 2413-2024.

.Carried

18. Adjournment and Next Meeting

RESOLUTION #6

Moved by – Councillor Young
Seconded by – Councillor Banbury

Whereas business before Council has been completed at 3:15 p.m.; and,

That Council adjourn to meet again on Wednesday, January 24th, 2024 at 4:00 p.m.

.Carried

Mark Peterson, Mayor
Township of Blandford-Blenheim

Sarah Matheson, Clerk
Township of Blandford-Blenheim

MINUTES

Council met at 4:00 p.m. for their first Regular Meeting of the month.

Present: Mayor Peterson, Councillors Banbury, Barnes, and Young.

Staff: Baer, Borton, Brick, Davidson, Degier, Harmer, and Krug.

Regrets: Member Demarest

Mayor Peterson in the Chair.

1. Welcome

2. Call to Order

3. Approval of the Agenda

RESOLUTION #1

Moved by – Councillor Barnes
Seconded by – Councillor Young

Be it hereby resolved that the agenda for the January 24th, 2024 Regular Meeting of Council be adopted as amended, by adding the following item:

- a) Staff Report CAO-05-24 – Equipment Purchase – Guardrail Mower as Item.

.Carried

4. Disclosure of Pecuniary Interest

None.

5. Adoption of Minutes

None.

6. Business Arising from the Minutes

None.

7. Public Meetings

- a. Public Meeting under the Planning Act, Committee of Adjustment

RESOLUTION #2

Moved by – Councillor Barnes
Seconded by – Councillor Banbury

Be it hereby resolved that Council move into Committee of Adjustment at 4:01 p.m.
.Carried

RESOLUTION #3

Moved by – Councillor Barnes
Seconded by – Councillor Demarest

Be it hereby resolved that the Committee rise at 4:05 p.m. and that the Open
Council meeting resumes.
.Carried

8. Delegations / Presentations

None.

9. Correspondence

a. Specific

None.

b. General

None.

10. Staff Reports

a. Drew Davidson – Director of Protective Services

i. FC-24-01 – Monthly Report

RESOLUTION #4

Moved by – Councillor Banbury
Seconded by – Councillor Young

Be it hereby resolved that Report FC-24-01 be received as information.

.Carried

b. Ray Belanger – Chief Building Official

i. CBO-24-01 – Monthly Report

RESOLUTION #5

Moved by – Councillor Banbury

Seconded by – Councillor Young

Be it hereby resolved that Report CBO-24-01 be received as information.

.Carried

c. Josh Brick – Chief Administrative Official

- i. CAO-24-05 – Monthly Report

RESOLUTION #5

Moved by – Councillor Banbury

Seconded by – Councillor Young

Be it hereby resolved that Report CAO-24-05 be received as information;
and,

That Council directs staff to proceed with the purchase of a Raiber
Transformer 840 in the amount of \$52,123.81 plus applicable taxes.

.Carried

11. Reports from Council Members

Mayor Peterson reported that Member Young and himself attended the ROMA Conference this past weekend and found it to be a beneficial networking opportunity. Mayor Peterson further reported that a Pancake Breakfast at the United Church is upcoming.

12. Unfinished Business

None.

13. Motions and Notices of Motion

None.

14. New Business

None.

15. Closed Session

- a. Report CAO-24-03 - Advice that is subject to solicitor-client privilege,
including communications necessary for that purpose [s. 239 (2)(f)]

Re: Municipal Roads

RESOLUTION #6

Moved by – Councillor Banbury
Seconded by – Councillor Young

Be it hereby resolved that Council move into Closed Session under the authority of Section 239 (2. f.) of the Municipal Act at 4:15 p.m. to discuss:

- a. Report CAO-24-03 - Advice that is subject to solicitor-client privilege, including communications necessary for that purpose [s. 239 (2)(f)]

Re: Municipal Roads

.Carried

RESOLUTION #7

Moved by – Councillor Banbury
Seconded by – Councillor Young

Be it hereby resolved that Council does now adjourn from Closed Session and resume into Open Session at 4:55 p.m.

.Carried

16. Other Business

None.

17. By-laws

- a. 2414-2024, Being a By-law to confirm the proceedings of Council.

RESOLUTION #8

Moved by – Councillor Young
Seconded by – Councillor Banbury

Be it hereby resolved that the following By-laws be now read a first and second time: 2414-2024.

.Carried

RESOLUTION #9

Moved by – Councillor Young
Seconded by – Councillor Banbury

Be it hereby resolved that the following By-laws be now read a third and final time: 2414-2024.

.Carried

18. **Adjournment and Next Meeting**

RESOLUTION #10

Moved by – Councillor Young
Seconded by – Councillor Banbury

Whereas business before Council has been completed at 4:57 p.m.; and,

That Council adjourn to meet again on Wednesday, February 7th, 2024 at 4:00 p.m.

.Carried

Mark Peterson, Mayor
Township of Blandford-Blenheim

Sarah Matheson, Clerk
Township of Blandford-Blenheim

Township of Blandford-Blenheim
Committee of Adjustment
Council Chambers, 47 Wilmot St. S. Drumbo
Streamed to Township's YouTube
Wednesday, January 24th, 2024
4:01 p.m.

COMMITTEE OF ADJUSTMENT MINUTES

The Township of Blandford-Blenheim Committee of Adjustment met at 4:01 p.m.

Present: Mayor Peterson, Members Banbury, Barnes, and Young.

Staff: Baer, Borton, Brick, Davidson, Degier, Harmer, Krug, Mordue, Matheson and Van Wyk.

Regrets: Member Demarest

Others: Dustin Robson, Planner, Oxford County.

Mayor Peterson in the Chair

Disclosure of Pecuniary Interest

None.

Minutes

i. December 20th, 2023 Meeting of the Committee of Adjustment

Verbal adoption of the Minutes of the Meeting of the Committee of Adjustment.

Moved by – Councillor Young
Seconded by – Councillor Banbury

Application

i. Application for Minor Variance MVA-11-23 Hall, 885777 Oxford Road 8

The Planner presented the report, recommending approval. The applicants were present. No Committee member asked questions or made comment regarding the application. No one in attendance spoke for or against the application.

Verbal motion to approve the application.

Moved by – Councillor Banbury
Seconded by – Councillor Young

For application A11-23 the decision was signed as approved.

The Committee adjourned at 4:05 p.m. and the Open Council meeting resumed.

Community Planning

P. O. Box 1614, 21 Reeve Street

Woodstock Ontario N4S 7Y3

Phone: 519-539-9800 • Fax: 519-421-4712

Web site: www.oxfordcounty.ca

Our File: **A01-24**

APPLICATION FOR MINOR VARIANCE

TO: Township of Blandford-Blenheim Committee of Adjustment

MEETING: February 7, 2024

REPORT NUMBER: CP 2024-41

OWNER: Bretz Farms Ltd.
896829 Washington Rd, Plattsville, ON N0J 1S0

AGENT: Cleon Martin
9481 Sally Street, Mount Forest, ON N0G 2L0

VARIANCES REQUESTED:

1. Relief from Section 6.2.1 to reduce the Minimum Distance Separation II (MDS II) requirement to the nearest Type A land use (residential dwelling located at 896832 Washington Road) from 188 m (616.7 ft) to 132 m (433 ft) to facilitate the construction of a new livestock barn; and,
2. Relief from Section 6.2.2 to reduce the Minimum Distance Separation II (MDS II) requirement to the nearest Type A land use (residential dwelling located at 896832 Washington Road) from 188 m (616.7 ft) to 182 m (597.1 ft) to facilitate the construction of a new manure storage facility to service the proposed livestock barn.

LOCATION:

The subject lands are described as Part Lot 13, Concession 14 in the former Township of Blenheim, now located in the Township of Blandford-Blenheim. The lands are located on the northwest corner of the Township Road 14 and Washington Road intersection and are municipally known as 896829 Washington Road.

BACKGROUND INFORMATION:

COUNTY OF OXFORD OFFICIAL PLAN:

Schedule "B-1" Township of Blandford-Blenheim Land Use Plan 'Agricultural Reserve'

TOWNSHIP ZONING BY-LAW 1360-2002:

'Limited Agricultural Zone (A1)'

COMMENTS:(a) Purpose of the Application:

The subject lands are approximately 10 ha (24.7 ac) in area. The applicant is proposing relief from the above-noted provisions of the Township Zoning By-law to facilitate the construction of a new livestock (poultry) barn on the subject lands. It is proposed that the new barn will be to the northeast of the existing barn, as shown on Plate 3 of Report No. 2024-41. Once the new barn is completed, the existing barn would be converted to agricultural equipment storage. In addition to the existing barn, a single detached dwelling also exists on the lands.

The proposed livestock (poultry) barn will comprise approximately 1,087 m² (11,700 ft²) with manure storage proposed to serve the proposed barn. The barn would have a proposed capacity of 100 nutrient units, or approximately 15,000 chickens. The existing livestock barn, which is being replaced, is approximately 475.6 m² (5,120 ft²), and has a capacity of 8,300 chickens (55.3 nutrient units).

Plate 1, Existing Zoning & Location Map, shows the location of the subject lands and the current zoning in the immediate vicinity.

Plate 2, Aerial Photography (2020), shows the location of the subject lands and surrounding properties.

Plate 3, Applicant's Sketch, illustrates the existing buildings and the location of the proposed livestock barn.

(b) Agency Comments

The Oxford County Public Works Department, the Township Director of Public Works, the Township Drainage Superintendent and the Grand River Conservation Authority (GRCA) had no comments or concerns regarding the proposal.

(c) Public Consultation:

Public Notice was mailed to surrounding property owners in accordance with the Planning Act. At the time of writing this report, no comments or concerns had been received from the public.

(d) Intent and Purpose of the Official Plan:

The subject lands are located in the 'Agricultural Reserve' designation according to the Land Use Plan for the Township of Blandford-Blenheim, as contained in the County Official Plan. In the Agricultural Reserve, lands are to be developed for a wide variety of agricultural land uses, together with farm buildings and structures necessary to the farming operation, and accessory residential uses required for the farm.

According to Section 3.1.1 of the Official Plan, it is the goal of the County to minimize conflicts between agricultural and non-agricultural uses. The application of the Minimum Distance Separation (MDS) guidelines, as established by the Province of Ontario, is considered a key mechanism through which municipalities reduce and minimize potential conflicts through the provisions of the Township's Zoning By-law.

The Official Plan states that where the establishment of a new or expanded livestock structure or manure storage facility is proposed, the Minimum Distance Separation Formula II (MDS II) must be satisfied prior to the issuance of a building permit.

In this case, the applicants have indicated that alternative locations that would be compliant with the MDS II setback for the proposed livestock barn are not ideal given the distance that they would be from existing infrastructure, such as access points to Washington Road, and would remove additional farmland. Further, the barn would be located within areas regulated by the Grand River Conservation Authority (GRCA) were it to be in a location that is compliant with the required MDS II.

Given that the proposal is for a new barn and manure storage facility in a location that will be further than the current barn is in relation to surrounding Type A land uses, it is not anticipated that the proposed relief will have any significant impacts on nearby neighbouring dwellings. In this respect, Planning staff are of the opinion that the proposed relief is generally in keeping with the intent of the Official Plan.

(e) Intent and Purpose of the Zoning By-law:

The subject lands are zoned 'Limited Agricultural Zone (A1)' according to the Township of Blandford-Blenheim Zoning By-law. The 'A1' zone permits a wide range of farming uses, including livestock and regulated farm operations, as well as buildings and structures accessory thereto.

According to Sections 6.2.1 and 6.2.2, any new livestock building or manure storage facility must meet Minimum Distance Separation II (MDS II) requirements. MDS is used as a tool to determine the required distance between a livestock facility and other land uses. The intent of MDS is to prevent land use conflicts and minimize nuisance complaints from odour.

In this case, the required MDS II setback between the proposed barn and nearest neighbouring dwelling located at 896832 Washington Road (to the east) will be approximately 132 m (433 ft) rather than the required 188 m (616.7 ft), representing an approximate 29.8% reduction. Further, the manure storage facility is proposed at 182 m (597.1 ft) rather than the required 188 m (616.7 ft), representing an approximate 3.2% reduction.

In looking at the existing barn's location on the site, it is approximately 67.6 m (222 ft) from the nearest dwelling located at 896832 Washington Road (to the east). The replacement barn's proposed location would improve the distance between the dwelling at 896832 Washington Road by approximately 64.4 m (211 ft). Further, the 6 m (6.6 ft) reduction to the required distance between the Type A dwelling and the manure storage is minor and will not unduly impact surrounding properties in the opinion of staff.

As the proposed location will make efficient use of the existing topography of the lands and will be situated further away from Type A land uses than the existing barn, Planning staff are of the opinion that the proposed relief generally maintains the general intent and purpose of the Zoning By-law.

(f) Desirable Development/Use:

Planning staff are of the opinion that the proposed relief to reduce the required MDS II setback to facilitate the construction of livestock barn and associated manure storage facility can be considered minor and desirable development of the subject property.

In this case, although the proposed relief represents a reduction in the required MDS setback relative to the nearest neighbouring dwelling, given that it proposed to replace an existing barn that is far more deficient, and it will improve the situation for surrounding property owners in terms of any potential nuisance.

The MDS Implementation Guideline provides that surrounding land uses, environmental concerns, safety, and practicality should be reviewed in the context of the proposed variance. The surrounding land uses are predominantly agricultural. From an environmental perspective, the proposed livestock barn would not appear to create any adverse environmental impacts as the proposed location is located outside of any GRCA regulated lands.

In light of the foregoing, it is the opinion of this Office that the requested relief is in keeping with the general intent and purpose of the County Official Plan and Township Zoning By-law and can be given favourable consideration.

RECOMMENDATION:

That the Township of Blandford-Blenheim Committee of Adjustment **approve** Application File A01-24, submitted by Cleon Martin on behalf of Bretz Farms Ltd. for lands described as Part Lot 13, Concession 14 in the Township of Blandford-Blenheim as it relates to:

1. Relief from Section 6.2.1 to reduce the Minimum Distance Separation II (MDS II) requirement to the nearest Type A land use (residential dwelling located at 896832 Washington Road) from 188 m (616.7 ft) to 132 m (433 ft) to facilitate the construction of a new livestock barn; and,
2. Relief from Section 6.2.2 to reduce the Minimum Distance Separation II (MDS II) requirement to the nearest Type A land use (residential dwelling located at 896832 Washington Road) from 188 m (616.7 ft) to 182 m (597.1 ft) to facilitate the construction of a new manure storage facility to service the proposed livestock barn.

The proposed relief meets the four tests of a minor variance as set out in Section 45(1) of the Planning Act as follows:

- i) deemed to be minor variances from the provisions of the Township of Blandford-Blenheim Zoning By-law No. 1360-2002;
- ii) desirable for the appropriate development or use of the land;
- iii) in keeping with the general intent and purpose of the Township of Blandford-Blenheim Zoning By-law No. 1360-2002, and;
- iv) in keeping with the general intent and purpose of the Official Plan of the County of Oxford.

Authored by: *original signed by*

Dustin Robson, MCIP, RPP
Development Planner

Approved for submission by: *original signed by*

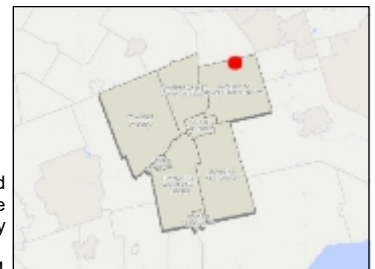
Eric Gilbert, MCIP, RPP
Manager of Development Planning



Legend

- Parcel Lines**
 - Property Boundary
 - Assessment Boundary
 - Unit
 - Road
 - Municipal Boundary
- Zoning Floodlines**
- Regulation Limit**
 - ◆ 100 Year Flood Line
 - ▲ 30 Metre Setback
 - Conservation Authority Regulation Limit
 - Regulatory Flood And Fill Lines
- Land Use Zoning (Displays 1:16000 to 1:500)

Notes



0 205 409 Meters



NAD_1983_UTM_Zone_17N



This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. This is not a plan of survey

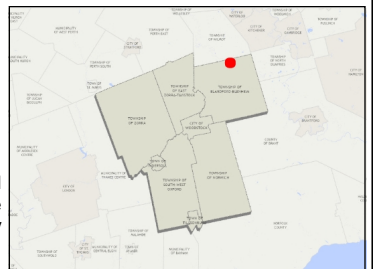
January 4, 2024



Legend

- Parcel Lines**
 - Property Boundary
 - Assessment Boundary
 - Unit
 - Road
 - Municipal Boundary
- Zoning Floodlines Regulation Limit**
 - ◆ 100 Year Flood Line
 - ▲ 30 Metre Setback
 - Conservation Authority Regulation Limit
 - Regulatory Flood And Fill Lines
- Land Use Zoning (Displays 1:16000 to 1:500)

Notes



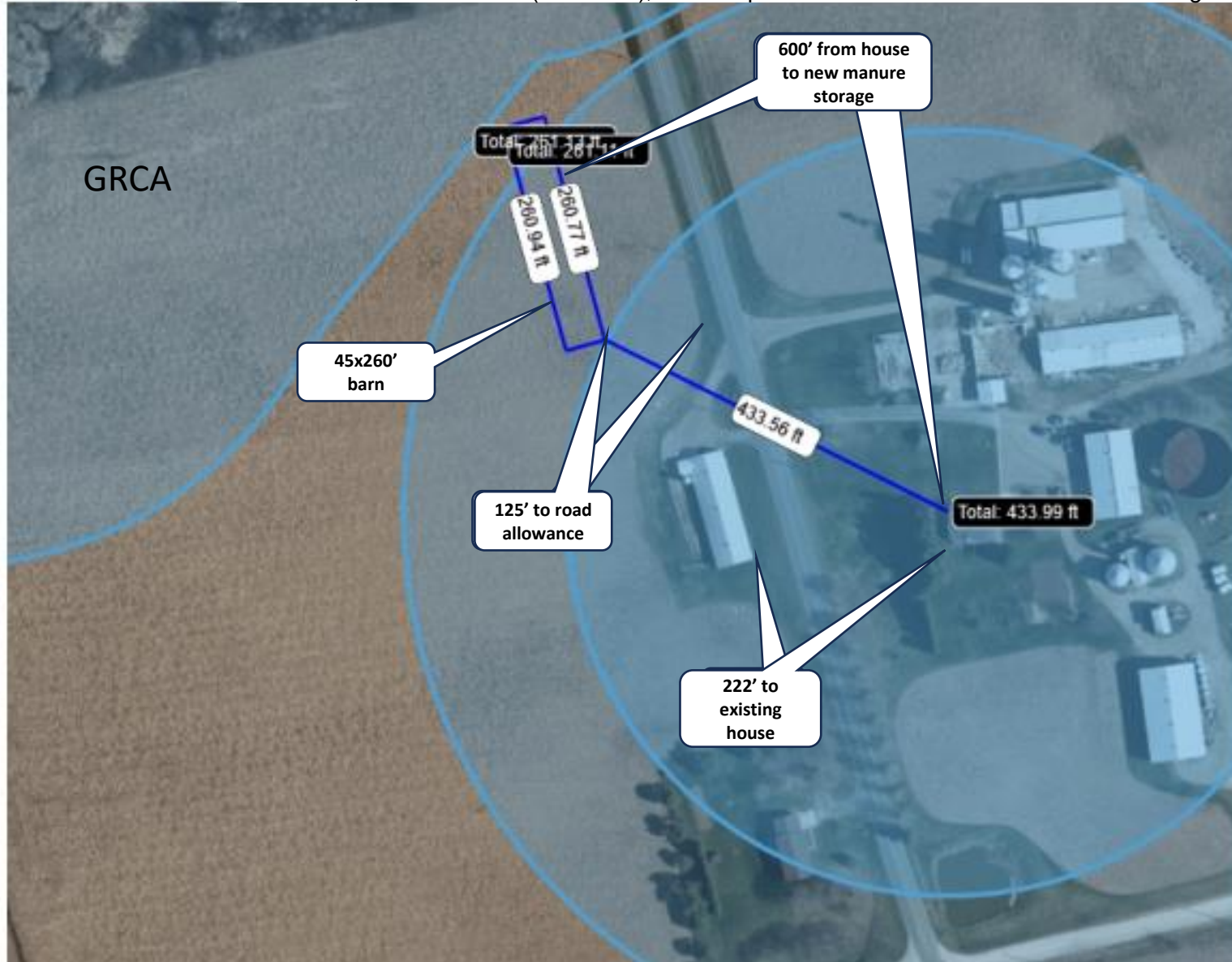
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NAD_1983_UTM_Zone_17N



This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. This is not a plan of survey

January 25, 2024



Legend

Notes

Notes



REPORT TO COUNTY COUNCIL

Reduced Load Limit By-Law Amendment

To: Warden and Members of County Council

From: Director of Public Works

RECOMMENDATION

1. That County Council enact a by-law to amend the Reduced Load Limit By-law 5905-2017 as outlined in Report PW 2024-02.

****Note: by-law being amended is actually 6191-2020, which repealed and replaced 5905-2017**

REPORT HIGHLIGHTS

- The purpose of this report is to remove seasonal load restrictions on County road segments that were recently rehabilitated and include Oxford Road 29 (Drumbo Road) east of Oxford Road 3, Oxford Road 27 (Prouse Road), Oxford Road 20 (Brownsville Road), and Oxford Road 26.
- Administrative by-law amendments to identify seasonal load restrictions on road segments acquired by the County as part of the 2021 road rationalization undertaking include; Oxford Road 28 (Maplewood Side Road) east of Oxford Road 59, Oxford Road 60 (16th Line), and Oxford Road 21 (New Durham Line).

IMPLEMENTATION POINTS

Following Council approval of the recommendations contained in this report, a by-law amendment will be presented at the January 24, 2024 County Council meeting for enactment.

The addition/removal of applicable signage identifying seasonal load restrictions will be completed to correspond with the by-law amendment.

Financial Impact

Signage modifications and website updates will be completed within the 2024 Transportation operations budget.

Communications




An updated map of reduced load limits on the County road network will be posted on the County’s website at www.oxfordcounty.ca/en/services-for-you/moving-permit.aspx.

A copy of Report PW 2024-02 will be forwarded to Area Municipalities, Oxford Detachment of the Ontario Provincial Police, and Elgin County.

2023-2026 STRATEGIC PLAN

Oxford County Council approved the [2023-2026 Strategic Plan](#) on September 13, 2023. The Plan outlines 39 goals across three strategic pillars that advance Council’s vision of “Working together for a healthy, vibrant, and sustainable future.” These pillars are: (1) *Promoting community vitality*, (2) *Enhancing environmental sustainability*, and (3) *Fostering progressive government*.

The recommendation in this report supports the following Strategic Plan Pillars and Goals:

PILLAR 1	PILLAR 2	PILLAR 3
		
Promoting community vitality	Enhancing environmental sustainability	Fostering progressive government
Goal 1.4 – Connected people and places	Goal 2.1 – Climate change mitigation and adaptation	Goal 3.1 – Continuous improvement and results-driven solutions Goal 3.2 – Collaborate with our partners and communities

See: [Oxford County 2023-2026 Strategic Plan](#)

DISCUSSION

Background

Oxford County By-law No. 5905-2017, as amended, identifies reduced load periods on specific County road segments in accordance with the Highway Traffic Act (HTA).

Reduced load periods occur seasonally from March 1st to April 30th during spring thaw periods when damage is most likely to occur on road segments with substandard pavement/base structure and inadequate drainage. Seasonal load restriction requirements are re-evaluated following the ongoing rehabilitation of County roads.

The 2021 Road Rationalization undertaking (refer to Report [PW 2021-29](#)) resulted in the upload of specific road segments to the County from respective Area Municipalities. Accordingly, the associated road segments are required to be identified in the County's reduced load limit below as an administrative amendment.

Comments

Proposed amendments to the County's reduced load limits by-law as shown on Attachment 1 include the addition of seasonal load restrictions on road segments acquired by the County as part of the 2021 Road Rationalization undertaking, and removal of load restrictions on road segments that have recently undergone pavement structure rehabilitation.

The following road segments that were uploaded to the County as part the 2021 Road Rationalization undertaking were historically subject to seasonal load restrictions when they were under the jurisdiction of the respective Area Municipalities and need to be included in the County's reduced load limit by-law:

- Oxford Road 28 (Maplewood Sideroad) from Oxford Road 59 to Oxford Road 5;
- Oxford Road 60 (16th Line) from Oxford Road 4 to Oxford Road 8; and,
- Oxford Road 21 (New Durham Line) from Oxford Road 59 to Oxford Road 22.

Staff is proposing to remove seasonal load restrictions on the following road segments that have been recently rehabilitated and are therefore less susceptible to damage during spring thaw.

- Oxford Road 29 (Drumbo Road) from Oxford Road 3 to Oxford Road 36;
- Oxford Road 27 (Prouse Road) from HWY 19 to Pigram Line;
- Oxford Road 20 (Brownsville Rd) from Quarter Townline to Oxford Road 26; and,
- Oxford Road 26 (Pigram Line) from Elgin Road 48 to Elgin Road 52.

Note: Oxford Road 26 (Pigram Line) is a boundary road between Oxford and Elgin Counties and is not subject to seasonal load restrictions under Elgin County's reduced load limit by-law.

CONCLUSIONS

Continuous improvements to the County road network through ongoing rehabilitation and/or replacement serves to enhance goods movement through and within the County in a manner which further supports economic prosperity.

SIGNATURES

Report author:

Original signed by

Frank Gross, C. Tech
Manager of Transportation and Waste Management Services

Departmental approval:

Original signed by

David Simpson, P.Eng., PMP
Director of Public Works

Approved for submission:

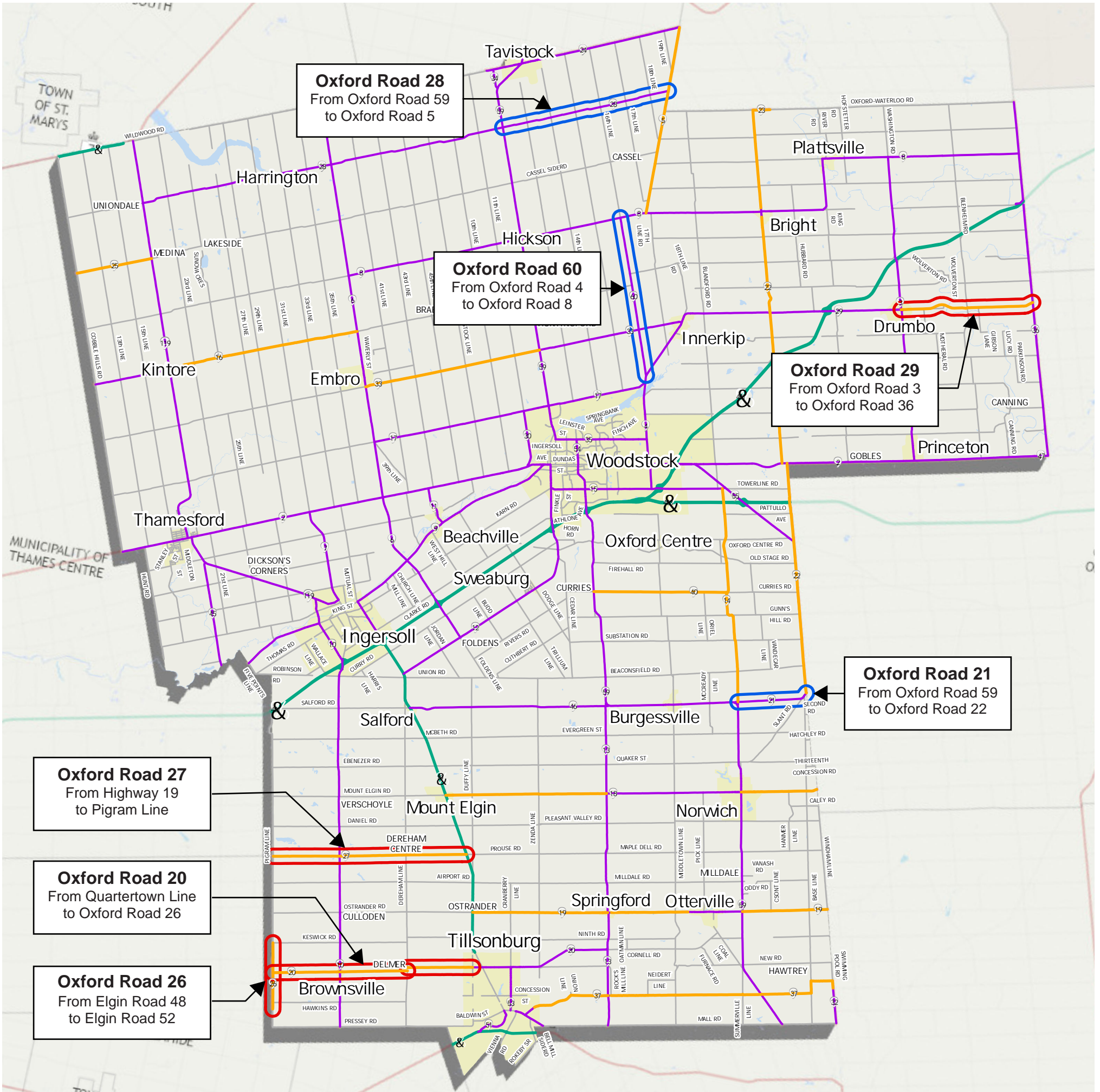
Original signed by

Benjamin R. Addley
Chief Administrative Officer

ATTACHMENT

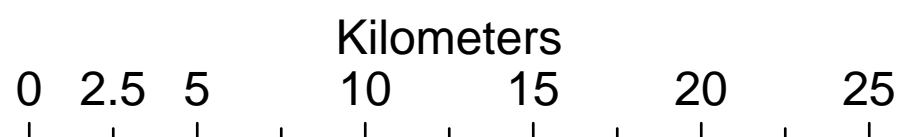
Attachment 1 – Oxford County Reduced Load Limit Amendment

Oxford County Reduced Load Limit Amendment



Legend

- Reduced Load Applies
- Removal of Reduced Load Limit
- Uploaded Roads to be included in Reduced Load Limit By-law
- Road Not Designated
- Provincial Highway
- Municipal Road



COUNTY OF OXFORD

BY-LAW NO. 6608-2024

BEING a By-law to amend By-law No. 6191-2020, being a by-law to set reduced load limits on certain County roads.

WHEREAS, the Table to Section 11 and Section 52 (3) of the *Municipal Act, 2001, S.O. 2001, Chapter 25*, prescribes that specified highways are within the jurisdiction of the County of Oxford for all matters relating to those highways, including parking and traffic;

AND WHEREAS, Subsection (7) of Section 122 of the *Highway Traffic Act R.S.O. 1990, Chapter H.8* as amended, provides that the municipality having jurisdiction over a highway may by by-law designate the date on which a reduced load period shall start or end and the highway or portion thereof under its jurisdiction to which the designation applies;

AND WHEREAS, Council has adopted Public Works Report No. PW 2024-02, dated January 10, 2024;

NOW THEREFORE, the Council of the County of Oxford enacts as follows:

1. That for the period from March 1 to April 30 inclusive in each and every year, the provisions of Section 122, Subsections (1), (2), (3) and (4) of the *Highway Traffic Act* apply to the roads or portions thereof set out in Schedule "A" to this By-law.
2. That this By-law shall be in effect only during the times when the appropriate signs have been erected and are on display.
3. That By-law No. 6191-2020 be hereby amended.

READ a first and second time this 24th day of January, 2024.

READ a third time and finally passed this 24th day of January, 2024.



Marcus Ryan

MARCUS RYAN,

WARDEN

Chloe Senior

CHLOE J. SENIOR,

CLERK

COUNTY OF OXFORD
BY-LAW NO. 6608-2024
SCHEDULE "A"

OXFORD ROAD #	FROM	TO
5	Oxford Road 8	Oxford Road 24
14	Oxford Road 21	Oxford Road 15
16	Oxford Road 119	Oxford Road 6
18	Kings Highway 19, Mount Elgin	Oxford Road 13
18	Oxford Road 59	County of Brant Boundary
19	Kings Highway 19	James St., Otterville
19	Oxford Road 59	County of Norfolk Boundary
21	Oxford Road 59	Oxford Road 22
22	Oxford Road 21	Oxford Road 2
22	Oxford Road 2	Oxford-Waterloo Road
23	Oxford Road 22	Regional Road 3, Regional Municipality of Waterloo
25	County of Middlesex Boundary	Oxford Road 119
27	Oxford Road 10	Kings Highway 19
28	Oxford Road 59	Oxford Road 5
32	Oxford Road 37	LaSalette Road
33	Oxford Road 6	Oxford Road 59
37	Harvest Line (Tillsonburg)	Oxford Road 32
40	Oxford Road 59	Oxford Road 14
47	Oxford Road 2	Oxford Road 36
60	Oxford Road 4	Oxford Road 8



6608-2024 Set Reduced Load Limits Certain County Roads

Final Audit Report

2024-01-24

Created:	2024-01-24
By:	Chloe Senior (csenior@oxfordcounty.ca)
Status:	Signed
Transaction ID:	CBJCHBCAABAApLFtJnM9sSaP4NIsNGRIN4OSETqUp4Hw

"6608-2024 Set Reduced Load Limits Certain County Roads" History

-  Document created by Chloe Senior (csenior@oxfordcounty.ca)
2024-01-24 - 3:28:44 PM GMT- IP address: 23.174.96.6
-  Document emailed to mryan@oxfordcounty.ca for signature
2024-01-24 - 3:29:04 PM GMT
-  Email viewed by mryan@oxfordcounty.ca
2024-01-24 - 4:16:32 PM GMT- IP address: 104.28.133.23
-  Signer mryan@oxfordcounty.ca entered name at signing as Marcus Ryan
2024-01-24 - 5:23:07 PM GMT- IP address: 23.174.96.7
-  Document e-signed by Marcus Ryan (mryan@oxfordcounty.ca)
Signature Date: 2024-01-24 - 5:23:09 PM GMT - Time Source: server- IP address: 23.174.96.7
-  Document emailed to Chloe Senior (csenior@oxfordcounty.ca) for signature
2024-01-24 - 5:23:10 PM GMT
-  Email viewed by Chloe Senior (csenior@oxfordcounty.ca)
2024-01-24 - 6:05:30 PM GMT- IP address: 99.226.147.14
-  Document e-signed by Chloe Senior (csenior@oxfordcounty.ca)
Signature Date: 2024-01-24 - 6:05:45 PM GMT - Time Source: server- IP address: 99.226.147.14
-  Agreement completed.
2024-01-24 - 6:05:45 PM GMT

Municipal Council of the County of Oxford
Council Meeting - Oxford County

Date: Wednesday, January 10, 2024

Moved By: David Mayberry

Seconded By: Brian Petrie

Resolved that the recommendation contained in Report PW 2024-02, titled "Reduced Load Limit By-Law Amendment", be adopted with the exception to remove Prouse Road from Culloden Road to Pigram Line until staff receive confirmation from Elgin County that they change their section of Road 37 to full load.

DISPOSITION: Motion Carried

Chloe Senior

REPORT TO COUNTY COUNCIL

Amendments to County Forests and County Lands Recreation By-law and Woodlands Conservation By-law

To: Warden and Members of County Council

From: Director of Public Works

RECOMMENDATIONS

1. That the County Forests and County Lands Recreation By-law 5854-2016, being a by-law to provide for the governance and control of County Forests and County Lands in the County of Oxford, be amended as outlined in Report PW 2024-03;
2. And further, that the Woodlands Conservation By-law 6035-2018, being a by-law to prohibit or regulate the destruction of trees in woodlands, be amended as outlined in Report PW 2024-03.

REPORT HIGHLIGHTS

- The purpose of this report is to seek County Council endorsements to several proposed minor administrative amendments of the County Forests and County Lands Recreation by-law, as well as the Woodlands Conservation by-law.

IMPLEMENTATION POINTS

Amendments to the County Forests and County Lands Recreation By-law and Woodlands Conservation By-law will be implemented and communicated immediately following adoption via Oxford County social media and signage where appropriate.

Financial Impact

There are no financial implications associated with the recommendations contained in this report as all costs are included in the 2024 Operational Budget for Woodlands.




Communications

Upon Council approval, the by-laws will be amended and the updated versions will be uploaded to the County website and shared with the Area Municipalities. The public will be informed via Oxford County social media and updated signage that includes QR (quick response) codes for mobile devices that link directly to the by-laws and other information.

2023-2026 STRATEGIC PLAN

Oxford County Council approved the [2023-2026 Strategic Plan](#) on September 13, 2023. The Plan outlines 39 goals across three strategic pillars that advance Council’s vision of “Working together for a healthy, vibrant, and sustainable future.” These pillars are: (1) *Promoting community vitality*, (2) *Enhancing environmental sustainability*, and (3) *Fostering progressive government*.

The recommendations in this report supports the following Strategic Plan Pillars and Goals:

PILLAR 1	PILLAR 2	PILLAR 3
		
Promoting community vitality	Enhancing environmental sustainability	Fostering progressive government
	<p>Goal 2.1 – Climate change mitigation and adaptation</p> <p>Goal 2.2 – Preserve and enhance our natural environment</p>	

See: [Oxford County 2023-2026 Strategic Plan](#)

DISCUSSION

Background

Oxford County currently has two by-laws which govern County-owned forests and properties (County Forests and County Lands Recreation By-law 5854-2016) and woodlands management (Woodlands Conservation By-law 6035-2018). These by-laws are reviewed on a regular basis and updated once sufficient changes are warranted. The proposed changes to these by-laws are driven by property ownership changes that have occurred in recent years, as well as various updates proposed through a regular administrative review.

A more wholesome update is planned to be completed in 2025 once Community Planning has completed the next Official Plan review as per Report [CP 2023-289](#). This update will address governance and enforcement changes required to align with the updated Official Plan.

Comments

This report proposes amendments to the County Forests and County Lands Recreation By-law and Woodlands Conservation By-law, including administrative updates and access improvements.

County Forests and County Lands Recreation By-law Proposed Amendments

As shown in Attachment 1, proposed changes of significance to this By-law are listed below:

- Section 4 (General Approved Activities) subsection 4.1(e), clarification is added to state that dog leashes must be no longer than 2 metres. This is intended to eliminate excessive fixed or retracting leashes that counteract the intent of this by-law. This clarification is also updated in Schedule E, item 11.
- Schedule “B” County Lands No. 4 to be removed from the by-law. This change is resulting from the sale of the agricultural lands completed in 2017. The property no longer has the same recreation value and is too small to provide adequate hunting access.
- Schedule “B” County Lands No. 17 and Schedule “D” County Forests or County Lands Where Hunting (Bow Only) Permitted – Update Inset Maps, to change the name from “Oxford County (Beachville) Park” to “Oxford County Thames River Wetlands”.
- Schedule “C” County Forests or County Lands Where Hunting (Gun or Bow) Permitted, property No. 9 to be removed from the by-law for the reasons outlined above.
- Schedule “D” County Forests or County Lands Where Hunting (Bow Only) Permitted – to include Oxford County Thames River Wetlands Parts “D”, “E” and “F” from Schedule “B” County Lands.
- Schedule “D” County Forests or County Lands Where Hunting (Bow Only) Permitted – Update Inset Maps to include Oxford County Thames River Wetlands Parts “D”, “E” and “F” from Schedule “B” County Lands – Inset Maps.

Woodlands Conservation By-law Proposed Amendments

As shown in Attachment 2, proposed amendments to this By-law are listed below:

- Section 5 (Exemptions) subsection (m) (iii), the reference to the Oxford Natural Heritage System Study (ONHSS) is being revised from the 2016 version, to the 2023 or later version in order to ensure the latest ONHSS is the point of reference.
- Section 6 (Administration and/or Committee Exemption) subsection (g), this line item is proposed to include the wording “site restoration and/or compensation plan” in order to provide greater clarity on what would be considered reasonable and desirable when granting an exemption.
- Section 11 (Penalty) subsection (a)(i) and (a)(ii), this line item is proposed to change the wording from “a fine of not more than” to “a minimum fine of”. With land values regularly exceeding \$30,000 per acre, capping the potential fines at \$10,000 for a first offense and \$25,000 for subsequent offenses offers little, if any, prevention with respect to violating the by-law. Fines often exceed 6-figures in other jurisdictions and continue to increase.

Conclusions

The proposed amendments to the County Forests and County Lands Recreation By-law, as well as the Woodlands Conservation By-law, will ensure that County of Oxford demonstrates continuous service improvement over its County owned forests and woodlands, as well as open and transparent governance as intended under the *Municipal Act, 2001*.

SIGNATURES

Report author:

Original signed by

Travis Lockhart
Woodlands Conservation Municipal Law Enforcement Officer

Departmental approval:

Original signed by

David Simpson, P.Eng., PMP
Director of Public Works

Approved for submission:

Original signed by

Benjamin R. Addley
Chief Administrative Officer

ATTACHMENTS

Attachment 1: Proposed Amendments to Forests and County Lands Recreation By-law 5854-2016

Attachment 2: Proposed Amendments to Woodlands Conservation By-law 6035-2018

COUNTY OF OXFORD

BY-LAW NO. **XXXX-2023**

BEING a By-law to repeal By-law No. 5854-2016 and to enact a new By-law to provide for the governance and control of County Forests and County Lands in the County of Oxford.

WHEREAS the County of Oxford owns and maintains County Forests and County Lands in the County of Oxford.

AND WHEREAS Section 9 of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended, provides a municipality the capacity, rights, powers and privileges of a natural person for the purpose of exercising its authority under this or any other Act.

AND WHEREAS, Section 11(2) of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, provides that a municipality may pass by-laws respecting the health, safety and well-being of persons as well as the protection of persons and property.

AND WHEREAS, Section 11(3) of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, provides that a municipality may pass by-laws respecting matters within the sphere of jurisdiction of culture, parks, recreation and heritage.

AND WHEREAS, Sections 23.1, 23.2 and 23.3 of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, provides that a municipality may delegate certain powers and duties.

AND WHEREAS, Sections 3, 4, 5 and 6 of the *Trespass to Property Act*, R.S.O. 1990, c. T.21, as amended, provides that the County of Oxford is authorized to prohibit entry to land occupied by the County of Oxford and to prohibit the carrying on of certain activities on such land and for these purposes give notice thereof.

AND WHEREAS, Oxford County Council deems it desirable to regulate the use of County Forests and County Lands in the County of Oxford.

NOW THEREFORE, the Council of the County of Oxford enacts as follows:

PART 1 - DEFINITIONS

1.1 In this By-law:

“Biking” is cycling on a bicycle, tricycle, unicycle, or other similar vehicle propelled solely by muscle power and does not include a motor assisted cycle of any type.

“County” means the County of Oxford.

“County Forest” means land owned by the County and designated by the County as an Oxford County Forest or Oxford County Agreement Forest, as designated in Schedule “A” attached hereto.

“County Land” means lands and forests owned by the County and not designated an Oxford County Forest, as designated in Schedule “B” attached hereto.

“Control” includes care and custody.

“Council” means the Council of the County of Oxford.

“CSS” means Canadian Shooting Sports.

“Designated Trail” means the part of a County Forest or County Land that has been marked, posted or blazed for the purpose of a trail governed by a Use Agreement and on which a trail permit is required.

“Fireworks” means a pyrotechnic device producing quantities or effects of light, sound, or smoke by the combustion of explosive or flammable composition.

“Hiking Trail” means the part of a County Forest or County Land that has been marked, posted, or blazed for the purpose of hiking, cross country skiing or running by the public.

“Hunting” includes,

- a) lying in wait, searching for, being on the trail of, pursuing, chasing or shooting at wildlife, whether or not wildlife is killed, injured, captured or harassed, or
- b) capturing or harassing wildlife,

except that “hunting” does not include,

- a) trapping, or
- b) lying in wait for, searching for, being on the trail of or pursuing wildlife for a purpose other than attempting to kill, injure, capture or harass it, unless the wildlife is killed, injured, captured or harassed as a result,

and “Hunt” and “Hunter” have corresponding meanings.

“Liquor” shall have the same meaning as defined in the *Liquor Licence Act*, R.S.O. 1990 c. L.19.

“Motorized Snow Vehicle” shall have the same meaning as defined in the *Motorized Snow Vehicles Act*, R.S.O. 1990, c. M.44.

“NFALI” means National Firearms Associations Liability Insurance.

“OFAH” means Ontario Federation of Anglers and Hunters.

“OFATV” means the Ontario Federation of All Terrain Vehicles

Clubs. “OFTR” means the Ontario Federation of Trail Riders.

“OFSC” means the Ontario Federation of Snowmobile Clubs.

“Officer” means a police officer, a municipal by-law enforcement officer, or other person appointed by Council to enforce this By-law.

“Off-Road Vehicle” shall have the same meaning as defined in the *Off-Road Vehicles Act*, R.S.O. 1990, c. O.4.

“Organized Event” includes any event that takes place in a County Forest or County Land where person(s) are charged an entry fee or the event is advertised, but does not include organized hikes or nature walks.

“Refuse” includes, but is not limited to, paper wrappers, food containers, discarded food, disposable eating utensils, newspapers, drink containers of all kinds, disposable diapers, broken glass, construction debris, grass clippings, brush and inert fill of any kind.

“Run at Large” means an animal being at a place other than the premises of the owner or custodian of the animal and the animal not being Under Control Of the owner or custodian.

“Trap” means a body-gripping trap, box trap, cage trap or net used to capture an animal or invertebrate, and “trapping” “trapper” and the verb “trap” have corresponding meanings;

“Under Control Of” means when an animal is unleashed, that the animal is close to the owner or custodian, within sight and earshot of the owner or custodian, and that it responds to voice commands and is prevented from approaching within one (1) meter of any animal or person without such person’s consent.

“Use Agreement” means an agreement with the County and a person, user group or organization outlining all the requirements for use of a County Forest or County Land.

“Vehicle” shall have the same meaning as defined in the *Highway Traffic Act*, R.S.O. 1990, c. H.8, and includes any vehicle drawn, propelled or driven by any kind of power including muscular power, but includes a Motorized Snow Vehicle and excludes a dog sled, child’s wagon, child’s sleigh, a baby carriage or stroller, and a wheelchair or similar device (motorized or otherwise) used by an individual due to a disability.

PART 2 - USES DECLARED

2.1 The Council of the County of Oxford hereby declares the use of the lands known as the County Forests to be for “forestry purposes” that is to include the production of wood and wood products, provision of proper environmental conditions for wildlife, protection against flood and erosion, recreation and protection and production of water supplies.

2.2 The Council of the County of Oxford hereby declares the use of the lands known as the County Lands to be for “forestry purposes and agricultural purposes” that is to include the production of wood and wood products, production of agricultural products including food and fodder, provision of proper environmental conditions for wildlife, protection against flood and erosion, recreation and protection and production of water supplies.

PART 3 - GENERAL PROHIBITED ACTIVITIES

3.1 No person shall in a County Forest or on County Land:

- a) litter, dump or dispose of any foreign material or Refuse, including liquid waste;
- b) have open fires;
- c) discharge Fireworks;
- d) camp;
- e) consume or possess Liquor;
- f) conduct target practice;
- g) carry or discharge a firearm, pellet gun, BB type gun, paintball gun, slingshot, long-bow, cross-bow, catapult or other dangerous weapon except as otherwise permitted by the provisions of this By-law;
- h) cut, prune, dig or gather trees, shrubs, groundcover or firewood;
- i) construct unauthorized structures;
- j) allow an animal to Run at Large;
- k) construct tree stands, blind shelters or permanent structures with use of nails or fasteners;
- l) remove, alter, deface or destroy any County sign, gate or fence;
- m) install an unauthorized sign of any kind;
- n) interfere with or disrupt logging activities;

- o) construct an unauthorized trail; and
 - p) trap.
- 3.2 No person shall use a Vehicle in a County Forest or on County Land, including on a Designated Trail or Hiking Trail, except in accordance with the provisions of this By-law.
- 3.3 No person shall Hunt in a County Forest or on County Land except in accordance with the provisions of this By-law.
- 3.4 No person shall disobey a posted sign in a County Forest or on County Land.
- 3.5 No person shall restrict, obstruct or impede public access to any portion of a County Forest or County Land, including on a Designated Trail or Hiking Trail, without authorization.

PART 4 – GENERAL APPROVED ACTIVITIES

- 4.1 The following activities are generally permitted in County Forests and on County Land, subject to posted signage:
- a) walking, running and hiking;
 - b) cross country skiing and snowshoeing;
 - c) orienteering and geocaching;
 - d) dog sledding;
 - e) dog walking Under Control Of or on a leash no longer than 2 metres in length;
 - f) Biking;
 - g) operating a Motorized Snow Vehicle on OFSC Designated Trails provided a valid OFSC permit has been obtained;
 - h) operating an Off-Road Vehicle on OFATV or OFTR Designated Trails provided a valid OFATV or OFTR permit has been obtained;
 - i) Hunting and fishing in selected County Forests or County Lands as designated in Schedule “C” (gun and bow hunting), Schedule “D” (bow hunting only) attached hereto, in accordance with provincial and federal hunting and fishing regulations provided that Hunters are members of an organization listed in Schedule “F” and produce proof of valid membership in an organization listed in Schedule “F” or an accepted alternative listed in Schedule “F” upon the request of an Officer and Hunters are only permitted to use portable and temporary tree stands and ladders; and
 - j) harvesting non-wood forest products such as tree seeds/cones or mushrooms for personal use.
- 4.2 Those uses approved through the execution of a Use Agreement with the County.

PART 5 – ADMINISTRATION

- 5.1 The Director of Public Works is authorized to administer and enforce this By-law.
- 5.2 The Director of Public Works may as he or she deems necessary for the administration of County Forest and County Land, the preservation and protection of County Forest and County Land, or to ensure public safety:
- a) prohibit or vary any activity or use in the County Forest or on County Land that is otherwise permitted pursuant to this By-law;
 - b) cause signs to be erected describing any of the provisions of this By-law, or

restricting or limiting the use or attendance on any part or portion of the County Forest and County Land in the interest of the preservation and protection of County Forest and County Land and to ensure public safety or well-being;

c) Enforce the provisions of this By-law through appropriate authorities.

5.3 Council has determined that, in consideration of the number of people, the size of the geographic area and the time period affected by the exercise of the powers delegated by Part 5, the said powers are of a minor nature.

PART 6 - USE AGREEMENTS

6.1 No person shall conduct an Organized Event in a County Forest or on County Land without an executed Use Agreement from the County.

6.2 An organization that wishes to use a County Forest or County Land for the purpose of establishing a Designated Trail or for such other purpose as deemed appropriate by the County is required to enter into a Use Agreement.

6.3 A person(s) or organization entering into a Use Agreement with the County may be required to pay a fee as established in the Use Agreement.

6.4 No person or organization who has entered into a Use Agreement with the County shall contravene any terms of the Use Agreement.

PART 7 - ENFORCEMENT AND PENALTY

7.1 Where any person contravenes any provisions of this By-law, such person is subject to the provisions of the *Trespass to Property Act*.

7.2 An Officer may enforce the provisions of this By-law.

7.3 An Officer may order a person believed to be in contravention of this By-law to:

- a) cease the activity that is in contravention of this By-law; and/or
- b) leave the County Forest or County Land.

7.4 Where any person contravenes any of the provisions of this By-law, the permission of such person to remain in the County Forest or on County Land is revoked.

7.5 Any person who is alleged to have contravened any section of this By-law shall identify themselves to an Officer upon request. Failure to do so shall be deemed to have hindered or obstructed the Officer in the execution of their duties.

7.6 Any person who provides false information to an Officer shall be deemed to have hindered or obstructed the Officer in the execution of their duties.

7.7 No person shall hinder or obstruct an Officer in the enforcement of this By-law.

7.8 Any person who contravenes any provision of this By-law is guilty of an offence and is liable to a fine and any other penalties imposed pursuant to the *Provincial Offences Act*, R.S.O. 1990, c. P.33, as amended.

7.9 Every person guilty of an offence under this By-law may, if permitted under the *Provincial Offences Act*, R.S.O 1990, c. P.33, pay a set fine, and the Chief Justice of the Ontario Court of Justice shall be requested to establish, pursuant to the *Provincial Offences Act*, R.S.O 1990, c. P.33, set fines in accordance with

Schedule "E" of this By-law.

7.10 The court in which the conviction has been entered and any court of competent jurisdiction thereafter may make an order prohibiting the continuation or repetition of the offence by the person convicted, and such order shall be in addition to any other penalty imposed by the court on the person convicted.

PART 8 – APPLICABLE LAW

8.1 Every person who uses a County Forest or County Land is subject to all applicable municipal by-laws and all provincial and federal laws and regulations, and any person violating any by-law or law may be required to leave the County Forest or County Land.

PART 9 - MISCELLANEOUS

Short title

9.1 This By-law may be referred to as the County Forests and County Lands Recreation By-law.

Severability

9.2 It is declared that notwithstanding that any Part or Parts of this By-law, or sections thereof, may be found by any court to be bad or illegal or beyond the power of the Council to enact, such Part or Parts or sections thereof shall be deemed to be severable and that all other Parts or sections of this By-law are separate and independent therefore and enacted as such.

9.3 That amendments to Schedules "A" through "D" of a minor housekeeping nature (such as but not restricted to dates, names, titles) may be adopted by resolution of Council but substantive revisions (such as but not restricted to roles, responsibilities, procedures) shall be adopted by By-law.

Repeal

9.4 That By-law No. 5854-2016 is hereby repealed.

9.5 That Schedules "A" through "F" shall form part of this By-law.

9.6 That the set fines in Schedule "E" come into force and effect upon approval by the Chief Justice of the Ontario Court of Justice.

9.7 That this By-law shall come into force and effect on the date of passing.

READ a first and second time this XX day of XXX, 2023

READ a third time and finally passed this XX day of XXX, 2023

"David Mayberry"

DAVID MAYBERRY,

WARDEN

"Brenda J. Tabor"

BRENDA J. TABOR,

CLERK

SCHEDULE "A"

COUNTY FORESTS

INSET MAP	ADDRESS	LEGAL DESCRIPTION
1. CHESNEY TRACT	846033 TOWNSHIP ROAD 9 BLANDFORD-BLENHEIM TWP, 866046 TOWNSHIP ROAD 10 BLANDFORD-BLENHEIM TWP	PT LT 5 CON 9 BLANDFORD AS IN BD8694 & BD8697, S/T A11553; BLANDFORD-BLENHEIM
2. CREDITVILLE TRACT	814929 MUIR LINE NORWICH TWP	PT LT 1 CON 1 EAST OXFORD AS IN EO10914; NORWICH
3. DRUMBO TRACT	807297 OXFORD ROAD 29 BLANDFORD-BLENHEIM TWP	PT LT 9 CON 7 BLENHEIM PT 4 & 5, 41R273; BLANDFORD-BLENHEIM
4. EMBRO TRACT	Part A 355892 35th LINE ZORRA TWP Part B 843932 ROAD 84 ZORRA TWP	Part A PT LT 15 CON 4 WEST ZORRA AS IN WZ11865, W OF 416676 EXCEPT AS SHOWN ON PL997; ZORRA Part B PT LT 15 CON 4 WEST ZORRA AS IN WZ11865, E OF 416676 EXCEPT AS SHOWN ON PL997 AND EXCEPT A33720; ZORRA
5. HALL TRACT	847021 TOWNSHIP ROAD 9 BLANDFORD-BLENHEIM TWP, 896197 OXFORD ROAD 3 BLANDFORD-BLENHEIM TWP	LT 13 CON 9 BLENHEIM EXCEPT PT 23, 24 & 25, 41R1617 AND PL831; S/T A11447; BLANDFORD-BLENHEIM
6. LAKESIDE TRACT	Part A 236697 23rd LINE ZORRA TWP Part B 236658 23rd LINE ZORRA TWP	Part A PT LT 28 CON 11 EAST MISSOURI PT 1 41R6537, S/T BENEFICIARIES INTEREST IN A86852; ZORRA Part B PT LT 27-28 CON 12 EAST MISSOURI AS IN EN12255; ZORRA
7. MCBETH TRACT	363398 MCBETH RD SOUTH/WEST OXFORD TWP	PT LT 24 CON 3 DEREHAM AS IN DE20323; SOUTH-WEST OXFORD
8. VANCE TRACT	565948 TOWERLINE RD NORWICH TWP	PT LT 3 CON 2 EAST OXFORD AS IN 211122; S/T EO10272, EO6644; NORWICH
9. ZENDA TRACT	364790 EVERGREEN ST NORWICH TWP	PT LT 25-26 CON 3 NORTH NORWICH AS IN NN13330, NN12395, NN11188; S/T NN13330; S/T INTEREST IN NN13330; NORWICH

SCHEDULE "A"

OXFORD COUNTY FORESTS – INSET MAPS

1 CHESNEY TRACT
846033 TOWNSHIP 9
866046 TOWNSHIP ROAD 10
BLANDFORD-BLENHEIM TWP



2 CREDITVILLE TRACT
814929 MUIR LINE
NORWICH TWP



3 DRUMBO TRACT
807297 OXFORD ROAD 29
BLANDFORD-BLENHEIM TWP



4 EMBRO TRACT
843932 ROAD 84
355892 35th LINE
ZORRA TWP



5 HALL TRACT
847021 TOWNSHIP ROAD 9
896197 OXFORD ROAD 3
BLANDFORD-BLENHEIM TWP



6 LAKESIDE TRACT
236658 23rd LINE
236697 23rd LINE
ZORRA TWP



7 MCBETH TRACT
363398 MCBETH RD
SOUTH/WEST OXFORD TWP



8 VANCE TRACT
565948 TOWERLINE RD
NORWICH TWP

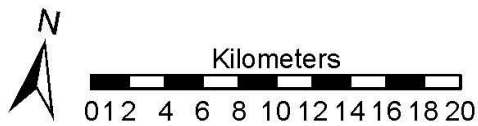
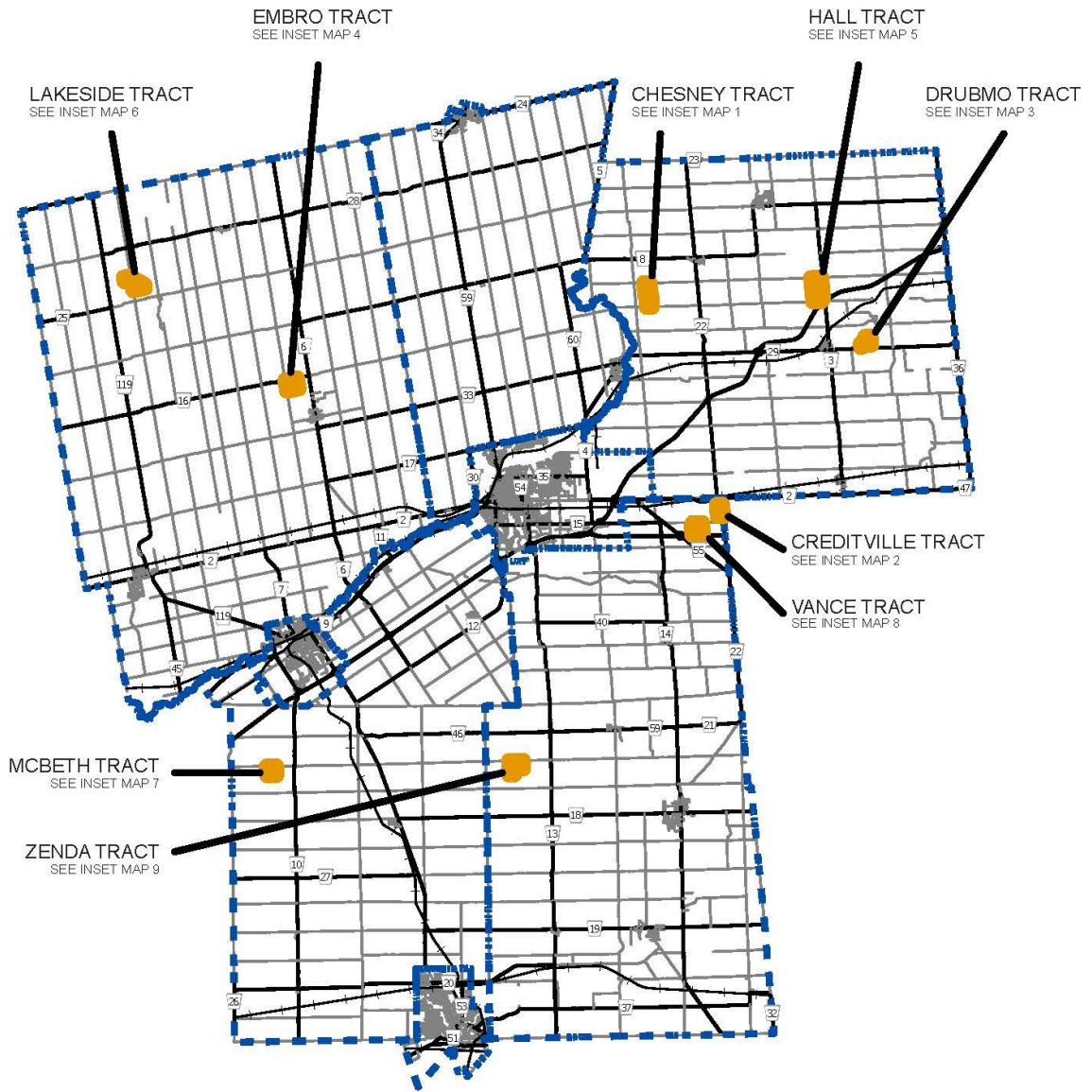


9 ZENDA TRACT
364790 EVERGREEN ST
NORWICH TWP



Schedule "A"

County Forests - Property Locations



SCHEDULE "B"

COUNTY LANDS

INSET MAP	ADDRESS	LEGAL DESCRIPTION
1. WEST ZORRA (EMBRO) CLOSED LANDFILL	335381 33rd LINE ZORRA TWP	PT LT 7 CON 2 WEST ZORRA AS IN A42339; ZORRA
2. NORTH OXFORD (THAMESFORD) CLOSED LANDFILL	622914 ROAD 62 ZORRA TWP	PT LT 22 CON 4 NORTH DORCHESTER PT 1 & 2, 41R1266; ZORRA
3. LAKESIDE CLOSED LANDFILL	256321 25th LINE ZORRA TWP	PT LT 22 CON 12 EAST MISSOURI PT 1, 41R1268; S/T A10689; ZORRA
4. HIGHLAND SHOP BUFFER PROPERTY	884107 ROAD 88 ZORRA TWP 884135 ROAD 88 ZORRA TWP	E1/2 LT 21 CON 5 WEST ZORRA EXCEPT PT 1 41R242 & PT 6 PL1076, S/T 221313; S/T 224862, A11433, A11443, A13746; ZORRA WEST ZORRA CON 5 PT LOT 21; RP 41R9439 PARTS 4 6 TO 9
5. OXFORD COUNTY TAVISTOCK LAGOON	Part A: 227 WILLIAM ST S EAST ZORRA Part B: TAVISTOCK TWP MARIA ST, WILLIAM ST, Village of TAVISTOCK	Part A: PT LTS 34-35 CON 13 EAST ZORRA AS IN PL CO54788; PT LT 34-35 CON 13 Part B: PT LTS 34-35 CON 13 EAST ZORRA AS IN PL CO54788; PT LT 34-35 CON 13 EAST ZORRA, PARTS 2, 3, 4, 5 & 7 41R2380 AND PART 1 41R3311; PT LT 23 PL 1609; PT LT 34-35 CON 13 EAST ZORRA, PART 2 41R9205 SUBJECT TO AN EASEMENT AS IN A52243 SUBJECT TO AN EASEMENT AS IN A58754 TOWNSHIP OF EAST ZORRA-TAVISTOCK
6. OXFORD COUNTY PLATTSVILLE LAGOON	906885 TOWNSHIP ROAD 12 BLANDFORD-BLENHEIM TWP	PT LT 16 CON 12 BLENHEIM PT 2, 3 & 5 41R515; BLANDFORD-BLENHEIM
7. BLANDFORD-BLENHEIM CLOSED LANDFILL	Part A Address: 846651 TOWNSHIP ROAD 9 BLANDFORD-BLENHEIM TWP Part B 856141 KING RD BLANDFORD-BLENHEIM TWP	Part A PT LT 19 CON 9 BLENHEIM PT 1-7 41R1264; BLANDFORD-BLENHEIM Part B PT LT 19 CON 9 BLENHEIM PT 1 41R2900; BLANDFORD-BLENHEIM
8. EAST OXFORD CLOSED LANDFILL	445286 GUNN'S HILL RD NORWICH TWP	PT LT 14 CON 7 EAST OXFORD AS IN A96848; NORWICH
9. FORMER BRANTFORD, NORFOLK, AND PORT BURWELL RAILROAD RIGHT OF WAY FROM CRANBERRY LINE, TO ZENDA		PT LT 1-3 CON 10 DEREHAM AS IN 408233; DESCRIPTION MAY NOT BE ACCEPTABLE IN FUTURE AS IN 408233; SWOXFORD/TILLSONBURG
10. HOLBROOK CLOSED LANDFILL	345071 QUAKER ST NORWICH TWP	PT LT 20-21 CON 3 NORTH NORWICH AS IN 355259, 279881; NORWICH
11. HOLBROOK CLOSED LANDFILL BUFFER LANDS	345071 QUAKER ST NORWICH TWP	PT LT 20-21 CON 3 NORTH NORWICH AS IN 355259, 279881; NORWICH
12. OXFORD COUNTY NORWICH LAGOONS		Part A BLK V, W, Y PL 271; PT LT 764 PL 955; PT PHEBE ST PL 271 CLOSED BY B23604, PT 1, 41R149; NORWICH

		<p>Part B PT LT 6 CON 5 NORTH NORWICH PT 1, 41R5660; NORWICH</p> <p>Part C BLK X PL 271; NORWICH</p> <p>Part D PT LT 6-7 CON 5 NORTH NORWICH; NORWICH</p>
13. OTTERVILLE CLOSED LANDFILL	<p>Part A 772481 HIGHWAY 59 NORWICH TWP</p> <p>Part B 772489 HIGHWAY 59 NORWICH TWP</p>	<p>Part A PT LT 8 CON 9 SOUTH NORWICH AS IN B19013 & A78090; NORWICH</p> <p>Part B PT LT 8 CON 9 SOUTH NORWICH PT 1 & 2, 41R4321; NORWICH</p>
14. TILLSONBURG CLOSED LANDFILL		PT LT 1-2 CON 5 NTR MIDDLETON PARTS 14, 16, 17 & 18 41R-8326 SUBJECT TO AN EASEMENT OVER PARTS 14, 16, 17 & 18 41R8326 IN FAVOUR OF PT LT 1-2 CON 5 NTR MIDDLETON PARTS 1, 2, 3, 4, 13 & 15 41R8326 AS IN CO85675 TOGETHER WITH AN EASEMENT OVER PT LT 1-2 CON 5 NTR MIDDLETON PART 13 41R8326 AS IN CO85676 TOWN OF TILLSONBURG
15. OXFORD COUNTY WASTE MANAGEMENT FACILITY BUFFER LANDS	<p>Part A 384108 SALFORD RD SOUTH/WEST OXFORD TWP , 384134 SALFORD RD</p> <p>Part B 384152 SALFORD RD SOUTH/WEST OXFORD TWP</p>	<p>Part A PT LT 10-12 CON 2 DEREHAM AS IN 278552, 436453, 436452, PL1560 & PT 1, 41R1300; S/T 268282, A31597, A32793, DE19973, DE19974; SOUTH-WEST OXFORD</p> <p>Part B PT LT 10 CON 2 DEREHAM PT 1, 41R655; SOUTH-WEST OXFORD</p>
16. OXFORD COUNTY WASTE MANAGEMENT FACILITY	384060 SALFORD RD SOUTH/WEST OXFORD TWP	PT LT 10-12 CON 2 DEREHAM AS IN 278552, 436453, 436452, PL1560 & PT 1, 41R1300; S/T 268282, A31597, A32793, DE19973, DE19974; SOUTH-WEST OXFORD
17. OXFORD COUNTY (BEACHVILLE) PARK THAMES RIVER WETLANDS		<p>Part A PT LT 19 N OF MAIN ST, 20 N OF MAIN ST, 21 N OF MAIN ST, 22 N OF MAIN ST, 23 N OF MAIN ST, 24 N OF MAIN ST PL 154 PT 2, 41R6381; S/T 430960; S/T BENEFICIARIES INTEREST IN 430960; SOUTH-WEST OXFORD</p> <p>Part B PT LT 19 N OF MAIN ST, 20 N OF MAIN ST, 21 N OF MAIN ST, 22 N OF MAIN ST, 23 N OF MAIN ST, 24 N OF MAIN ST PL 154 PT 2, 41R6381; S/T 430960; S/T BENEFICIARIES INTEREST IN 430960; SOUTH-WEST OXFORD</p> <p>Part C PT LT 23-27 CON 1 NORTH OXFORD; EAST ZORRA-TAVISTOCK</p> <p>Part D PT LT 4-6 CON BROKEN FRONT WEST OXFORD; SOUTH-WEST OXFORD</p> <p>Part E PT LT 2-4 CON BROKEN FRONT WEST OXFORD; SOUTH-WEST OXFORD</p> <p>Part F PT LT 2 CON BROKEN FRONT WEST OXFORD; SOUTH-WEST OXFORD</p>

<p>18. THORNTON WELLFIELD PROPERTIES, HODGES POND PROPERTY</p>	<p>Part A 524802 CURRY RD SOUTH/WEST OXFORD TWP</p> <p>Part B 524854 CURRY RD SOUTH/WEST OXFORD TWP</p> <p>Part C 524912 CURRY RD SOUTH/WEST OXFORD TWP</p> <p>Part D 484981 SWEABURG RD SOUTH/WEST OXFORD TWP</p> <p>Part E 484827 SWEABURG RD SOUTH/WEST OXFORD TWP</p> <p>Part F 484907 SWEABURG RD SOUTH/WEST OXFORD TWP</p> <p>Part G 504834 OLD STAGE RD NORWICH TWP</p> <p>Part I 484958 SWEABURG RD SOUTH/WEST OXFORD TWP</p> <p>Part J 484920 SWEABURG RD SOUTH/WEST OXFORD TWP</p> <p>Part K 534482 CEDAR LINE NORWICH TWP</p> <p>Part L 464865 RIVERS RD SOUTH/WEST OXFORD TWP, 534409 CEDAR LINE SOUTH/WEST OXFORD TWP, 464849 RIVERS RD SOUTH/WEST OXFORD TWP</p> <p>Part M 534326 CEDAR LINE NORWICH TWP</p> <p>Part N 464837 RIVERS RD SOUTH/WEST OXFORD TWP</p> <p>Part O 464852 RIVERS RD SOUTH/WEST OXFORD TWP</p>	<p>Part A PT LT 4 CON 3 WEST OXFORD AS IN 457544 (FIRSTLY); SOUTH-WEST OXFORD</p> <p>Part B PT LT 2-3 CON 3 WEST OXFORD AS IN 462288 (FIRSTLY); SOUTH-WEST OXFORD</p> <p>Part C PT LT 2 CON 3 WEST OXFORD AS IN 455072; SOUTH-WEST OXFORD</p> <p>Part D PT LT 1 CON 3 WEST OXFORD AS IN 205467; SOUTH-WEST OXFORD</p> <p>Part E PT LT 3 CON 3 WEST OXFORD AS IN 462288; SOUTH-WEST OXFORD</p> <p>Part F PT LT 1-2 CON 3 WEST OXFORD AS IN WO4730, WO4771 & WO7390 EXCEPT PT 1, 41R4208, 462288 & OLD STAGE ROAD N OF COUNTY RD 12; SOUTH- WEST OXFORD</p> <p>Part G PT LT 21-22 CON 4 EAST OXFORD PT 1-6 41R5661 EXCEPT PT 1 41R7303; S/T 389369; NORWICH</p> <p>Part H Legal Description: PT LT 21-22 CON 4 EAST OXFORD; PT RDAL BTN TWP OF EAST OXFORD & TWP OF WEST OXFORD CLOSED BY UNREGISTERED BYLAW 237 AS IN 414136 DESCRIPTION MAY NOT BE ACCEPTABLE IN THE FUTURE AS IN 414136; SOUTH-WEST OXFORD</p> <p>Part I PT LT 1 CON 3 WEST OXFORD AS IN A5694 EXCEPT B10294; SOUTH-WEST OXFORD</p> <p>Part J PT LT 2 CON 3 WEST OXFORD AS IN WO7390 S OF COUNTY RD 12; SOUTH- WEST OXFORD</p> <p>Part K PT LT 21 CON 5 EAST OXFORD AS IN 412674; S/T B14674; NORWICH</p> <p>Part L LT 1 CON 4 WEST OXFORD; PT LT 2-3 CON 4 WEST OXFORD AS IN A4974, A35218, WO9447 & WO9212; SOUTH- WEST OXFORD</p> <p>Part M PT LT 21 CON 6 EAST OXFORD AS IN A5029; NORWICH</p> <p>Part N PT LT 3 CON 4 WEST OXFORD AS IN A34111; SOUTH-WEST OXFORD</p> <p>Part O PT LT 3 CON 5 WEST OXFORD AS IN WO10342 & A27981; SOUTH-WEST OXFORD</p>
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	<p>Part P 504918 OLD STAGE RD NORWICH TWP, 534434 CEDAR LINE NORWICH TWP</p>	<p>Part P PT LT 19-20 CON 4 EAST OXFORD; PT LT 21, 20 CON 5 EAST OXFORD; PT RDAL BTN CON 4 & 5 EAST OXFORD AS IN A5036, A6204, A3926, A5144, A22058, & A5092 EXCEPT PT 2 & 4 41R2597 & AS IN A3950 EXCEPT EASEMENTS THEREIN; DESCRIPTION MAY NOT BE ACCEPTABLE IN FUTURE AS IN A5036, A6204, & A22058; NORWICH</p>
<p>19. FORMER CANADIAN NATIONAL RAILWAY RIGHT OF WAY FROM ZENDA LINE, TO BASE LINE ROAD, TO OXFORD COUNTY LIMITS</p>	<p>Part C 592611 OXFORD 13 NORWICH TWP</p> <p>Part I 773125 HIGHWAY 59 NORWICH TWP</p> <p>Part J 773126 HIGHWAY 59 NORWICH TWP</p> <p>Part K 325864 NORWICH RD NORWICH TWP</p>	<p>Part A PT LT 27-28 CON 10 SOUTH NORWICH AS IN 408233; NORWICH</p> <p>Part B PT LT 22-27 CON 9 SOUTH NORWICH AS IN 408233; NORWICH</p> <p>Part C PT LT 22 CON 8 SOUTH NORWICH PARTS 1 TO 4, 41R7283; NORWICH</p> <p>Part D PT LT 19-21 CON 8 SOUTH NORWICH AS IN 408233, DESCRIPTION MAY NOT BE ACCEPTABLE IN FUTURE AS IN 408233; NORWICH SUBJECT TO AN EASEMENT OVER PART 1 41R8823 IN FAVOUR OF PT LT 21 CON 8 SOUTH NORWICH AS IN R508451 AS IN CO101335</p> <p>Part E PT LT 15-19 CON 7 SOUTH NORWICH AS IN 408233, DESCRIPTION MAY NOT BE ACCEPTABLE IN FUTURE AS IN 408233; NORWICH</p> <p>Part F PT LT 15 CON 6 NORTH NORWICH PT 3 41R7114; NORWICH</p> <p>Part G PT LT 12-14 CON 6 NORTH NORWICH W OF TRAVELLED RD; NORWICH</p> <p>Part H PT LT 9-11 CON 6 NORTH NORWICH AS IN NN2243, NN2246 & NN2247 E OF TRAVELLED RD; NORWICH</p> <p>Part I PT LT 8-9 CON 5 NORTH NORWICH AS IN NN3575, NN2242, NN2241 & NN2240; NORWICH</p> <p>Part J PT LT 5-7 CON 5 NORTH NORWICH AS IN 408233 EXCEPT PARTS 1-7 INCLUSIVE 41R8925 TOWNSHIP OF NORWICH</p> <p>Part K PT LT 5 CON 5 NORTH NORWICH PT 1, 41R2185; NORWICH</p> <p>Part L PT LT 1-5 CON 4 NORTH NORWICH AS IN NN2228, NN2230, NN2231, NN2232, NN2350, NN2233, PT 1 41R8253 & PT 6 41R5519; NORWICH</p>

		<p>Part M RAILWAY BTN LT 77 AND LT 78 PL 396; NORWICH</p>
<p>20. FORMER CANADA SOUTHERN</p>		<p>Part A PT LTS 1 & 2 CON 11 DEREHAM, PART 1 41R7973; SOUTH-WEST OXFORD</p>
<p>RAILWAY COMPANY RAILROAD RIGHT OF WAY FROM THE EAST TOWN LIMIT IN THE TOWN OF TILLSONBURG TO SWIMMING POOL ROAD</p>		<p>Part B PT LT 22-28 CON 10 SOUTH NORWICH AS IN SN591, SN726, SN588, SN590, SN594, SN598, SN593, SN659, SN672, SN1031, SN673; PT RDAL BTN CON 10 & 11 SOUTH NORWICH AS IN SN7627 CLOSED BY UNREGISTERED BY-LAW #379; NORWICH</p> <p>Part C PT LT 15-21 CON 10 SOUTH NORWICH AS IN SN578, SN579, SN580, SN581, SN582, SN584, SN585, SN586, SN592, SN595, SN597, SN599, SN661, SN670, SN671, SN897, SN898, SN1006, SN1155, & SN8446; NORWICH</p> <p>Part D PT LT 14 CON 10 SOUTH NORWICH AS IN 497644; DESCRIPTION MAY NOT BE ACCEPTABLE IN FUTURE AS IN 497644; NORWICH</p> <p>Part E PT LT 8-14 CON 11 SOUTH NORWICH; NORWICH</p> <p>Part F PT LT 7 CON 11 SOUTH NORWICH AS IN 497644 W OF PL1269, DESCRIPTION MAY NOT BE ACCEPTABLE IN FUTURE AS IN 497644; NORWICH</p> <p>Part G PT LT 1-7 CON 11 SOUTH NORWICH AS IN 497644 E OF PL1269, DESCRIPTION MAY NOT BE ACCEPTABLE IN FUTURE AS IN 497644; NORWICH</p> <p>Part H Legal Description: PT GORE OF NORWICH AS IN 497644; NORWICH</p>
<p>21. FORMER CANADA SOUTHERN RAILWAY COMPANY RAILROAD RIGHT OF WAY FROM PIGRAM LINE, IN THE TOWNSHIP OF SOUTH-WEST OXFORD TO QUARTERLINE ROAD IN THE TOWN OF TILLSONBURG</p>		<p>Part A PT LT 22-28 CON 11 DEREHAM AS IN 497644; SOUTH-WEST OXFORD</p> <p>Part B PT LT 15-21 CON 11 DEREHAM AS IN DE1884, DE1883, DE1861, DE1772, DE1696, DE1410, DE1291, DE1290, DE1274, DE1273, DE1272, DE1270, DE1269; SOUTH-WEST OXFORD</p> <p>Part C PT GORE LT BTN LT 14 & 15 CON 11 DEREHAM AS IN DE1258; SOUTH-WEST OXFORD</p> <p>Part D PT LT 13-14 CON 11 DEREHAM AS IN DE11109, DE1261, DE1260, DE1259, DE1258, DE1257; SOUTH-WEST OXFORD</p> <p>Part E PT LT 12 CON 11 DEREHAM; SOUTH-WEST OXFORD</p> <p>Part F PT N 1/2 LT 10-11 CON 11 DEREHAM AS IN DE1697; SOUTH-WEST OXFORD</p> <p>Part G PT LT 9 CON 11 DEREHAM; SOUTH-WEST OXFORD</p> <p>Part H PT LT 8 CON 11 DEREHAM AS IN DE1289; TILLSONBURG</p>

SCHEDULE "B" OXFORD COUNTY LANDS – INSET MAPS

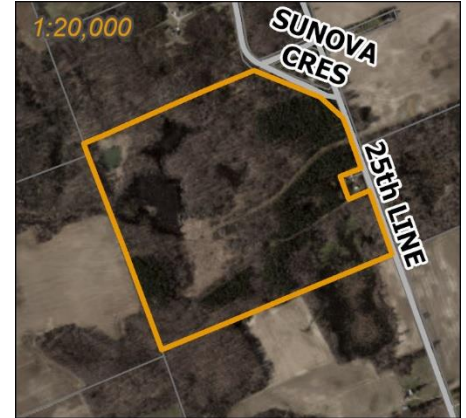
**1 WEST ZORRA
(EMBRO) CLOSED**



**2 NORTH OXFORD
(THAMESFORD)
CLOSED LANDFILL**



**3 LAKESIDE
CLOSED LANDFILL**



**4 HIGHLAND PATROL YARD
BUFFER PROPERTY**



**5 OXFORD COUNTY
TAVISTOCK LAAGOON
BUFFER PROPERTY**



**6 OXFORD COUNTY
PLATTSVILLE LAAGOON
BUFFER PROPERTY**



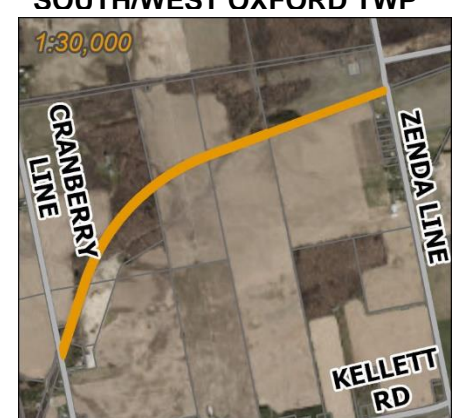
**7 BLANDFORD-BLENHEIM
CLOSED LANDFILL**



**8 EAST OXFORD
CLOSED LANDFILL**



**9 FORMER BRANTFORD, NORFOLK,
PORT BURWELL RAIL ROW
CRANBERRY LINE TO ZENDA LINE
SOUTH/WEST OXFORD TWP**

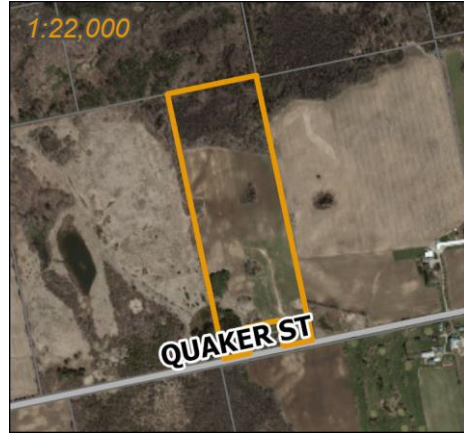


SCHEDULE "B" OXFORD COUNTY LANDS – INSET MAPS

10 HOLBROOK
CLOSED LANDFILL



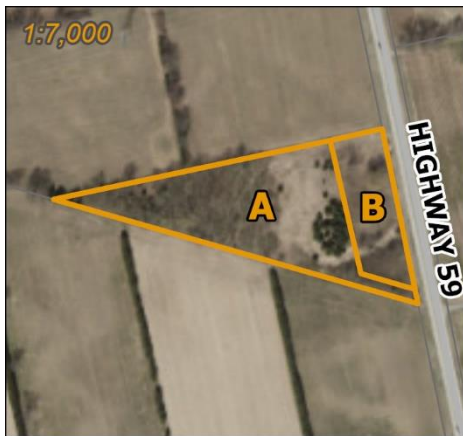
11 HOLBROOK CLOSED LANDFILL
BUFFER LANDS



12 OXFORD COUNTY
NORWICH LAGOONS



13 OTTERVILLE
CLOSED LANDFILL



14 TILLSONBURG
CLOSED LANDFILL



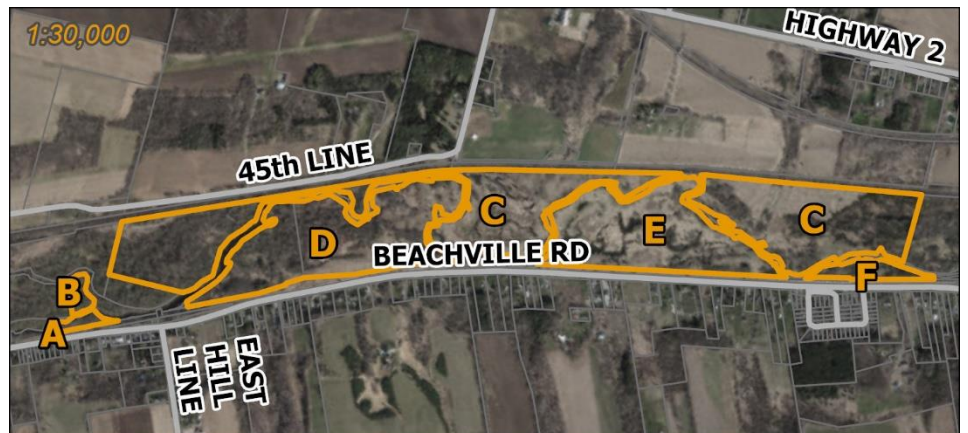
15 OXFORD COUNTY
WASTE MANAGEMENT
FACILITY BUFFER LANDS



16 OXFORD COUNTY WASTE
MANAGEMENT FACILITY

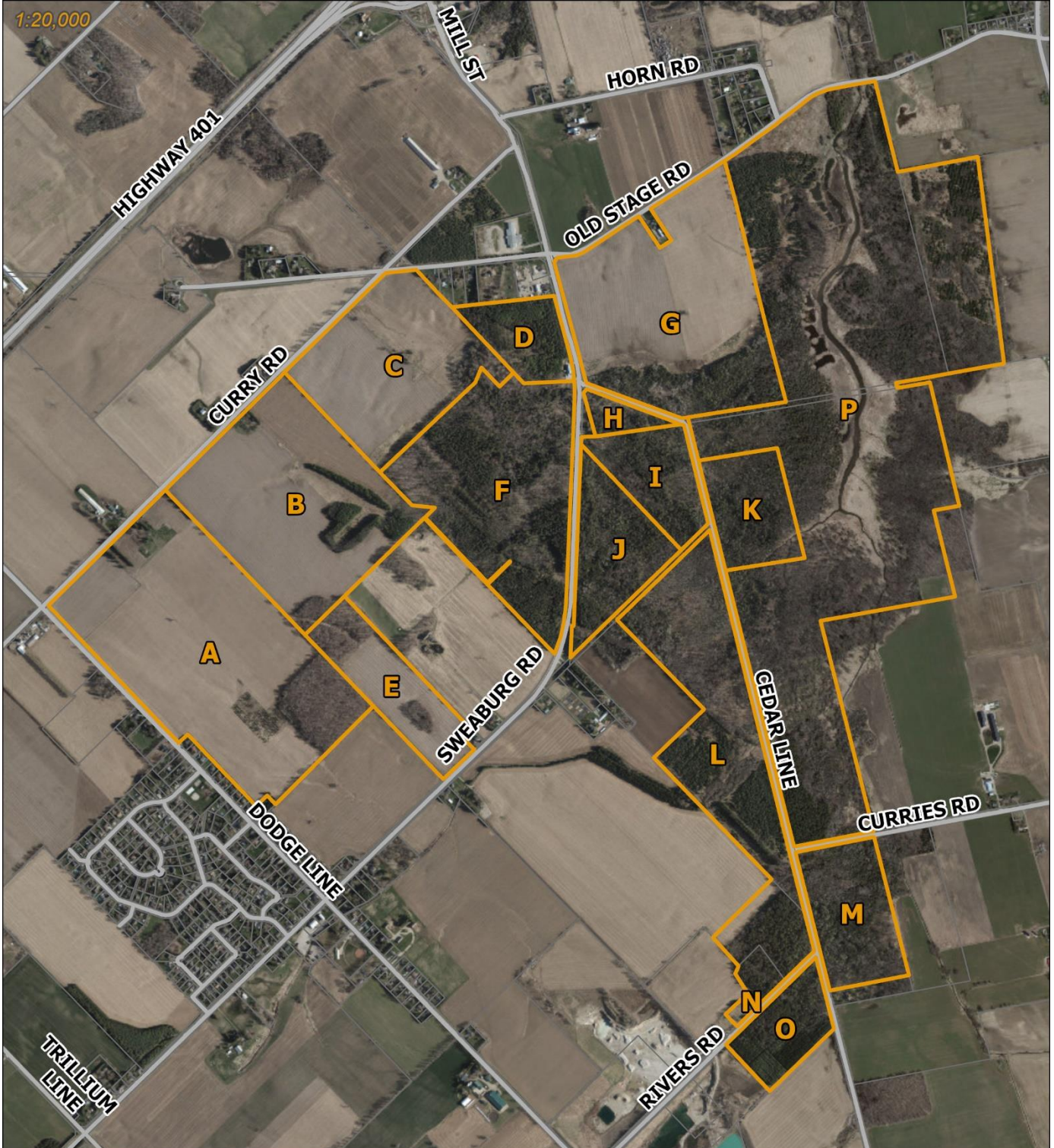


17 OXFORD COUNTY ~~(BEACHVILLE)-PARK~~ THAMES RIVER
WETLANDS



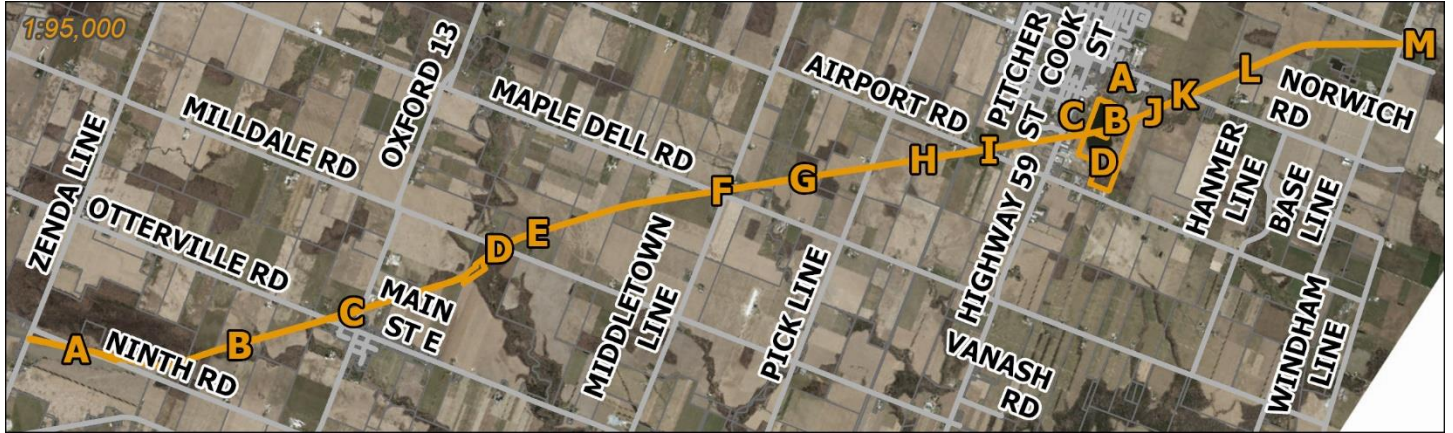
SCHEDULE "B" OXFORD COUNTY LANDS – INSET MAPS

18 THORNTON WELLFIELD PROPERTIES, HODGES POND



SCHEDULE "B" OXFORD COUNTY LANDS – INSET MAPS

- 19** FORMER CANADIAN NATIONAL RAILWAY RIGHT OF WAY
ZENDA LINE TO WINDHAM LINE TO OXFORD COUNTY LIMITS IN NORWICH TWP



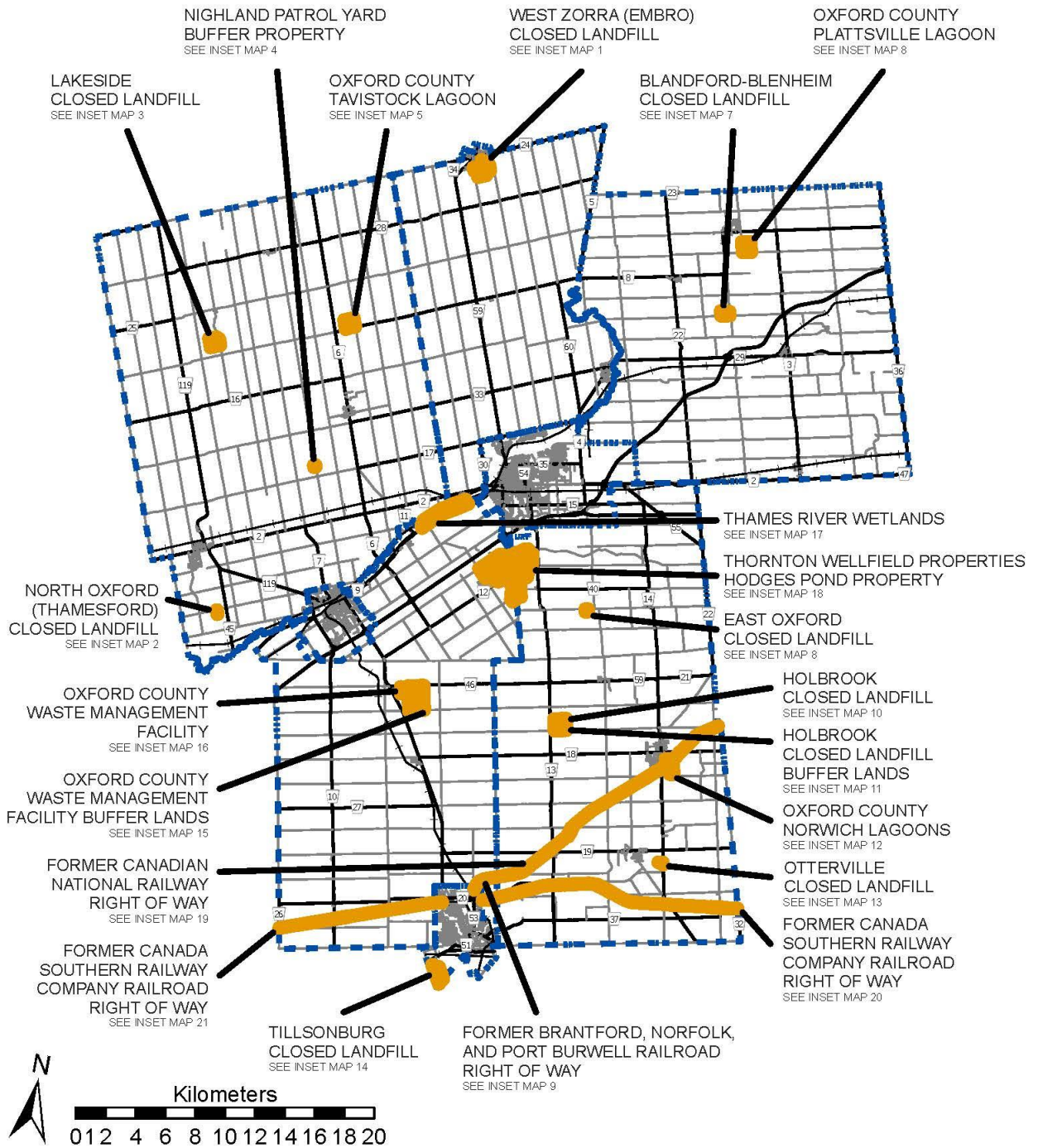
- 20** FORMER CANADA SOUTHERN RAILWAY COMPANY RAILROAD RIGHT OF WAY
EAST OF TILLSONBURG TOWN LIMIT TO SWIMMING POOL ROAD IN NORWICH



- 21** FORMER CANADA SOUTHERN RAILWAY COMPANY RAILROAD RIGHT OF WAY
FROM PIGRAM LINE IN SOUTH-WEST OXFORD TWP TO QUARTERLINE ROAD IN TILLSONBURG



Schedule "B" County Lands - Property Locations



SCHEDULE "C"

COUNTY FORESTS OR COUNTY LANDS WHERE HUNTING (GUN OR BOW) PERMITTED

INSET MAP	ADDRESS	LEGAL DESCRIPTION
1. CHESNEY TRACT	846033 TOWNSHIP ROAD 9 BLANDFORD-BLENHEIM TWP, 866046 TOWNSHIP ROAD 10 BLANDFORD-BLENHEIM TWP	PT LT 5 CON 9 BLANDFORD AS IN BD8694 & BD8697, S/T A11553; BLANDFORD-BLENHEIM
2. CREDITVILLE TRACT	814929 MUIR LINE NORWICH TWP	PT LT 1 CON 1 EAST OXFORD AS IN EO10914; NORWICH
3. DRUMBO TRACT	807297 OXFORD ROAD 29 BLANDFORD-BLENHEIM TWP	PT LT 9 CON 7 BLENHEIM PT 4 & 5, 41R273; BLANDFORD-BLENHEIM
4. HALL TRACT	847021 TOWNSHIP ROAD 9 BLANDFORD-BLENHEIM TWP, 896197 OXFORD ROAD 3 BLANDFORD-BLENHEIM TWP	LT 13 CON 9 BLENHEIM EXCEPT PT 23, 24 & 25, 41R1617 AND PL831; S/T A11447; BLANDFORD-BLENHEIM
5. LAKESIDE TRACT	Part A 236697 23rd LINE ZORRA TWP Part B 236658 23rd LINE ZORRA TWP	Part A PT LT 28 CON 11 EAST NISSOURI PT 1 41R6537, S/T BENEFICIARIES INTEREST IN A86852; ZORRA Part B PT LT 27-28 CON 12 EAST NISSOURI AS IN EN12255; ZORRA
6. MCBETH TRACT	363398 MCBETH RD SOUTH/WEST OXFORD TWP	PT LT 24 CON 3 DEREHAM AS IN DE20323; SOUTH-WEST OXFORD
7. VANCE TRACT	565948 TOWERLINE RD NORWICH TWP	PT LT 3 CON 2 EAST OXFORD AS IN 211122; S/T EO10272, EO6644; NORWICH
8. ZENDA TRACT	364790 EVERGREEN ST NORWICH TWP	PT LT 25-26 CON 3 NORTH NORWICH AS IN NN13330, NN12395, NN11188; S/T NN13330; S/T INTEREST IN NN13330; NORWICH
9. HIGHLAND SHOP BUFFER PROPERTY	884107 ROAD 88 ZORRA TWP 884135 ROAD 88 ZORRA TWP	E1/2 LT 21 CON 5 WEST ZORRA EXCEPT PT 1 41R242 & PT 6 PL1076, S/T 221313; S/T 224862, A11433, A11443, A13746; ZORRA WEST ZORRA CON 5 PT LOT 21; RP 41R9439 PARTS 4 6 TO 9

SCHEDULE "C"

COUNTY FORESTS OR COUNTY LANDS WHERE HUNTING (GUN OR BOW) PERMITTED - INSET MAPS

1 CHESNEY TRACT
846033 TOWNSHIP 9
866046 TOWNSHIP ROAD 10
BLANDFORD-BLENHEIM TWP



2 CREDITVILLE TRACT
814929 MUIR LINE
NORWICH TWP



3 DRUMBO TRACT
807297 OXFORD ROAD 29
BLANDFORD-BLENHEIM TWP



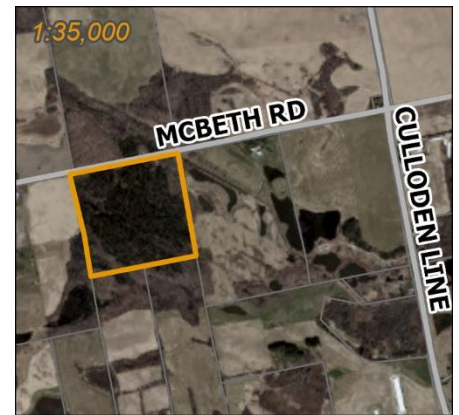
4 HALL TRACT
847021 TOWNSHIP ROAD 9
896197 OXFORD ROAD 3
BLANDFORD-BLENHEIM TWP



5 LAKESIDE TRACT
236658 23rd LINE
236697 23rd LINE
ZORRA TWP



6 MCBETH TRACT
363398 MCBETH RD
SOUTH/WEST OXFORD TWP



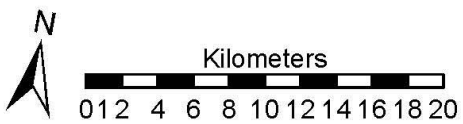
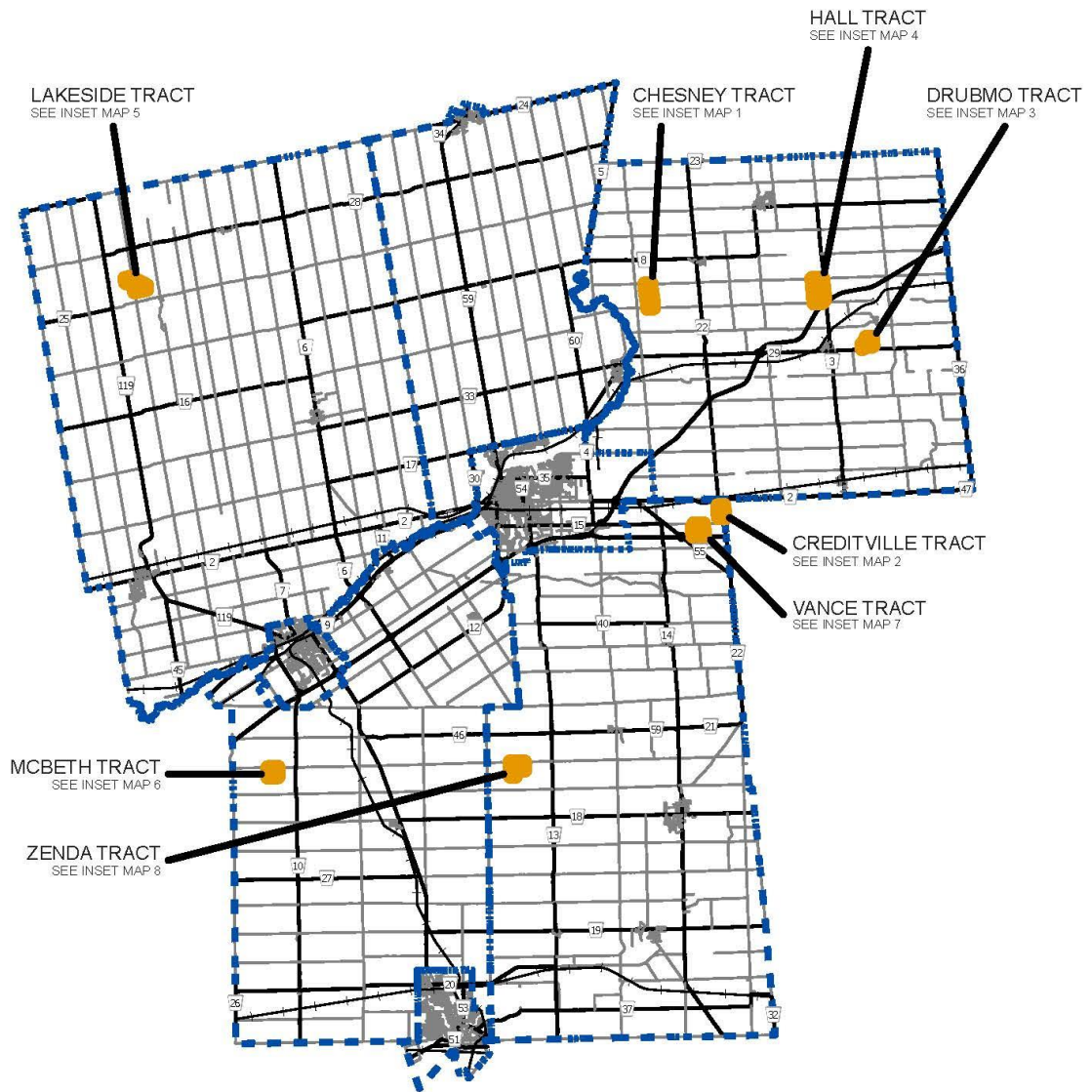
7 VANCE TRACT
565948 TOWERLINE RD
NORWICH TWP



8 ZENDA TRACT
364790 EVERGREEN ST
NORWICH TWP



Schedule "C" County Forest Or County Lands Where Hunting (Gun or Bow) Permitted



SCHEDULE "D"

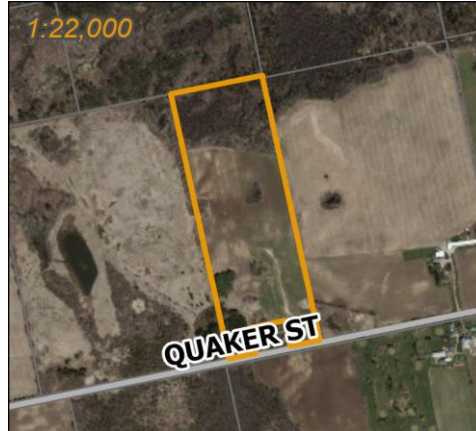
COUNTY FORESTS OR COUNTY LANDS WHERE HUNTING (BOW ONLY) PERMITTED

INSET MAP	ADDRESS	LEGAL DESCRIPTION
1. HOLBROOK CLOSED LANDFILL BUFFER LANDS	345071 QUAKER ST NORWICH TWP	PT LT 20-21 CON 3 NORTH NORWICH AS IN 355259, 279881; NORWICH
2. OXFORD COUNTY WASTE MANAGEMENT FACILITY BUFFER LANDS	Part A 384108 SALFORD RD SOUTH/WEST OXFORD TWP , 384134 SALFORD RD	Part A PT LT 10-12 CON 2 DEREHAM AS IN 278552, 436453, 436452, PL1560 & PT 1, 41R1300; S/T 268282, A31597, A32793, DE19973, DE19974; SOUTH-WEST OXFORD
	Part B 384152 SALFORD RD SOUTH/WEST OXFORD TWP	Part B PT LT 10 CON 2 DEREHAM PT 1, 41R655; SOUTH-WEST OXFORD
3. THORNTON WELLFIELD PROPERTIES	Part A 524802 CURRY RD SOUTH/WEST OXFORD TWP	Part A PT LT 4 CON 3 WEST OXFORD AS IN 457544 (FIRSTLY); SOUTH-WEST OXFORD
	Part B 524854 CURRY RD SOUTH/WEST OXFORD TWP	Part B PT LT 2-3 CON 3 WEST OXFORD AS IN 462288 (FIRSTLY); SOUTH-WEST OXFORD
	Part C 524912 CURRY RD SOUTH/WEST OXFORD TWP	Part C PT LT 2 CON 3 WEST OXFORD AS IN 455072; SOUTH-WEST OXFORD
	Part D 484981 SWEABURG RD SOUTH/WEST OXFORD TWP	Part D PT LT 1 CON 3 WEST OXFORD AS IN 205467; SOUTH-WEST OXFORD
	Part E 484827 SWEABURG RD SOUTH/WEST OXFORD TWP	Part E PT LT 3 CON 3 WEST OXFORD AS IN 462288; SOUTH-WEST OXFORD
	Part F 484907 SWEABURG RD SOUTH/WEST OXFORD TWP	Part F PT LT 1-2 CON 3 WEST OXFORD AS IN WO4730, WO4771 & WO7390 EXCEPT PT 1, 41R4208, 462288 & OLD STAGE ROAD N OF COUNTY RD 12; SOUTH-WEST OXFORD
	Part G 504834 OLD STAGE RD NORWICH TWP	Part G PT LT 21-22 CON 4 EAST OXFORD PT 1-6 41R5661 EXCEPT PT 1 41R7303; S/T 389369; NORWICH
		Part H Legal Description: PT LT 21-22 CON 4 EAST OXFORD; PT RDAL BTN TWP OF EAST OXFORD & TWP OF WEST OXFORD CLOSED BY UNREGISTERED BYLAW 237 AS IN 414136 DESCRIPTION MAY NOT BE ACCEPTABLE IN THE FUTURE AS IN 414136; SOUTH-WEST OXFORD
	Part I 484958 SWEABURG RD SOUTH/WEST OXFORD TWP	Part I PT LT 1 CON 3 WEST OXFORD AS IN A5694 EXCEPT B10294; SOUTH-WEST OXFORD
	Part J 484920 SWEABURG RD SOUTH/WEST OXFORD TWP	Part J PT LT 2 CON 3 WEST OXFORD AS IN WO7390 S OF COUNTY RD 12; SOUTH-WEST OXFORD
	Part K 534482 CEDAR LINE NORWICH TWP	Part K PT LT 21 CON 5 EAST OXFORD AS IN 412674; S/T B14674; NORWICH

	<p>Part L 464865 RIVERS RD SOUTH/WEST OXFORD TWP, 534409 CEDAR LINE SOUTH/WEST OXFORD TWP, 464849 RIVERS RD SOUTH/WEST OXFORD TWP</p> <p>Part M 534326 CEDAR LINE NORWICH TWP</p> <p>Part N 464837 RIVERS RD SOUTH/WEST OXFORD TWP</p> <p>Part O 464852 RIVERS RD SOUTH/WEST OXFORD TWP</p> <p>Part P 504918 OLD STAGE RD NORWICH TWP, 534434 CEDAR LINE NORWICH TWP</p>	<p>Part L LT 1 CON 4 WEST OXFORD; PT LT 2-3 CON 4 WEST OXFORD AS IN A4974, A35218, WO9447 & WO9212; SOUTH-WEST OXFORD</p> <p>Part M PT LT 21 CON 6 EAST OXFORD AS IN A5029; NORWICH</p> <p>Part N PT LT 3 CON 4 WEST OXFORD AS IN A34111; SOUTH-WEST OXFORD</p> <p>Part O PT LT 3 CON 5 WEST OXFORD AS IN WO10342 & A27981; SOUTH-WEST OXFORD</p> <p>Part P PT LT 19-20 CON 4 EAST OXFORD; PT LT 21, 20 CON 5 EAST OXFORD; PT RDAL BTN CON 4 & 5 EAST OXFORD AS IN A5036, A6204, A3926, A5144, A22058, & A5092 EXCEPT PT 2 & 4 41R2597 & AS IN A3950 EXCEPT EASEMENTS THEREIN; DESCRIPTION MAY NOT BE ACCEPTABLE IN FUTURE AS IN A5036, A6204, & A22058; NORWICH</p>
<p>4. OXFORD COUNTY (BEACHVILLE) PARK THAMES RIVER WETLANDS</p>		<p>Part C PT LT 23-27 CON 1 NORTH OXFORD; EAST ZORRA-TAVISTOCK</p> <p>Part D PT LT 4-6 CON BROKEN FRONT WEST OXFORD; SOUTH-WEST OXFORD</p> <p>Part E PT LT 2-4 CON BROKEN FRONT WEST OXFORD; SOUTH-WEST OXFORD</p> <p>Part F PT LT 2 CON BROKEN FRONT WEST OXFORD; SOUTH-WEST OXFORD</p>

SCHEDULE "D" (amended November 23, 2016) COUNTY FORESTS OR COUNTY LANDS WHERE HUNTING (BOW ONLY) PERMITTED - INSET MAPS

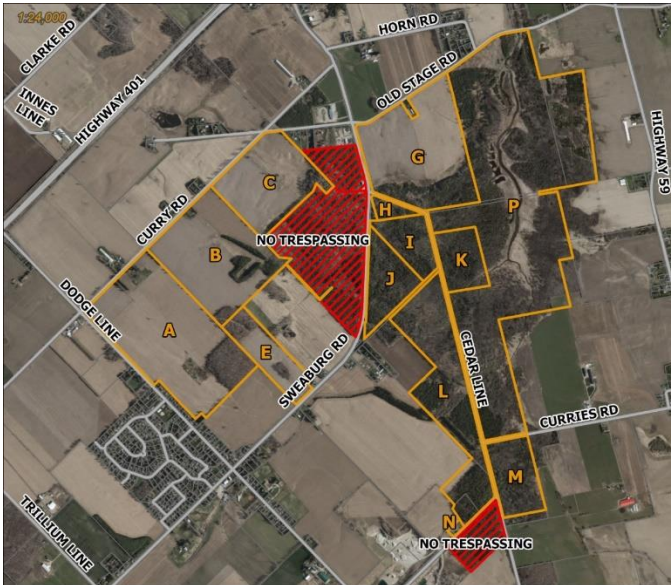
**1 HOLBROOK CLOSED LANDFILL
BUFFER LANDS**



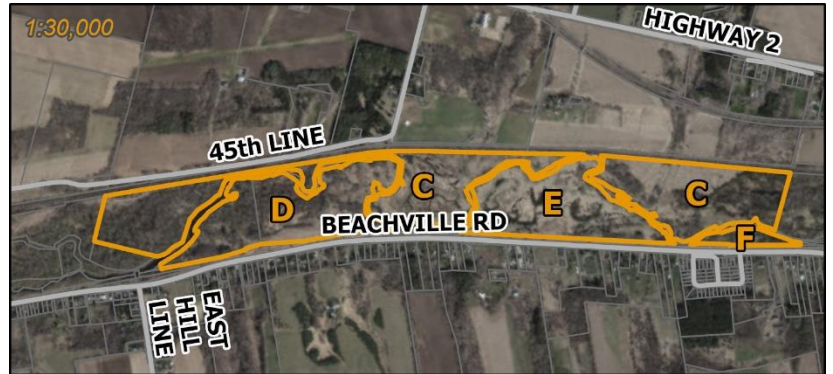
**2 OXFORD COUNTY
WASTE MANAGEMENT
FACILITY BUFFER LANDS**



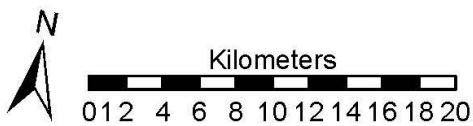
**3 THORNTON WELLFIELD PROPERTIES,
HODGES POND PROPERTY**



4 THAMES RIVER WETLANDS



Schedule "D" County Forest or Lands Where Hunting (Bow only) Permitted



SCHEDULE "E"

BY-LAW NO. **XXXX-2023**

OFFENCES

PART I PROVINCIAL OFFENCES ACT

COUNTY FORESTS AND COUNTY LANDS RECREATION BY-LAW NO. **XXXX-2023**

ITEM	COLUMN 1 Short Form Wording	COLUMN 2 Provision Creating or Defining the Offence	COLUMN 3 Set Fine
1.	Litter, dump or dispose of any foreign material or refuse, including liquid waste	Section 3.1(a)	\$250.00
2.	Start a fire	Section 3.1(b)	\$150.00
3.	Discharge fireworks	Section 3.1(c)	\$100.00
4.	Camp	Section 3.1(d)	\$100.00
5.	Possess or consume intoxicating beverages	Section 3.1(e)	\$100.00
6.	Conduct target practice	Section 3.1(f)	\$100.00
7.	Carry a dangerous weapon	Section 3.1(g)	\$100.00
8.	Discharge a dangerous weapon	Section 3.1(g)	\$100.00
9.	Cut, prune, dig, or gather trees or firewood	Section 3.1(h)	\$100.00
10.	Construct unauthorized structures	Section 3.1(i)	\$100.00
11.	Allow an animal to Run at Large, or on a leash longer than 2 metres	Section 3.1(j)	\$100.00
12.	Construct tree stands or blind shelters	Section 3.1(k)	\$100.00
13.	Remove, alter, deface or destroy a County sign, gate or fence	Section 3.1(l)	\$100.00
14.	Install an unauthorized sign	Section 3.1(m)	\$100.00
15.	Interfere with or disrupt logging activities	Section 3.1(n)	\$100.00
16.	Construct an unauthorized trail	Section 3.1(o)	\$100.00
17.	Trap	Section 3.1(p)	\$250.00
18.	Operate a Vehicle other than a cycle propelled by muscle power, a Motorized Snow Vehicle or an Off-road Vehicle	Section 3.2	\$250.00
19.	Disobey a posted sign	Section 3.4	\$100.00
20.	Operate a Motorized Snow Vehicle outside of an OFSC designated trail	Section 4.1(g)	\$250.00
21.	Operate a Motorized Snow Vehicle without a valid permit	Section 4.1(g)	\$250.00
22.	Operate an Off-road Vehicle outside of an OFATV or OFTR designated trail	Section 4.1(h)	\$250.00
23.	Operate an Off-road Vehicle without a valid permit	Section 4.1(h)	\$250.00
24.	Fish in unauthorized County Forests or County Lands	Section 4.1(i)	\$100.00
25.	Hunt in unauthorized County Forests or County Lands	Section 4.1(i)	\$250.00
26.	Hunt without Schedule "F" documentation	Section 4.1(i)	\$250.00
27.	Harvesting non-wood forest products for commercial use or gain	Section 4.1(k)	\$100.00

NOTE:

The general penalty provision for the offences listed above is Section 7.8 of By-law No. **XXXX-2023**, a certified copy of which has been filed.

SCHEDULE "F"

BY-LAW NO. **XXXX-2023**

ACCEPTED ORGANIZATIONAL INSURANCE OR ALTERNATIVE INSURANCE

- "OFAH" – Ontario Federation of Anglers and Hunters.
- "NFALI" – National Firearms Association Liability Insurance.
- "CSS" – Canadian Shooting Sports.
- Home Owners Liability Insurance in the amount of \$5,000,000.

COUNTY OF OXFORD

WOODLANDS CONSERVATION BY-LAW NO. 6035-2018

To prohibit or regulate the harvesting, injuring or destruction
of trees in woodlands in the
County of Oxford

WHEREAS s.135(2) of the *Municipal Act, 2001*, R.S.O. 2001, c.25 as amended, (hereinafter referred to as “the Act”) permits the enactment of a by-law by the Council of the County of Oxford (hereinafter referred to as “the County”) to prohibit or regulate the harvest, injury or destruction of trees in woodlands;

AND WHEREAS s.135(7) of the Act provides that a by-law enacted in accordance with s.135(2) of the Act may require that a permit be obtained to harvest, injure or destroy trees and that a municipality may impose conditions on a permit, including conditions relating to the manner in which harvesting, injuring or destroying occurs and the qualifications of persons authorized for this purpose;

AND WHEREAS Council of the County has determined that it is desirable to enact such a by-law for purposes including, but not limited to, the following:

- achieving the goals and objectives of the County Official Plan with respect to sustaining the community’s environmental and natural heritage resources;
- conserving and improving woodlands through good forestry practices;
- protecting, promoting and enhancing the value of woodlands for social, economic and environmental value; and
- enhancing biodiversity and forest resilience to assist the community in adapting to climate change and other environmental threats to forest health.

NOW THEREFORE the Council of the County of Oxford hereby enacts as follows:

1. DEFINITIONS

In this by-law:

- 1.1 “Acceptable Growing Stock (AGS)” means *trees* suitable for retention in the stand for at least one (1) cutting cycle, comprising *trees* of commercial species and of such form and quality as to be saleable as sawlog products at some future date.
- 1.2 “Basal Area” means the total cross-sectional area of all live *trees* 10 cm (4 in) or greater, expressed as square metres per hectare and measured 1.37 m (4.5 ft) above the point on the *tree* where the ground meets the stump at the base of the *tree*.
- 1.3 “Building Permit” means a building permit issued under the Building Code Act 1992, R.S.O. 1992, c.23, as amended, or any successor legislation.
- 1.4 “Business Day” means a day falling on or between Monday and Friday of each week, but does not include New Year’s Day, Family Day, Good Friday, Victoria Day, Canada Day, Civic Holiday, Labour Day, Thanksgiving, Remembrance Day, Christmas Day or Boxing Day.
- 1.5 “By-law Officer” means a provincial offences officer or an individual or individuals appointed by *Chief Administrative Officer* for the administration and enforcement of this By-law.
- 1.6 “Certified Tree Marker” means an individual who has full certification in good standing for marking under the Ontario Ministry of Natural Resources and Forestry (MNR) program, or similar program approved by the MNR, and has demonstrated experience to mark in accordance with good forestry practice within Oxford County.
- 1.7 “Chief Administrative Officer” means the Chief Administrative Officer of the Corporation of the County of Oxford.
- 1.8 “Circumference” means the measurement of the perimeter or outer boundary of a stem or trunk of a *tree*, including the bark of the stem.

- 1.9 “Committee” means the Woodlands Conservation By-law Committee or other similarly constituted committee as designated by a By-law of the *County*.
- 1.10 “Coppice Growth” means where more than one *tree* stem grows from a single *tree* stump.
- 1.11 “Council” means the Council of the County of Oxford.
- 1.12 “County” means the County of Oxford or the area up to and including the geographical boundaries of the County of Oxford, as the context requires.
- 1.13 “County Clerk” means the County Clerk of the County of Oxford.
- 1.14 “Destroy”, “Destruct” and/or “Destruction” means any action which causes or results in the irreversible *injury* or death of a *tree*.
- 1.15 “Diameter” means the straight-line measurement, from side to side and through the centre of the trunk or stem of a *tree*, including the bark.
- 1.16 “Diameter Breast Height (DBH)” means the diameter of the stem of a *tree* measured at a point that is 1.37 m (4.5 ft) above the ground.
- 1.17 “Good Forestry Practices” means the proper implementation of *harvest*, renewal and maintenance activities known to be appropriate for the forest and environmental conditions under which they are being applied and that minimize detriments to forest values including significant ecosystems, important fish and wildlife habitat, soil and water quality and quantity, forest productivity and health, and the aesthetics and recreational opportunities of the landscape.
- 1.18 “Harvest” means the *injury* or *destruction* of *trees* through cutting or other mechanized means which results in the irreversible *injury* or death of a *tree* by design and further, includes any work, efforts or attempt to move or gather such *trees* having been cut or otherwise *destroyed*.
- 1.19 “Injure” or “Injury” means any action that causes physical, biological or chemical damage to a *tree*, including any lasting damage which has the effect of inhibiting or terminating its growth but does not include pruning branches for maintenance purposes.
- 1.20 “Local Board” means a municipal service board, transportation commission, board of health, police services board, planning board, or any other board, commission, committee, body or local authority established or exercising any power under any Act with respect to the affairs and purposes of one or more municipalities.
- 1.21 “Log” means a portion of a *tree* of a prescribed species reduced to a size suitable for loading on a vehicle for transport to a processing mill for the production of lumber or other products.
- 1.22 “Logger” means an individual or company or similar group who cuts *trees* for purchase, sale or other profit, on behalf of an *owner*.
- 1.23 “Local Municipality” means each of the municipalities of Blandford-Blenheim, East Zorra-Tavistock, Norwich, South-West Oxford, Zorra, Ingersoll, Tillsonburg and Woodstock.
- 1.24 “Owner” means a *person* having any right, title, interest or equity in land.
- 1.25 “Own Use” means a use by the *owner* that does not include the sale, exchange, barter or other disposition of *trees harvested, injured or destroyed*.
- 1.26 “Permit” means the written authorization of the *By-law Officer*.
- 1.27 “Person” means any individual, corporation, partnership, association, firm, trust or other entity and includes anyone acting on behalf or under the authority of such entity.
- 1.28 “Plantation” means a wooded areas where *trees* have been planted or seeded in a pre-determined pattern or rows and are *harvested* for commercial purposes in-keeping with the original purpose of planting or seeding.
- 1.29 “Plot” means a specific area set out for the purpose of measuring the number of *trees* within *woodlands*.

- 1.30 “Point of Measurement” means that point on the *tree* stem or trunk measured above the highest point of the ground in an undisturbed state at the base of the stem or trunk of the *tree*. For *coppice growth*, the ‘point of measurement’ means that point on each *tree* stem or trunk measured above the point of separation, provided that such point of separation is less than 1.37 m (4.5 ft) above the highest point of undisturbed ground at the base of the *coppice growth*, and the same *circumference* or diameter limits apply as for single-stemmed *trees*.
- 1.31 “Registered Professional Forester” has the same meaning as contained in the Professional Foresters Act, S.O. 2000, c18.
- 1.32 “Silviculture” means the art, science, theory and practice of controlling forest establishment, and the composition, growth and quality of forests to achieve the objectives of good forestry practice and forest management.
- 1.33 “Silvicultural Prescription” means the site-specific operational plan that describes the existing forest conditions and the forest management objectives for an area and which prescribes the methods for harvesting the existing forest stand and a series of silvicultural treatments that will be carried out to establish a free-growing stand in a manner that accommodates other resource values as identified.
- 1.34 “Tree” means any species of woody perennial plant, including its root system, which has reached or can reach a height of at least 4.5 m (14.8 ft) at physiological maturity.
- 1.35 “Unacceptable Growing Stock (UGS)” means *trees* that have a high risk of dying, and are expected to decline over the next cutting cycle, including *trees* of poor form and/or low quality.
- 1.36 “Unforested Corridor” means a break in the forest cover canopy, including, but not limited to roads, paths, or natural features such as a creek or *watercourse*.
- 1.37 “Watercourse” means a natural or man-made waterway containing flowing water for at least a portion of the year.
- 1.38 “Woodlands” means land, at least one hectare (2.47 acres) in area, including any *unforested corridors* less than 20 m (65.6 ft) in width, with at least:
- (i) 1000 *trees* of any size, per hectare; or
 - (ii) 750 *trees* measuring over five (5) cm (2 in) in diameter at *DBH*, per hectare; or
 - (iii) 500 *trees* measuring over twelve (12) cm (5 in) in diameter at *DBH*, per hectare; or
 - (iv) 250 *trees* measuring over twenty (20) cm (8 in) in diameter at *DBH*, per hectare.

Woodlands do not include a cultivated fruit or nut orchard, a registered *tree* nursery or a *tree plantation* planted and maintained for the purpose of producing Christmas *trees*.

The boundary of *woodlands* shall be defined by the ecological limit of the *woodlands* and not by property boundaries.

Where a *Local Municipality* has approved a By-law which delegates authority respecting the prohibition or regulation of the *harvesting, injuring or destruction* of *trees* to the County, *woodlands* shall mean land that is identified as *woodlands* in accordance with the definition(s) contained in the delegation By-law.

2. GENERAL PROHIBITION

Except as provided in this By-law, no *person*, through their own actions or through the actions of any other *person* shall *harvest, injure or destroy*, or cause or permit to be *harvested, injured or destroyed*, any living *tree* located in *woodlands*.

3. EXCEPTIONS

A *person* may *harvest, injure or destroy* a *tree* within *woodlands* if:

- (a) the *person* who is *harvesting, injuring or destroying trees* does so in accordance with a *silvicultural prescription* incorporating *good forestry practices* prepared or approved by:

- i) a *Registered Professional Forester* in good standing with the Ontario Professional Foresters Association; or
 - ii) a member in good standing with the Ontario Professional Foresters Association;
- and
- iii) the *person* who is *harvesting, injuring or destroying trees* has complied with all of the requirements of this By-law; and
 - iv) the *trees* to be *harvested, injured or destroyed* have been clearly marked with paint on two sides and at the base of the *tree*.

OR

the *trees harvested, injured or destroyed*:

- i) have attained, at the *point of measurement*, the *circumference* or diameter measurement which is equal to or greater than the minimum *circumference* or diameter prescribed for the species in Schedule "B" to this By-law;
- and
- ii) the *harvesting, injuring or destruction of trees* has occurred in compliance with all of the requirements of this By-law;
 - iii) the *harvesting, injuring or destruction of trees* will not reduce the number of *trees* per hectare below the minimum number of *trees* per hectare required for the area to remain a *woodland*;
 - iv) the *harvesting, injuring or destruction of trees* will not reduce the *basal area* in that part of the *woodland* where *trees* which measure 25 centimetres (10 in) or more at *DBH* have been *harvested, injured or destroyed* below 16 m²/ha of *trees*; and
 - v) the *trees* to be *harvested, injured or destroyed* have been clearly marked with paint on two sides and at the base of the *tree*.

4. DRAINAGE WORKS

(a) Except for municipal drainage works:

- i) where the *harvesting, injuring or destroying of trees* is necessary to construct drainage works, the *person* intending to cause or permit the *harvesting, injuring or destroying of trees*, either by themselves or through other *persons*, shall comply with this By-law.
- ii) every *person* commits an offence who, by themselves or through other *persons*, constructs or causes or permits to be constructed tile drainage works consisting in whole or in part of perforated tile through, or within 5 m (16.5 ft) of, *woodlands*.

5. EXEMPTIONS

This By-law does not apply to:

- (a) activities or matters undertaken by a municipality or a *local board* of a municipality;
- (b) activities or matters undertaken under a licence issued under the Crown Forest Sustainability Act, 1994, R.S.O. 1990 c25;
- (c) the *injuring or destruction of trees* by a *person* licensed under the Surveyors Act to engage in the practice of cadastral surveying or his or her agent, while making a survey;
- (d) the *injuring or destruction of trees* imposed after December 31, 2002 as a condition to the approval of a site plan, a plan of subdivision, or a consent under Section 41, 51 or 53, respectively, of the Planning Act or as a requirement of a site plan agreement or subdivision agreement entered into under those sections;
- (e) the *injuring or destruction of trees* imposed after December 31, 2002 as a condition to a development permit authorized by regulation made under Section 70.2 of the Planning Act or as a requirement of an agreement entered into under the regulation;

- (f) the *injuring or destruction of trees* by a transmitter or distributor, as those terms are defined in Section 2 of the Electricity Act, 1998, for the purpose of constructing and maintaining a transmission system or a distribution system, as those terms are defined in that section;
- (g) the *injuring or destruction of trees* undertaken on land described in a licence for a pit or quarry or a permit for a wayside pit or wayside quarry issued under the Aggregate Resources Act;
- (h) the *injuring or destruction of trees* undertaken on land in order to lawfully establish and operate or enlarge any pit or quarry on land:
 - i) that has not been designated under the Aggregate Resources Act or a predecessor of that Act; and
 - ii) on which a pit or quarry is a permitted land use under a by-law passed under Section 34 of the Planning Act.
- (i) the *harvest, injuring or destruction of trees* required to erect any building, structure or thing in respect of which a *building permit* has been issued and has taken into consideration the protection of *trees* surrounding the structure or work within the building envelope, provided that no *tree* is *harvested, injured or destroyed* that is more than 15 metres (49.2 ft) from the outer edge of the building, structure or thing;
- (j) the *harvest, injuring or destruction of trees* that is reasonably required to install and provide utilities and/or a single-lane driveway for vehicular access for the construction or use of a building, structure or thing in respect of which a *building permit* has been issued;
- (k) the *harvest, injuring or destruction of trees* that is reasonably required to install a boundary fence between two properties within a *woodland*;
- (l) the *harvest, injuring or destruction of trees* by the *owner* of a *woodland* for the *owner's own use* where the *owner* has been the registered *owner* of the said *woodland* for a minimum of two (2) years prior to the date of *harvest, injury or destruction*, and provided that:
 - such activity is consistent with *good forestry practices*;
 - no more than 20 *trees* per hectare are *harvested, injured or destroyed* in a calendar year; and
 - such activity does not reduce the density of the *woodland* below the minimum number of *trees* per hectare required to be considered a *woodland*.
- (m) the *harvest, injuring or destruction of trees* for any of the following purposes, provided that the area in which *trees* are to be *harvested, injured or destroyed* has been inspected, approved and marked by the *By-law Officer* prior to the commencement of the activity and the *person who harvests, injures or destroys trees* or otherwise causes same has complied with this By-law:
 - i) where land previously cleared and used for agricultural purposes which has become overgrown with young (less than 10 years), early-successional tree species (i.e. sumac, hawthorn, apple, scots pine, poplar, white birch, ash) and the land is intended to be used again as part of an agricultural operation;
 - ii) where *trees* are impeding the passage of agricultural equipment along an existing laneway that is either within, or along the edge of a *woodland*; or
 - iii) where the *trees* to be *harvested, injured or destroyed* are not located within a *woodland*, or portion thereof, that is identified as part of an ecologically important vegetation group in the Oxford Natural Heritage System Study, **2023 or later version**, and/or the County of Oxford Official Plan;
- (n) the *harvest, injuring or destruction of trees* where said *trees* are *harvested, injured or destroyed* pursuant to a legally-binding contract, provided that:
 - i) the *owner* of the *woodland* has given notice in accordance with this By-law; and

- ii) a contract was signed between the *owner* and contractor immediately preceding the date on which this By-law came into force and effect; and
- iii) proof of the signed contract and down payment made to the *owner* is provided to the satisfaction of the *By-law Officer*; and
- iv) the *trees* subject to the contract are *harvested, injured or destroyed* in a manner consistent with this By-law within two (2) years of the enactment of this By-law.

6. **ADMINISTRATIVE AND/OR COMMITTEE EXEMPTION**

- (a) Notwithstanding any provision contained in this By-law, a *person* may request an exemption from this By-law beyond those exemptions contained in Section 5. Every *person* who intends to obtain such exemption shall complete and submit to the *By-law Officer* or designate, an application in the form prescribed in Schedule "E" to this By-law containing all of the information required by the application form not less than 30 days and not more than two (2) years prior to the start of any *harvest, injury or destruction of trees*, together with the prescribed fee as set out in Schedule "A".
- (b) Notice of an application for exemption shall be circulated by regular mail not less than 14 days prior to a decision regarding the exemption, to the *owner*, the applicant and/or the applicant's authorized agent and to all assessed *owners* of land that abut the lands subject to the application. The Notice of the proposed exemption shall contain information as prescribed in Schedule "F".
- (c) The *owner* or applicant shall post a Public Notice for a request for exemption not less than 10 days prior to a decision regarding the exemption and such posting shall be located on the subject property in a manner that is clearly visible and legible from a public highway or other place to which the public has access. The Public Notice shall be in the format prescribed in Schedule "F".
- (d) The application for exemption shall be circulated to those agencies that, in the opinion of the *By-Law Officer*, in consultation with the Community Planning Office, may have an interest in the application, for the purpose of obtaining comments regarding the application.
- (e) In consideration of a request for an exemption, the *By-law Officer* may:
 - i) grant the exemption request;
 - ii) grant the exemption request with modifications;
 - iii) refuse the exemption request.
- (f) When evaluating a request for exemption, the *By-law Officer*, in consultation with the Community Planning Office, shall consider whether the *harvest, injuring or destruction of trees* proposed by the application:
 - i) is appropriate for the development or use of the land; and
 - ii) maintains the intent and purpose of the By-law.
- (g) The *By-law Officer*, in consultation with the Community Planning Office, may impose such terms and conditions, **including but not limited to site restoration and/or a compensation plan**, to the exemption that are reasonable and desirable for the appropriate development or use of the land on which the said exemption is granted. Compensation will be consistent with internal policy related to development permit applications and may be modified to each specific scenario.
- (h) The *owner* or applicant shall be notified in writing with respect to the decision regarding the approval or denial of any application for an exemption.
- (i) The decision of the *By-law Officer* shall be final, unless the application for exemption is appealed to the *Committee* in accordance with Section 7.

7. **APPEALS TO COMMITTEE**

- (a) The *owner* or applicant for an exemption under Section 6 may appeal to the *Committee*:

- i) if the *By-law Officer* refuses to grant the exemption request, within 10 days of the refusal;
 - ii) if the *By-law Officer* fails to grant the exemption request within 45 days after the application is received; or
 - iii) if the *owner* or applicant objects to a condition of exemption, within 10 days of the granting of the conditional exemption.
 - iv) at any time after the application is received, until such time as the application is either refused or approved by the *By-law Officer*, in which case, the *owner* or applicant must request that the application be forwarded to the *Committee* in accordance with subsections 7(a) i) or iii).
- (b) Where an application for exemption is appealed to the *Committee*, subsections 6(e), (f), (g) and (h) shall apply with necessary modifications.
 - (c) The decision of the *Committee* shall be final.

8. NOTICE OF INTENT

- (a) Every person who intends to *harvest, injure or destroy trees* in the County of Oxford pursuant to Section 3(a) of this By-law shall complete and deliver, or send by facsimile transmission or e-mail, to the *By-law Officer*, a legible, signed Notice of Intent Permit application in the form prescribed in Schedule "C" to this By-law containing all of the information required by the form no less than 10 *business days* and no more than two (2) years prior to the start of the *harvest, injuring or destruction of trees* together with a legible copy of the *silvicultural prescription* signed by and identifying the *person* who prepared and/or approved the prescription.
- (b) Every person who intends to *harvest, injure or destroy trees* in the County of Oxford pursuant to Section 3(b) of this By-law shall complete and deliver, or send by facsimile transmission or e-mail, to the *By-law Officer*, a legible, signed Notice of Intent Permit application in the form prescribed in Schedule "D" to this By-law containing all of the information required by the form no less than 10 *business days* and no more than two (2) years prior to the start of the *harvest, injuring or destruction of trees*.
- (c) Upon receipt of a completed Notice of Intent Permit application, the *By-law Officer* shall, within a reasonable time, return to the mailing address, facsimile number or e-mail address provided in the Notice of Intent Permit application form for that purpose, a receipted copy of the Notice of Intent Permit.
- (d) Any *person* who has submitted a Notice of Intent Permit under Sections 8(a) or 8(b) shall erect and display a notice sign at the entrance to the *woodlands* in a location that is clear and visible to all persons, and the notice shall be in the form prescribed in Schedule "I".
- (e) Every *person* who has submitted or caused to be submitted a Notice of Intent Permit application shall notify the *By-law Officer* or their designate, by facsimile transmission, telephone or e-mail, no more than seven (7) *business days* and no less than 24 hours prior to the date upon which the *harvest, injury or destruction of trees* is to begin advising of the location of the *harvest, injury or destruction of trees* and the date upon which the *harvest, injury or destruction of trees* is to start.

9. ORDERS TO DISCONTINUE ACTIVITY

- (a) Where the *By-law Officer*, or *designate*, is satisfied that a contravention of this By-law has occurred, the *By-law Officer*, or designate, may issue an Order to Discontinue Activity requiring the *person* who contravened the By-law or who caused or permitted the *harvest, injuring or destruction of trees* in contravention of the By-law, to stop and discontinue the *harvest, injuring or destruction of trees*. The Order to Discontinue Activity as set out in Schedule "G", shall include the following:
 - i) the municipal address and/or the legal description of the land;
 - ii) reasonable particulars of the contravention;
 - iii) the date of inspection; and
 - iv) the date by which compliance with the Order must be achieved.

10. SERVICE OF AN ORDER

- (a) An Order issued under this By-law shall be served on the *owner* of the property and such other *persons* affected by the Order, as determined by the *By-law Officer* or designate, and a copy of the Order shall be posted on the property.
- (b) An Order issued under this By-law may be served personally or by registered mail sent to the last known address of:
 - i) the *owner* of the *woodlands*; and/or
 - ii) the *person* or *persons* identified as having *harvested, injured* or *destroyed trees*.
- (c) Where an Order is served by registered mail, service shall be deemed to have been made on the fifth day after the day of mailing.
- (d) Where an Order cannot be served in accordance with Section 9 a), b) or c), a placard containing the terms of the Order shall be placed in a conspicuous place on the affected property by the *By-law Officer*, or designate, and the placing of the placard shall be deemed to be sufficient service of the Order on the *person* or *persons* to whom the Order is directed.

11. PENALTY

- (a) Any *person* who contravenes any provision of this By-law, or an Order issued under this By-law, is guilty of an offence and is liable:
 - i) on first conviction, to a minimum fine of ~~fine of not more than~~ \$10,000 or \$1,000 per *tree injured* or *destroyed*, whichever is greater; and
 - ii) on any subsequent conviction, to a minimum fine of ~~fine of not more than~~ \$25,000 or \$2,500 per *tree injured* or *destroyed*, whichever is greater.
- (b) If a *person* is convicted of an offence for contravening this By-law or an Order issued under this By-law, the court in which the conviction has been entered, and any court of competent jurisdiction thereafter, may order the *person* to rehabilitate the land or to plant or replant *trees* in such a manner and within any such period as the court considers appropriate, including any silvicultural treatment necessary to re-establish the *trees*.

12. ENFORCEMENT

- (a) This By-law shall be enforced by a *By-law Officer* appointed by the *Chief Administrative Officer*.
- (b) A *By-law Officer* may, at any reasonable time, enter and inspect any land to determine whether this By-law, an Order or a condition of a *permit* is being complied with.
- (c) A *By-law Officer* exercising a power may be accompanied by a *person* or *persons* under the *By-law Officer's* direction.
- (d) No *person* shall hinder or obstruct a *By-law Officer* or attempt to hinder or obstruct a *By-law Officer* who is performing a duty in accordance with this By-law.
- (e) Any *person* who provides false information to a *By-law Officer* shall be deemed to have hindered or obstructed the *By-law Officer* in the discharge of their duties.

13. ADMINISTRATION

- (a) Schedules "A" to "I", inclusive, form part of this By-law.
- (b) If any Section or Sections of this By-law or parts thereof are found by any Court of competent jurisdiction to be illegal or beyond the power of the *Council* to enact, such Section or Sections or parts thereof shall be deemed to be severable and all other Sections

or parts of this By-law shall be deemed to be separate and independent therefrom and continue in full force and effect unless and until similarly found illegal.

- (c) For the purposes of this By-law, words used in the singular number include the plural and words which refer the masculine shall include the feminine, and visa versa, where applicable.
- (d) For the purposes of this By-law, words in italicized text are defined in Section 1. Such defined words will not be italicized where the context in which the word is used does not correspond to the definition contained herein.
- (e) The short title of this By-law is the "Woodlands Conservation By-law".
- (f) Woodlands Conservation By-law No. 4489-2004, as amended, of the County of Oxford shall be repealed effective on the coming into force and effect of this By-law.
- (g) Notwithstanding subsection (f) of this Section, By-law No. 4489-2004, as amended, of the County of Oxford shall continue to apply to applications filed, *permits* issued and/or proceedings in respect of offences that occurred before its repeal, proof of which has been provided to the satisfaction of the *By-law Officer*.
- (h) Measurements are given in both metric and imperial units in this By-law. For the purposes of this By-law, the metric unit shall govern.

READ a first and second time this 27th day of June, 2018.

READ a third time and finally passed this 27th day of June, 2018.

"David Mayberry"

DAVID MAYBERRY,

WARDEN

"Chloé J. Senior"

CHLOÉ J. SENIOR,

CLERK

SCHEDULE "A"

FEE SCHEDULE FOR APPLICATIONS

The following fees will apply for the purpose of this By-law:

Application for Committee Exemption	\$200.00
-------------------------------------	----------

Please make cheques payable to **'Treasurer - County of Oxford'**

SCHEDULE "B"

CIRCUMFERENCE LIMITS BY CATEGORY OF TREE SPECIES

SPECIES "A"

- ASH
 - White (*Fraxinus Americana*)
 - Green (Red) (*Fraxinus pennsylvacia*)
- MAPLE
 - Sugar (*Acer saccharum*)
 - Black (*Acer nigrum*)
 - Red (*Acer rubrum*)
 - Silver (*Acer saccharinum*)
- OAK
 - Red (*Quercus rubra*)
 - Black (*Quercus velutina*)
 - White (*Quercus Alba*)
 - Swamp White (*Quercus bicolor*)
 - Bur (*Quercus macrocarpa*)
- TULIP
 - (*Liriodendron tulipifera*)
- WALNUT
 - Black (*Juglans nigra*)
 - White (Butternut) (*Juglans cinerea*)

SPECIES "A" MEASUREMENTS

<u>POINT OF MEASUREMENT</u>	<u>CIRCUMFERENCE</u>	<u>DIAMETER</u>
31 cm (12 in)	175 cm (69 in)	56 cm (22 in)
20 cm (8 in)	191 cm (75 in)	61 cm (24 in)
10 cm (4 in)	224 cm (88 in)	71 cm (28 in)

SPECIES "B"

- BASSWOOD
 - (*Tilia Americana*)
- BEECH
 - American (*Fagus grandifolia*)
- CHERRY
 - Black (*Prunus serotina*)
- HACKBERRY
 - (*Celtis occidentalis*)
- HEMLOCK
 - Eastern (*Tsuga Canadensis*)
- PINE
 - White (*Pinus strobus*)

SPECIES "B" MEASUREMENTS

<u>POINT OF MEASUREMENT</u>	<u>CIRCUMFERENCE</u>	<u>DIAMETER</u>
31 cm (12 in)	160 cm (63 in)	51 cm (20 in)
20 cm (8 in)	175 cm (69 in)	56 cm (22 in)
10 cm (4 in)	208 cm (82 in)	66 cm (26 in)

SPECIES "C"

- ASH - Black (*Fraxinus nigra*)
- BIRCH - Yellow (*Betula alleghaniensis*)
- ELM - White (*Ulmus Americana*)
- Red (*Ulmus thomasii*)
- Rock (*Ulmus ruba*)
- EUROPEAN LARCH - (*Larix decidus*)
- HICKORY - Shagbark (*Carya ovata*)
- Bitternut (*Carya cordiformis*)
- LARCH - (*Larix deciduas*)
- POPLAR - Balsam (*Populus blasamifera*)
- Eastern Cottonwood (*Populus deltoids*)
- SYCAMORE - (*Platanus occidentalis*)

SPECIES "C" MEASUREMENTS

POINT OF MEASUREMENT	CIRCUMFERENCE	DIAMETER
31 cm (12 in)	145 cm (57 in)	46 cm (18 in)
20 cm (8 in)	160 cm (63 in)	51 cm (20 in)
10 cm (4 in)	191 cm (75 in)	61 cm (24 in)

SPECIES "D"

- BIRCH - White (*Betula papyrifera*)
- CEDAR - White (*Thuja occidentalis*)
- POPLAR - Largetooth Aspen (*Populus grandidentala*)
- Trembling Aspen (*Populus tremuloides*)

SPECIES "D" MEASUREMENTS

POINT OF MEASUREMENT	CIRCUMFERENCE	DIAMETER
31 cm (12 in)	79 cm (31 in)	25 cm (10 in)
20 cm (8 in)	97 cm (38 in)	31 cm (12 in)
10 cm (4 in)	127 cm (50 in)	41 cm (16 in)

RARE SPECIES – the following species should be avoided during *tree* removal operations:

- | | | |
|-------------------|-------------|----------------------|
| Blue Ash | Shumard Oak | Black Gum |
| Chestnut | Cucumber | Tamarack |
| Shellbark Hickory | Pawpaw | Chinquapin Oak |
| Pignut Hickory | Balsam Fir | Kentucky Coffee Tree |
| American Chestnut | | |

* NOTE: Please refer to “Species at Risk Act” at www.sararegistry.gc.ca for more information.

SCHEDULE "C"

COUNTY OF OXFORD

NOTICE OF INTENT - GOOD FORESTRY PRACTICES

PURSUANT TO WOODLANDS CONSERVATION BY-LAW NO. 6035-2018

Completed Application must be received by the *By-law Officer* at least 10 business days prior to the commencement of the *harvest, destruction or injury of trees*. All sections must be filled out completely, to the satisfaction of the *By-law Officer*.

Please submit the completed application to County of Oxford Customer Service, P.O. Box 1614, 21 Reeve Street, Woodstock, ON N4S 7Y3 or by e-mail to customerservice@oxfordcounty.ca or by fax to 519-537-1053.

The *By-law Officer* can be contacted at 519-539-9800, or by e-mail at customerservice@oxfordcounty.ca.

PLEASE PRINT CLEARLY

Silvicultural Prescription Information

All applications under *Good Forestry Practices* must be accompanied by a forest operations *silvicultural prescription* prepared and/or approved by a *Registered Professional Forester* or Qualified OPFA Member, in accordance with approved practices of the Ontario Professional Foresters Association, as amended from time to time. A *silvicultural prescription* will generally include the following information:

Site and Stand Conditions:

- *tree* species composition by percentage
- regeneration status
- quality of stand, including health (disease/insects)
- limitations
- stand history, including any previous *silviculture* operations
- sensitive or special features
- date of inventory
- acreage of the *woodland*
- current stocking, stand structure or *basal area* distribution

Habitat, Biodiversity and Recreation Consideration

Short and Long Term Objectives

A record of Discussions with the Landowner and Signature of the Landowner

Tree Marking Direction

- residual *basal area* or stocking
- directions for improvement of health, quality, species diversity, stand structure and/or size class distribution
- *silviculture* system to use for marking

Estimated Time of Next Silviculture Intervention

NOTE: Where a *silvicultural prescription* has been prepared and/or approved by a qualified person, as noted above, the marking and *harvesting* of trees in accordance with the provisions of the By-law may be undertaken by a landowner.

Map of Site and Stands to Harvest

The map must be legible and include property boundaries, abutting roads, preferred entry points for inspection, location of buildings and structures on the property, forested areas and proposed harvest areas, logging access, drains, watercourses, power lines and other features and a north indicator.

Property Owner: _____

Address: _____ Postal Code: _____

Phone: Residence _____ Business _____ Fax _____

E-mail: _____

Woodland location: Lot _____ Con. _____ Former Township: _____

SAWTIMBER			
TREE SPECIES	# OF TREES MARKED	AVG. DIAMETER (in or cm)	VOUME (F.B.M. or m ³)
i.e. Hard Maple	24	15	3,200
TOTAL			

FUELWOOD/CORDWOOD			
TREE SPEICIES BY %	# OF TREES MARKED	AVG. DIAMETER (in or cm)	VOLUME (BUSH CORD)
i.e. Aw4 Be4 Mh2	65	11	20

PRESCRIPTION INFORMATION

Prescription prepared by:

Name: _____

Mailing Address: _____

Telephone #: _____

Qualifications: _____

Date Prescription Prepared: _____

Check if area has been inspected since tree marking

<p>TREE MARKER INFORMATION:</p> <p>Trees Marked By: _____</p> <p>Mailing Address: _____</p> <p>Telephone #: _____</p> <p>Qualifications: _____</p> <p>Paint Colour: _____ Date Marked: _____</p> <p>All trees to be <i>harvested</i> shall be marked with paint above <i>DBH</i> on opposite sides of the <i>tree</i>. The mark shall be at least 4 cm (2 in) in diameter for hardwood sawlogs/conifer poles or sawlogs and a slash 20 cm (8 in) long for fuelwood/conifer logs/pulp. A similar mark shall be placed at the base of the <i>tree</i> below the saw line and extending to the ground. All <i>trees</i> shall be marked facing the same direction, unless the terrain requires a change in direction, in which case the marking will proceed consistently with the terrain.</p>	<p>CONTRACTOR INFORMATION: (if different from above)</p> <p>Surname: _____</p> <p>Given Name: _____</p> <p>Mailing Address: _____</p> <p>Postal: _____ Telephone #: _____</p> <p>Person in charge of Harvesting of Trees: _____</p> <p>Estimated Starting Date: _____</p> <p>The person in charge of the harvesting of trees is required to provide 24 hours notice (prior to the start of the harvest date) to Customer Service by e-mail (customerservice@oxfordcounty.ca) or fax (519-537-1053)</p>
<p>DESCRIPTION OF AREA</p> <p>Indicate NORTH</p>	<p><u>Map must be legible and include:</u></p> <ul style="list-style-type: none"> • Preferred entry points for inspection • Location/name of surrounding roads • Location of buildings on property • Forested areas and harvest areas • Log landing(s) • Power lines and Municipal ditches <p>It is requested that if loggers are working near or adjacent to power lines that they contact the local Hydro Utility Company for assistance to prevent an accident and any damage that may occur to power lines and equipment due to a logging accident</p> <p>Please indicate if the property is enrolled in:</p> <p>Conservation Land Tax Incentive Program <input type="checkbox"/></p> <p>Managed Forest Tax Incentive Program <input type="checkbox"/></p>

BASAL AREA – DISTRIBUTION OF CUT

Prism Tally: _____m²/ha

Basal Area Factor: _____

STAND ANALYSIS FOR HARVEST OR INTERMEDIATE CUTTING

OWNERSHIP:													ACREAGE:			
ADDRESS:																
PROPERTY LOT:					CON:					HEIGHT:						
TOWNSHIP:													COUNTY:			
CRUISED BY:													DATE INSPECTED:			
													STAND #			
<p align="center">(TOTAL TREES (____) X 2 BAF) / # OF STATIONS (____) = _____m²/ha</p>																
STATIONS:	1	2	3	4	5	6	7	8	9	10	11	12				
TREE SIZE CLASSES	POLE 10 - 24 cm		SMALL 26 - 38 cm		MEDIUM 40 - 48 cm		LARGE 50 - 60 cm		X-LARGE 62+ cm		TOTAL					
SPECIES	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS		
TOTAL TREES																
BA (m ² /ha)																
BA (m ² /ha) TOTAL																
TARGET BA (m ² /ha)																

NOTE: The *Basal Area* sample points used to develop this prescription must be clearly marked with the closest *tree* (>16cm *DBH*) to the centre of the sample point encircled with the paint at *DBH*

If the landowner is selling standing timber to a logger for harvesting has:	YES	NO
a contract been signed between landowner and contractor?		
the contractor provided proof of WSIB coverage for employees/liability insurance coverage?		
the contractor provided proof of cutter/skidder certification for all employees and themselves?		
the main skid trails been delineated? (If NO, refer to By-Law requirements)		
Have arrangements been made to harvest the fuelwood from tree tops? (If No, refer to By-Law requirements)		

I agree that operations will be in accordance with the provisions of the County of Oxford Woodlands Conservation By-Law No.6035-2018 and that I am familiar with the contents and requirements of this

By-Law and acknowledge having received a copy thereof. I further agree that any *tree harvested* will be in accordance with *Good Forestry Practice*.

Further, I agree to contact the *By-law Officer* (in person at the County Administration Building, 21 Reeve Street, Woodstock) or Customer Service at customerservice@oxfordcounty.ca; or by fax: 519-537-1053, 24 hours prior to commencing the *harvesting of trees*.

Signature of Prescription Writer Date Signature of Tree Marker (if applicable) Date

Signature of Landowner Date Signature of Contractor (if applicable) Date

Please circle the appropriate response:

The OPFA member was employed by: Landowner Contractor Other

The Tree Marker was employed by: Landowner Contractor Other

Will the OPFA member or Tree Marker be monitoring the harvest for contract compliance? Yes No

I UNDERSTAND THAT UNDER THE AUTHORITY OF THIS BY-LAW AND THE MUNICIPAL ACT, R.S.O. 2001, C.25, AN APPOINTED OFFICER CAN ENTER THE DESCRIBED PROPERTY FOR THE PURPOSES OF UNDERTAKING AN INSPECTION.

FURTHER, I UNDERSTAND THAT IF THE WOODLANDS WILL NOT BE HARVESTED WITHIN 24 MONTHS FROM THE RECEIPT OF THIS NOTICE OF INTENT, THE NOTICE OF INTENT WILL BE VOIDED.

THE LANDOWNER, BY SIGNING THIS APPLICATION, ACKNOWLEDGES AND AGREES TO ALL TERMS AND CONDITIONS OF WOODLANDS CONSERVATION BY-LAW NO. 6035-2018.

SCHEDULE "D"

COUNTY OF OXFORD

NOTICE OF INTENT - CIRCUMFERENCE HARVEST

PURSUANT TO WOODLANDS CONSERVATION BY-LAW NO. 6035-2018

Completed Application must be received by the *By-law Officer* at least 10 business days prior to the commencement of the harvest, destruction or injury of trees. All sections must be filled out completely, to the satisfaction of the *By-law Officer*.

Please submit the completed application to County of Oxford Customer Service, P.O. Box 1614, 21 Reeve Street, Woodstock, ON N4S 7Y3 or by e-mail to customerservice@oxfordcounty.ca or by fax to 519-537-1053.

The *By-law Officer* can be contacted at 519-539-9800, or by e-mail at customerservice@oxfordcounty.ca.

PLEASE PRINT CLEARLY

Property Owner: _____

Address: _____ Postal Code: _____

Phone: Residence _____ Business _____ Fax _____

E-mail _____

Contractor: _____

Address: _____

Postal Code: _____ Telephone: _____

Fax: _____ E-mail: _____

On Site Person in charge of harvest of trees: _____

Expected starting date: _____

Subject Property: Location

Lot: _____ Concession: _____ 911 Address: _____

Municipality: _____

Reason for Removal: Commercial Timber Harvest _____ Stand improvement _____

Firewood Removal _____ Other _____

Approximate size of woodland: _____

Area of harvest (indicate on sketch): _____

Trees marked by: _____

Address: _____

Telephone: _____ E-mail: _____

Qualifications: _____

It is the responsibility of the owner or authorized agent to have marked with paint, on 2 sides, and at the base all the *trees* to be *harvested* with this Notice of Intent.

If the *woodland* will not be *harvested* with 24 months of receipt of this Notice of Intent, it will become null and void.

The Notice of Intent or copy must be on site at all times and in possession of the person in charge of cutting.

Each copy of the application must be accompanied by a sketch showing:

- a) the location of subject property, its boundaries and dimensions, including names of all road allowances, streets or highways abutting the property;
- b) location of woodlands on subject property (including approximate dimensions);
- c) abutting land owners;
- d) the distance between the subject land and the nearest township lot line or appropriate landmark (e.g. bridge, railway crossing, etc.);

TREE HARVEST SUMMARY

(A legible tally sheet can be substituted and attached)

Tree Species	No.	SKETCH PLAN	
		USE THIS PAGE FOR SKETCH PLAN AND RETURN WITH APPLICATION FORM. Indicate North	
Total Trees			

If the landowner is selling standing timber to a contractor for removal, has a contract been signed between the landowner and the contractor? YES ____ NO ____

I agree that all *tree* cutting will be in accordance with the provisions of the County of Oxford Woodlands Conservation By-Law No. 6035-2018, and that I am familiar with the components and requirements of this By-Law and acknowledge having received a copy thereof.

Further, I agree to contact the *By-law Officer* (in person at the County Administration Building, 21 Reeve Street, Woodstock or Customer Service at customerservice@oxfordcounty.ca; or by fax: 519-537-1053, 24 hours prior to commencing the *harvesting* of *trees*).

DATED at _____ this _____ day of _____, 20__.

Signature of Contractor

Signature of Landowner or Authorized Agent

SCHEDULE "E"

**APPLICATION FOR ADMINISTRATIVE AND/OR
COMMITTEE EXEMPTION**

Completed Application, including the application fee, must be received by the *By-law Officer* at least 30 business days prior to the commencement of the *harvest, destruction or injury of trees*. All sections must be filled out completely, to the satisfaction of the *By-law Officer*.

Payment may be made by cash, cheque or credit card. Cheques should be made payable to the Corporation of the County of Oxford in the amount as indicated in Schedule "A", as amended from time to time.

Please submit the completed application to County of Oxford Customer Service, P.O. Box 1614, 21 Reeve Street, Woodstock, ON N4S 7Y3 or by e-mail to customerservice@oxfordcounty.ca or by fax to 519-537-1053. The *By-law Officer* can also be contacted at 519-539-9800, or by e-mail at customerservice@oxfordcounty.ca.

PLEASE PRINT CLEARLY

Name(s) of Registered Owner _____

Address: _____ Postal Code: _____

Telephone: Home: _____ Business: _____ Fax: _____

E-Mail: _____

Applicant (if other than the registered owner)

Location of Trees Affected/Ownership

Municipality: _____ Assessment Roll #: _____

Lot: _____ Concession: _____ 911 Address: _____

Is the property owned by the applicant? _____ YES _____ NO (if NO, authorizing letter must be attached)

If purchased within the last three years, state name and address of former owner and the date property was purchased.

Property/Forest Description

This application is requesting permission to remove the following: (please indicate)

Total area: _____ Hectares: _____ Acres: _____

Total *Woodland* size on property: _____ Hectares: _____ Acres: _____

Tree species to be destroyed on the described land:

This Exemption is requested for the following reasons, including description of end use after trees have been destroyed:

Is the applicant willing to offset the destruction of trees on the subject property through replanting trees on the said property? _____ YES _____ NO

If the applicant cannot replant in lieu of destruction is the applicant willing to make payment in lieu of destruction? _____YES _____NO

Personal information on this form is collected under the authority of the *Municipal Act*. Pursuant to the *Municipal Freedom of Information and Protection of Privacy Act*, questions about the collection of personal information should be directed to the *County Clerk*.

Owner

Date

Applicant

Date

SCHEDULE "F"

PUBLIC NOTICE

WOODLANDS CONSERVATION BY-LAW NO. 6035-2018

This posted notice does not imply unrestricted access.
Interested parties must receive permission to enter these
forested lands from the landowner.

AN APPLICATION FOR AN EXEMPTION TO
WOODLANDS CONSERVATION BY-LAW NO. 6035-2018
HAS BEEN RECEIVED BY THE COUNTY OF OXFORD
AFFECTING THESE LANDS.

Municipality: _____ Assessment Roll #: _____

Lot: _____ Concession: _____ 911 Address: _____

Landowner: _____

THE APPLICATION
SUBMITTED REQUESTS THE CLEARING OF _____
HECTARES OF FORESTED LAND.

Deadline for Written Comments:

COMMENTS CAN BE SUBMITTED TO THE ADDRESS LISTED BELOW:

Community Planning Office
County of Oxford,
P. O. Box 1614, 21 Reeve Street
Woodstock, ON N4S 7Y3

**This Notice is posted under the authority of the County of
Oxford Woodlands Conservation By-Law No. 6035-2018**

This Notice is to remain posted no less than ten (10) business days
prior to the consideration of this application.

**FURTHER INFORMATION OR WRITTEN NOTICE IS
AVAILABLE FROM**

Community Planning Office
519-539-9800 or by e-mail at planning@oxfordcounty.ca

SCHEDULE "G"

ORDER TO DISCONTINUE ACTIVITY

YOU ARE HEREBY DIRECTED AND ORDERED TO forthwith stop, halt, cease and desist from any and all works associated with the destruction of trees or removal thereof from those lands comprising;

MUNICIPAL ADDRESS/LEGAL DESCRIPTION OF THE PROPERTY:

LOT: _____ CONCESSION: _____ MUNICIPALITY: _____

OWNER/INDIVIDUAL RESPONSIBLE FOR DESTRUCTION OR INJURY OF TREES:

DESCRIPTION OF INFRACTION:

Date of Inspection: _____

Effective Order Date: _____ To: _____

Signature of Officer: _____ Date: _____

SCHEDULE "H"

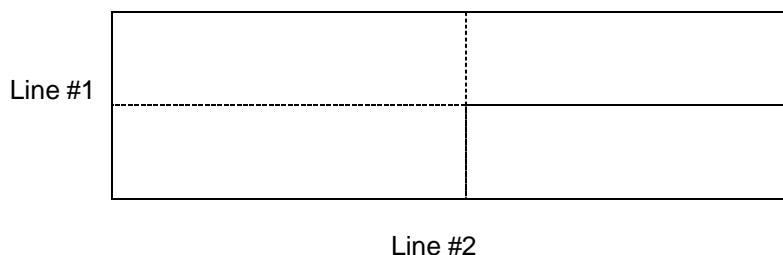
BASAL AREA CALCULATION AND ASSESSMENT

1. Point Sampling is defined as a method of selecting trees for measurement and for estimating stand basal area using tree size rather than frequency as the main parameter. Trees are tallied at a sample location or point sample, with the selection probability being proportional to the *basal area* of the *trees*. In point sampling, a 360-degree sweep is made with an angle gauge about a fixed point, and the stems whole breast height diameter appear larger than the fixed angle subtended by the angle gauge are included in the sample. Point samples will be taken using a factor 2 prism.

2. Basal Area will be assessed every 30 m (98.5 ft) along a fixed compass bearing through a forest stand in which *harvesting* has occurred. The first point sample will be placed 50 m (164 ft) from the ecological boundary of the *woodland*. No less than 4 point samples will be taken along a compass bearing through a forest stand. If the width of the forest stand is greater than 130 m (426 ft), two parallel lines spaced 50 m apart shall be established along the fixed compass bearing through the centre of the forest stand where the harvesting has occurred. If the average *basal area/hectare* is found to be below the requirements of the By-law, then a second compass line will be established from the mid-point of the 1st compass line and will run in a direction 90° from the compass bearing from the 1st line.

3. Where the width, length, shape or topography of a forest stand does not allow for the minimum placement of point samples within the required configuration outlined in Section 2 above, a random placement of sample points shall be used to assess overall average basal area, provided there is at least 50 m (164 ft) between all point samples.

See sample illustration below:



4. Where the width of the woodland does not allow the 30 m (98.5 ft) fixed compass bearing, one line will be established along a fixed compass bearing down the centre of the *woodland*.

The following format will be used in calculating average *basal area* per hectare:

Stations Tallied

STATIONS:	1	2	3	4	5	6	7	8	9	10	11	12
TREE SIZE CLASSES	POLE 10 - 24 cm		SMALL 26 - 38 cm		MEDIUM 40 - 48 cm		LARGE 50 - 60 cm		X-LARGE 62+ cm		TOTAL	
SPECIES	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS

** Total Number of Trees (____) x Basal Area Factor (____) = (____) Overall Average BA/Ha
of Stations (____)

Basal Area Calculation and Assessment

To assess tree infractions, a minimum of 1 plot per hectare will be established for areas up to 10 ha (25 ac), and 1 plot for every additional 5 ha (12 ac). Plots will be placed 80 m (262 ft) apart and 40 m (131 ft) from stand edges.

In cases where the maximum *DBH* encountered is less than 60 cm (24 in), the plot distance may be 60 m (197 ft) and 30 m (98.5 ft) from the stand edges. In any case sampling is to be done by a method customarily used in forestry practice.

SCHEDULE "I"

NOTICE of TREE HARVEST

DO NOT ENTER during harvesting for your own safety.

This notice does not imply unrestricted access.

Permission to enter these lands must be granted by the landowner.

Contractor: _____

Phone: _____

Owner: _____

Timber Harvest Date: _____

Timber Marked By: _____

Phone Number of Marker: _____

This Notice is posted under the authority of the County of Oxford Woodlands Conservation By-Law No. 6035-2018.

This Notice is to be posted prior to the commencement of harvest and remain posted no less than 10 days after completion of harvest. Failure to post and removal prior to this period is a chargeable offence.

If you should have any questions or concerns regarding this timber harvest, please contact:

County of Oxford Customer Service at 519-539-9800 or via e-mail at customerservice@oxfordcounty.ca

TICKETABLE OFFENCES

SHORT FORM WORDING	Offences Creating Provision	Set Fine, includes Court Costs
Failing to notify the County of Oxford prior to the injuring or destruction of trees by the landowner or person acting on behalf of the landowner.	Sections 8(a) and 8(b)	\$400.00 plus court costs
Failure to erect a sign	Section 8(d)	\$400.00 plus court costs
Failure to give 24 hours notice.	Section 8(e)	\$400.00 plus court costs
Contravening the conditions of a Permit.	Sections 8 and 11(a)	\$400.00 plus court costs
Attempt to obstruct an Officer.	Section 12(d) and 12(e)	\$400.00 plus court costs

COUNTY OF OXFORD

BY-LAW NO. 6606-2024

BEING a By-law to repeal By-law No. 5854-2016 and to enact a new By-law to provide for the governance and control of County Forests and County Lands in the County of Oxford.

WHEREAS the County of Oxford owns and maintains County Forests and County Lands in the County of Oxford.

AND WHEREAS Section 9 of the *Municipal Act, 2001*, S.O. 2001, c.25, as amended, provides a municipality the capacity, rights, powers and privileges of a natural person for the purpose of exercising its authority under this or any other Act.

AND WHEREAS, Section 11(2) of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, provides that a municipality may pass by-laws respecting the health, safety and well-being of persons as well as the protection of persons and property.

AND WHEREAS, Section 11(3) of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, provides that a municipality may pass by-laws respecting matters within the sphere of jurisdiction of culture, parks, recreation and heritage.

AND WHEREAS, Sections 23.1, 23.2 and 23.3 of the *Municipal Act, 2001*, S.O. 2001, c. 25, as amended, provides that a municipality may delegate certain powers and duties.

AND WHEREAS, Sections 3, 4, 5 and 6 of the *Trespass to Property Act*, R.S.O. 1990, c. T.21, as amended, provides that the County of Oxford is authorized to prohibit entry to land occupied by the County of Oxford and to prohibit the carrying on of certain activities on such land and for these purposes give notice thereof.

AND WHEREAS, Oxford County Council deems it desirable to regulate the use of County Forests and County Lands in the County of Oxford.

NOW THEREFORE, the Council of the County of Oxford enacts as follows:

PART 1 - DEFINITIONS

1.1 In this By-law:

“Biking” is cycling on a bicycle, tricycle, unicycle, or other similar vehicle propelled solely by muscle power and does not include a motor assisted cycle of any type.

“County” means the County of Oxford.

“County Forest” means land owned by the County and designated by the County as an Oxford County Forest or Oxford County Agreement Forest, as designated in Schedule “A” attached hereto.

“County Land” means lands and forests owned by the County and not designated an Oxford County Forest, as designated in Schedule “B” attached hereto.

“Control” includes care and custody.

“Council” means the Council of the County of Oxford.

“CSS” means Canadian Shooting Sports.

“Designated Trail” means the part of a County Forest or County Land that has been marked, posted or blazed for the purpose of a trail governed by a Use Agreement and on which a trail permit is required.

“Fireworks” means a pyrotechnic device producing quantities or effects of light, sound, or smoke by the combustion of explosive or flammable composition.

“Hiking Trail” means the part of a County Forest or County Land that has been marked, posted, or blazed for the purpose of hiking, cross country skiing or running by the public.

“Hunting” includes,

- a) lying in wait, searching for, being on the trail of, pursuing, chasing or shooting at wildlife, whether or not wildlife is killed, injured, captured or harassed, or
- b) capturing or harassing wildlife,

except that “hunting” does not include,

- a) trapping, or
- b) lying in wait for, searching for, being on the trail of or pursuing wildlife for a purpose other than attempting to kill, injure, capture or harass it, unless the wildlife is killed, injured, captured or harassed as a result,

and “Hunt” and “Hunter” have corresponding meanings.

“Liquor” shall have the same meaning as defined in the *Liquor Licence Act*, R.S.O. 1990 c. L.19.

“Motorized Snow Vehicle” shall have the same meaning as defined in the *Motorized Snow Vehicles Act*, R.S.O. 1990, c. M.44.

“NFALI” means National Firearms Associations Liability Insurance.

“OFAH” means Ontario Federation of Anglers and Hunters. “OFATV” means the Ontario Federation of All Terrain Vehicles Clubs. “OFTR” means the Ontario Federation of Trail Riders.

“OFSC” means the Ontario Federation of Snowmobile Clubs.

“Officer” means a police officer, a municipal by-law enforcement officer, or other person appointed by Council to enforce this By-law.

“Off-Road Vehicle” shall have the same meaning as defined in the *Off-Road Vehicles Act*, R.S.O. 1990, c. O.4.

“Organized Event” includes any event that takes place in a County Forest or County Land where person(s) are charged an entry fee or the event is advertised, but does not include organized hikes or nature walks.

“Refuse” includes, but is not limited to, paper wrappers, food containers, discarded food, disposable eating utensils, newspapers, drink containers of all kinds, disposable diapers, broken glass, construction debris, grass clippings, brush and inert fill of any kind.

“Run at Large” means an animal being at a place other than the premises of the owner or custodian of the animal and the animal not being Under Control Of the owner or custodian.

“Trap” means a body-gripping trap, box trap, cage trap or net used to capture an animal or invertebrate, and “trapping” “trapper” and the verb “trap” have corresponding meanings;

“Under Control Of” means when an animal is unleashed, that the animal is close to the owner or custodian, within sight and earshot of the owner or custodian, and that it responds to voice commands and is prevented from approaching within one (1) meter of any animal or person without such person’s consent.

“Use Agreement” means an agreement with the County and a person, user group or organization outlining all the requirements for use of a County Forest or County Land.

“Vehicle” shall have the same meaning as defined in the *Highway Traffic Act*, R.S.O. 1990, c. H.8, and includes any vehicle drawn, propelled or driven by any kind of power including muscular power, but includes a Motorized Snow Vehicle and excludes a dog sled, child’s wagon, child’s sleigh, a baby carriage or stroller, and a wheelchair or similar device (motorized or otherwise) used by an individual due to a disability.

PART 2 - USES DECLARED

- 2.1 The Council of the County of Oxford hereby declares the use of the lands known as the County Forests to be for “forestry purposes” that is to include the production of wood and wood products, provision of proper environmental conditions for wildlife, protection against flood and erosion, recreation and protection and production of water supplies.
- 2.2 The Council of the County of Oxford hereby declares the use of the lands known as the County Lands to be for “forestry purposes and agricultural purposes” that is to include the production of wood and wood products, production of agricultural products including food and fodder, provision of proper environmental conditions for wildlife, protection against flood and erosion, recreation and protection and production of water supplies.

PART 3 - GENERAL PROHIBITED ACTIVITIES

- 3.1 No person shall in a County Forest or on County Land:
 - a) litter, dump or dispose of any foreign material or Refuse, including liquid waste;
 - b) have open fires;
 - c) discharge Fireworks;
 - d) camp;
 - e) consume or possess Liquor;
 - f) conduct target practice;
 - g) carry or discharge a firearm, pellet gun, BB type gun, paintball gun, slingshot, long-bow, cross-bow, catapult or other dangerous weapon except as otherwise permitted by the provisions of this By-law;
 - h) cut, prune, dig or gather trees, shrubs, groundcover or firewood;
 - i) construct unauthorized structures;
 - j) allow an animal to Run at Large;
 - k) construct tree stands, blind shelters or permanent structures with use of nails or fasteners;
 - l) remove, alter, deface or destroy any County sign, gate or fence;
 - m) install an unauthorized sign of any kind;
 - n) interfere with or disrupt logging activities;
 - o) construct an unauthorized trail; and
 - p) trap.
- 3.2 No person shall use a Vehicle in a County Forest or on County Land, including on a Designated Trail or Hiking Trail, except in

accordance with the provisions of this By-law.

- 3.3 No person shall Hunt in a County Forest or on County Land except in accordance with the provisions of this By-law.
- 3.4 No person shall disobey a posted sign in a County Forest or on County Land.
- 3.5 No person shall restrict, obstruct or impede public access to any portion of a County Forest or County Land, including on a Designated Trail or Hiking Trail, without authorization.

PART 4 – GENERAL APPROVED ACTIVITIES

- 4.1 The following activities are generally permitted in County Forests and on County Land, subject to posted signage:
 - a) walking, running and hiking;
 - b) cross country skiing and snowshoeing;
 - c) orienteering and geocaching;
 - d) dog sledding;
 - e) dog walking Under Control Of or on a leash no longer than 2 metres in length;
 - f) Biking;
 - g) operating a Motorized Snow Vehicle on OFSC Designated Trails provided a valid OFSC permit has been obtained;
 - h) operating an Off-Road Vehicle on OFATV or OFTR Designated Trails provided a valid OFATV or OFTR permit has been obtained;
 - i) Hunting and fishing in selected County Forests or County Lands as designated in Schedule “C” (gun and bow hunting), Schedule “D” (bow hunting only) attached hereto, in accordance with provincial and federal hunting and fishing regulations provided that Hunters are members of an organization listed in Schedule “F” and produce proof of valid membership in an organization listed in Schedule “F” or an accepted alternative listed in Schedule “F” upon the request of an Officer and Hunters are only permitted to use portable and temporary tree stands and ladders; and
 - j) harvesting non-wood forest products such as tree seeds/cones or mushrooms for personal use.
- 4.2 Those uses approved through the execution of a Use Agreement with the County.

PART 5 – ADMINISTRATION

- 5.1 The Director of Public Works is authorized to administer and enforce this By-law.
- 5.2 The Director of Public Works may as he or she deems necessary for the administration of County Forest and County Land, the preservation and protection of County Forest and County Land, or to ensure public safety:

- a) prohibit or vary any activity or use in the County Forest or on County Land that is otherwise permitted pursuant to this By-law;
 - b) cause signs to be erected describing any of the provisions of this By-law, or restricting or limiting the use or attendance on any part or portion of the County Forest and County Land in the interest of the preservation and protection of County Forest and County Land and to ensure public safety or well-being;
 - c) Enforce the provisions of this By-law through appropriate authorities.
- 5.3 Council has determined that, in consideration of the number of people, the size of the geographic area and the time period affected by the exercise of the powers delegated by Part 5, the said powers are of a minor nature.

PART 6 - USE AGREEMENTS

- 6.1 No person shall conduct an Organized Event in a County Forest or on County Land without an executed Use Agreement from the County.
- 6.2 An organization that wishes to use a County Forest or County Land for the purpose of establishing a Designated Trail or for such other purpose as deemed appropriate by the County is required to enter into a Use Agreement.
- 6.3 A person(s) or organization entering into a Use Agreement with the County may be required to pay a fee as established in the Use Agreement.
- 6.4 No person or organization who has entered into a Use Agreement with the County shall contravene any terms of the Use Agreement.

PART 7 - ENFORCEMENT AND PENALTY

- 7.1 Where any person contravenes any provisions of this By-law, such person is subject to the provisions of the *Trespass to Property Act*.
- 7.2 An Officer may enforce the provisions of this By-law.
- 7.3 An Officer may order a person believed to be in contravention of this By-law to:
- a) cease the activity that is in contravention of this By-law; and/or
 - b) leave the County Forest or County Land.
- 7.4 Where any person contravenes any of the provisions of this By-law, the permission of such person to remain in the County Forest or on County Land is revoked.

- 7.5 Any person who is alleged to have contravened any section of this By-law shall identify themselves to an Officer upon request. Failure to do so shall be deemed to have hindered or obstructed the Officer in the execution of their duties.
- 7.6 Any person who provides false information to an Officer shall be deemed to have hindered or obstructed the Officer in the execution of their duties.
- 7.7 No person shall hinder or obstruct an Officer in the enforcement of this By-law.
- 7.8 Any person who contravenes any provision of this By-law is guilty of an offence and is liable to a fine and any other penalties imposed pursuant to the *Provincial Offences Act*, R.S.O. 1990, c. P.33, as amended.
- 7.9 Every person guilty of an offence under this By-law may, if permitted under the *Provincial Offences Act*, R.S.O 1990, c. P.33, pay a set fine, and the Chief Justice of the Ontario Court of Justice shall be requested to establish, pursuant to the *Provincial Offences Act*, R.S.O 1990, c. P.33, set fines in accordance with Schedule "E" of this By-law.
- 7.10 The court in which the conviction has been entered and any court of competent jurisdiction thereafter may make an order prohibiting the continuation or repetition of the offence by the person convicted, and such order shall be in addition to any other penalty imposed by the court on the person convicted.

PART 8 – APPLICABLE LAW

- 8.1 Every person who uses a County Forest or County Land is subject to all applicable municipal by-laws and all provincial and federal laws and regulations, and any person violating any by-law or law may be required to leave the County Forest or County Land.

PART 9 - MISCELLANEOUS

Short title

- 9.1 This By-law may be referred to as the County Forests and County Lands Recreation By-law.

Severability

- 9.2 It is declared that notwithstanding that any Part or Parts of this By-law, or sections thereof, may be found by any court to be bad or illegal or beyond the power of the Council to enact, such Part or Parts or sections thereof shall be deemed to be severable and that all other Parts or sections of this By-law are separate and independent therefore and enacted as such.

9.3 That amendments to Schedules "A" through "D" of a minor housekeeping nature (such as but not restricted to dates, names, titles) may be adopted by resolution of Council but substantive revisions (such as but not restricted to roles, responsibilities, procedures) shall be adopted by By-law.

Repeal

- 9.4 That By-law No. 5854-2016 is hereby repealed.
- 9.5 That Schedules "A" through "F" shall form part of this By-law.
- 9.6 That the set fines in Schedule "E" come into force and effect upon approval by the Chief Justice of the Ontario Court of Justice.
- 9.7 That this By-law shall come into force and effect on the date of passing.

READ a first and second time this twenty-fourth day of January, 2024.

READ a third time and finally passed this twenty-fourth day of January, 2024.



Marcus Ryan
Marcus Ryan (Jan 24, 2024 12:22 EST)

MARCUS RYAN, WARDEN

Chloe Senior

CHLOE SENIOR, CLERK

SCHEDULE "A"

BY-LAW NO. 6606-2024

COUNTY FORESTS

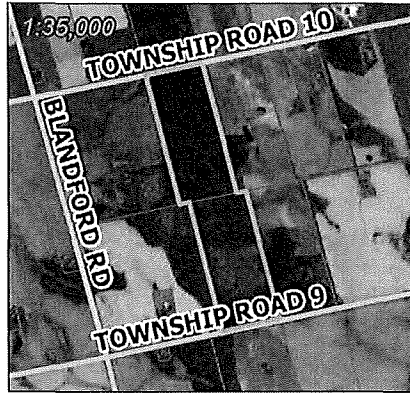
INSET MAP	ADDRESS	LEGAL DESCRIPTION
1. CHESNEY TRACT	846033 TOWNSHIP ROAD 9 BLANDFORD-BLENHEIM TWP, 866046 TOWNSHIP ROAD 10 BLANDFORD-BLENHEIM TWP	PT LT 5 CON 9 BLANDFORD AS IN BD8694 & BD8697, S/T A11553; BLANDFORD- BLENHEIM
2. CREDITVILLE TRACT	814929 MUIR LINE NORWICH TWP	PT LT 1 CON 1 EAST OXFORD AS IN EO10914; NORWICH
3. DRUMBO TRACT	807297 OXFORD ROAD 29 BLANDFOR D-BLENHEIM TWP	PT LT 9 CON 7 BLENHEIM PT 4 & 5, 41R273; BLANDFORD-BLENHEIM
4. EMBRO TRACT	<i>Part A</i> 355892 35th LINE ZORRA TWP <i>Part B</i> 843932 ROAD 84 ZORRA TWP	<i>Part A</i> PT LT 15 CON 4 WEST ZORRA AS IN WZ11865, W OF 416676 EXCEPT AS SHOWN ON PL997; ZORRA <i>Part B</i> PT LT 15 CON 4 WEST ZORRA AS IN WZ11865, E OF 416676 EXCEPT AS SHOWN ON PL997 AND EXCEPT A33720; ZORRA
5. HALL TRACT	847021 TOWNSHIP ROAD 9 BLANDFORD-BLENHEIM TWP, 896197 OXFORD ROAD 3 BLANDFORD-BLENHEIM TWP	LT 13 CON 9 BLENHEIM EXCEPT PT 23, 24 & 25, 41R1617 AND PL831; S/T A11447; BLANDFORD-BLENHEIM
6. LAKESIDE TRACT	<i>Part A</i> 236697 23rd LINE ZORRA TWP <i>Part B</i> 236658 23rd LINE ZORRA TWP	<i>Part A</i> PT LT 28 CON 11 EAST MISSOURI PT 1 41R6537, S/T BENEFICIARIES INTEREST IN A86852; ZORRA <i>Part B</i> PT LT 27-28 CON 12 EAST MISSOURI AS IN EN12255; ZORRA
7. MCBETH TRACT	363398 MCBETH RD SOUTH/WEST OXFORD TWP	PT LT 24 CON 3 DEREHAM AS IN DE20323; SOUTH-WEST OXFORD
8. VANCE TRACT	565948 TOWERLINE RD NORWICH TWP	PT LT 3 CON 2 EAST OXFORD AS IN 211122; S/T EO10272, EO6644; NORWICH
9. ZENDA TRACT	364790 EVERGREEN ST NORWICH TWP	PT LT 25-26 CON 3 NORTH NORWICH AS IN NN13330, NN12395, NN11188; S/T NN13330; S/T INTEREST IN NN13330; NORWICH

SCHEDULE "A"
 BY-LAW NO. 6606-2024
 OXFORD COUNTY FORESTS – INSET MAPS

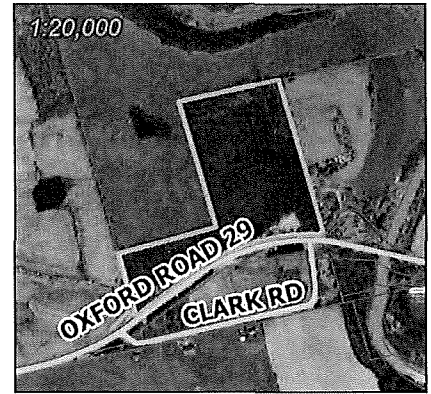
1 CHESNEY TRACT
 846033 TOWNSHIP 9
 866046 TOWNSHIP ROAD 10
 BLANDFORD-BLENHEIM TWP



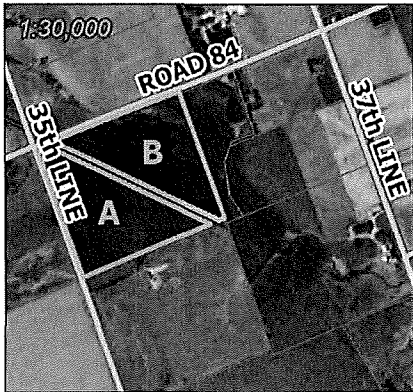
2 CREDITVILLE TRACT
 814929 MUIR LINE
 NORWICH TWP



3 DRUMBO TRACT
 807297 OXFORD ROAD 29
 BLANDFORD-BLENHEIM TWP



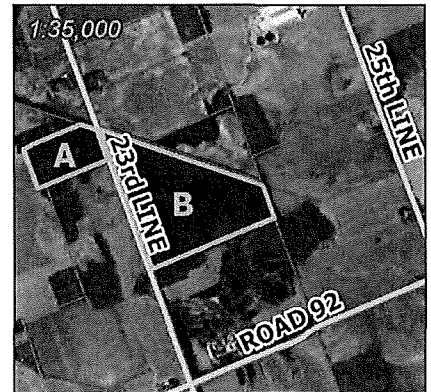
4 EMBRO TRACT
 843932 ROAD 84
 355892 35th LINE
 ZORRA TWP



5 HALL TRACT
 847021 TOWNSHIP ROAD 9
 896197 OXFORD ROAD 3
 BLANDFORD-BLENHEIM TWP



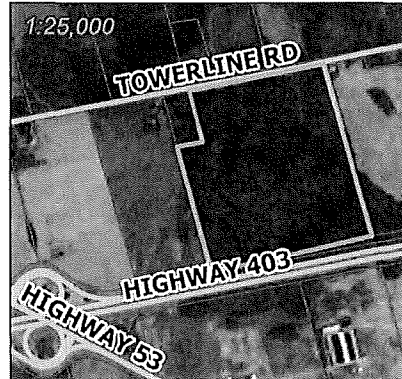
6 LAKESIDE TRACT
 236658 23rd LINE
 236697 23rd LINE
 ZORRA TWP



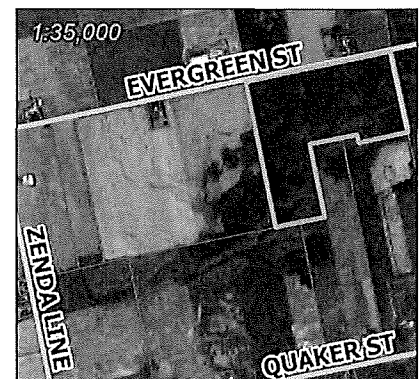
7 MCBETH TRACT
 363398 MCBETH RD
 SOUTH/WEST OXFORD TWP



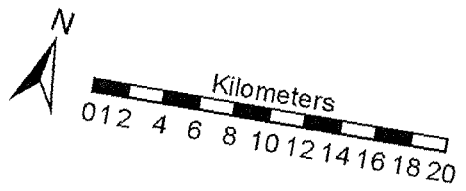
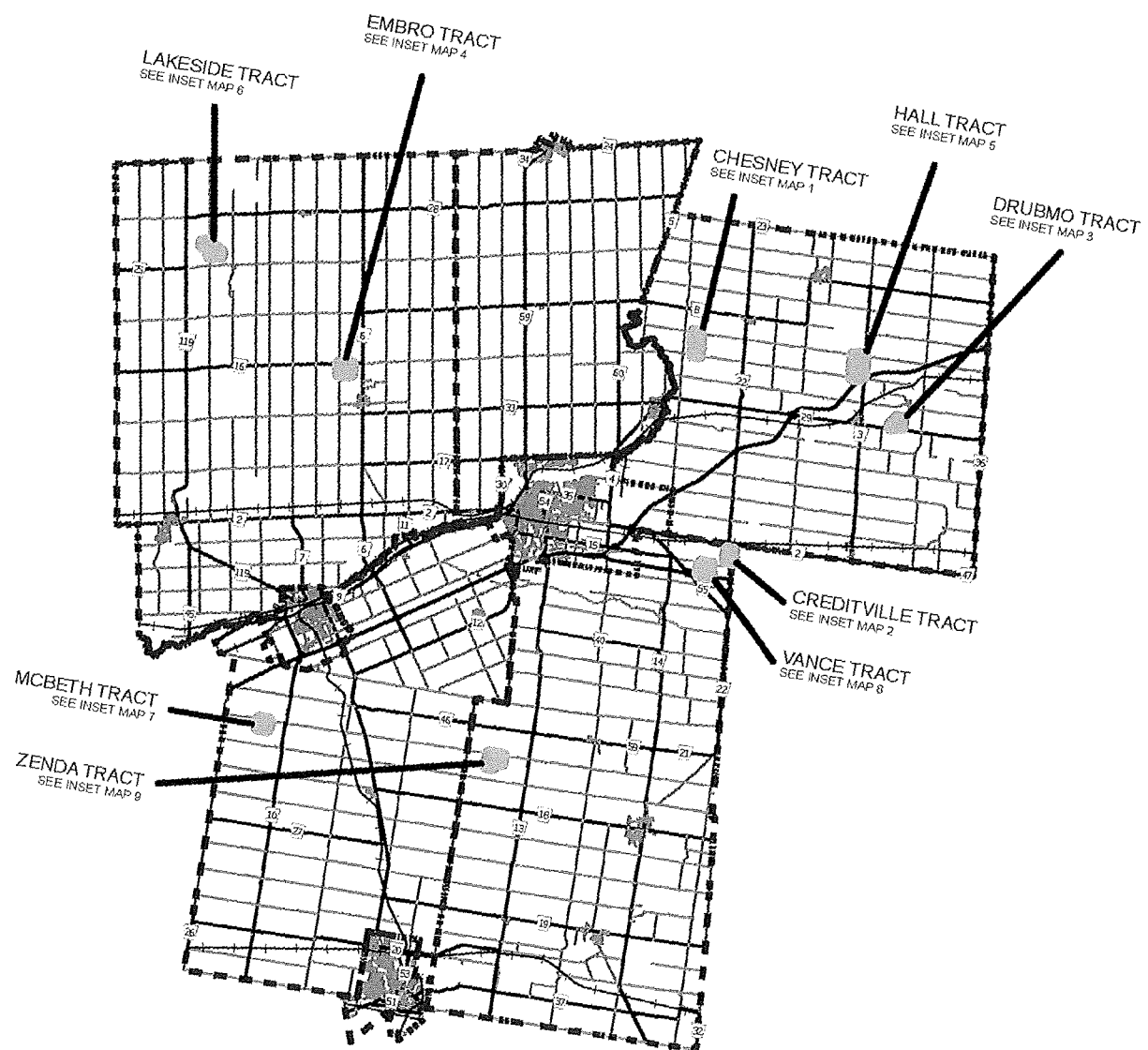
8 VANCE TRACT
 565948 TOWERLINE RD
 NORWICH TWP



9 ZENDA TRACT
 364790 EVERGREEN ST
 NORWICH TWP



Schedule "A" County Forests - Property Locations



SCHEDULE "B"

COUNTY LANDS

INSET MAP	ADDRESS	LEGAL DESCRIPTION
1. WEST ZORRA (EMBRO) CLOSED LANDFILL	335381 33rd LINE ZORRA TWP	PT LT 7 CON 2 WEST ZORRA AS IN A42339; ZORRA
2. NORTH OXFORD (THAMESFORD) CLOSED LANDFILL	622914 ROAD 62 ZORRA TWP	PT LT 22 CON 4 NORTH DORCHESTER PT 1 & 2, 41R1266; ZORRA
3. LAKESIDE CLOSED LANDFILL	256321 25th LINE ZORRA TWP	PT LT 22 CON 12 EAST MISSOURI PT 1, 41R1268; S/T A10689; ZORRA
4. HIGHLAND SHOP BUFFER PROPERTY	884135 ROAD 88 ZORRA TWP	WEST ZORRA CON 5 PT LOT 21; RP 41R9439 PARTS 4 6 TO 9
5. OXFORD COUNTY TAVISTOCK LAGOON	<i>Part A:</i> 227 WILLIAM ST S EAST ZORRA <i>Part B:</i> TAVISTOCK TWP MARIA ST, WILLIAM ST, Village of TAVISTOCK	<i>Part A:</i> PT LTS 34-35 CON 13 EAST ZORRA AS IN PL CO54788; PT LT 34-35 CON 13 <i>Part B:</i> PT LTS 34-35 CON 13 EAST ZORRA AS IN PL CO54788; PT LT 34-35 CON 13 EAST ZORRA, PARTS 2, 3, 4, 5 & 7 41R2380 AND PART 1 41R3311; PT LT 23 PL 1609; PT LT 34-35 CON 13 EAST ZORRA, PART 2 41R9205 SUBJECT TO AN EASEMENT AS IN A52243 SUBJECT TO AN EASEMENT AS IN A58754 TOWNSHIP OF EAST ZORRA-TAVISTOCK
6. OXFORD COUNTY PLATTSVILLE LAGOON	906885 TOWNSHIP ROAD 12 BLANDFORD-BLENHEIM TWP	PT LT 16 CON 12 BLENHEIM PT 2, 3 & 5 41R515; BLANDFORD-BLENHEIM
7. BLANDFORD-BLENHEIM CLOSED LANDFILL	<i>Part A</i> Address: 846651 TOWNSHIP ROAD 9 BLANDFORD-BLENHEIM TWP <i>Part B</i> 856141 KING RD BLANDFORD-BLENHEIM TWP	<i>Part A</i> PT LT 19 CON 9 BLENHEIM PT 1-7 41R1264; BLANDFORD-BLENHEIM <i>Part B</i> PT LT 19 CON 9 BLENHEIM PT 1 41R2900; BLANDFORD-BLENHEIM
8. EAST OXFORD CLOSED LANDFILL	445286 GUNN'S HILL RD NORWICH TWP	PT LT 14 CON 7 EAST OXFORD AS IN A96848; NORWICH
9. FORMER BRANTFORD, NORFOLK, AND PORT BURWELL RAILROAD RIGHT OF WAY FROM CRANBERRY LINE, TO ZENDA		PT LT 1-3 CON 10 DEREHAM AS IN 408233; DESCRIPTION MAY NOT BE ACCEPTABLE IN FUTURE AS IN 408233; SWOXFORD/TILLSONBURG
10. HOLBROOK CLOSED	345071 QUAKER ST NORWICH TWP	PT LT 20-21 CON 3 NORTH NORWICH AS IN 355259, 279881;

LANDFILL		NORWICH
11. HOLBROOK CLOSED LANDFILL BUFFER LANDS	345071 QUAKER ST NORWICH TWP	PT LT 20-21 CON 3 NORTH NORWICH AS IN 355259, 279881; NORWICH
12. OXFORD COUNTY NORWICH LAGOONS		<i>Part A</i> BLK V, W, Y PL 271; PT LT 764 PL 955; PT PHEBE ST PL 271 CLOSED BY B23604, PT 1, 41R149; NORWICH

		<p>Part B PT LT 6 CON 5 NORTH NORWICH PT 1, 41R5660; NORWICH</p> <p>Part C BLK X PL 271; NORWICH</p> <p>Part D PT LT 6-7 CON 5 NORTH NORWICH; NORWICH</p>
13. OTTERVILLE CLOSED LANDFILL	<p>Part A 772481 HIGHWAY 59 NORWICH TWP</p> <p>Part B 772489 HIGHWAY 59 NORWICH TWP</p>	<p>Part A PT LT 8 CON 9 SOUTH NORWICH AS IN B19013 & A78090; NORWICH</p> <p>Part B PT LT 8 CON 9 SOUTH NORWICH PT 1 & 2, 41R4321; NORWICH</p>
14. TILLSONBURG CLOSED LANDFILL		PT LT 1-2 CON 5 NTR MIDDLETON PARTS 14, 16, 17 & 18 41R-8326 SUBJECT TO AN EASEMENT OVER PARTS 14, 16, 17 & 18 41R8326 IN FAVOUR OF PT LT 1-2 CON 5 NTR MIDDLETON PARTS 1, 2, 3, 4, 13 & 15 41R8326 AS IN CO85675 TOGETHER WITH AN EASEMENT OVER PT LT 1-2 CON 5 NTR MIDDLETON PART 13 41R8326 AS IN CO85676 TOWN OF TILLSONBURG
15. OXFORD COUNTY WASTE MANAGEMENT FACILITY BUFFER LANDS	<p>Part A 384108 SALFORD RD SOUTH/WEST OXFORD TWP , 384134 SALFORD RD</p> <p>Part B 384152 SALFORD RD SOUTH/WEST OXFORD TWP</p>	<p>Part A PT LT 10-12 CON 2 DEREHAM AS IN 278552, 436453, 436452, PL1560 & PT 1, 41R1300; S/T 268282, A31597, A32793, DE19973, DE19974; SOUTH-WEST OXFORD</p> <p>Part B PT LT 10 CON 2 DEREHAM PT 1, 41R655; SOUTH-WEST OXFORD</p>
16. OXFORD COUNTY WASTE MANAGEMENT FACILITY	384060 SALFORD RD SOUTH/WEST OXFORD TWP	PT LT 10-12 CON 2 DEREHAM AS IN 278552, 436453, 436452, PL1560 & PT 1, 41R1300; S/T 268282, A31597, A32793, DE19973, DE19974; SOUTH-WEST OXFORD

<p>17. OXFORD COUNTY THAMES RIVER WETLANDS</p>		<p>Part A PT LT 19 N OF MAIN ST, 20 N OF MAIN ST, 21 N OF MAIN ST, 22 N OF MAIN ST, 23 N OF MAIN ST, 24 N OF MAIN ST PL 154 PT 2, 41R6381; S/T 430960; S/T BENEFICIARIES INTEREST IN 430960; SOUTH-WEST OXFORD</p> <p>Part B PT LT 19 N OF MAIN ST, 20 N OF MAIN ST, 21 N OF MAIN ST, 22 N OF MAIN ST, 23 N OF MAIN ST, 24 N OF MAIN ST PL 154 PT 2, 41R6381; S/T 430960; S/T BENEFICIARIES INTEREST IN 430960; SOUTH-WEST OXFORD</p> <p>Part C PT LT 23-27 CON 1 NORTH OXFORD; EAST ZORRA-TAVISTOCK</p> <p>Part D PT LT 4-6 CON BROKEN FRONT WEST OXFORD; SOUTH-WEST OXFORD</p> <p>Part E PT LT 2-4 CON BROKEN FRONT WEST OXFORD; SOUTH-WEST OXFORD</p> <p>Part F PT LT 2 CON BROKEN FRONT WEST OXFORD; SOUTH-WEST OXFORD</p>
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18. THORNTON WELLFIELD PROPERTIES, HODGES POND PROPERTY	Part A 524802 CURRY RD SOUTH/WEST OXFORD TWP	Part A PT LT 4 CON 3 WEST OXFORD AS IN 457544 (FIRSTLY); SOUTH-WEST OXFORD
	Part B 524854 CURRY RD SOUTH/WEST OXFORD TWP	Part B PT LT 2-3 CON 3 WEST OXFORD AS IN 462288 (FIRSTLY); SOUTH-WEST OXFORD
	Part C 524912 CURRY RD SOUTH/WEST OXFORD TWP	Part C PT LT 2 CON 3 WEST OXFORD AS IN 455072; SOUTH-WEST OXFORD
	Part D 484981 SWEABURG RD SOUTH/WEST OXFORD TWP	Part D PT LT 1 CON 3 WEST OXFORD AS IN 205467; SOUTH-WEST OXFORD
	Part E 484827 SWEABURG RD SOUTH/WEST OXFORD TWP	Part E PT LT 3 CON 3 WEST OXFORD AS IN 462288; SOUTH-WEST OXFORD
	Part F 484907 SWEABURG RD SOUTH/WEST OXFORD TWP	Part F PT LT 1-2 CON 3 WEST OXFORD AS IN WO4730, WO4771 & WO7390 EXCEPT PT 1, 41R4208, 462288 & OLD STAGE ROAD N OF COUNTY RD 12; SOUTH- WEST OXFORD
	Part G 504834 OLD STAGE RD NORWICH TWP	Part G PT LT 21-22 CON 4 EAST OXFORD PT 1-6 41R5661 EXCEPT PT 1 41R7303; S/T 389369; NORWICH
	Part I 484958 SWEABURG RD SOUTH/WEST OXFORD TWP	Part H Legal Description: PT LT 21-22 CON 4 EAST OXFORD; PT RDAL BTN TWP OF EAST OXFORD & TWP OF WEST OXFORD CLOSED BY UNREGISTERED BYLAW 237 AS IN 414136 DESCRIPTION MAY NOT BE ACCEPTABLE IN THE FUTURE AS IN 414136; SOUTH-WEST OXFORD
	Part J 484920 SWEABURG RD SOUTH/WEST OXFORD TWP	Part I PT LT 1 CON 3 WEST OXFORD AS IN A5694 EXCEPT B10294; SOUTH-WEST OXFORD
	Part K 534482 CEDAR LINE NORWICH TWP	Part J PT LT 2 CON 3 WEST OXFORD AS IN WO7390 S OF COUNTY RD 12; SOUTH- WEST OXFORD
	Part L 464865 RIVERS RD SOUTH/WEST OXFORD TWP, 534409 CEDAR LINE SOUTH/WEST OXFORD TWP, 464849 RIVERS RD SOUTH/WEST OXFORD TWP	Part K PT LT 21 CON 5 EAST OXFORD AS IN 412674; S/T B14674; NORWICH
		Part L LT 1 CON 4 WEST OXFORD; PT LT 2-3 CON 4 WEST OXFORD AS IN A4974, A35218, WO9447 & WO9212; SOUTH- WEST OXFORD

	<p>Part M 534326 CEDAR LINE NORWICH TWP</p> <p>Part N 464837 RIVERS RD SOUTH/WEST OXFORD TWP</p> <p>Part O 464852 RIVERS RD SOUTH/WEST OXFORD TWP</p>	<p>Part M PT LT 21 CON 6 EAST OXFORD AS IN A5029; NORWICH</p> <p>Part N PT LT 3 CON 4 WEST OXFORD AS IN A34111; SOUTH-WEST OXFORD</p> <p>Part O PT LT 3 CON 5 WEST OXFORD AS IN WO10342 & A27981; SOUTH-WEST OXFORD</p>
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	<p>Part P 504918 OLD STAGE RD NORWICH TWP, 534434 CEDAR LINE NORWICH TWP</p>	<p>Part P PT LT 19-20 CON 4 EAST OXFORD; PT LT 21, 20 CON 5 EAST OXFORD; PT RDAL BTN CON 4 & 5 EAST OXFORD AS IN A5036, A6204, A3926, A5144, A22058, & A5092 EXCEPT PT 2 & 4 41R2597 & AS IN A3950 EXCEPT EASEMENTS THEREIN; DESCRIPTION MAY NOT BE ACCEPTABLE IN FUTURE AS IN A5036, A6204, & A22058; NORWICH</p>
<p>19. FORMER CANADIAN NATIONAL RAILWAY RIGHT OF WAY FROM ZENDA LINE, TO BASE LINE ROAD, TO OXFORD COUNTY LIMITS</p>	<p>Part C 592611 OXFORD 13 NORWICH TWP</p> <p>Part I 773125 HIGHWAY 59</p>	<p>Part A PT LT 27-28 CON 10 SOUTH NORWICH AS IN 408233; NORWICH</p> <p>Part B PT LT 22-27 CON 9 SOUTH NORWICH AS IN 408233; NORWICH</p> <p>Part C PT LT 22 CON 8 SOUTH NORWICH PARTS 1 TO 4, 41R7283; NORWICH</p> <p>Part D PT LT 19-21 CON 8 SOUTH NORWICH AS IN 408233, DESCRIPTION MAY NOT BE ACCEPTABLE IN FUTURE AS IN 408233; NORWICH SUBJECT TO AN EASEMENT OVER PART 1 41R8823 IN FAVOUR OF PT LT 21 CON 8 SOUTH NORWICH AS IN R508451 AS IN CO101335</p> <p>Part E PT LT 15-19 CON 7 SOUTH NORWICH AS IN 408233, DESCRIPTION MAY NOT BE ACCEPTABLE IN FUTURE AS IN 408233; NORWICH</p> <p>Part F PT LT 15 CON 6 NORTH NORWICH PT 3 41R7114; NORWICH</p> <p>Part G PT LT 12-14 CON 6 NORTH NORWICH W OF TRAVELLED RD; NORWICH</p> <p>Part H PT LT 9-11 CON 6 NORTH NORWICH AS IN NN2243, NN2246 & NN2247 E OF TRAVELLED RD; NORWICH</p> <p>Part I PT LT 8-9 CON 5 NORTH</p>

	<p>NORWICH TWP</p> <p>Part J 773126 HIGHWAY 59</p> <p>NORWICH TWP</p> <p>Part K 325864 NORWICH RD</p> <p>NORWICH TWP</p>	<p>NORWICH AS IN NN3575, NN2242, NN2241 & NN2240; NORWICH</p> <p>Part J PT LT 5-7 CON 5 NORTH NORWICH AS IN 408233 EXCEPT PARTS 1-7 INCLUSIVE 41R8925 TOWNSHIP OF NORWICH</p> <p>Part K PT LT 5 CON 5 NORTH NORWICH PT 1, 41R2185; NORWICH</p> <p>Part L PT LT 1-5 CON 4 NORTH NORWICH AS IN NN2228, NN2230, NN2231, NN2232, NN2350, NN2233, PT 1 41R8253 & PT 6 41R5519; NORWICH</p>
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		<p>Part M RAILWAY BTN LT 77 AND LT 78 PL 396; NORWICH</p>
<p>20. FORMER CANADA SOUTHERN</p>		<p>Part A PT LTS 1 & 2 CON 11 DEREHAM, PART 1 41R7973; SOUTH-WEST OXFORD</p>
<p>RAILWAY COMPANY RAILROAD RIGHT OF WAY FROM THE EAST TOWN LIMIT IN THE TOWN OF TILLSONBURG TO SWIMMING POOL ROAD</p>		<p>Part B PT LT 22-28 CON 10 SOUTH NORWICH AS IN SN591, SN726, SN588, SN590, SN594, SN598, SN593, SN659, SN672, SN1031, SN673; PT RDAL BTN CON 10 & 11 SOUTH NORWICH AS IN SN7627 CLOSED BY UNREGISTERED BY-LAW #379; NORWICH</p> <p>Part C PT LT 15-21 CON 10 SOUTH NORWICH AS IN SN578, SN579, SN580, SN581, SN582, SN584, SN585, SN586, SN592, SN595, SN597, SN599, SN661, SN670, SN671, SN897, SN898, SN1006, SN1155, & SN8446; NORWICH</p> <p>Part D PT LT 14 CON 10 SOUTH NORWICH AS IN 497644; DESCRIPTION MAY NOT BE ACCEPTABLE IN FUTURE AS IN 497644; NORWICH</p> <p>Part E PT LT 8-14 CON 11 SOUTH NORWICH; NORWICH</p> <p>Part F PT LT 7 CON 11 SOUTH NORWICH AS IN 497644 W OF PL1269, DESCRIPTION MAY NOT BE ACCEPTABLE IN FUTURE AS IN 497644; NORWICH</p> <p>Part G PT LT 1-7 CON 11 SOUTH NORWICH AS IN 497644 E OF PL1269, DESCRIPTION MAY NOT BE ACCEPTABLE IN FUTURE AS IN 497644; NORWICH</p> <p>Part H Legal Description: PT GORE OF NORWICH AS IN 497644; NORWICH</p>
<p>21. FORMER CANADA SOUTHERN RAILWAY COMPANY RAILROAD RIGHT OF WAY FROM PIGRAM LINE, IN THE TOWNSHIP OF SOUTH-WEST OXFORD TO QUARTERLINE ROAD IN THE TOWN OF TILLSONBURG</p>		<p>Part A PT LT 22-28 CON 11 DEREHAM AS IN 497644; SOUTH-WEST OXFORD</p> <p>Part B PT LT 15-21 CON 11 DEREHAM AS IN DE1884, DE1883, DE1861, DE1772, DE1696, DE1410, DE1291, DE1290, DE1274, DE1273, DE1272, DE1270, DE1269; SOUTH-WEST OXFORD</p> <p>Part C PT GORE LT BTN LT 14 & 15 CON 11 DEREHAM AS IN DE1258; SOUTH- WEST OXFORD</p> <p>Part D PT LT 13-14 CON 11 DEREHAM AS IN DE11109, DE1261, DE1260, DE1259, DE1258, DE1257; SOUTH-WEST OXFORD</p> <p>Part E PT LT 12 CON 11 DEREHAM; SOUTH-</p>

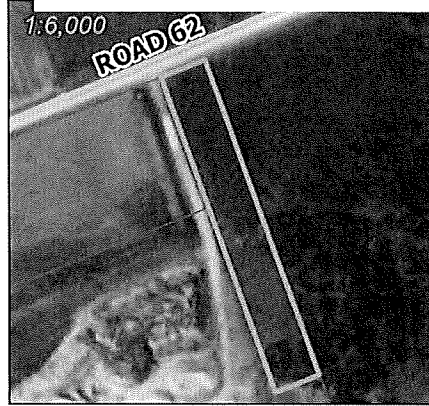
		WEST OXFORD Part F PT N 1/2 LT 10-11 CON 11 DEREHAM AS IN DE1697; SOUTH-WEST OXFORD Part G PT LT 9 CON 11 DEREHAM; SOUTH- WEST OXFORD Part H PT LT 8 CON 11 DEREHAM AS IN DE1289; TILLSONBURG
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SCHEDULE "B"
 OXFORD COUNTY LANDS – INSET MAPS
 NORTH OXFORD

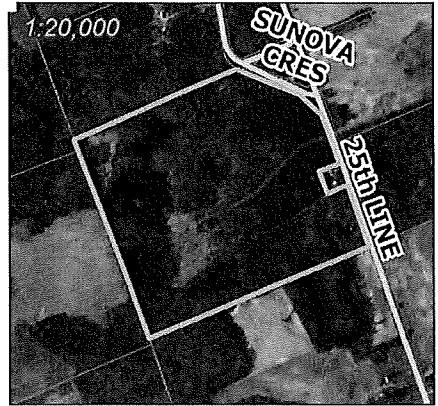
10 HOLBROOK
 CLOSED LANDFILL



11 HOLBROOK CLOSED LANDFILL
 BUFFER LANDS



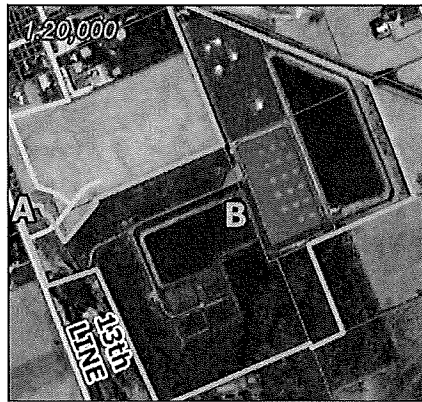
12 OXFORD COUNTY
 NORWICH LAGOONS



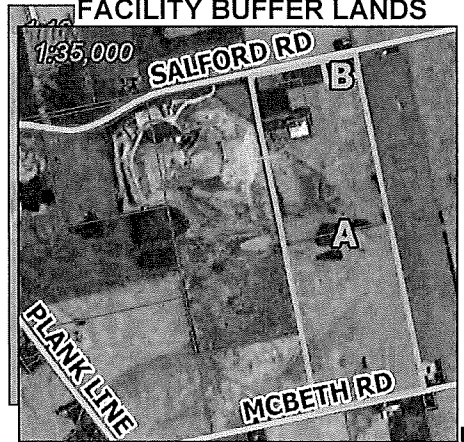
13 HIGHLAND PATROL YARD
 OTTERVILLE
 CLOSED LANDFILL



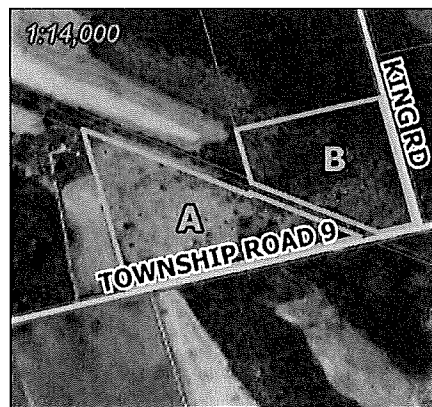
5 OXFORD COUNTY
 TAVISTOCK LAGOON
 BUFFER PROPERTY



15 OXFORD COUNTY
 WASTE MANAGEMENT
 FACILITY BUFFER LANDS



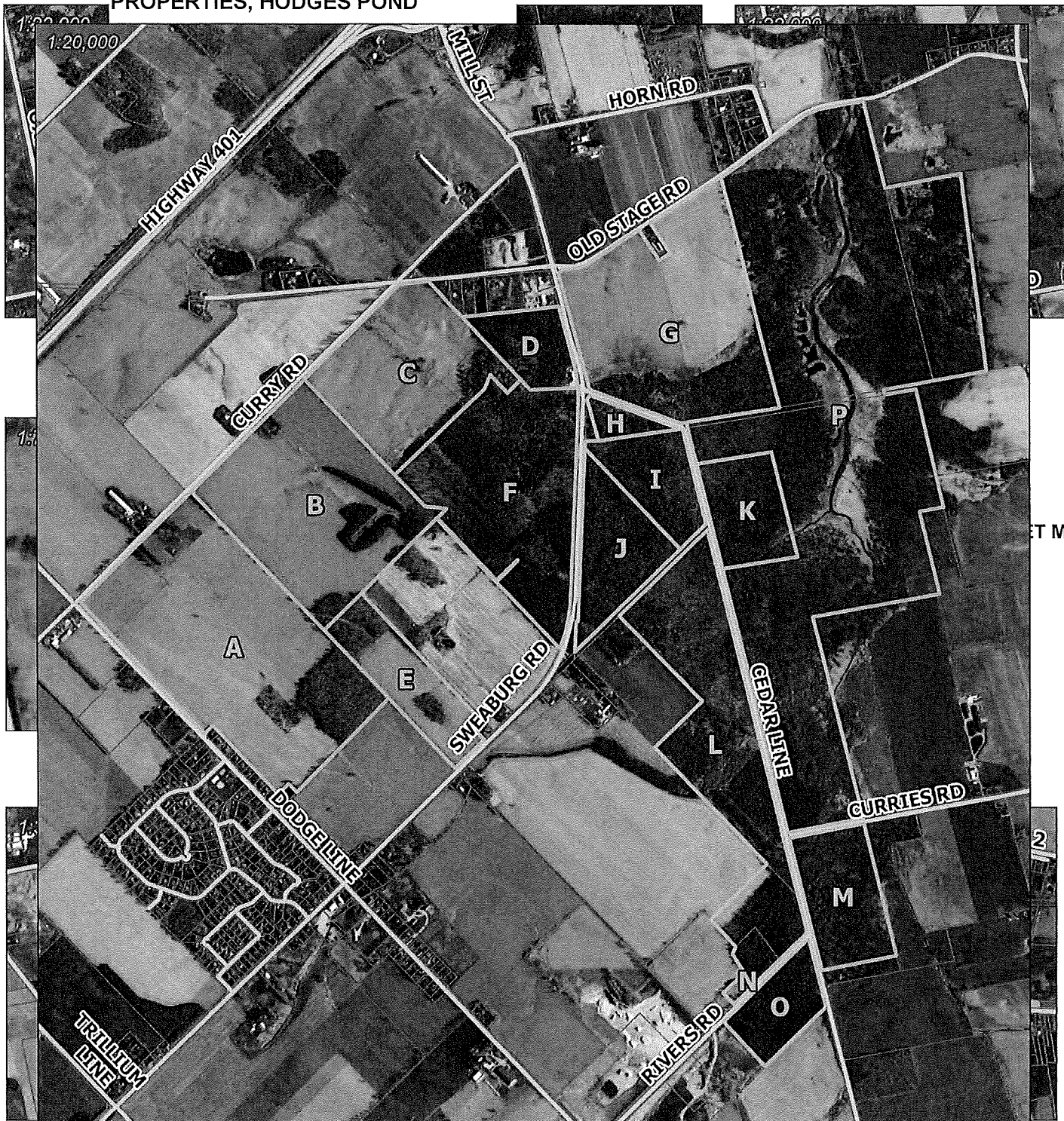
16 OXFORD COUNTY WASTE
 MANAGEMENT FACILITY



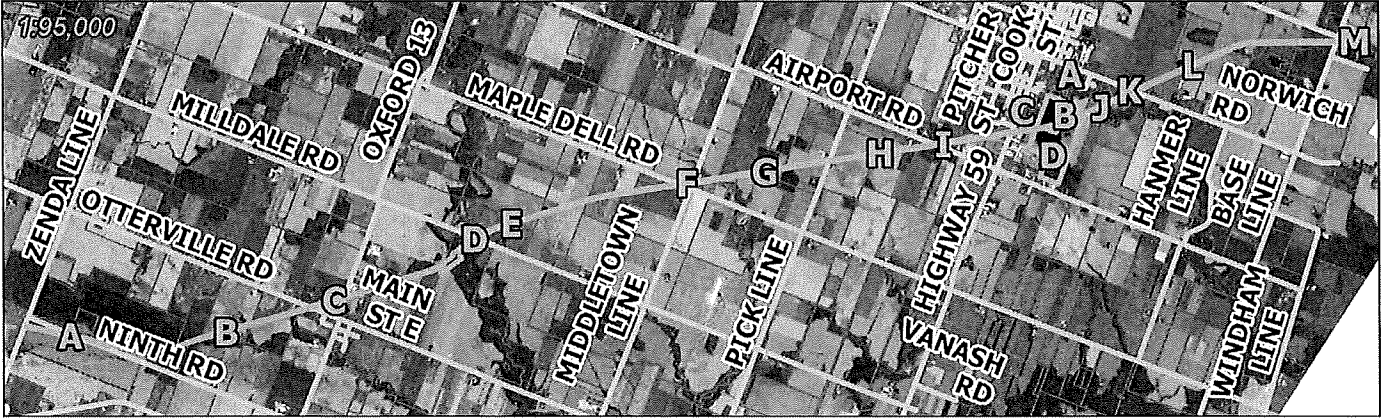
17 OXFORD COUNTY THAMES RIVER WETLANDS



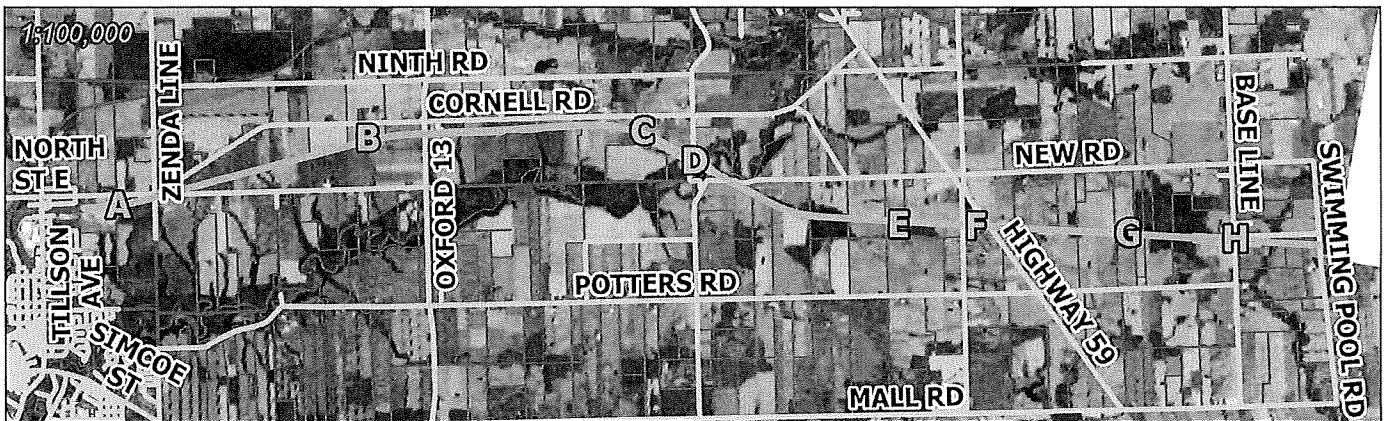
18 THORNTON WELLFIELD
PROPERTIES, HODGES POND



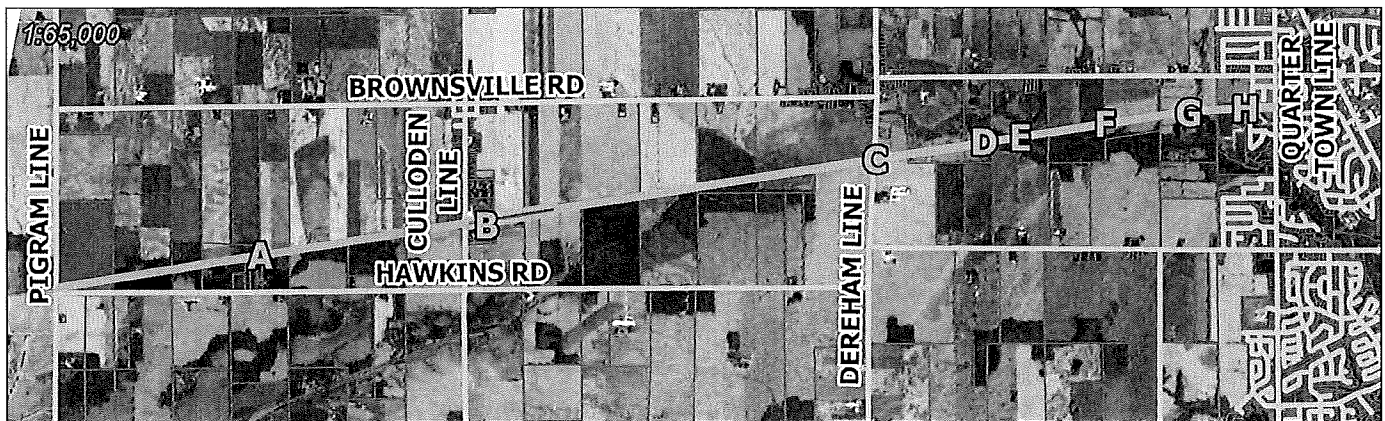
19 FORMER CANADIAN NATIONAL RAILWAY RIGHT OF WAY
ZENDA LINE TO WINDHAM LINE TO OXFORD COUNTY LIMITS IN NORWICH TWP



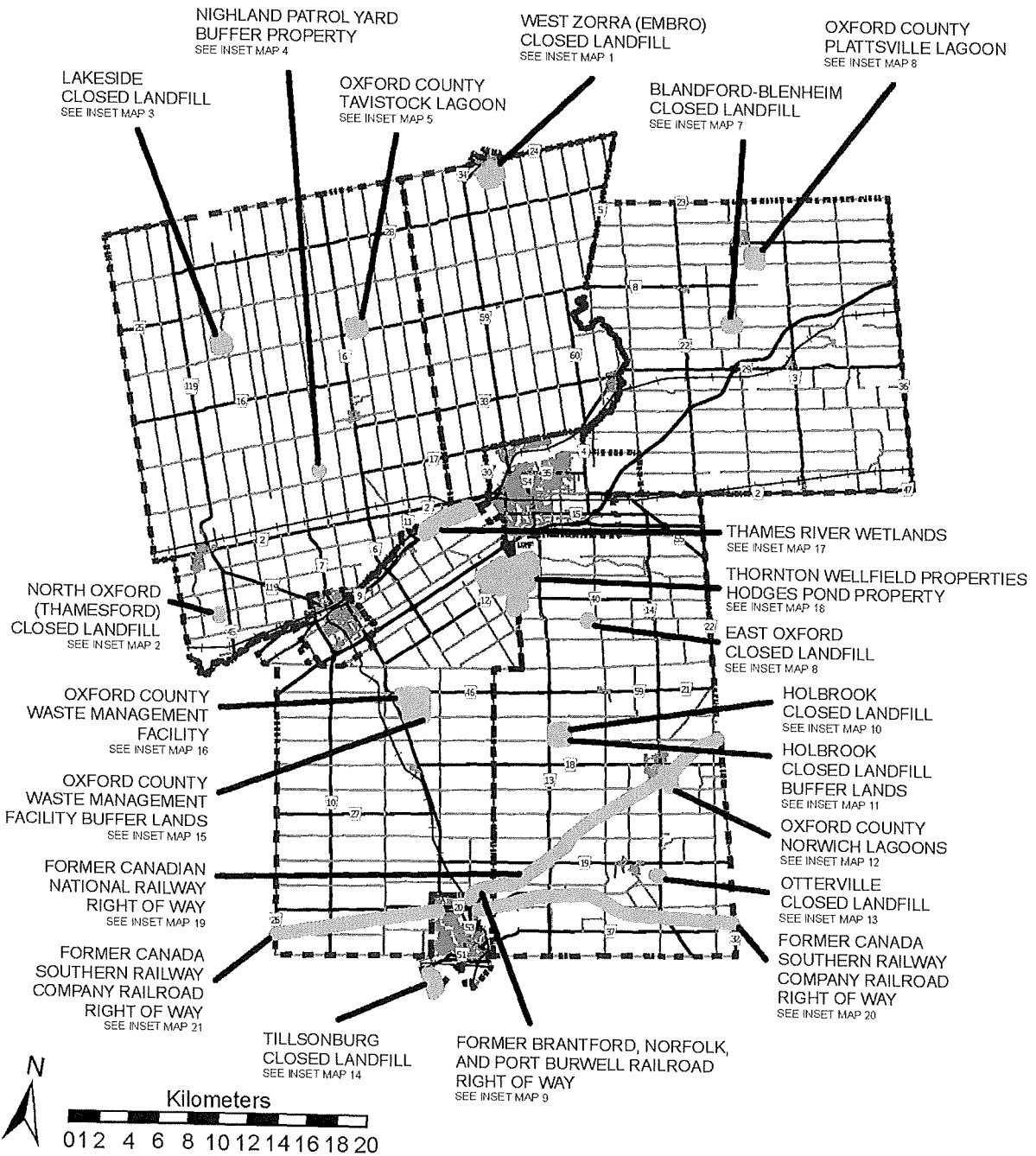
20 FORMER CANADA SOUTHERN RAILWAY COMPANY RAILROAD RIGHT OF WAY
EAST OF TILLSONBURG TOWN LIMIT TO SWIMMING POOL ROAD IN NORWICH



21 FORMER CANADA SOUTHERN RAILWAY COMPANY RAILROAD RIGHT OF WAY
FROM PIGRAM LINE IN SOUTH-WEST OXFORD TWP TO QUARTERLINE ROAD IN TILLSONBURG



Schedule "B" County Lands - Property Locations



SCHEDULE "C"
BY-LAW NO. 6606-2024

COUNTY FORESTS OR COUNTY LANDS WHERE HUNTING (GUN OR BOW) PERMITTED

INSET MAP	ADDRESS	LEGAL DESCRIPTION
1. CHESNEY TRACT	846033 TOWNSHIP ROAD 9 BLANDFORD- BLENHEIM TWP, 866046 TOWNSHIP ROAD 10 BLANDFOR D- BLENHEIM TWP	PT LT 5 CON 9 BLANDFORD AS IN BD8694 & BD8697, S/T A11553; BLANDFORD- BLENHEIM
2. CREDITVILLE TRACT	814929 MUIR LINE NORWICH TWP	PT LT 1 CON 1 EAST OXFORD AS IN EO10914; NORWICH
3. DRUMBO TRACT	807297 OXFORD ROAD 29 BLANDFORD- BLENHEIM TWP	PT LT 9 CON 7 BLENHEIM PT 4 & 5, 41R273; BLANDFORD-BLENHEIM
4. HALL TRACT	847021 TOWNSHIP ROAD 9 BLANDFORD- BLENHEIM TWP, 896197 OXFORD ROAD 3 BLANDFOR D- BLENHEIM TWP	LT 13 CON 9 BLENHEIM EXCEPT PT 23, 24 & 25, 41R1617 AND PL831; S/T A11447; BLANDFORD-BLENHEIM
5. LAKESIDE TRACT	<i>Part A</i> 236697 23rd LINE ZORRA TWP <i>Part B</i> 236658 23rd LINE ZORRA TWP	<i>Part A</i> PT LT 28 CON 11 EAST MISSOURI PT 1 41R6537, S/T BENEFICIARIES INTEREST IN A86852; ZORRA <i>Part B</i> PT LT 27-28 CON 12 EAST MISSOURI AS IN EN12255; ZORRA
6. MCBETH TRACT	363398 MCBETH RD SOUTH/WEST OXFORD TWP	PT LT 24 CON 3 DEREHAM AS IN DE20323; SOUTH-WEST OXFORD
7. VANCE TRACT	565948 TOWERLINE RD NORWICH TWP	PT LT 3 CON 2 EAST OXFORD AS IN 211122; S/T EO10272, EO6644; NORWICH
8. ZENDA TRACT	364790 EVERGREEN ST NORWICH TWP	PT LT 25-26 CON 3 NORTH NORWICH AS IN NN13330, NN12395, NN11188; S/T NN13330; S/T INTEREST IN NN13330; NORWICH

SCHEDULE "C"
 BY-LAW NO. 6606-2024
 COUNTY FORESTS OR COUNTY LANDS WHERE HUNTING
 (GUN OR BOW) PERMITTED - INSET MAPS

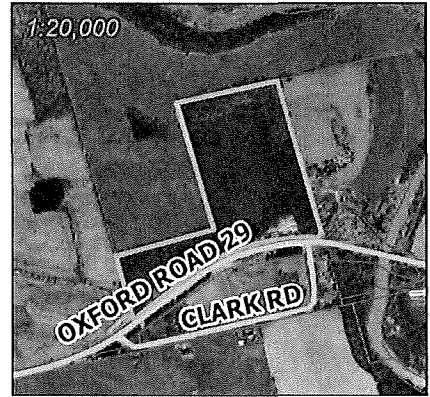
1 CHESNEY TRACT
 846033 TOWNSHIP 9
 866046 TOWNSHIP ROAD 10
 BLANDFORD-BLENHEIM TWP



2 CREDITVILLE TRACT
 814929 MUIR LINE
 NORWICH TWP



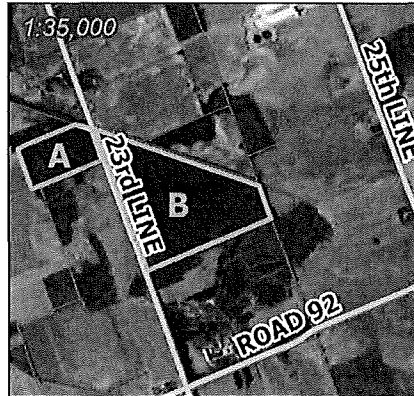
3 DRUMBO TRACT
 807297 OXFORD ROAD 29
 BLANDFORD-BLENHEIM TWP



4 HALL TRACT
 847021 TOWNSHIP ROAD 9
 896197 OXFORD ROAD 3
 BLANDFORD-BLENHEIM TWP



5 LAKESIDE TRACT
 236658 23rd LINE
 236697 23rd LINE
 ZORRA TWP



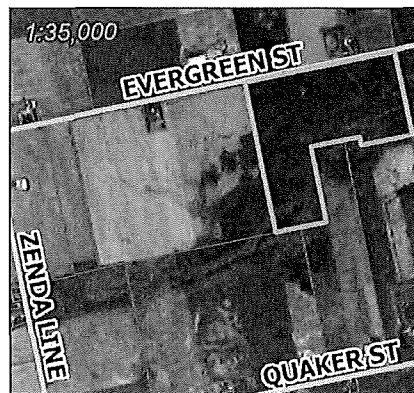
6 MCBETH TRACT
 363398 MCBETH RD
 SOUTH/WEST OXFORD TWP



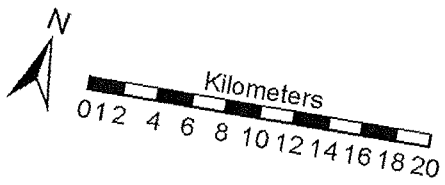
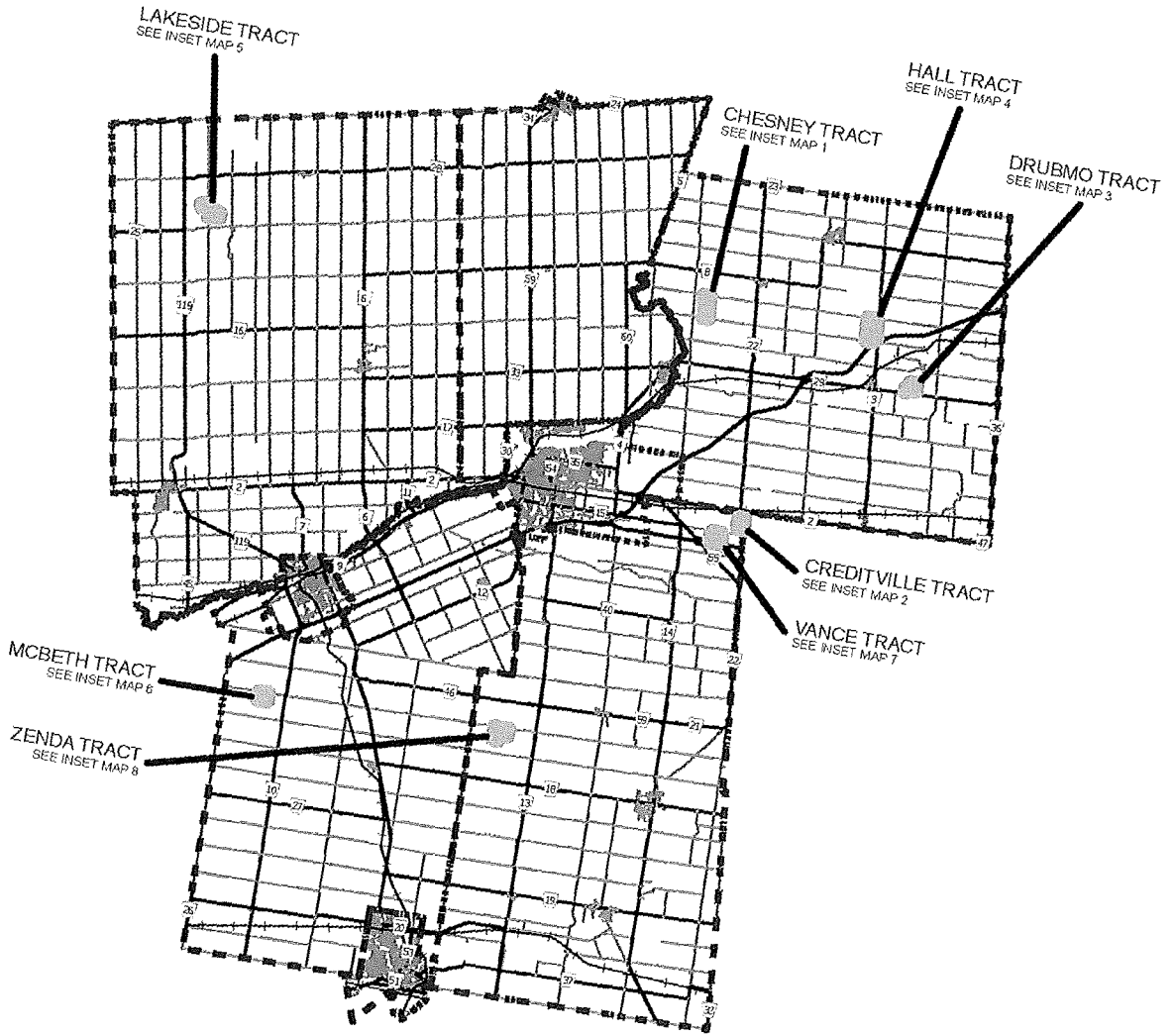
7 VANCE TRACT
 565948 TOWERLINE RD
 NORWICH TWP



8 ZENDA TRACT
 364790 EVERGREEN ST
 NORWICH TWP



Schedule "C"
County Forest Or County Lands
Where Hunting (Gun or Bow) Permitted



SCHEDULE "D"
BY-LAW NO. 6606-2024

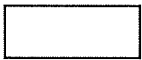
COUNTY FORESTS OR COUNTY LANDS WHERE HUNTING (BOW ONLY) PERMITTED

INSET MAP	ADDRESS	LEGAL DESCRIPTION
1. HOLBROOK CLOSED LANDFILL BUFFER LANDS	345071 QUAKER ST NORWICH TWP	PT LT 20-21 CON 3 NORTH NORWICH AS IN 355259, 279881; NORWICH
2. OXFORD COUNTY WASTE MANAGEMENT FACILITY BUFFER LANDS	<i>Part A</i> 384108 SALFORD RD SOUTH/WEST OXFORD TWP , 384134 SALFORD RD <i>Part B</i> 384152 SALFORD RD SOUTH/WEST OXFORD TWP	<i>Part A</i> PT LT 10-12 CON 2 DEREHAM AS IN 278552, 436453, 436452, PL1560 & PT 1, 41R1300; S/T 268282, A31597, A32793, DE19973, DE19974; SOUTH-WEST OXFORD <i>Part B</i> PT LT 10 CON 2 DEREHAM PT 1, 41R655; SOUTH-WEST OXFORD
3. THORNTON WELLFIELD PROPERTIES	<i>Part A</i> 524802 CURRY RD SOUTH/WEST OXFORD TWP <i>Part B</i> 524854 CURRY RD SOUTH/WEST OXFORD TWP <i>Part C</i> 524912 CURRY RD SOUTH/WEST OXFORD TWP <i>Part D</i> 484981 SWEABURG RD SOUTH/WEST OXFORD TWP <i>Part E</i> 484827 SWEABURG RD SOUTH/WEST OXFORD TWP <i>Part F</i> 484907 SWEABURG RD SOUTH/WEST OXFORD TWP <i>Part G</i> 504834 OLD STAGE RD NORWICH TWP	<i>Part A</i> PT LT 4 CON 3 WEST OXFORD AS IN 457544 (FIRSTLY); SOUTH-WEST OXFORD <i>Part B</i> PT LT 2-3 CON 3 WEST OXFORD AS IN 462288 (FIRSTLY); SOUTH-WEST OXFORD <i>Part C</i> PT LT 2 CON 3 WEST OXFORD AS IN 455072; SOUTH-WEST OXFORD <i>Part D</i> PT LT 1 CON 3 WEST OXFORD AS IN 205467; SOUTH-WEST OXFORD <i>Part E</i> PT LT 3 CON 3 WEST OXFORD AS IN 462288; SOUTH-WEST OXFORD <i>Part F</i> PT LT 1-2 CON 3 WEST OXFORD AS IN WO4730, WO4771 & WO7390 EXCEPT PT 1, 41R4208, 462288 & OLD STAGE ROAD N OF COUNTY RD 12; SOUTH-WEST OXFORD <i>Part G</i> PT LT 21-22 CON 4 EAST OXFORD PT 1- 6 41R5661 EXCEPT PT 1 41R7303; S/T 389369; NORWICH <i>Part H</i> Legal Description: PT LT 21-22 CON 4 EAST

		OXFORD; PT RDAL BTN TWP OF EAST OXFORD & TWP OF WEST OXFORD CLOSED BY UNREGISTERED BYLAW 237 AS IN 414136 DESCRIPTION MAY NOT BE ACCEPTABLE IN THE FUTURE AS IN 414136; SOUTH-WEST OXFORD
Part I	484958 SWEABURG RD	Part I
	SOUTH/WEST OXFORD	PT LT 1 CON 3 WEST OXFORD AS IN A5694 EXCEPT B10294; SOUTH-WEST OXFORD
	TWP	
Part J	484920 SWEABURG RD	Part J
	SOUTH/WEST OXFORD	PT LT 2 CON 3 WEST OXFORD AS IN WO7390 S OF COUNTY RD 12; SOUTH-WEST OXFORD
	TWP	
Part K	534482 CEDAR LINE	Part K
	NORWICH TWP	PT LT 21 CON 5 EAST OXFORD AS IN 412674; S/T B14674; NORWICH

	<p>Part L 464865 RIVERS RD SOUTH/WEST OXFORD TWP, 534409 CEDAR LINE SOUTH/WEST OXFORD TWP, 464849 RIVERS RD SOUTH/WEST OXFORD TWP</p> <p>Part M 534326 CEDAR LINE NORWICH TWP</p> <p>Part N 464837 RIVERS RD SOUTH/WEST OXFORD TWP</p> <p>Part O 464852 RIVERS RD SOUTH/WEST OXFORD TWP</p> <p>Part P 504918 OLD STAGE RD NORWICH TWP, 534434 CEDAR LINE NORWICH TWP</p>	<p>Part L LT 1 CON 4 WEST OXFORD; PT LT 2- 3 CON 4 WEST OXFORD AS IN A4974, A35218, WO9447 & WO9212; SOUTH-WEST OXFORD</p> <p>Part M PT LT 21 CON 6 EAST OXFORD AS IN A5029; NORWICH</p> <p>Part N PT LT 3 CON 4 WEST OXFORD AS IN A34111; SOUTH-WEST OXFORD</p> <p>Part O PT LT 3 CON 5 WEST OXFORD AS IN WO10342 & A27981; SOUTH- WEST OXFORD</p> <p>Part P PT LT 19-20 CON 4 EAST OXFORD; PT LT 21, 20 CON 5 EAST OXFORD; PT RDAL BTN CON 4 & 5 EAST OXFORD AS IN A5036, A6204, A3926, A5144, A22058, & A5092 EXCEPT PT 2 & 4 41R2597 & AS IN A3950 EXCEPT EASEMENTS THEREIN; DESCRIPTION MAY NOT BE ACCEPTABLE IN FUTURE AS IN A5036, A6204, & A22058; NORWICH</p>
4. OXFORD COUNTY THAMES RIVER WETLANDS		<p>Part C PT LT 23-27 CON 1 NORTH OXFORD; EAST ZORRA-TAVISTOCK</p> <p>Part D PT LT 4-6 CON BROKEN FRONT WEST OXFORD; SOUTH-WEST OXFORD</p> <p>Part E PT LT 2-4 CON BROKEN FRONT WEST OXFORD; SOUTH-WEST OXFORD</p> <p>Part F PT LT 2 CON BROKEN FRONT WEST OXFORD; SOUTH-WEST OXFORD</p>

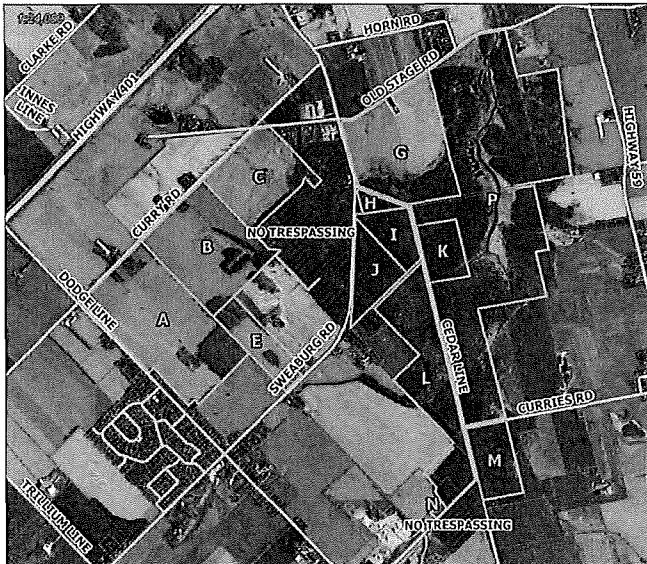
SCHEDULE "D" (amended
November 23, 2016)
COUNTY FORESTS OR
COUNTY LANDS WHERE
HUNTING
(BOW ONLY) PERMITTED - INSET



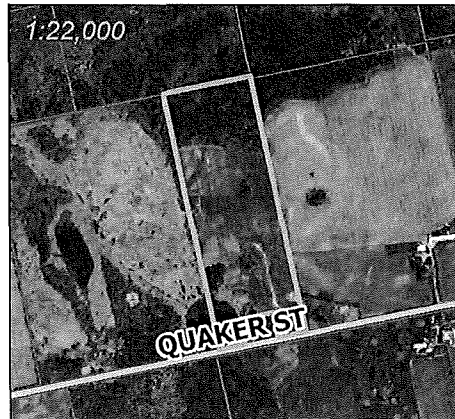
NO TRESPASSING



3 THORNTON WELLFIELD PROPERTIES,
HODGES POND PROPERTY



1 HOLBROOK CLOSED LANDFILL
BUFFER LANDS



2 OXFORD COUNTY
WASTE MANAGEMENT
FACILITY BUFFER LANDS

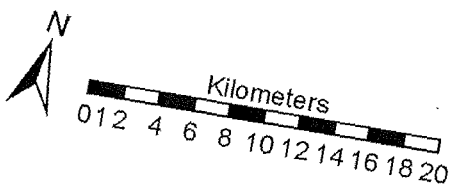
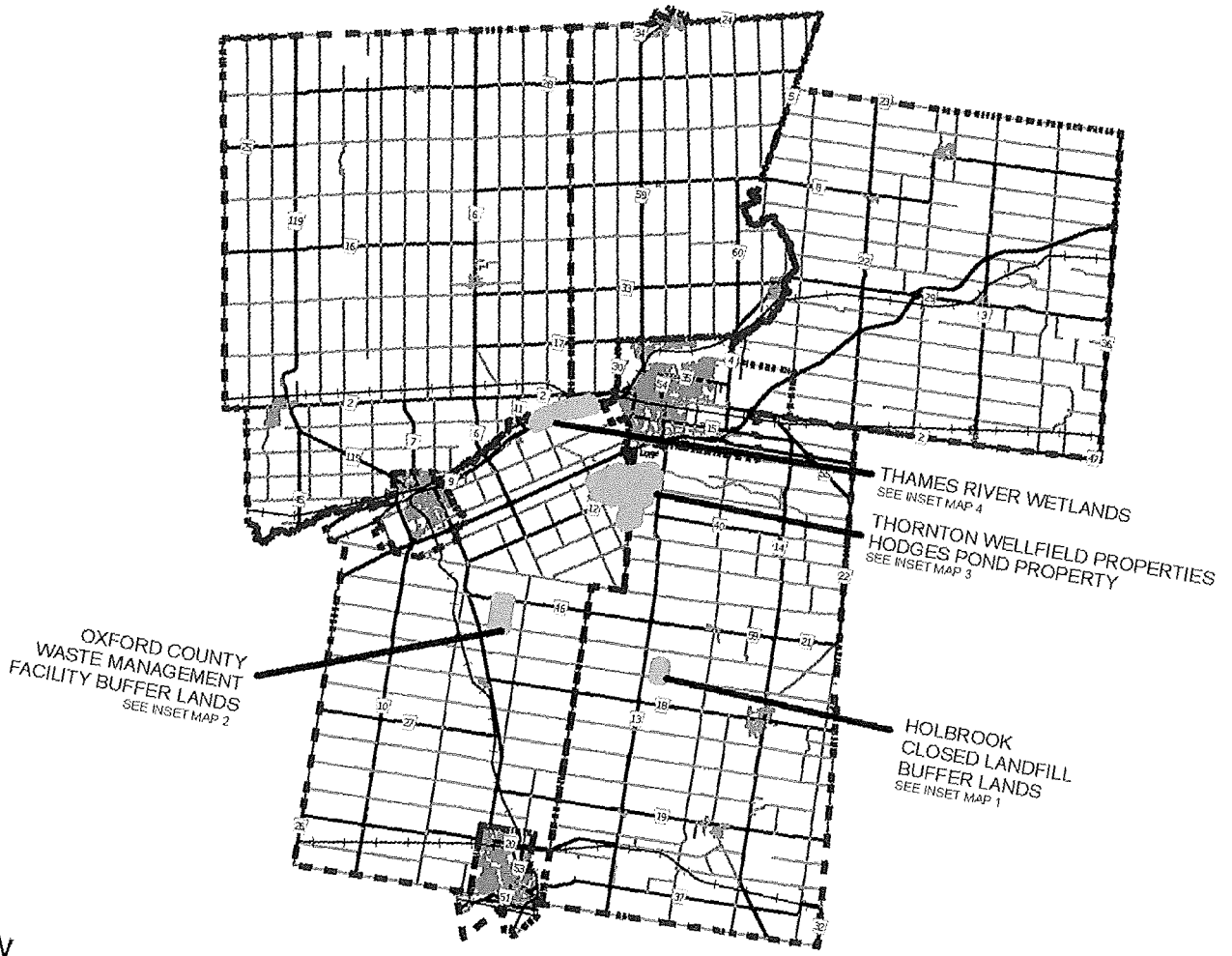


MAPS

4 THAMES RIVER WETLANDS



Schedule "D"
County Forest or Lands
Where Hunting (Bow only) Permitted



SCHEDULE "E"

BY-LAW NO. 6606-2024

OFFENCES

PART I PROVINCIAL OFFENCES ACT

COUNTY FORESTS AND COUNTY LANDS RECREATION BY-LAW NO. 6606-2024

ITEM	COLUMN 1 Short Form Wording	COLUMN 2 Provision Creating or Defining the Offence	COLUMN 3 Set Fine
1.	Litter, dump or dispose of any foreign material or refuse, including liquid waste	Section 3.1(a)	\$250.00
2.	Start a fire	Section 3.1(b)	\$150.00
3.	Discharge fireworks	Section 3.1(c)	\$100.00
4.	Camp	Section 3.1(d)	\$100.00
5.	Possess or consume intoxicating beverages	Section 3.1(e)	\$100.00
6.	Conduct target practice	Section 3.1(f)	\$100.00
7.	Carry a dangerous weapon	Section 3.1(g)	\$100.00
8.	Discharge a dangerous weapon	Section 3.1(g)	\$100.00
9.	Cut, prune, dig, or gather trees or firewood	Section 3.1(h)	\$100.00
10.	Construct unauthorized structures	Section 3.1(i)	\$100.00
11.	Allow an animal to Run at Large, or on a leash longer than 2 metres	Section 3.1(j)	\$100.00
12.	Construct tree stands or blind shelters	Section 3.1(k)	\$100.00
13.	Remove, alter, deface or destroy a County sign, gate or fence	Section 3.1(l)	\$100.00
14.	Install an unauthorized sign	Section 3.1(m)	\$100.00
15.	Interfere with or disrupt logging activities	Section 3.1(n)	\$100.00
16.	Construct an unauthorized trail	Section 3.1(o)	\$100.00
17.	Trap	Section 3.1(p)	\$250.00
18.	Operate a Vehicle other than a cycle propelled by muscle power, a Motorized Snow Vehicle or an Off-road Vehicle	Section 3.2	\$250.00
19.	Disobey a posted sign	Section 3.4	\$100.00
20.	Operate a Motorized Snow Vehicle outside of an OFSC designated trail	Section 4.1(g)	\$250.00
21.	Operate a Motorized Snow Vehicle without a valid permit	Section 4.1(g)	\$250.00
22.	Operate an Off-road Vehicle outside of an OFATV or OFTR designated trail	Section 4.1(h)	\$250.00
23.	Operate an Off-road Vehicle without a valid permit	Section 4.1(h)	\$250.00
24.	Fish in unauthorized County Forests or County Lands	Section 4.1(i)	\$100.00
25.	Hunt in unauthorized County Forests or County Lands	Section 4.1(i)	\$250.00
26.	Hunt without Schedule "F" documentation	Section 4.1(i)	\$250.00
27.	Harvesting non-wood forest products for commercial use or gain	Section 4.1(k)	\$100.00

NOTE:

The general penalty provision for the offences listed above is Section 7.8 of By-law No. 6606-2024, a certified copy of which has been filed.

SCHEDULE "F"

6606-2024

ACCEPTED ORGANIZATIONAL INSURANCE OR ALTERNATIVE INSURANCE

- "OFAH" – Ontario Federation of Anglers and Hunters.
- "NFALI" – National Firearms Association Liability Insurance.
- "CSS" – Canadian Shooting Sports.
- Home Owners Liability Insurance in the amount of \$5,000,000.

6606-2024 Forest Land Use By-law

Final Audit Report

2024-01-24

Created:	2024-01-24
By:	Chloe Senior (csenior@oxfordcounty.ca)
Status:	Signed
Transaction ID:	CBJCHBCAABAAAn4OxwP8XUj5y3BqfWbZ2cc2tgExtIW0K

"6606-2024 Forest Land Use By-law" History

-  Document created by Chloe Senior (csenior@oxfordcounty.ca)
2024-01-24 - 3:26:04 PM GMT- IP address: 23.174.96.6
-  Document emailed to mryan@oxfordcounty.ca for signature
2024-01-24 - 3:26:42 PM GMT
-  Email viewed by mryan@oxfordcounty.ca
2024-01-24 - 3:27:24 PM GMT- IP address: 104.28.133.18
-  Signer mryan@oxfordcounty.ca entered name at signing as Marcus Ryan
2024-01-24 - 5:22:30 PM GMT- IP address: 23.174.96.7
-  Document e-signed by Marcus Ryan (mryan@oxfordcounty.ca)
Signature Date: 2024-01-24 - 5:22:32 PM GMT - Time Source: server- IP address: 23.174.96.7
-  Document emailed to Chloe Senior (csenior@oxfordcounty.ca) for signature
2024-01-24 - 5:22:37 PM GMT
-  Email viewed by Chloe Senior (csenior@oxfordcounty.ca)
2024-01-24 - 6:04:53 PM GMT- IP address: 99.226.147.14
-  Document e-signed by Chloe Senior (csenior@oxfordcounty.ca)
Signature Date: 2024-01-24 - 6:05:06 PM GMT - Time Source: server- IP address: 99.226.147.14
-  Agreement completed.
2024-01-24 - 6:05:06 PM GMT

COUNTY OF OXFORD

WOODLANDS CONSERVATION BY-LAW NO. 6607-2024

To prohibit or regulate the harvesting, injuring or destruction
of trees in woodlands in the
County of Oxford

WHEREAS s.135(2) of the *Municipal Act, 2001*, R.S.O. 2001, c.25 as amended, (hereinafter referred to as "the Act") permits the enactment of a by-law by the Council of the County of Oxford (hereinafter referred to as "the County") to prohibit or regulate the harvest, injury or destruction of trees in woodlands;

AND WHEREAS s.135(7) of the Act provides that a by-law enacted in accordance with s.135(2) of the Act may require that a permit be obtained to harvest, injure or destroy trees and that a municipality may impose conditions on a permit, including conditions relating to the manner in which harvesting, injuring or destroying occurs and the qualifications of persons authorized for this purpose;

AND WHEREAS Council of the County has determined that it is desirable to enact such a by-law for purposes including, but not limited to, the following:

- achieving the goals and objectives of the County Official Plan with respect to sustaining the community's environmental and natural heritage resources;
- conserving and improving woodlands through good forestry practices;
- protecting, promoting and enhancing the value of woodlands for social, economic and environmental value; and
- enhancing biodiversity and forest resilience to assist the community in adapting to climate change and other environmental threats to forest health.

NOW THEREFORE the Council of the County of Oxford hereby enacts as follows:

1. DEFINITIONS

In this by-law:

- 1.1 "Acceptable Growing Stock (AGS)" means *trees* suitable for retention in the stand for at least one (1) cutting cycle, comprising *trees* of commercial species and of such form and quality as to be saleable as sawlog products at some future date.
- 1.2 "Basal Area" means the total cross-sectional area of all live *trees* 10 cm (4 in) or greater, expressed as square metres per hectare and measured 1.37 m (4.5 ft) above the point on the *tree* where the ground meets the stump at the base of the *tree*.
- 1.3 "Building Permit" means a building permit issued under the Building Code Act 1992, R.S.O. 1992, c.23, as amended, or any successor legislation.
- 1.4 "Business Day" means a day falling on or between Monday and Friday of each week, but does not include New Year's Day, Family Day, Good Friday, Victoria Day, Canada Day, Civic Holiday, Labour Day, Thanksgiving, Remembrance Day, Christmas Day or Boxing Day.
- 1.5 "By-law Officer" means a provincial offences officer or an individual or individuals appointed by *Chief Administrative Officer* for the administration and enforcement of this By-law.
- 1.6 "Certified Tree Marker" means an individual who has full certification in good standing for marking under the Ontario Ministry of Natural Resources and Forestry (MNRF) program, or similar program approved by the MNRF, and has demonstrated experience to mark in accordance with good forestry practice within Oxford County.
- 1.7 "Chief Administrative Officer" means the Chief Administrative Officer of the Corporation of the County of Oxford.
- 1.8 "Circumference" means the measurement of the perimeter or outer boundary of a stem or trunk of a *tree*, including the bark of the stem.

- 1.9 "Committee" means the Woodlands Conservation By-law Committee or other similarly constituted committee as designated by a By-law of the *County*.
- 1.10 "Coppice Growth" means where more than one *tree* stem grows from a single *tree* stump.
- 1.11 "Council" means the Council of the County of Oxford.
- 1.12 "County" means the County of Oxford or the area up to and including the geographical boundaries of the County of Oxford, as the context requires.
- 1.13 "County Clerk" means the County Clerk of the County of Oxford.
- 1.14 "Destroy", "Destruct" and/or "Destruction" means any action which causes or results in the irreversible *injury* or death of a *tree*.
- 1.15 "Diameter" means the straight-line measurement, from side to side and through the centre of the trunk or stem of a *tree*, including the bark.
- 1.16 "Diameter Breast Height (DBH)" means the diameter of the stem of a *tree* measured at a point that is 1.37 m (4.5 ft) above the ground.
- 1.17 "Good Forestry Practices" means the proper implementation of *harvest*, renewal and maintenance activities known to be appropriate for the forest and environmental conditions under which they are being applied and that minimize detriments to forest values including significant ecosystems, important fish and wildlife habitat, soil and water quality and quantity, forest productivity and health, and the aesthetics and recreational opportunities of the landscape.
- 1.18 "Harvest" means the *injury* or *destruction* of *trees* through cutting or other mechanized means which results in the irreversible *injury* or death of a *tree* by design and further, includes any work, efforts or attempt to move or gather such *trees* having been cut or otherwise *destroyed*.
- 1.19 "Injure" or "Injury" means any action that causes physical, biological or chemical damage to a *tree*, including any lasting damage which has the effect of inhibiting or terminating its growth but does not include pruning branches for maintenance purposes.
- 1.20 "Local Board" means a municipal service board, transportation commission, board of health, police services board, planning board, or any other board, commission, committee, body or local authority established or exercising any power under any Act with respect to the affairs and purposes of one or more municipalities.
- 1.21 "Log" means a portion of a *tree* of a prescribed species reduced to a size suitable for loading on a vehicle for transport to a processing mill for the production of lumber or other products.
- 1.22 "Logger" means an individual or company or similar group who cuts *trees* for purchase, sale or other profit, on behalf of an *owner*.
- 1.23 "Local Municipality" means each of the municipalities of Blandford-Blenheim, East Zorra-Tavistock, Norwich, South-West Oxford, Zorra, Ingersoll, Tillsonburg and Woodstock.
- 1.24 "Owner" means a *person* having any right, title, interest or equity in land.
- 1.25 "Own Use" means a use by the *owner* that does not include the sale, exchange, barter or other disposition of *trees harvested, injured* or *destroyed*.
- 1.26 "Permit" means the written authorization of the *By-law Officer*.
- 1.27 "Person" means any individual, corporation, partnership, association, firm, trust or other entity and includes anyone acting on behalf or under the authority of such entity.
- 1.28 "Plantation" means a wooded areas where *trees* have been planted or seeded in a pre-determined pattern or rows and are *harvested* for commercial purposes in-keeping with the original purpose of planting or seeding.
- 1.29 "Plot" means a specific area set out for the purpose of measuring the number of *trees* within *woodlands*.

- 1.30 "Point of Measurement" means that point on the *tree* stem or trunk measured above the highest point of the ground in an undisturbed state at the base of the stem or trunk of the *tree*. For *coppice growth*, the 'point of measurement' means that point on each *tree* stem or trunk measured above the point of separation, provided that such point of separation is less than 1.37 m (4.5 ft) above the highest point of undisturbed ground at the base of the *coppice growth*, and the same *circumference* or diameter limits apply as for single-stemmed *trees*.
- 1.31 "Registered Professional Forester" has the same meaning as contained in the Professional Foresters Act, S.O. 2000, c18.
- 1.32 "Silviculture" means the art, science, theory and practice of controlling forest establishment, and the composition, growth and quality of forests to achieve the objectives of good forestry practice and forest management.
- 1.33 "Silvicultural Prescription" means the site-specific operational plan that describes the existing forest conditions and the forest management objectives for an area and which prescribes the methods for harvesting the existing forest stand and a series of silvicultural treatments that will be carried out to establish a free-growing stand in a manner that accommodates other resource values as identified.
- 1.34 "Tree" means any species of woody perennial plant, including its root system, which has reached or can reach a height of at least 4.5 m (14.8 ft) at physiological maturity.
- 1.35 "Unacceptable Growing Stock (UGS)" means *trees* that have a high risk of dying, and are expected to decline over the next cutting cycle, including *trees* of poor form and/or low quality.
- 1.36 "Unforested Corridor" means a break in the forest cover canopy, including, but not limited to roads, paths, or natural features such as a creek or *watercourse*.
- 1.37 "Watercourse" means a natural or man-made waterway containing flowing water for at least a portion of the year.
- 1.38 "Woodlands" means land, at least one hectare (2.47 acres) in area, including any *unforested corridors* less than 20 m (65.6 ft) in width, with at least:
- (i) 1000 *trees* of any size, per hectare; or
 - (ii) 750 *trees* measuring over five (5) cm (2 in) in diameter at *DBH*, per hectare; or
 - (iii) 500 *trees* measuring over twelve (12) cm (5 in) in diameter at *DBH*, per hectare; or
 - (iv) 250 *trees* measuring over twenty (20) cm (8 in) in diameter at *DBH*, per hectare.

Woodlands do not include a cultivated fruit or nut orchard, a registered *tree* nursery or a *tree plantation* planted and maintained for the purpose of producing Christmas *trees*.

The boundary of *woodlands* shall be defined by the ecological limit of the *woodlands* and not by property boundaries.

Where a *Local Municipality* has approved a By-law which delegates authority respecting the prohibition or regulation of the *harvesting, injuring or destruction of trees* to the County, *woodlands* shall mean land that is identified as *woodlands* in accordance with the definition(s) contained in the delegation By-law.

2. GENERAL PROHIBITION

Except as provided in this By-law, no *person*, through their own actions or through the actions of any other *person* shall *harvest, injure or destroy*, or cause or permit to be *harvested, injured or destroyed*, any living *tree* located in *woodlands*.

3. EXCEPTIONS

A *person* may *harvest, injure or destroy* a *tree* within *woodlands* if:

- (a) the *person* who is *harvesting, injuring or destroying trees* does so in accordance with a *silvicultural prescription* incorporating *good forestry practices* prepared or approved by:

- i) a *Registered Professional Forester* in good standing with the Ontario Professional Foresters Association; or
 - ii) a member in good standing with the Ontario Professional Foresters Association;
- and
- iii) the *person* who is *harvesting, injuring or destroying trees* has complied with all of the requirements of this By-law; and
 - iv) the *trees* to be *harvested, injured or destroyed* have been clearly marked with paint on two sides and at the base of the *tree*.

OR

the *trees harvested, injured or destroyed*:

- i) have attained, at the *point of measurement*, the *circumference* or diameter measurement which is equal to or greater than the minimum *circumference* or diameter prescribed for the species in Schedule "B" to this By-law;
- and
- ii) the *harvesting, injuring or destruction of trees* has occurred in compliance with all of the requirements of this By-law;
 - iii) the *harvesting, injuring or destruction of trees* will not reduce the number of *trees* per hectare below the minimum number of *trees* per hectare required for the area to remain a *woodland*;
 - iv) the *harvesting, injuring or destruction of trees* will not reduce the *basal area* in that part of the *woodland* where *trees* which measure 25 centimetres (10 in) or more at *DBH* have been *harvested, injured or destroyed* below 16 m²/ha of *trees*; and
 - v) the *trees* to be *harvested, injured or destroyed* have been clearly marked with paint on two sides and at the base of the *tree*.

4. DRAINAGE WORKS

- (a) Except for municipal drainage works:
 - i) where the *harvesting, injuring or destroying of trees* is necessary to construct drainage works, the *person* intending to cause or permit the *harvesting, injuring or destroying of trees*, either by themselves or through other *persons*, shall comply with this By-law.
 - ii) every *person* commits an offence who, by themselves or through other *persons*, constructs or causes or permits to be constructed tile drainage works consisting in whole or in part of perforated tile through, or within 5 m (16.5 ft) of, *woodlands*.

5. EXEMPTIONS

This By-law does not apply to:

- (a) activities or matters undertaken by a municipality or a *local board* of a municipality;
- (b) activities or matters undertaken under a licence issued under the Crown Forest Sustainability Act, 1994, R.S.O. 1990 c25;
- (c) the *injuring or destruction of trees* by a *person* licensed under the Surveyors Act to engage in the practice of cadastral surveying or his or her agent, while making a survey;
- (d) the *injuring or destruction of trees* imposed after December 31, 2002 as a condition to the approval of a site plan, a plan of subdivision, or a consent under Section 41, 51 or 53, respectively, of the Planning Act or as a requirement of a site plan agreement or subdivision agreement entered into under those sections;
- (e) the *injuring or destruction of trees* imposed after December 31, 2002 as a condition to a development permit authorized by regulation made under Section 70.2 of the Planning Act or as a requirement of an agreement entered into under the regulation;

- (f) the *injuring* or *destruction* of *trees* by a transmitter or distributor, as those terms are defined in Section 2 of the Electricity Act, 1998, for the purpose of constructing and maintaining a transmission system or a distribution system, as those terms are defined in that section;
- (g) the *injuring* or *destruction* of *trees* undertaken on land described in a licence for a pit or quarry or a permit for a wayside pit or wayside quarry issued under the Aggregate Resources Act;
- (h) the *injuring* or *destruction* of *trees* undertaken on land in order to lawfully establish and operate or enlarge any pit or quarry on land:
 - i) that has not been designated under the Aggregate Resources Act or a predecessor of that Act; and
 - ii) on which a pit or quarry is a permitted land use under a by-law passed under Section 34 of the Planning Act.
- (i) the *harvest*, *injuring* or *destruction* of *trees* required to erect any building, structure or thing in respect of which a *building permit* has been issued and has taken into consideration the protection of *trees* surrounding the structure or work within the building envelope, provided that no *tree* is *harvested*, *injured* or *destroyed* that is more than 15 metres (49.2 ft) from the outer edge of the building, structure or thing;
- (j) the *harvest*, *injuring* or *destruction* of *trees* that is reasonably required to install and provide utilities and/or a single-lane driveway for vehicular access for the construction or use of a building, structure or thing in respect of which a *building permit* has been issued;
- (k) the *harvest*, *injuring* or *destruction* of *trees* that is reasonably required to install a boundary fence between two properties within a *woodland*;
- (l) the *harvest*, *injuring* or *destruction* of *trees* by the *owner* of a *woodland* for the *owner's own use* where the *owner* has been the registered *owner* of the said *woodland* for a minimum of two (2) years prior to the date of *harvest*, *injury* or *destruction*, and provided that:
 - such activity is consistent with *good forestry practices*;
 - no more than 20 *trees* per hectare are *harvested*, *injured* or *destroyed* in a calendar year; and
 - such activity does not reduce the density of the *woodland* below the minimum number of *trees* per hectare required to be considered a *woodland*.
- (m) the *harvest*, *injuring* or *destruction* of *trees* for any of the following purposes, provided that the area in which *trees* are to be *harvested*, *injured* or *destroyed* has been inspected, approved and marked by the *By-law Officer* prior to the commencement of the activity and the *person* who *harvests*, *injures* or *destroys trees* or otherwise causes same has complied with this By-law:
 - i) where land previously cleared and used for agricultural purposes which has become overgrown with young (less than 10 years), early-successional tree species (i.e. sumac, hawthorn, apple, scots pine, poplar, white birch, ash) and the land is intended to be used again as part of an agricultural operation;
 - ii) where *trees* are impeding the passage of agricultural equipment along an existing laneway that is either within, or along the edge of a *woodland*; or
 - iii) where the *trees* to be *harvested*, *injured* or *destroyed* are not located within a *woodland*, or portion thereof, that is identified as part of an ecologically important vegetation group in the Oxford Natural Heritage System Study, 2023 or later version, and/or the County of Oxford Official Plan;
- (n) the *harvest*, *injuring* or *destruction* of *trees* where said *trees* are *harvested*, *injured* or *destroyed* pursuant to a legally-binding contract, provided that:
 - i) the *owner* of the *woodland* has given notice in accordance with this By-law; and

- ii) a contract was signed between the *owner* and contractor immediately preceding the date on which this By-law came into force and effect; and
- iii) proof of the signed contract and down payment made to the *owner* is provided to the satisfaction of the *By-law Officer*; and
- iv) the *trees* subject to the contract are *harvested, injured or destroyed* in a manner consistent with this By-law within two (2) years of the enactment of this By-law.

6. ADMINISTRATIVE AND/OR COMMITTEE EXEMPTION

- (a) Notwithstanding any provision contained in this By-law, a *person* may request an exemption from this By-law beyond those exemptions contained in Section 5. Every *person* who intends to obtain such exemption shall complete and submit to the *By-law Officer* or designate, an application in the form prescribed in Schedule "E" to this By-law containing all of the information required by the application form not less than 30 days and not more than two (2) years prior to the start of any *harvest, injury or destruction of trees*, together with the prescribed fee as set out in Schedule "A".
- (b) Notice of an application for exemption shall be circulated by regular mail not less than 14 days prior to a decision regarding the exemption, to the *owner*, the applicant and/or the applicant's authorized agent and to all assessed *owners* of land that abut the lands subject to the application. The Notice of the proposed exemption shall contain information as prescribed in Schedule "F".
- (c) The *owner* or applicant shall post a Public Notice for a request for exemption not less than 10 days prior to a decision regarding the exemption and such posting shall be located on the subject property in a manner that is clearly visible and legible from a public highway or other place to which the public has access. The Public Notice shall be in the format prescribed in Schedule "F".
- (d) The application for exemption shall be circulated to those agencies that, in the opinion of the *By-Law Officer*, in consultation with the Community Planning Office, may have an interest in the application, for the purpose of obtaining comments regarding the application.
- (e) In consideration of a request for an exemption, the *By-law Officer* may:
 - i) grant the exemption request;
 - ii) grant the exemption request with modifications;
 - iii) refuse the exemption request.
- (f) When evaluating a request for exemption, the *By-law Officer*, in consultation with the Community Planning Office, shall consider whether the *harvest, injuring or destruction of trees* proposed by the application:
 - i) is appropriate for the development or use of the land; and
 - ii) maintains the intent and purpose of the By-law.
- (g) The *By-law Officer*, in consultation with the Community Planning Office, may impose such terms and conditions, including but not limited to site restoration and/or a compensation plan, to the exemption that are reasonable and desirable for the appropriate development or use of the land on which the said exemption is granted. Compensation will be consistent with internal policy related to development permit applications and may be modified to each specific scenario.
- (h) The *owner* or applicant shall be notified in writing with respect to the decision regarding the approval or denial of any application for an exemption.
- (i) The decision of the *By-law Officer* shall be final, unless the application for exemption is appealed to the *Committee* in accordance with Section 7.

7. APPEALS TO COMMITTEE

- (a) The *owner* or applicant for an exemption under Section 6 may appeal to the *Committee*:

- i) if the *By-law Officer* refuses to grant the exemption request, within 10 days of the refusal;
 - ii) if the *By-law Officer* fails to grant the exemption request within 45 days after the application is received; or
 - iii) if the *owner* or applicant objects to a condition of exemption, within 10 days of the granting of the conditional exemption.
 - iv) at any time after the application is received, until such time as the application is either refused or approved by the *By-law Officer*, in which case, the *owner* or applicant must request that the application be forwarded to the *Committee* in accordance with subsections 7(a) i) or iii).
- (b) Where an application for exemption is appealed to the *Committee*, subsections 6(e), (f), (g) and (h) shall apply with necessary modifications.
 - (c) The decision of the *Committee* shall be final.

8. NOTICE OF INTENT

- (a) Every person who intends to *harvest, injure* or *destroy trees* in the County of Oxford pursuant to Section 3(a) of this By-law shall complete and deliver, or send by facsimile transmission or e-mail, to the *By-law Officer*, a legible, signed Notice of Intent Permit application in the form prescribed in Schedule "C" to this By-law containing all of the information required by the form no less than 10 *business days* and no more than two (2) years prior to the start of the *harvest, injuring* or *destruction of trees* together with a legible copy of the *silvicultural prescription* signed by and identifying the *person* who prepared and/or approved the prescription.
- (b) Every person who intends to *harvest, injure* or *destroy trees* in the County of Oxford pursuant to Section 3(b) of this By-law shall complete and deliver, or send by facsimile transmission or e-mail, to the *By-law Officer*, a legible, signed Notice of Intent Permit application in the form prescribed in Schedule "D" to this By-law containing all of the information required by the form no less than 10 *business days* and no more than two (2) years prior to the start of the *harvest, injuring* or *destruction of trees*.
- (c) Upon receipt of a completed Notice of Intent Permit application, the *By-law Officer* shall, within a reasonable time, return to the mailing address, facsimile number or e-mail address provided in the Notice of Intent Permit application form for that purpose, a receipted copy of the Notice of Intent Permit.
- (d) Any *person* who has submitted a Notice of Intent Permit under Sections 8(a) or 8(b) shall erect and display a notice sign at the entrance to the *woodlands* in a location that is clear and visible to all persons, and the notice shall be in the form prescribed in Schedule "I".
- (e) Every *person* who has submitted or caused to be submitted a Notice of Intent Permit application shall notify the *By-law Officer* or their designate, by facsimile transmission, telephone or e-mail, no more than seven (7) *business days* and no less than 24 hours prior to the date upon which the *harvest, injury* or *destruction of trees* is to begin advising of the location of the *harvest, injury* or *destruction of trees* and the date upon which the *harvest, injury* or *destruction of trees* is to start.

9. ORDERS TO DISCONTINUE ACTIVITY

- (a) Where the *By-law Officer*, or *designate*, is satisfied that a contravention of this By-law has occurred, the *By-law Officer*, or designate, may issue an Order to Discontinue Activity requiring the *person* who contravened the By-law or who caused or permitted the *harvest, injuring* or *destruction of trees* in contravention of the By-law, to stop and discontinue the *harvest, injuring* or *destruction of trees*. The Order to Discontinue Activity as set out in Schedule "G", shall include the following:
 - i) the municipal address and/or the legal description of the land;
 - ii) reasonable particulars of the contravention;
 - iii) the date of inspection; and
 - iv) the date by which compliance with the Order must be achieved.

10. SERVICE OF AN ORDER

- (a) An Order issued under this By-law shall be served on the *owner* of the property and such other *persons* affected by the Order, as determined by the *By-law Officer* or designate, and a copy of the Order shall be posted on the property.
- (b) An Order issued under this By-law may be served personally or by registered mail sent to the last known address of:
 - i) the *owner* of the *woodlands*; and/or
 - ii) the *person* or *persons* identified as having *harvested, injured* or *destroyed trees*.
- (c) Where an Order is served by registered mail, service shall be deemed to have been made on the fifth day after the day of mailing.
- (d) Where an Order cannot be served in accordance with Section 9 a), b) or c), a placard containing the terms of the Order shall be placed in a conspicuous place on the affected property by the *By-law Officer*, or designate, and the placing of the placard shall be deemed to be sufficient service of the Order on the *person* or *persons* to whom the Order is directed.

11. PENALTY

- (a) Any *person* who contravenes any provision of this By-law, or an Order issued under this By-law, is guilty of an offence and is liable:
 - i) on first conviction, to a minimum fine of \$10,000 or \$1,000 per *tree injured* or *destroyed*, whichever is greater; and
 - ii) on any subsequent conviction, to a minimum fine of \$25,000 or \$2,500 per *tree injured* or *destroyed*, whichever is greater.
- (b) If a *person* is convicted of an offence for contravening this By-law or an Order issued under this By-law, the court in which the conviction has been entered, and any court of competent jurisdiction thereafter, may order the *person* to rehabilitate the land or to plant or replant *trees* in such a manner and within any such period as the court considers appropriate, including any silvicultural treatment necessary to re-establish the *trees*.

12. ENFORCEMENT

- (a) This By-law shall be enforced by a *By-law Officer* appointed by the *Chief Administrative Officer*.
- (b) A *By-law Officer* may, at any reasonable time, enter and inspect any land to determine whether this By-law, an Order or a condition of a *permit* is being complied with.
- (c) A *By-law Officer* exercising a power may be accompanied by a *person* or *persons* under the *By-law Officer's* direction.
- (d) No *person* shall hinder or obstruct a *By-law Officer* or attempt to hinder or obstruct a *By-law Officer* who is performing a duty in accordance with this By-law.
- (e) Any *person* who provides false information to a *By-law Officer* shall be deemed to have hindered or obstructed the *By-law Officer* in the discharge of their duties.

13. ADMINISTRATION

- (a) Schedules "A" to "I", inclusive, form part of this By-law.
- (b) If any Section or Sections of this By-law or parts thereof are found by any Court of competent jurisdiction to be illegal or beyond the power of the *Council* to enact, such Section or Sections or parts thereof shall be deemed to be severable and all other Sections

or parts of this By-law shall be deemed to be separate and independent therefrom and continue in full force and effect unless and until similarly found illegal.

- (c) For the purposes of this By-law, words used in the singular number include the plural and words which refer the masculine shall include the feminine, and visa versa, where applicable.
- (d) For the purposes of this By-law, words in italicized text are defined in Section 1. Such defined words will not be italicized where the context in which the word is used does not correspond to the definition contained herein.
- (e) The short title of this By-law is the "Woodlands Conservation By-law".
- (f) Woodlands Conservation By-law No. 4489-2004, as amended, of the County of Oxford shall be repealed effective on the coming into force and effect of this By-law.
- (g) Notwithstanding subsection (f) of this Section, By-law No. 4489-2004, as amended, of the County of Oxford shall continue to apply to applications filed, *permits* issued and/or proceedings in respect of offences that occurred before its repeal, proof of which has been provided to the satisfaction of the *By-law Officer*.
- (h) Measurements are given in both metric and imperial units in this By-law. For the purposes of this By-law, the metric unit shall govern.

READ a first and second time this twenty-fourth day of January, 2024.

READ a third time and finally passed this twenty-fourth day of January, 2024.



Marcus Ryan
Marcus Ryan (1971-24-2024 12:22 EST)

MARCUS RYAN,

WARDEN

Chloe Senior

CHLOÉ J. SENIOR,

CLERK

SCHEDULE "A"
By-Law No. 6607-2024

FEE SCHEDULE FOR APPLICATIONS

The following fees will apply for the purpose of this By-law:

Application for Committee Exemption	\$200.00
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Please make cheques payable to 'Treasurer - County of Oxford'

SCHEDULE "B"
By-law No. 6607-2024

CIRCUMFERENCE LIMITS BY CATEGORY OF TREE SPECIES

SPECIES "A"

- ASH - White (*Fraxinus Americana*)
- Green (Red) (*Fraxinus pennsylvacia*)
- MAPLE - Sugar (*Acer saccharum*)
- Black (*Acer nigrum*)
- Red (*Acer rubrum*)
- Silver (*Acer saccharinum*)
- OAK - Red (*Quercus rubra*)
- Black (*Quercus velutina*)
- White (*Quercus Alba*)
- Swamp White (*Quercus bicolor*)
- Bur (*Quercus macrocarpa*)
- TULIP - (*Liriodendron tulipifera*)
- WALNUT - Black (*Juglans nigra*)
- White (Butternut) (*Juglans cinerea*)

SPECIES "A" MEASUREMENTS

POINT OF MEASUREMENT	CIRCUMFERENCE	DIAMETER
31 cm (12 in)	175 cm (69 in)	56 cm (22 in)
20 cm (8 in)	191 cm (75 in)	61 cm (24 in)
10 cm (4 in)	224 cm (88 in)	71 cm (28 in)

SPECIES "B"

- BASSWOOD - (*Tilia Americana*)
- BEECH - American (*Fagus grandifolia*)
- CHERRY - Black (*Prunus serotina*)
- HACKBERRY - (*Celtis occidentalis*)
- HEMLOCK - Eastern (*Tsuga Canadensis*)
- PINE - White (*Pinus strobus*)

SPECIES "B" MEASUREMENTS

POINT OF MEASUREMENT	CIRCUMFERENCE	DIAMETER
31 cm (12 in)	160 cm (63 in)	51 cm (20 in)
20 cm (8 in)	175 cm (69 in)	56 cm (22 in)
10 cm (4 in)	208 cm (82 in)	66 cm (26 in)

SPECIES "C"

- ASH - Black (*Fraxinus nigra*)
- BIRCH - Yellow (*Betula alleghaniensis*)
- ELM - White (*Ulmus Americana*)
- Red (*Ulmus thomasii*)
- Rock (*Ulmus ruba*)
- EUROPEAN LARCH - (*Larix decidus*)
- HICKORY - Shagbark (*Carya ovata*)
- Bitternut (*Carya cordiformis*)
- LARCH - (*Larix deciduas*)
- POPLAR - Balsam (*Populus blasamifera*)
- Eastern Cottonwood (*Populus deltoids*)
- SYCAMORE - (*Platanus occidentalis*)

SPECIES "C" MEASUREMENTS

POINT OF MEASUREMENT	CIRCUMFERENCE	DIAMETER
31 cm (12 in)	145 cm (57 in)	46 cm (18 in)
20 cm (8 in)	160 cm (63 in)	51 cm (20 in)
10 cm (4 in)	191 cm (75 in)	61 cm (24 in)

SPECIES "D"

- BIRCH - White (*Betula papyrifera*)
- CEDAR - White (*Thuja occidentalis*)
- POPLAR - Largetooth Aspen (*Populus grandidentata*)
- Trembling Aspen (*Populus tremuloides*)

SPECIES "D" MEASUREMENTS

POINT OF MEASUREMENT	CIRCUMFERENCE	DIAMETER
31 cm (12 in)	79 cm (31 in)	25 cm (10 in)
20 cm (8 in)	97 cm (38 in)	31 cm (12 in)
10 cm (4 in)	127 cm (50 in)	41 cm (16 in)

RARE SPECIES – the following species should be avoided during *tree* removal operations:

- | | | |
|-------------------|-------------|----------------------|
| Blue Ash | Shumard Oak | Black Gum |
| Chestnut | Cucumber | Tamarack |
| Shellbark Hickory | Pawpaw | Chinquapin Oak |
| Pignut Hickory | Balsam Fir | Kentucky Coffee Tree |
| American Chestnut | | |

* NOTE: Please refer to "Species at Risk Act" at www.sararegistry.gc.ca for more information.

SCHEDULE "C"
By-law No. 6607-2024
COUNTY OF OXFORD

NOTICE OF INTENT - GOOD FORESTRY PRACTICES

PURSUANT TO WOODLANDS CONSERVATION BY-LAW NO. 6035-2018

Completed Application must be received by the *By-law Officer* at least 10 business days prior to the commencement of the harvest, destruction or injury of trees. All sections must be filled out completely, to the satisfaction of the *By-law Officer*.

Please submit the completed application to County of Oxford Customer Service, P.O. Box 1614, 21 Reeve Street, Woodstock, ON N4S 7Y3 or by e-mail to customerservice@oxfordcounty.ca or by fax to 519-537-1053.

The *By-law Officer* can be contacted at 519-539-9800, or by e-mail at customerservice@oxfordcounty.ca.

PLEASE PRINT CLEARLY

Silvicultural Prescription Information

All applications under *Good Forestry Practices* must be accompanied by a forest operations *silvicultural prescription* prepared and/or approved by a *Registered Professional Forester* or Qualified OPFA Member, in accordance with approved practices of the Ontario Professional Foresters Association, as amended from time to time. A *silvicultural prescription* will generally include the following information:

Site and Stand Conditions:

- *tree* species composition by percentage
- regeneration status
- quality of stand, including health (disease/insects)
- limitations
- stand history, including any previous *silviculture* operations
- sensitive or special features
- date of inventory
- acreage of the *woodland*
- current stocking, stand structure or *basal area* distribution

Habitat, Biodiversity and Recreation Consideration

Short and Long Term Objectives

A record of Discussions with the Landowner and Signature of the Landowner

Tree Marking Direction

- residual *basal area* or stocking
- directions for improvement of health, quality, species diversity, stand structure and/or size class distribution
- *silviculture* system to use for marking

Estimated Time of Next Silviculture Intervention

NOTE: Where a *silvicultural prescription* has been prepared and/or approved by a qualified person, as noted above, the marking and *harvesting* of trees in accordance with the provisions of the By-law may be undertaken by a landowner.

Map of Site and Stands to Harvest

The map must be legible and include property boundaries, abutting roads, preferred entry points for inspection, location of buildings and structures on the property, forested areas and proposed harvest areas, logging access, drains, watercourses, power lines and other features and a north indicator.

Property Owner: _____

Address: _____ Postal Code: _____

Phone: Residence _____ Business _____ Fax _____

E-mail: _____

Woodland location: Lot _____ Con. _____ Former Township: _____

SAWTIMBER			
TREE SPECIES	# OF TREES MARKED	AVG. DIAMETER (in or cm)	VOLUME (F.B.M. or m³)
i.e. Hard Maple	24	15	3,200
TOTAL			

FUELWOOD/CORDWOOD			
TREE SPECIES BY %	# OF TREES MARKED	AVG. DIAMETER (in or cm)	VOLUME (BUSH CORD)
i.e. Aw4 Be4 Mh2	65	11	20

PRESCRIPTION INFORMATION	
Prescription prepared by: Name: _____ Mailing Address: _____ Telephone #: _____ Qualifications: _____ Date Prescription Prepared: _____ <input type="checkbox"/> Check if area has been inspected since tree marking	
TREE MARKER INFORMATION: Trees Marked By: _____ Mailing Address: _____ Telephone #: _____ Qualifications: _____ Paint Colour: _____ Date Marked: _____	CONTRACTOR INFORMATION: (if different from above) Surname: _____ Given Name: _____ Mailing Address: _____ Postal: _____ Telephone #: _____ Person in charge of Harvesting of Trees: _____ Estimated Starting Date: _____ The person in charge of the harvesting of trees is required to provide 24 hours notice (prior to the start of the harvest date) to Customer Service by e-mail (customerservice@oxfordcounty.ca) or fax (519-537-1053)
All trees to be <i>harvested</i> shall be marked with paint above DBH on opposite sides of the <i>tree</i> . The mark shall be at least 4 cm (2 in) in diameter for hardwood sawlogs/conifer poles or sawlogs and a slash 20 cm (8 in) long for fuelwood/conifer logs/pulp. A similar mark shall be placed at the base of the <i>tree</i> below the saw line and extending to the ground. All <i>trees</i> shall be marked facing the same direction, unless the terrain requires a change in direction, in which case the marking will proceed consistently with the terrain.	Map must be legible and include: <ul style="list-style-type: none"> • Preferred entry points for inspection • Location/name of surrounding roads • Location of buildings on property • Forested areas and harvest areas • Log landing(s) • Power lines and Municipal ditches It is requested that if loggers are working near or adjacent to power lines that they contact the local Hydro Utility Company for assistance to prevent an accident and any damage that may occur to power lines and equipment due to a logging accident Please indicate if the property is enrolled in: Conservation Land Tax Incentive Program <input type="checkbox"/> Managed Forest Tax Incentive Program <input type="checkbox"/>
DESCRIPTION OF AREA Indicate NORTH	

By-Law and acknowledge having received a copy thereof. I further agree that any *tree harvested* will be in accordance with *Good Forestry Practice*.

Further, I agree to contact the *By-law Officer* (in person at the County Administration Building, 21 Reeve Street, Woodstock) or Customer Service at customerservice@oxfordcounty.ca; or by fax: 519-537-1053, 24 hours prior to commencing the *harvesting of trees*.

Signature of Prescription Writer	Date	Signature of Tree Marker (if applicable)	Date
----------------------------------	------	--	------

Signature of Landowner	Date	Signature of Contractor (if applicable)	Date
------------------------	------	---	------

Please circle the appropriate response:

The OPFA member was employed by: Landowner Contractor Other

The Tree Marker was employed by: Landowner Contractor Other

Will the OPFA member or Tree Marker be monitoring the harvest for contract compliance? Yes No

I UNDERSTAND THAT UNDER THE AUTHORITY OF THIS BY-LAW AND THE MUNICIPAL ACT, R.S.O. 2001, C.25, AN APPOINTED OFFICER CAN ENTER THE DESCRIBED PROPERTY FOR THE PURPOSES OF UNDERTAKING AN INSPECTION.

FURTHER, I UNDERSTAND THAT IF THE WOODLANDS WILL NOT BE HARVESTED WITHIN 24 MONTHS FROM THE RECEIPT OF THIS NOTICE OF INTENT, THE NOTICE OF INTENT WILL BE VOIDED.

THE LANDOWNER, BY SIGNING THIS APPLICATION, ACKNOWLEDGES AND AGREES TO ALL TERMS AND CONDITIONS OF WOODLANDS CONSERVATION BY-LAW NO. 6035-2018.

SCHEDULE "D"
By-Law No. 6607-2024

COUNTY OF OXFORD

NOTICE OF INTENT - CIRCUMFERENCE HARVEST

PURSUANT TO WOODLANDS CONSERVATION BY-LAW NO. 6035-2018

Completed Application must be received by the *By-law Officer* at least 10 business days prior to the commencement of the *harvest, destruction or injury of trees*. All sections must be filled out completely, to the satisfaction of the *By-law Officer*.

Please submit the completed application to County of Oxford Customer Service, P.O. Box 1614, 21 Reeve Street, Woodstock, ON N4S 7Y3 or by e-mail to customerservice@oxfordcounty.ca or by fax to 519-537-1053.

The *By-law Officer* can be contacted at 519-539-9800, or by e-mail at customerservice@oxfordcounty.ca.

PLEASE PRINT CLEARLY

Property Owner: _____

Address: _____ Postal Code: _____

Phone: Residence _____ Business _____ Fax _____

E-mail _____

Contractor: _____

Address: _____

Postal Code: _____ Telephone: _____

Fax: _____ E-mail: _____

On Site Person in charge of harvest of trees: _____

Expected starting date: _____

Subject Property: Location

Lot: _____ Concession: _____ 911 Address: _____

Municipality: _____

Reason for Removal: Commercial Timber Harvest _____ Stand improvement _____

Firewood Removal _____ Other _____

Approximate size of woodland: _____

Area of harvest (indicate on sketch): _____

Trees marked by: _____

Address: _____

Telephone: _____ E-mail: _____

Qualifications: _____

It is the responsibility of the owner or authorized agent to have marked with paint, on 2 sides, and at the base all the *trees* to be *harvested* with this Notice of Intent.

If the *woodland* will not be *harvested* with 24 months of receipt of this Notice of Intent, it will become null and void.

The Notice of Intent or copy must be on site at all times and in possession of the person in charge of cutting.

Each copy of the application must be accompanied by a sketch showing:

- a) the location of subject property, its boundaries and dimensions, including names of all road allowances, streets or highways abutting the property;
- b) location of woodlands on subject property (including approximate dimensions);
- c) abutting land owners;
- d) the distance between the subject land and the nearest township lot line or appropriate landmark (e.g. bridge, railway crossing, etc.);

TREE HARVEST SUMMARY
(A legible tally sheet can be substituted and attached)

Tree Species	No.	SKETCH PLAN	
		USE THIS PAGE FOR SKETCH PLAN AND RETURN WITH APPLICATION FORM. Indicate North	
Total Trees			

If the landowner is selling standing timber to a contractor for removal, has a contract been signed between the landowner and the contractor? YES ____ NO ____

I agree that all *tree* cutting will be in accordance with the provisions of the County of Oxford Woodlands Conservation By-Law No. 6035-2018, and that I am familiar with the components and requirements of this By-Law and acknowledge having received a copy thereof.

Further, I agree to contact the *By-law Officer* (in person at the County Administration Building, 21 Reeve Street, Woodstock or Customer Service at customerservice@oxfordcounty.ca; or by fax: 519-537-1053, 24 hours prior to commencing the *harvesting of trees*.

DATED at _____ this _____ day of _____, 20__.

Signature of Contractor

Signature of Landowner or Authorized Agent

SCHEDULE "E"
By-law No. 6607-2024

APPLICATION FOR ADMINISTRATIVE AND/OR
COMMITTEE EXEMPTION

Completed Application, including the application fee, must be received by the *By-law Officer* at least 30 business days prior to the commencement of the harvest, destruction or injury of trees. All sections must be filled out completely, to the satisfaction of the *By-law Officer*.

Payment may be made by cash, cheque or credit card. Cheques should be made payable to the Corporation of the County of Oxford in the amount as indicated in Schedule "A", as amended from time to time.

Please submit the completed application to County of Oxford Customer Service, P.O. Box 1614, 21 Reeve Street, Woodstock, ON N4S 7Y3 or by e-mail to customerservice@oxfordcounty.ca or by fax to 519-537-1053. The *By-law Officer* can also be contacted at 519-539-9800, or by e-mail at customerservice@oxfordcounty.ca.

PLEASE PRINT CLEARLY

Name(s) of Registered Owner: _____

Address: _____ Postal Code: _____

Telephone: Home: _____ Business: _____ Fax: _____

E-Mail: _____

Applicant (if other than the registered owner)

Location of Trees Affected/Ownership

Municipality: _____ Assessment Roll #: _____

Lot: _____ Concession: _____ 911 Address: _____

Is the property owned by the applicant? _____ YES _____ NO (if NO, authorizing letter must be attached)

If purchased within the last three years, state name and address of former owner and the date property was purchased.

Property/Forest Description

This application is requesting permission to remove the following: (please indicate)

Total area: _____ Hectares: _____ Acres: _____

Total *Woodland* size on property: _____ Hectares: _____ Acres: _____

Tree species to be destroyed on the described land:

This Exemption is requested for the following reasons, including description of end use after trees have been destroyed:

Is the applicant willing to offset the destruction of trees on the subject property through replanting trees on the said property? _____ YES _____ NO

If the applicant cannot replant in lieu of destruction is the applicant willing to make payment in lieu of destruction? _____ YES _____ NO

Personal information on this form is collected under the authority of the *Municipal Act*. Pursuant to the *Municipal Freedom of Information and Protection of Privacy Act*, questions about the collection of personal information should be directed to the *County Clerk*.

Owner

Date

Applicant

Date

SCHEDULE "F"

PUBLIC NOTICE

WOODLANDS CONSERVATION BY-LAW NO. 6607-2024

This posted notice does not imply unrestricted access.
Interested parties must receive permission to enter these
forested lands from the landowner.

AN APPLICATION FOR AN EXEMPTION TO
WOODLANDS CONSERVATION BY-LAW NO. 6035-2018
HAS BEEN RECEIVED BY THE COUNTY OF OXFORD
AFFECTING THESE LANDS.

Municipality: _____ Assessment Roll #: _____

Lot: _____ Concession: _____ 911 Address: _____

Landowner: _____

THE APPLICATION
SUBMITTED REQUESTS THE CLEARING OF _____
HECTARES OF FORESTED LAND.

Deadline for Written Comments:

COMMENTS CAN BE SUBMITTED TO THE ADDRESS LISTED BELOW:

Community Planning Office
County of Oxford,
P. O. Box 1614, 21 Reeve Street
Woodstock, ON N4S 7Y3

**This Notice is posted under the authority of the County of
Oxford Woodlands Conservation By-Law No. 6035-2018**

This Notice is to remain posted no less than ten (10) business days
prior to the consideration of this application.

**FURTHER INFORMATION OR WRITTEN NOTICE IS
AVAILABLE FROM**

Community Planning Office
519-539-9800 or by e-mail at planning@oxfordcounty.ca

ORDER TO DISCONTINUE ACTIVITY

YOU ARE HEREBY DIRECTED AND ORDERED TO forthwith stop, halt, cease and desist from any and all works associated with the destruction of trees or removal thereof from those lands comprising;

MUNICIPAL ADDRESS/LEGAL DESCRIPTION OF THE PROPERTY:

LOT: _____ CONCESSION: _____ MUNICIPALITY: _____

OWNER/INDIVIDUAL RESPONSIBLE FOR DESTRUCTION OR INJURY OF TREES:

DESCRIPTION OF INFRACTION:

Date of Inspection: _____

Effective Order Date: _____ To: _____

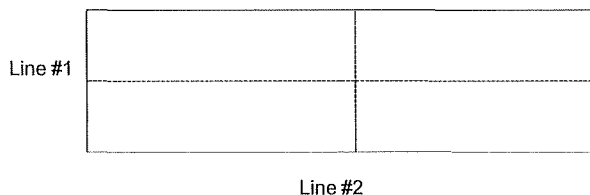
Signature of Officer: _____ Date: _____

SCHEDULE "H"
By-law No. 6607-2024

BASAL AREA CALCULATION AND ASSESSMENT

- Point Sampling is defined as a method of selecting trees for measurement and for estimating stand basal area using tree size rather than frequency as the main parameter. Trees are tallied at a sample location or point sample, with the selection probability being proportional to the *basal area* of the *trees*. In point sampling, a 360-degree sweep is made with an angle gauge about a fixed point, and the stems whose breast height diameter appear larger than the fixed angle subtended by the angle gauge are included in the sample. Point samples will be taken using a factor 2 prism.
- Basal Area will be assessed every 30 m (98.5 ft) along a fixed compass bearing through a forest stand in which *harvesting* has occurred. The first point sample will be placed 50 m (164 ft) from the ecological boundary of the *woodland*. No less than 4 point samples will be taken along a compass bearing through a forest stand. If the width of the forest stand is greater than 130 m (426 ft), two parallel lines spaced 50 m apart shall be established along the fixed compass bearing through the centre of the forest stand where the harvesting has occurred. If the average *basal area/hectare* is found to be below the requirements of the By-law, then a second compass line will be established from the mid-point of the 1st compass line and will run in a direction 90° from the compass bearing from the 1st line.
- Where the width, length, shape or topography of a forest stand does not allow for the minimum placement of point samples within the required configuration outlined in Section 2 above, a random placement of sample points shall be used to assess overall average basal area, provided there is at least 50 m (164 ft) between all point samples.

See sample illustration below:



- Where the width of the woodland does not allow the 30 m (98.5 ft) fixed compass bearing, one line will be established along a fixed compass bearing down the centre of the *woodland*.

The following format will be used in calculating average *basal area* per hectare:

Stations Tallied

STATIONS:	1	2	3	4	5	6	7	8	9	10	11	12
TREE SIZE CLASSES	POLE 10 - 24 cm		SMALL 26 - 38 cm		MEDIUM 40 - 48 cm		LARGE 50 - 60 cm		X-LARGE 62+ cm		TOTAL	
SPECIES	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS	AGS	UGS

** Total Number of Trees () x Basal Area Factor () = () Overall Average BA/Ha
 # of Stations ()

Basal Area Calculation and Assessment

To assess tree infractions, a minimum of 1 plot per hectare will be established for areas up to 10 ha (25 ac), and 1 plot for every additional 5 ha (12 ac). Plots will be placed 80 m (262 ft) apart and 40 m (131 ft) from stand edges.

In cases where the maximum *DBH* encountered is less than 60 cm (24 in), the plot distance may be 60 m (197 ft) and 30 m (98.5 ft) from the stand edges. In any case sampling is to be done by a method customarily used in forestry practice.

SCHEDULE "I"
By-law No. 6607-2024

NOTICE of TREE HARVEST

DO NOT ENTER during harvesting for your own safety.

This notice does not imply unrestricted access.

Permission to enter these lands must be granted by the landowner.

Contractor: _____

Phone: _____

Owner: _____

Timber Harvest Date: _____

Timber Marked By: _____

Phone Number of Marker: _____

This Notice is posted under the authority of the County of Oxford Woodlands Conservation By-Law No. 6035-2018.

This Notice is to be posted prior to the commencement of harvest and remain posted no less than 10 days after completion of harvest. Failure to post and removal prior to this period is a chargeable offence.

If you should have any questions or concerns regarding this timber harvest, please contact:

County of Oxford Customer Service at 519-539-9800 or via e-mail at customerservice@oxfordcounty.ca

TICKETABLE OFFENCES

SHORT FORM WORDING	Offences Creating Provision	Set Fine, includes Court Costs
Failing to notify the County of Oxford prior to the injuring or destruction of trees by the landowner or person acting on behalf of the landowner.	Sections 8(a) and 8(b)	\$400.00 plus court costs
Failure to erect a sign	Section 8(d)	\$400.00 plus court costs
Failure to give 24 hours notice.	Section 8(e)	\$400.00 plus court costs
Contravening the conditions of a Permit.	Sections 8 and 11(a)	\$400.00 plus court costs
Attempt to obstruct an Officer.	Section 12(d) and 12(e)	\$400.00 plus court costs





6607-2024 Woodlands Conservation ByLaw

Final Audit Report

2024-01-24

Created:	2024-01-24
By:	Chloe Senior (csenior@oxfordcounty.ca)
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TOWNSHIP OF BLANDFORD-BLENHEIM

Agenda Item

To:	Members of Council	From:	Adam Degier Drainage Superintendent
Reviewed By:	Josh Brick, CAO	Date:	January 24, 2024
Subject:	Consideration of Report Section 4 and 78 for the Mitchell Drain 2023	Council Meeting Date:	February 7, 2024
Report #:	DS 24-02		

Recommendation:

That Report DS 24-02 be received as information; and,

That Council gives consideration to By-Law No. 2416-2024 for the Mitchell Drain 2023 and give first and second reading (provisional by-laws); and,

That the Court of Revision be set for Wednesday March 6, 2024 at 4:00 p.m.; and,

That the Engineer be directed to invite tenders for the Mitchell Drain 2023 with tender closing Wednesday March 13, 2024 at noon.

Background:

On November 25, 2015 the Township of Blandford-Blenheim received a *Petition for Drainage Works by Owner* signed by John Follings of Follingdale Farms Limited in the N ½ Lot 1, Concession 12 in the Township of Blandford-Blenheim (Geographic Township of Blenheim). Pursuant to Section 8 of the Act, on January 6, 2016, KSAL was appointed by resolution of Council to prepare a report on the petition received.

During the on-site meeting, discussions between the engineer, landowners, and the Township drainage superintendent determined that conditions of the existing Mitchell Drain should perhaps be further reviewed for improvement, outside of the scope of work necessary to address the Follingdale Farms Limited petition. On March 21, 2016, a letter was written by K. A. Smart, P. Eng. requesting that the Township of Blandford-Blenheim appoint KSAL under Section 78 of the Act to examine the improvements as requested by the owners. On May 24, 2016, pursuant to Section 8, KSAL was appointed by resolution of Council under Section 78 of the Act, and instructed to combine the two appointments into a single report.

At a council meeting on September 4, 2019, K. Smart Associates Limited was additionally appointed under Section 4 of the Act in response to a *Petition for Drainage Works by Road Authority* signed jointly by the Region of Waterloo and County of Oxford for the purpose of providing an improved drainage outlet to the intersection of Trussler Road and Cedar Creek Road, currently in the process of improvement by the Region.

Finally, on December 6, 2023, KSAL was also appointed under Section 4 in response to petitions signed by B. Fried and Coleman Equipment Inc. in the S ½ of Lot 1, Concession 13 in the Township of Blandford-Blenheim, as well as Cleave View Inc. located in the S ½ of Lot 38, Concession 11 in the Township of North Dumfries.

In the case of each additional appointment, KSAL was instructed by the Township of Blandford-Blenheim Council to include the proposed work as a single report on the Mitchell Drain with the original appointment.

On December 15, 2023 the Report for the Mitchell Drain 2023 was filed by Curtis McIntyre P.Eng. of K Smart Associates Limited with the Township Clerk.

Analysis/Discussion:

The report has been mailed to the assessed owners and effected agencies in accordance with Section 41 of the Drainage Act. The report will be considered on February 7, 2024 at 4:00 p.m. in accordance with Section 42 of the Drainage Act. All owner and agencies have been invited and the Engineer will be in attendance to present the reports and answer any questions.

Provided no major concerns are expressed, the By-Law (copy attached to agenda) can be provisionally adopted and Court of Revision date set.

Financial Considerations:

Cost of report is assessed to ratepayers as per the Schedule of Assessment in the drain report.

Attachments:

Draft By-Law #2416-2024 attached to agenda.

Copy of Reports attached to agenda as Mitchell Drain 2023.

Respectfully submitted by:

Adam Degier
Drainage Superintendent

ENGINEERING REPORT

For

MITCHELL DRAIN 2023

Township of Blandford-Blenheim

(Geographic Township of Blenheim)

County of Oxford

Date: December 15, 2023

File No. 16-049



K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS & PLANNERS

85 McIntyre Drive
Kitchener, ON N2R 1H6

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

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STANDARD SPECIFICATIONS

- Section 200 - General Conditions, Section 300 - Special Provisions (See Drawings 7 - 8), Section 400, 420 & 430 - Standard Specifications for Construction of Drains, Tile Drains, and Jacking and Boring

DRAWINGS 1 TO 10 (INCLUDES SPECIAL PROVISIONS)

Definitions:

“Act” means The Drainage Act RSO 1990

“CSP” means corrugated steel pipe

“Drain” means Mitchell 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 Blandford-Blenheim

“GRCA” means Grand River Conservation Authority

“OMAFRA” means the Ontario Ministry of Agriculture, Food and Rural Affairs

“Tribunal” or “Drainage Tribunal” means Agriculture, Food and Rural Affairs Appeal Tribunal

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K. SMART ASSOCIATES LIMITED

CONSULTING ENGINEERS & PLANNERS

85 McIntyre Drive
Kitchener, ON N2R 1H6

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

December 15, 2023

File No. 16-049

MITCHELL DRAIN 2023

TOWNSHIP OF BLANDFORD-BLENHEIM

1 EXECUTIVE SUMMARY

This report is prepared pursuant to Sections 4 and 78 of the Drainage Act RSO 1990.

On November 25, 2015 the Township of Blandford-Blenheim received a *Petition for Drainage Works by Owner* signed by Follingdale Farms Limited in the N ½ Lot 1, Concession 12 in the Township of Blandford-Blenheim (Geographic Township of Blenheim). Pursuant to Section 8 of the Drainage Act (the Act), on January 6, 2016, K. Smart Associates Limited (KSAL) was appointed by resolution of Council to prepare a report on the petition received. Throughout the investigation/design stage, the Township also received a *Notice of Request for Major Improvement* to the existing Mitchell Drain, signed by the Director of Public Works, a *Petition for Drainage Works by Road Authority* signed jointly by the Region of Waterloo and County of Oxford, and finally additional *Petitions for Drainage Works by Owner* signed by B. Fried and Coleman Equipment Limited in the S ½ Lot 1, Concession 13 in the Township of Blandford-Blenheim and Cleave View Inc. in the S1/2 of Lot 38, Concession 11 in the Township of North Dumfries.

To address the petitions and request for improvement received, this report recommends the following:

Main Drain

- Installation of 1,814m of closed concrete tile drain (375mm to 675mmØ). Of this length, the Drain includes:
 - One (1) crossing of Oxford Road 8 with 600mmØ steel casing pipe by jack and boring methods
 - One (1) crossing of Trussler Road with 375mmØ solid plastic pipe
 - Five (5) – 900x1200mm concrete catchbasins, one (1) – 900x1200mm concrete junction box, and two (2) – 600x600mm concrete catchbasins
- Incorporation of 261m of existing 150mmØ plastic tubing.

Branch 1

- Installation of 17m of closed concrete tile drain (250mmØ)
- One (1) – 600x600mm concrete catchbasin

The estimated cost of this project is **\$540,000**.

The watershed served is approximately 165.5 hectares (409 acres).

The following assessment schedules/appendices are included for construction and future maintenance of the drainage works:

- Schedule A shows the assessment of the total estimated project 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 the assessments outlined in Schedules A

2 BACKGROUND

On November 25, 2015 the Township of Blandford-Blenheim received a *Petition for Drainage Works by Owner* signed by John Follings of Follingdale Farms Limited in the N ½ Lot 1, Concession 12 in the Township of Blandford-Blenheim (Geographic Township of Blenheim). Pursuant to Section 8 of the Act, on January 6, 2016, KSAL was appointed by resolution of Council to prepare a report on the petition received.

During the on-site meeting, discussions between the engineer, landowners, and the Township drainage superintendent determined that conditions of the existing Mitchell Drain should perhaps be further reviewed for improvement, outside of the scope of work necessary to address the Follingdale Farms Limited petition. On March 21, 2016, a letter was written by K. A. Smart, P. Eng. requesting that the Township of Blandford-Blenheim appoint KSAL under Section 78 of the Act to examine the improvements as requested by the owners. On May 24, 2016, pursuant to Section 8, KSAL was appointed by resolution of Council under Section 78 of the Act, and instructed to combine the two appointments into a single report.

At a council meeting on September 4, 2019, K. Smart Associates Limited was additionally appointed under Section 4 of the Act in response to a *Petition for Drainage Works by Road Authority* signed jointly by the Region of Waterloo and County of Oxford for the purpose of providing an improved drainage outlet to the intersection of Trussler Road and Cedar Creek Road, currently in the process of improvement by the Region.

Finally, on December 6, 2023, KSAL was also appointed under Section 4 in response to petitions signed by B. Fried and Coleman Equipment Inc. in the S ½ of Lot 1, Concession 13 in the Township of Blandford-Blenheim, as well as Cleave View Inc. located in the S ½ of Lot 38, Concession 11 in the Township of North Dumfries.

In the case of each additional appointment, KSAL was instructed by the Township of Blandford-Blenheim Council to include the proposed work as a single report on the Mitchell Drain with the original appointment.

3 DRAINAGE HISTORY

The Mitchell Drain was originally established in accordance with a report by K. A. Smart, P. Eng., dated February 24, 1978. This report proposed the construction of 282 feet (116m) of 10"Ø (250mm) tile commencing in the SW ¼ of Lot 1, Concession 13,

to backfill an existing ditch up to what is now known as Oxford Road 8. The Mitchell Drain continued across the road as an 18"Ø (450mm) corrugated steel pipe. On the south side of the road the Mitchell Drain continued for 2,650 feet (808m) to the southwest through Lot 2 and into Lot 3, Concession 12 as a 10"Ø (250mm) tile. Near the outlet the slope of the Mitchell Drain decreased, therefore requiring a size increase to a 14"Ø tile for the remaining 408 feet (124m) where the Drain outlets to an open ditch, eventually leading to the Nith River. Downstream of the tile outlet, 377 feet (115m) of existing open ditch was improved to provide a sufficient outlet for the Mitchell Drain.

No additional reports have been completed on the Mitchell Drain.

3.1 Watershed Description

The perimeter watershed of the Drain has been established based on site investigation, topographic survey, and open source SWOOP Digital Elevation Model (DEM) data from the province. The proposed watershed boundary generally matches the K. A. Smart, P. Eng boundary from the 1978 report.

The watershed area is predominantly agricultural lands.

4 INVESTIGATION

4.1 On-Site Meeting for Follingdale Farms Limited Petition

Attendees:

Werner & Alice Bromberg (060-07401)	Wilhelm Albrecht (060-12600)
Yvonne & John Pezzack (rep. M. Spencer (060-07500)	Ivan & Scott Hurlbut (060-08200)
John Follings (Follingdale Farms Limited) (060-08101)	Derek Pynenburg
Dave Cleave (Cleave View Inc.) (060-05800 & 060-05830)	Kenn Smart, P. Eng. (KSAL)
Rusty Schmidt (CW Highpoint Inc.) (060-11400)	Ray Roscovich (KSAL)
Keith & Beverley Fried (060-11200)	Jim Harmer (Twp. of Blandford-Blenheim)
Bevin Otterbein (Coleman Equipment Inc.) (060-11201)	Mark Smuck (Twp. of North Dumfries)
Mike Becker (060-11300)	Scott Boughner (County of Oxford)

On March 4, 2016, an on-site meeting for the Follingdale Farms Limited petition was held in accordance with Section 9(1) and 9(2) of the Act. Generalized comments from all attendees are listed below:

Follingdale Farms Limited (Roll No. 060-08101)

- John Follings stated that his farm is very wet, even in the summer months, and crop losses are common each year. He is interested in systematically tile draining his land and has consulted a drainage tile contractor.
- Mr. Follings would like to acquire two (2) legal outlets at both the northwest and southwest corners of his property to connect his proposed private system.

Jim Harmer (Drainage Superintendent, Twp. of Blandford-Blenheim)

- Jim Harmer explained that the existing Mitchell Drain was only designed to a 1/4" Drainage Coefficient, and that the existing tile did not have the capacity to handle the additional flow that Mr. Follings is proposing.
- The Mitchell Drain, south of Oxford Road 8, would have to be improved/assisted before the petitioner could tie into it at the north part of the farm.

Ivan & Paul Hurlbut (Roll No. 060-08200)

- Scott Hurlbut explained that surface waters flowing across his property have been problematic for a long period of time, and this problem is getting worse due to the high intensity storms that have been occurring. Surface waters are eroding his and other upstream lands, and sediments are being deposited at the current outlet.
- He believes the main source of this problem is the road ditch along Oxford Road 8. Mr. Hurlbut would like to see the county road ditch cleaned/graded so that the ditch flows are contained within their intended route and do not overflow onto and across his land.
- He is generally not in favour of improvements to the existing Mitchell Drain because he feels that it is not the source of the drainage problems on his land.
- Mr. Hurlbut also spoke about significant erosion that is occurring downstream of the Mitchell Drain outlet pipe. This open channel meanders back onto his property and has continually eroded since the construction of the Drain.

Werner & Alice Bromberg (Roll No. 060-07401)

- Mr. Bromberg stated that he has no issues with drainage in his field.
- Mr. Bromberg stated that he would prefer any drainage work, either open or closed, be located along his property lines. His westerly property line is occupied by a hydro corridor/R.O.W.

Other General Comments

- The only other property that was known to be systematically tiled was the Renkema property (006-02300) on the southeast corner of Trussler Road and Highway 97. The Renkema's were not represented at the meeting.
- Other landowners reported that they had randomly placed tiles in various locations, but the watershed has minimal systematic tile drainage.

Based on the discussions that took place during the on-site meeting, the Engineer determined the area requiring drainage was the petitioner's property alone, and that the current petition was sufficient for this area.

4.2 Site Examination following Initial On-Site Meeting

The site examination portion of the on-site meeting occurred on March 15, 2016. Those owners present were John Follings, Scott Hurlbut and Ivan Hurlbut. Observations are listed below:

Oxford Road 8

- A 600x600mm ditch inlet catch basin north of the road was located with a 250mmØ inlet pipe flowing $\frac{3}{4}$ full.
- A surface water channel (approx. 2ft wide) leading to the DICB was well defined in the grasses of the road right-of-way. The DICB is located approx. 10m east of the main surface watercourse from the north. This watercourse flows across County Road 8 via a concrete box culvert.
- County road ditch waters are also able to cross the road through a 600mmØ CSP located 40m west of the main channel. An offset 600x600mm CB is located on the downstream side of this CSP. The CB was observed to be heavily overgrown with grasses. No indication that surface waters had entered the basin recently.

Ivan & Paul Hurlbut (Roll No. 060-08200)

- Existing grassed waterway was highly eroded (approx. 75m ±) on the northern portion of the property. There was also evidence that the watercourse would continue to shift to the southeast.
- The upstream side of the laneway crossing was recently repaired with concrete and energy dissipating stonework. A 600x600mm CB was located on the upstream side of the laneway crossing, connected with a 250mmØ tile.
- Mr. Hurlbut has created a small ditch downstream of the laneway, and the grassed waterway diminishes to a swale on the west $\frac{1}{2}$ of the Hurlbut property. Erosion did not appear to be as great of a concern here.

G. Doehn (Roll No. 060-08220)

- The 600x600mm CB at the Hurlbut/Doehn property line was located. Again, the 250mmØ tile was observed to be running $\frac{3}{4}$ full.
- The 14"Ø CSP outlet appeared to be in good condition.

4.3 Section 78 Appointment

On May 24, 2016, pursuant to Section 8, K. Smart Associates Limited was appointed by resolution of Council under Section 78 of the Act, and instructed to combine the two appointments into a single report.

4.4 Requested Halt in Proceedings and Investigation of Alternative Options

In the summer of 2016, the original petitioner indicated to the engineers that they may wish to halt the proceedings on the project. On a few occasions, from early 2017 to late 2019, KSAL prepared and presented costs to the petitioner for various different options of completing full work, partial work, or no work at all. Though the owner was leaning toward the option of halting all proceedings (Section 40 of the Act) and paying the full cost of the engineering work, no official statement of this request to halt the work was received by the Township. By late 2019, the engineer and the petitioner agreed to await the outcome of the upcoming on-site meeting for the recently signed Region of Waterloo and County of Oxford petitions.

More information regarding the costs presented to the petitioner at this time are discussed in *Section 13 ASSESSMENTS* below.

4.5 On-Site Meeting for Region of Waterloo & County of Oxford Petition

Attendees:

John Follings (Follingdale Farms Limited) (Roll No. 060-08101)	Kenn Smart, P. Eng. (KSAL)
Dean & Bev Fried (Roll No. 060-11200)	Curtis MacIntyre, P. Eng. (KSAL)
Bevin Otterbein (Coleman Equipment Inc.) (Roll No. 060-11201)	Mark Smuck (Twp. of North Dumfries)
Dave Cleave (Cleave View Inc.) (Roll No. 060-05800, Roll No. 060-05830)	Teresa Fediw (County of Oxford)
Jim Harmer (Twp. of Blandford-Blenheim)	Jeff Nyenhuis (Region of Waterloo)

On January 29, 2020, an on-site meeting for the Region of Waterloo/County of Oxford petition was held in accordance with Section 9(1) and 9(2) of the Act. The engineer provided a brief background on the proposed intersection improvement work by the Region and County, located within the Mitchell Drain watershed, as well as the existing (overlapping) 2016 appointment for the Follingdale Farms Limited petition. Generalized comments from all attendees are listed below:

Jeff Nyenhuis (Senior Engineer, Region of Waterloo)

- Jeff provided a preliminary plan view for the proposed footprint of the roundabout to review with the group.
- Jeff clarified that the Region has not started design work yet, although construction would be anticipated for 2023 (later pushed to 2024).
- He said the Region will upsize any crossings or will replace them in advance should the Drainage Act project recommend they be.

Jim Harmer (Drainage Superintendent, Twp. of Blandford-Blenheim)

- Jim mentioned there are two (2) existing tile outlets from the Renkema farm located in the Cedar Creek south side road ditch. At the northwest corner of the property, the water from the tile outlet crosses through the culvert under Cedar Creek Road, travelling north along the Trussler Road east side road ditch.

Curtis MacIntyre (Engineer, K. Smart Associates Limited)

- Curtis discussed how, depending on what is proposed at the intersection, there could be increased runoff as a result of the project.
- Curtis mentioned that, at this time, the bare minimum work to address the Region's/County's petition could be to propose new subsurface pipes to be installed across Trussler and Cedar Creek Roads for the purpose of future subsurface tile drainage.

Dave Cleave (Cleave View Inc.) (Roll No. 060-05800, Roll No. 060-05830)

- Dave expressed some concerns regarding water flowing onto his property if a subsurface pipe were to be installed across Cedar Creek without improvement downstream.
- Dave recalled there being a 150mmØ tile across Trussler Road from his property to the Coleman Equipment property, with a hickenbottom joined to it on his side. Water bubbles out of this hickenbottom when flows are high.

- Dave said there is a manhole on the pipe across the road serving Renkema's easterly tile and his private tile joins to it. Water also bubbles out of this manhole during times of high water flow.

Miscellaneous

- Further discussion revolved around whether a new closed drain should be undertaken from the intersection downstream to the Mitchell Drain outlet, though without knowing how much increased runoff would be produced by the intersection improvement, such proposed work may require additional landowner petitions.
- The engineers agreed to review and provide preliminary costing to the owners in attendance in order to make decisions regarding signing a petition.

4.6 Options Investigated

At the request of the owners, additional sizing calculations and cost estimating was undertaken for the full length of the existing Mitchell Drain and upstream extension, with three (3) options prepared.

- **Option A** proposed a new drain along the existing Mitchell Drain path with an increased capacity to convey the increased flow from the intersection as well as a 1.0" drainage coefficient for agricultural purposes. This included an additional extension through the Fried farm to the Coleman Equipment property. In addition, a short extension to the Follingdale farms property would also be proposed to address the original Follings petition.
- **Option A Extension 1** proposed the same work as Option A, with an additional extension of the Drain through the Coleman property and across Trussler Road to the Cleave View Inc. farm.
- **Option A Extension 2** further extended the Drain through the Cleave View Inc. property and across Cedar Creek Road to the Renkema property.
- **Option B** proposed a new Drain along the same route as option A, but with a capacity to convey the increased flow from the proposed intersection only.

5 MEETINGS AND CONSULTATION

5.1 Initial Information Meetings

Attendees (August 24, 2023 Meeting):

John, Rob & Tim Follings (Follingdale Farms) (Roll No. 060-08101)	Curtis MacIntyre, P. Eng. (KSAL)
Beverley Fried (Roll No. 060-11200)	Alex Pasley, C.E.T. (KSAL)
Scott Hurlbut (Roll No. 060-08200)	Jim Harmer (Twp. Blandford-Blenheim)
Bevin Otterbein (Coleman Equipment Inc.) (Roll No. 060-11201)	Adam Degier (Twp. Blandford-Blenheim)

On August 24, 2023 an information meeting was held at the Drumbo Township office with select owners along the route of the Mitchell Drain and surrounding the Trussler/Oxford Road 8 intersection. The engineer outlined the proposed stormwater

improvements to be included in the new intersection design by the Region, as well as the anticipated increase in peak flows. The options stated above were reviewed with those in attendance. The following is a summary of the general comments listed by property:

John, Rob & Tim Follings (Follingdale Farms) (Roll No. 060-08101)

- The Follings were in favour of Option A.

Beverley Fried (Roll No. 060-11200)

- Mrs. Fried recognized a new tile drain on her farm would benefit the property, and therefore would like to see the new drain installed to the eastern limits of her property.

Scott Hurlbut (Roll No. 060-08200)

- Overall, Mr. Hurlbut is okay with new tile on his property, as he recognizes upstream properties' need for an outlet.
- Mr. Hurlbut mentioned he only sees flooding on his property during the spring melt.
- Mr. Hurlbut described the two (2) existing catchbasins on his property act as "vents" and do not take any surface water.
- Mr. Hurlbut also cautioned that the soils around the outlet are very poor and would likely cause issues during construction.

Bevin Otterbein (Coleman Equipment Inc.) (Roll No. 060-11201)

- Overall, Mr. Otterbein is indifferent – the project does not really benefit the Coleman Equipment Inc. properties' current land use, but also understands the neighbouring properties' need for drainage.
- Mr. Otterbein is in favor of a berm being installed on the shared property line with Fried farm.

Other Discussion Items

- The consensus opinion was that the existing 1978 Mitchell Drain tile should remain in place as it is still functioning well. It was recommended by the engineer that the tile remain in place, but abandoned of status under the Drainage Act.

Attendees (September 5, 2023 Meeting):

Paul Renkema (Roll No. 006-02300)	Curtis MacIntyre, P. Eng. (KSAL)
Dave Cleave (Roll No.'s 006-05800 & 006-05830)	Alex Pasley, C.E.T. (KSAL)
Bevin Otterbein (Coleman Equipment Inc.) (Roll No. 006-11201)	Jim Harmer (Twp. Blandford-Blenheim)
	Adam Degier (Twp. Blandford-Blenheim)

On September 5, 2023 an additional information meeting was held at the Coleman Equipment Inc. dealership with those who could not attend the August 24, 2023 meeting. The following is a summary of the general comments listed by property:

Dave Cleave (Cleave View Inc.) (Roll No. 060-05800 & 060-05830)

- Dave re-iterated the existing 150mmØ tile installed from the low point at Trussler Road to the southeast on his farm, through the 1.5 hectare bush to an existing manhole at the north side of Cedar Creek Road (installed by Owen McIntyre in the early 1990's). He also described a berm and hickenbottom located at the south side of the bush that currently stores a lot of surface water east of the bush on his property.
- Mr. Cleave's tiles outlet to an existing tile which likely extends through the Fried property to the existing Michell Drain. He thinks the tile across Trussler Road and through the Fried farm could either be a 100mmØ or a 150mmØ. He believed the tile was this size because in 1993 he could only install a 150mmØ tile on his property due to the size of the existing downstream tile.
- Overall, Mr. Cleave was in favour of signing a petition to extend the Drain across Trussler Road to his property. He is also in favor of incorporating the existing tile on his property as part of the Drain.

Paul Renkema (Roll No. 060-02300)

- Mr. Renkema explained that the north part of their field has two tile outlets. The northwesterly portion of their field is tiled and outlets into the existing culvert on the east quadrant of the Trussler/Oxford Road 8 intersection. The northeasterly portion outlets into a 150mmØ pipe underneath the existing culvert 200m east of the Trussler/Oxford Road 8 intersection. This tile is connected to the manhole at the Cleave farm, as mentioned above.
- Mr. Renkema would take some time to review the costs to determine if a new outlet to the Mitchell Drain would be desirable to them.

Other Discussion Items

- Other discussions revolved around a 600mmØ high pressure gas main (later determined to actually be 400mmØ) existing on the north side of Oxford Road 8/Cedar Creek Road, running parallel to the road. The main is located within easements on private property. Dave Cleave recalled the main being quite deep where his private tile crossed it, near Cedar Creek Road.

5.2 Final Information Meeting (& On-Site Meeting for new Petitions)

Attendees:

John & Rob Follings (Follingdale Farms) (Roll No. 060-08101)	Curtis MacIntyre, P. Eng. (KSAL)
Beverly Fried (Roll No. 060-11200)	Alex Pasley, C.E.T. (KSAL)
Scott Hurlbut (Roll No. 060-08200)	Jim Harmer (Twp. Blandford-Blenheim)
Dave Cleave (Cleave View Inc.) (Roll No. 006-05800 & -05830)	Adam Degier (Twp. Blandford-Blenheim)

On December 7, 2023 a final information meeting was held at the Township of Blandford-Blenheim office. Notice for the meeting was sent to all landowners assessed by the proposed project. The meeting also served as the on-site meeting for the additional B. Fried, Coleman Equipment Inc. & Cleave View Inc. petitions.

The engineer presented a proposed project representing a modified **Option A – Extension 1 / 2**, as presented at the August 24, 2023 and September 5, 2023 meetings. The slight variation proposed to incorporate the existing private tile on the Cleave View Inc. farm, instead of constructing a new tile drain.

With the exception of a few minor design changes requested, those present at the meeting were in general agreement with the proposed work.

6 AUTHORITY FOR REPORT

6.1 Section 4

Section 4 of the Drainage Act provides for the construction of new drainage works for an area requiring drainage. In total, four (4) owners have signed a *Petition for Drainage Works by Owner*, with an additional two (2) *Petition for Drainage Works by Road*. In order of which they were signed, the petitions include: Follingdale Farms Limited (November 25, 2015), County of Oxford (May 9, 2019), Region of Waterloo (July 2, 2019), Cleave View Inc. (September 5, 2023), Coleman Equipment Inc. (September 5, 2023), and Beverley Fried (September 6, 2023). As a result of discussions at the on-site meetings and site examination, the area requiring drainage for each petition is described as the following:

Follingdale Farms Limited Petition

- The approximate north $\frac{1}{4}$ of Lot 1, Concession 12 (14.1 hectares) in the Township of Blandford Blenheim for subsurface tile drainage.

The signature on the petition represents 100% (greater than 60%) of the lands in the area requiring drainage; thus, the petition is valid under Section 4(1)(b) of the Drainage Act

County of Oxford / Region of Waterloo Petition

- The approximate 0.85 hectares of paved intersection of Oxford Road 8, as well as Trussler and Cedar Creek Roads, proposed to be reconstructed with curb, gutter, and storm sewer improvements, and therefore requiring a drainage outlet for increased stormwater discharge.

The drainage works is required for the intersection of two (2) roads, the petitions are signed by the Directors/Managers of Transportation for the two (2) road authorities, and are therefore valid under Section 4(1)(c) of the Drainage Act.

Beverley Fried, Coleman Equipment Inc., and Cleave View Inc. Petitions

- Lot 1, Concession 13 in the Township of Blandford-Blenheim for control of surface stormwater.
- The approximate west $\frac{1}{4}$ of Lot 38, Concession 11 in the Township of North Dumfries for subsurface tile and improved surface drainage.

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

6.2 Section 78

Section 78 of the Drainage Act provides for the repair and improvement of an existing drain constructed under the Drainage Act through a new engineer's report. It is the engineer's understanding that the Section 78 appointment on the Mitchell Drain was initiated because some of the improvement work being requested by owners at the original on-site meeting in 2016, would not have been required in fulfilling the needs of the petitioner. Though some of these improvements were not carried out, and the upstream petitions later received created the need for an upsizing of the whole drain, the Mitchell Drain was originally constructed under the Drainage Act and therefore, this report, as it relates to improvement of the existing Mitchell Drain, is properly initiated under Section 78 of the Drainage Act.

7 RECOMMENDED WORK

Major work items are described below. Further detail regarding construction items can be found in the Cost Estimate and Drawings. A property by property description of the proposed Mitchell Drain can be found in the Special Provisions (Drawings 7 & 8).

Main Drain

The proposed Mitchell Drain, Main Drain commences as an open ditch at an existing watercourse, upstream of the Nith River on the West ½ of Lot 2, Concession 12 in the Township of Blandford Blenheim. In the East ½ of Lot 3, Concession 12, a new tile drain will be constructed to the north, back into Lot 2 and across Oxford Road 8 at Lot 1, Concession 12. The tile drain proceeds northerly, then easterly through Lot 1, Concession 13 to a crossing of Trussler Road into Lot 38, Concession 11 in the Township of North Dumfries. The Drain then incorporates an existing 150mmØ plastic tubing drain heading southeasterly to its terminus on the north side of Cedar Creek Road.

Highlights of the proposed Drain are summarized as follows:

- Construct permanent stilling pool (150m³ of excavation) with 40m² of new riprap on geotextile at outlet.
- 892m of new closed tile drain (ranging in size from 675mm to 600mmØ) from the outlet of the drain to Oxford Road 8.
- 58m of new 600mm steel casing pipe crossing of Oxford Road 8 to be completed in part by jack and boring methods.
- Crossing of a new tile drain overtop of an existing Enbridge 400mmØ (16") high pressure natural gas transmission line.
- 843m of new closed tile drain (ranging in size from 525mm to 450mmØ) from Oxford Road 8 to Trussler Road.
- 21m of new 375mmØ HDPE pipe crossing of Trussler Road.
- Incorporation of 261m of an existing 150mmØ privately constructed plastic tubing drain.

- Two (2) new berms.
- Seven (7) new catchbasins and a buried junction box.

Branch 1

The proposed Branch 1 includes:

- 17m of new 250mmØ closed tile drain servicing the Follingdale Farms Limited property.
- One (1) new catchbasin.

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 15 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 existing natural watercourse located upstream of the Nith River provides sufficient outlet and will allow the proposed works to function as intended.

8.2 Increased Stormwater Flow from Intersection Improvements

Prior to preparing options for the directly affected owners, drawings of the proposed intersection improvement were reviewed and analyzed for the increase of stormwater discharge on private lands of the Mitchell Drain watershed. The proposed work involves the construction of a roundabout, including curbs, gutters, catchbasins and storm pipes. In general, the proposed work can be broken down into 4 areas: Oxford Road 8 west of the intersection, Trussler Road south of the intersection, Cedar Creek Road east of the intersection, and Trussler Road north/including the intersection.

The portions of Trussler Road south and Oxford Road 8 west of the intersection each propose approximately 150m of curb and gutters, collecting and discharging road water with 300mmØ pipes to the west and south road ditches, respectively. These road ditches grade toward the west and eventually to the Mitchell Drain at Station 0+892. Each road contains approx. 0.2 hectares of collected/discharged road water.

Separately, road water collected from Cedar Creek and Trussler Road north discharges to the proposed Mitchell Drain at Stations 1+814 and 1+793, respectively (Trussler Road crossing location). Again, each road proposes approximately 150m of curb and gutters from the intersection. The portion of Cedar Creek Road collects and discharges road water towards the east side road ditch of Trussler Road (north of Cedar Creek Road), with a 375mmØ storm pipe. Proposed storm piping along Trussler Road north commences at the roundabout, reaching the size of a 525mmØ at its outlet into the west side Trussler Road ditch, north of the Coleman Equipment laneway. Cedar Creek Road contains approximately 0.2 hectares of collected/discharged road water, while the north portion of Trussler Road, including the roundabout, contains 0.25 hectares.

The estimated increased flow contributing to the Mitchell Drain in a 5-year storm is approximately 0.04 m³/s at Station 0+892 (downstream of the Oxford Road 8 Drain crossing) and 0.07 m³/s at Station 1+793 (downstream of the Trussler Road Drain crossing).

8.3 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 our watershed examination and landowner discussions, the proposed tile drains on this project have been designed for a 25mm (1.0") drainage coefficient for the contributing agricultural lands, plus the increased flow from the proposed intersection improvements as a result of additional impermeable surfaces and added stormwater collection and discharge.

8.4 Soil Conditions

The 1996 report titled: "Upgrade of Soil Survey Information for Oxford County" indicates that the soils adjacent to the Drain near the proposed outlet are characterized as "Bottom Land", soon transitioning into "Burford Sandy Loams" through the east half of Lot 3 and west half of Lot 2, Concession 12. The remainder of upstream portions of the Drain are located on "Honeywood Silt Loam" soils. The parent materials for "Burford Silt Loams" are considered to be outwash sands and gravelly sands, while the "Honeywood Silt Loam" is 2-4 inches of glacio-lacustrine loam over loamy till. Both soils are well drained.

Based on this available information, adverse subsurface conditions are generally not expected on this project, though if high groundwater conditions were encountered, adverse construction conditions could occur for the first 500m± of the Drain. The use of conventional construction equipment is still anticipated, though a contingency allowance for construction of the Drain in areas of unstable soils has been included. Refer to the Standard Specifications for drain construction procedures when adverse subsurface conditions are encountered.

8.5 Enbridge Pipeline Crossing

The existing Mitchell Drain crosses a 400mmØ (16") Enbridge high pressure natural gas transmission line, located just north of Oxford Road 8 on property with Roll No. 060-11200. During the investigation stage, the Enbridge line was daylighted and determined to be a sufficient depth to propose a new Mitchell Drain crossing above the line.

In addition, near this location there also exists a 100mmØ Enbridge distribution line that was also daylighted to confirm its elevation. The new Mitchell Drain proposes to cross 0.3m below this line.

8.6 Additional Follingdale Farms Branch Investigated

As indicated on the original petition, and requested by the owner at the initial on-site meeting for the Follingdale Farms Limited petition, an additional branch serving the southern portion of the property was investigated, surveyed and designed, with draft costing and assessments presented to the owner. At the initial information meeting in August 2023, the owner confirmed that they did not wish to continue with this southerly branch, and if they were to pursue it, it would be through mutual agreement.

Costs incurred for this additional southerly branch investigation have been assessed to Roll No. 060-08101 under Section 24 of the Act (as a non-grantable assessment). Refer to *Section 13 ASSESSMENTS* for details. If this work were to be re-initiated by the petitioner, it is the opinion of this engineer that at least some portion of the Section 24 assessment for discontinued branch drain work could be provided as an allowance to the petitioner, though such decision would reside with the designated engineer. The reason being: the on-site meeting, survey, and draft profile have already been completed as a part of this project and basis for the Section 24 assessment.

9 ENVIRONMENTAL CONSIDERATIONS

9.1 Agency Consultation

Through the early stages of the project from 2016 to 2017, the engineers investigated and reviewed several different areas of improved stormwater control and erosion protection designs. For various reasons, the stormwater and erosion control designs as proposed in this Mitchell Drain 2023 report have been scaled back from initial proposals. The following is a summary of the meetings and environmental proposals considered.

9.1.1 Grand River Conservation Authority

In general, the Grand River Conservation Authority did not request an environmental appraisal under Section 6 of the Act. The Conservation Authority was sent a notice to each on-site meeting.

August 18, 2016 Site Meeting with GRCA Staff

On August 18, 2016, Ray Roscovich from K. Smart Associates Limited and Jim Harmer, the Township Drainage Superintendent met on-site with the Grand River Conservation Authority (GRCA). In attendance from the GRCA was John Brum, Resource Planner, as well as an Engineer and a Biologist. The purpose of the meeting was to familiarize GRCA staff with the Mitchell Drain project and to gather feedback on some of the components of the proposed design.

It was explained to the GRCA representatives that a SWM pond may be desirable in a location of uncropped land north of Oxford Road 8 to reduce the storm discharge and transport of sediments downstream to the Nith River. GRCA representatives were supportive of the SWM feature, and offered their comments with regard to the proposed SWM pond location. The soil suitability (retention vs. infiltration), existing land use, and existing utilities were the main topics of discussion. The location for the

proposed SWM pond is also located within a hydro transmission line easement, for which Hydro One's Secondary Land Use Program had been contacted.

The meeting then moved downstream to the existing outlet of the Mitchell Drain. The erosion issues on the open channel downstream of the outlet pipe were identified, and the proposed improvements to the outlet were discussed. To improve the erosion issues, a larger and deeper splash pool lined with riprap is proposed at the outlet pipe location.

Finally, the meeting also reviewed the area of the proposed outlet for the second new branch drain requested by the petitioner. As this branch drain was later dropped from the scope of work (requested by the petitioner), no further discussion is necessary to be listed.

9.1.2 Wetland Construction Proposal in Coordination with OMAFRA and MNRF

On May 30, 2017, Ray Roscovish and Jim Harmer then met with OMAFRA and MNRF staff to discuss potential opportunities for wetland restoration as part of municipal drainage projects, as well as potential funding avenues. In attendance was Dave Richards, a Partnership Specialist with MNRF, Sid Vander Veen, Drainage Coordinator with OMAFRA, Jenn Richards, Assistant Program Analyst with OMAFRA, and two other junior OMAFRA staff. The following is a summary of the general comments:

- Jenn Richards stated that OMAFRA did have access to a small sum of money for green infrastructure projects, but an application for it would have to be submitted soon.
- Jim Harmer thought it was unlikely that a Report could go through Council and be constructed by March 2018.
- Sid Vander Veen suggested that Jenn could try to acquiring a small amount that would cover the extra engineering costs required to coordinate and design the wetland feature.
- Dave Richards felt the proposed wetland site north of Oxford Road 8 may be an unfavourable area. The grades looked too steep for a single pond, and the potential for dam/berm failure upstream of a highway could be a risk to the County. Dave thought the cut-off farm land on the south side of Oxford Road 8 (approx. 0.6 ha on Hurlbut's property) was a much better opportunity for a wetland. Here, the grade is much flatter and safety was not a concern.
- Jenn Richards offered her services in contacting potential funding sources/agencies.

From June 2017 to March 2018, KSAL engaged in the design of a wetland feature, located on the property with Roll No. 060-08200, between the existing Mitchell Drain and Oxford Road 8. A full description of the survey, soils investigation, and design work undertaken is summarized in a separate report, included in Appendix B. At a meeting with KSAL and Township staff on October 18, 2018, the owner indicated they were no longer in a position to permit the development of a wetland on their property.

The cost of the engineering work to complete the investigation and prepare a design was separately invoiced to OMAFRA and paid for by a grant initiative aimed at the promotion of green infrastructure. None of these costs are included in this Report.

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. A permit will be required for the proposed work at the Enbridge Gas Inc. crossing.

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 Design Changes During Construction

In general, design changes requested by landowners, agencies or other authorities after the bylaw is passed cannot be undertaken.

Section 84.1 of the Act and the associated regulation, O. Reg. 500/21, provides criteria and a process for amending this report if design changes are required during construction and approved by the engineer. If design changes are made, this report must be amended after construction with the as-constructed drawings 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 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.

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 profile and details for the Drain are located on Drawing No.'s 2 to 6. The profiles show the depth and grade for proposed work and future maintenance. Drawing No.'s 7 and 8 contain the Special Provisions. Drawing No.'s 9 and 10 contain photos of the test hole investigation.

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, the construction cost, the engineering cost 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 29, 30 and 31.

12.1.1 Section 29 (Right of Way)

Section 29 provides for payment of an allowance to landowners for the land required to accommodate the new Drain, access routes to the Drain and for a corridor along the Drain, for construction and maintenance purposes. Current agricultural land valuation reports were reviewed to establish the average value of land (considered to be approximately \$60,000/ha for this area). Due to the nature of the proposed Mitchell Drain 2023 being a closed pipe drain through agricultural farm fields, this rate has been reduced to 1/10th of the land value (\$6,000/ha) for the purpose of computing right-of-way allowances. Section 29 allowances are based on an average right-of-way width of 10m.

12.1.2 Section 30 - Damages

Section 30 provides for payment of an allowance to landowners along the Drain for damages caused by the construction of the Drain. Where separate access routes to the working area are specified in this report, Section 30 allowances also account for access route damage. 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. For the basis of the Section 30 allowance calculations, an average corridor width of 25m is used for the construction of the tile drain. The width is reduced to 20m for properties with Roll No. 060-08200 & 060-11200 as the new Mitchell Drain 2023 will be constructed alongside an existing uncropped grass swale.

12.1.3 Section 31 – Existing Drains

Section 31 provides for payment of an allowance to the owner(s) of an existing drain that is to be incorporated as part of the new Drain. This project proposes the incorporation of 261m of 150mmØ existing plastic tubing across the Cleave View Inc. property from Trussler Road to Cedar Creek Road. No invoice was located for this original construction, but based on the experience of the approximate expected cost for installing 150mmØ tile around the time, the total cost of the original construction is estimated to be \$1,200 (\$1.40/foot).

Mr. Cleave believed that the original owners of properties with Roll No.'s 006-02300 (now P. & T. Renkema) and 060-11201 (Coleman Equipment Inc.) also contributed towards the cost of this tile.

Considering the significantly higher estimated construction cost to complete the same amount of work today, depreciation of the asset was determined to not be necessary. It is also assumed the three owners mentioned above shared equal portions of the original cost and have therefore been given equal shares of the total allowance under Section 31 of the Act (**\$400 each**).

12.1.4 Summary of Allowances

The table below summarizes the amounts of the allowances to be provided under this report (in \$).

Table 12.1-1 - Summary of Allowances

Roll Number	Main Drain			Branch 1		Total
	Sec. 29 (R.O.W.)	Sec. 30 (Damages)	Sec. 31 (Ex. Drain)	Sec. 29 (R.O.W.)	Sec. 30 (Damages)	
060-08101					100	100
060-08200	4,100	2,800		100	100	7,100
060-08220	1,500	1,200				2,700
060-11200	3,800	2,600				6,400
060-11201	1,200	800	400			2,400
006-02300			400			400
006-05830	100		400			500
TOTAL ALLOWANCES:	10,700	7,400	1,200	100	200	19,600

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 Estimated Costs Summary 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 petitioners 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 Township 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 Township 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:			\$19,600
CONSTRUCTION COST ESTIMATE			
Item	Stations	Description	Cost
i) Main Drain			
M1	-0+115 to 0+000	No Work. Incorporate existing open ditch (3m bottom width, 1:1 side slopes as per 1978 Report)	--
M2	0+000	Construct permanent stilling pool (150m ³ of excavation) with 40m ² of new riprap on geotextile. Includes clearing and grubbing of the area required to construct the pool (majority shrubs/bushes, est. 2-3 trees).	12,000
M3	0+000 to 0+006	6m of 750mmØ HDPE outlet pipe with rodent gate. Re-instate existing outlet.	3,000
M4	0+006 to 0+245	239m of 675mmØ conc. tile with joint wrap.	28,700
M5	0+244	Construct 12m of new berm as per detail.	2,000
M6	0+245	Construct 900x1200mm catchbasin, including connections, birdcage grate and marker.	4,000
M7	0+245 to 0+639	394m of 600mmØ conc. tile with joint wrap (includes 9m of 600mmØ solid plastic pipe under laneway).	39,400
M8	0+639	Construct 900x1200mm catchbasin, including connections, birdcage grate and 4m ² of riprap.	4,400
M9	0+639 to 0+837	198m of 600mmØ conc. tile with joint wrap.	19,800
M10	0+639 to 0+892	55m of 525mmØ conc. tile with joint wrap.	5,000
M11	0+892	Construct 900x1200mm junction box, including connections and concrete lid	4,000
M12	0+892 to 0+950	58m of 600mmØ steel casing pipe across Oxford Road 8. 42m to be by jack and boring method. The final 16m to be by open cut. Includes grouting approx. 50m of existing 450mm dia. CSP left under road.	75,000
M13	0+950	Construct 900x1200mm catchbasin, including connections, birdcage grate, marker, and 4m ² of riprap. Also includes re-grading of existing ditches to new catchbasin.	4,000
M14	0+955	Locate, expose via hydrovac excavation, and proceed to construct new Mitchell Drain approx. 0.9m overtop of existing 400mm dia. Enbridge natural gas transmission line (Vital Main) via. open cut. Also includes coordination with the engineer to provide equipment data sheets to receive Enbridge approval.	7,500
M15	0+950 to 1+223	273m of 525mmØ conc. tile with joint wrap.	24,570
M16	1+223 to 1+597	374m of 450mmØ conc. tile with joint wrap.	28,050
M17	1+595	Construct 20m of new berm as per detail.	3,500
M18	1+597	Construct 900x1200mm ditch inlet catchbasin, including connections, birdcage grate and marker.	4,000
M19	1+597 to 1+793	196m of 450mmØ conc. tile with joint wrap.	14,700
M20	1+793	Construct 900x1200mm ditch inlet catchbasin, including connections, birdcage grate, and 4m ² of riprap.	4,000

DESCRIPTION			TOTAL
M21	1+793 to 1+813	21m of 375mmØ HDPE pipe across Trussler Road by open cut. Restore road asphalt and full granular backfill. Also includes remove and disposal of existing 150mm dia. tile across road	25,000
M22	1+814	Construct 600x600mm catchbasin, including connections, birdcage grate, and 2m ² of riprap.	2,500
M23	1+814 to 1+818	4m of 200mmØ Plastic tubing. Connect to new CB with existing 200mm dia. Plastic tubing at hickenbottom	200
M24	1+814 to 2+075	261m of 150mmØ plastic tubing to be incorporated.	--
M25	2+074	Construct 17m of new berm as per detail.	1,500
M26	2+075	Construct 600x600mm catchbasin, including connections, birdcage grate, and 2m ² of riprap.	2,500
Sub Total Part i)			319,320
ii) Branch 1			
B1	0+000 to 0+017	17m of 250mmØ conc. tile with joint wrap.	900
B2	0+017	Construct 600x600mm catchbasin, including connections and birdcage grate.	2,500
Sub Total Part ii)			3,400
iii) Contingencies			
C1	Increased costs to install 500m 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).		25,000
C2	Increased costs to install 50m 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).		1,500
C3	Contingency allowance for lift-outs of wheel machine to allow for stone removal, including the stone removal and restarting/continuing the wheel machine (based on 5 @ \$300/lift-out).		1,500
C4	Tile Connections (based on 20 @ \$200/connection).		4,000
C5	Lump sum contingency allowance.		300
Sub Total Part iii)			32,300
Sub Total Parts i) to iii):			355,020
Net HST (1.76%)			6,250
TOTAL CONSTRUCTION COST ESTIMATE:			\$361,270
ENGINEERING COSTS			
Report Preparation			
Meetings, Survey, Design, Drafting, Report Preparation			81,000
Enbridge pipeline locating (Super Sucker Hydro Vac Services)			5,000
Investigation of Alternative Options for Follingdale Farm Limited			14,000
Investigation, Survey, Design of Additional Follingdale Farms Branch			8,000
Total Report Preparation			108,000
Consideration of Report Meeting			1,000
Court of Revision			1,000
Construction Phase Services			35,800
Net HST (1.76%)			2,610
TOTAL ENGINEERING COSTS:			\$148,410

DESCRIPTION	TOTAL
SECTION 73 COSTS	
Interest estimate	10,000
Unforeseen costs	720
TOTAL SECTION 73 COSTS:	\$10,720
TOTAL ESTIMATED COST:	\$540,000

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). On this project assessment for Benefit, Outlet Liability and Increased Cost (Special) Assessment are involved.

13.1 Calculation of Assessments

Appendix A in this report shows the method of calculating the assessments for the Drain. Appendix A divides the Drain into intervals. The estimated cost for each interval is then determined. For each interval, the first step in the assessment calculation is to determine the benefit assessment 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 interval cost, 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 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>Br. 1</u>	<u>Total</u>
060-08101	-for improved direct outlet	1,500	1,500	10,800
	-for improved sub-surface service area	6,900	900	
060-08200	-for improved direct outlet	3,000		36,100
	-for improved sub-surface service area	2,600		
	-for improved drainage along drain	30,500		
060-08220	-for improved drainage along drain	10,300		10,300

Roll Number	Description	Main Drain	Br. 1	Total
060-11200	-for improved direct outlet -for improved sub-surface service area -for improved drainage along drain	6,000 15,500 30,400		51,900
060-11201	-for improved direct outlet -for improved sub-surface service area -for improved drainage along drain	3,000 400 5,300		8,700
060-11400	-for improved sub-surface service area	800		800
006-02300	-for improved sub-surface service area	700		700
006-05830	-for improved direct outlet -for improved sub-surface service area -for improved drainage along drain	3,000 7,600 1,300		11,900
Oxford Road 8	-for improved outlet downstream	20,000		20,000
Trussler Road (North)	-for improved outlet downstream (\$12,500 to each County) -for improved direct outlet (\$750 to each County)	25,000 1,500		26,500
Trussler Road (South)	-for improved outlet downstream (\$10,000 to each County)	20,000		20,000
Cedar Creek Rd	-for improved outlet downstream	20,000		20,000
TOTAL BENEFIT		215,300	2,400	217,700

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 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.

Table 13.3-1 - Runoff Factors Table

Land Use	Runoff factor
Agricultural	1
Forested	0.5
Paved Road	3

13.4 Special Benefit Assessment (Section 24)

Special Benefits are incurred when any additional work or feature is included in the construction of the drainage works that has no effect on its function.

In addition to this definition, the engineer believes that any investigation/engineering completed at the request of one petitioner in the investigation process that was not included in the proposed drainage works or was deemed to be above the normal level of options investigations that can reasonably be assessed to the watershed under Section 23 (Outlet Liability), should be assessed under Section 24 (Special Benefit) to that owner (petitioner).

In the case of this project, an estimated \$8,000 was incurred to the project to complete a site investigation, review with the conservation authority, survey, design, and

present costs to the petitioner for a drainage area outside of the Mitchell Drain watershed (additional southerly branch), and was ultimately removed from the proposed work. The *Petition for Drainage Works by Owner* clearly outlines the financial responsibility of the owners signing the petition. Therefore a \$8,000 assessment under Section 24 shall be applied to the property with Roll No. 060-08101. Since the two requested areas for drainage improvements were listed on one petition (not two separate petitions), it was determined to be more appropriate to assess this amount under Section 24, rather than complete a separate report under Section 40 of the Drainage Act.

Secondly, as described in *Section 4.4 Requested Halt in Proceedings and Investigation of Alternative Options*, additional costs were incurred to the project during the period of time between 2017 through 2019 to produce alternative options for the petitioner, that did not further progress the design and completion of the overall project. At a meeting on December 10, 2019, the petitioner was presented with six (6) alternatives. One of these alternatives was to terminate all proceedings under the Act, for which the petitioner would be assessed a cost of \$24,000 for the investigation and engineering work completed to date on the petition. At the time of the filing of this report, additional petitions were received, increasing the scope of the project. From review of the accounts, it is estimated that approximately \$10,000 of the original \$24,000 incurred costs were relevant to the current proposed Mitchell Drain 2023 project. Therefore, the remaining \$14,000 is to be assessed to property with Roll No. 060-08101 under Section 24.

13.5 Increased Cost (Special) Assessments (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 13.5-1 - Estimated Special Assessments. The equivalent drain cost is based on the length of 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 13.5-1 - Estimated Special Assessments

Drain	Location	Authority/ Owner	Construction Cost	+ Eng. Cost	- Equiv. Drain Cost	+ Net HST	= Est. Special Assess.
(A) Main Dr.	0+892 to 0+950	County of Oxford	79,000 <i>(Items M11 & M12)</i>	19,100	-4,950	1,640	94,790
(B) Main Dr.	0+955	Enbridge Gas Inc.	7,500 <i>(Item M14)</i>	7,000	0	255	14,755
(C) Main Dr.	1+793 to 1+814	County of Oxford	12,500 <i>(Item M21 ÷ 2)</i>	5,100	-665	300	17,235
(D) Main Dr.	1+793 to 1+814	Region of Waterloo	12,500 <i>(Item M21 ÷ 2)</i>	5,100	-665	300	17,235

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 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.

13.6 Assessment Schedules

In the 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 the assessment roll information. 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.

13.6.1 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 for Construction.

13.6.2 Schedule B -Schedule of Assessments for Maintenance

In accordance with Section 74 of the Act, the Drain shall be maintained by the Township, 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 Drain.

Schedule B is divided into columns to reflect the different intervals where maintenance work may be undertaken. These column intervals assist in identifying upstream lands and roads to be assessed for future maintenance. 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.

The general principle followed in determining the share of future maintenance assessments in Schedule B was the totalling of half of the benefit assessment (quarter for roads), plus the outlet assessments from each interval in Appendix A, with slight alterations where necessary.

The Township will confirm eligibility for the grant at the time the maintenance cost is levied.

13.6.3 Schedule C – Schedule for Actual Cost Bylaw

After the construction of the Drain is certified complete by the Engineer, the Township will determine the actual cost of the Drain. Actual assessments will be calculated by prorating the actual cost of the Drain using Schedule C. Schedule C outlines the estimated net assessments after deducting allowances and grant from the total assessments shown in Schedule A. Eligibility for grant will be confirmed 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 grant 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 Township to apply for this grant after the construction of the Drain is certified complete by the Engineer. The Township 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.

On this project there are two Section 24 benefit assessments applied to property with Roll No. 060-08101. Refer to *Section 13.4 Special Benefit Assessment (Section 24)* of this report for more detail. The \$8,000 assessment for investigation and survey on a branch drain outside of the existing Mitchell Drain watershed, that was no longer pursued as a part of the project, has been considered to be not eligible for grant, in accordance with OMAFRA's Agricultural Drainage Infrastructure Program Policy. The \$14,000 assessment (\$11,000 applied to the Main Drain and \$3,000 applied to Branch 1) is considered to be grant eligible costs incurred by the engineers in assisting the petitioner reach an informed decision regarding the proposed Branch 1 and improvement of the existing Mitchell Drain. This cost was separated as a Section 24 assessment so that it would not be assessed to the upstream lands.

15 PRIVACY OF LANDS

Although a municipal drain is situated on the property of various landowners, one landowner may not enter another landowner's property via the Drain. Persons authorized to enter private lands to carry out duties authorized under the Act include Engineers, Contractors, and the appointed Drainage Superintendents (and/or their assistants).

16 MAINTENANCE

Section 74 of the Act requires the Drain 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.

16.1 The Drain For Future Maintenance

The Mitchell Drain 2023, for the purpose of future maintenance, will include all concrete tile, catchbasins, road crossings, berms, and stilling pools as defined and constructed in accordance with the drawings and special provisions of this report. The Drain is also to include 105m of existing open ditch downstream of the stilling pool, 261m of existing 150mmØ plastic tubing to be incorporated, and the existing 600x600mm offset concrete catchbasin picking up surface water from the 900mmØ culvert across Oxford Road 8 on the property with Roll No. 060-08200.

In accordance with Section 19 of the Act, the entirety of the existing Mitchell Drain (1978) will be hereby abandoned of status under the Drainage Act, and for the portions that remain, shall become private drains for the owners to maintain on their own lands.

16.2 General

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

16.3 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.

17 BYLAW

This report including the drawings and specifications, assessment schedules and appendices, 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
MITCHELL DRAIN 2023
Township of Blandford-Blenheim / Township of North Dumfries**

Con	Lot	Roll No.	Owner	Affected Area (ha)	MAIN DRAIN				BRANCH 1				Gross Total Assessment (\$)	Non-Grantable Section 24			Gross Total Assessment incl. Non-Grantable Sec. 24 (\$)	
					Benefit (\$)	Special (\$)	Outlet (\$)	Total (\$)	Benefit (\$)	Special (\$)	Outlet (\$)	Total (\$)		Benefit (\$)	Outlet (\$)	Total (\$)		
Twp. of Blandford-Blenheim																		
<i>(32-45-020-)</i>																		
Pt N½ 12	1	060-08101	Follingdale Farms Limited	14.1	8,400	11,000	6,712	26,112	2,400	3,000	3,345	8,745	34,857	8,000	-	8,000	42,857	
N½ 12	2	060-08200	S. & I. Hurlbut	18.8	36,100	-	5,362	41,462	-	-	-	-	41,462	-	-	-	41,462	
N½ 12	3	060-08220	G. Doehn	3.1	10,300	-	667	10,967	-	-	-	-	10,967	-	-	-	10,967	
Pt S½ 13	1	060-11200	B. Fried	34.8	51,900	-	27,545	79,445	-	-	-	-	79,445	-	-	-	79,445	
Pt S½ 13	1	060-11201	Coleman Equipment Inc.	3.7	8,700	-	4,498	13,198	-	-	-	-	13,198	-	-	-	13,198	
Pt S½ 13	1	060-11300	M. & M. Becker	2.0	-	-	1,275	1,275	-	-	-	-	1,275	-	-	-	1,275	
S½ 13	2	060-11400	CW Highpoint Inc.	8.8	800	-	5,673	6,473	-	-	-	-	6,473	-	-	-	6,473	
N½ 13	1	060-12600	W. & E. Albrecht	25.0	-	-	16,670	16,670	-	-	-	-	16,670	-	-	-	16,670	
N½ 13	2	060-12700	Gustanda Investments Co. Ltd.	8.7	-	-	6,069	6,069	-	-	-	-	6,069	-	-	-	6,069	
Subtotal (Lands):				119.0	116,200	11,000	74,471	201,671	2,400	3,000	3,345	8,745	210,416	8,000	-	8,000	218,416	
Roads & Utilities																		
Oxford Rd 8 County of Oxford				3.6	20,000	94,790	5,846	120,636	-	-	-	-	120,636	-	-	-	120,636	
½ Trussler Rd County of Oxford (Twp. of B.-B.)				1.3	23,250	17,235	4,287	44,772	-	-	-	-	44,772	-	-	-	44,772	
Enbridge Gas Inc. (Special Assessment)					-	14,755	-	14,755	-	-	-	-	14,755	-	-	-	14,755	
Subtotal (Roads):				4.9	43,250	126,780	10,133	180,163	-	-	-	-	180,163	-	-	-	180,163	
Total Assessment Township of Blandford-Blenheim:					123.9	159,450	137,780	84,604	381,834	2,400	3,000	3,345	8,745	390,579	8,000	-	8,000	398,579
Twp. of North Dumfries																		
<i>(30-01-020-)</i>																		
Pt N½ 10	38	006-02300	P. & T. Renkema	11.1	700	-	18,132	18,832	-	-	-	-	18,832	-	-	-	18,832	
N½ 11	38	006-05800	Cleave View Inc.	9.5	-	-	12,681	12,681	-	-	-	-	12,681	-	-	-	12,681	
S½ 11	38	006-05830	Cleave View Inc.	18.3	11,900	-	25,101	37,001	-	-	-	-	37,001	-	-	-	37,001	
Subtotal (Lands):				38.9	12,600	-	55,914	68,514	-	-	-	-	68,514	-	-	-	68,514	
Roads & Utilities																		
Cedar Creek Road (Road 97) Region of Waterloo				1.2	20,000	-	5,976	25,976	-	-	-	-	25,976	-	-	-	25,976	
½ Trussler Rd Region of Waterloo (Twp. of N.D.)				1.5	23,250	17,235	6,446	46,931	-	-	-	-	46,931	-	-	-	46,931	
Subtotal (Roads):				2.7	43,250	17,235	12,422	72,907	-	-	-	-	72,907	-	-	-	72,907	
Total Assessment Township of North Dumfries:					41.6	55,850	17,235	68,336	141,421	-	-	-	141,421	-	-	-	141,421	
TOTAL ASSESSMENT MITCHELL DRAIN 2023:					165.5	215,300	155,015	152,940	523,255	2,400	3,000	3,345	8,745	532,000	8,000	-	8,000	540,000

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

**SCHEDULE B - SCHEDULE OF ASSESSMENTS
FOR FUTURE MAINTENANCE
MITCHELL DRAIN 2023
Township of Blandford-Blenheim / Township of North Dumfries**

				MAIN DRAIN														BRANCH 1					
				*Interval 0		Interval 1		Interval 2		Interval 3		Interval 4		Interval 5		Interval 6		Interval 7		0+000 to 0+017			
				-0+115 to 0+000		0+000 to 0+639		0+639 to 0+892		0+892 to 0+950		0+950 to 1+223		1+223 to 1+793		1+793 to 1+814		1+814 to 2+075		0+000 to 0+017			
Con	Lot	Roll No.	Owner	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%		
Twp. of Blandford-Blenheim				Lands																			
(32-45-020-)																							
Pt N½ 12	1	060-08101	Follingdale Farms Limited	5,874	8.31	6,624	6.09	2,038	9.07	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	4,045	89.00
N½ 12	2	060-08200	S. & I. Huribut	5,041	7.13	22,141	20.37	6,021	26.80	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	500	11.00
N½ 12	3	060-08220	G. Doehn	1,167	1.65	10,817	9.95	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00
Pt S½ 13	1	060-11200	B. Fried	13,748	19.45	13,748	12.65	4,460	19.85	7,329	21.55	9,950	42.11	15,508	27.08	-	0.00	-	0.00	-	0.00	-	0.00
Pt S½ 13	1	060-11201	Coleman Equipment Inc.	1,541	2.18	1,541	1.42	220	0.98	597	1.76	698	2.95	6,292	10.99	-	0.00	-	0.00	-	0.00	-	0.00
Pt S½ 13	1	060-11300	M. & M. Becker	833	1.18	833	0.77	119	0.53	323	0.95	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00
S½ 13	2	060-11400	CW Highpoint Inc.	3,500	4.95	3,500	3.22	499	2.22	1,756	5.16	318	1.35	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00
N½ 13	1	060-12600	W. & E. Albrecht	9,957	14.08	9,957	9.16	1,420	6.32	3,859	11.35	3,934	16.65	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00
N½ 13	2	060-12700	Gustanda Investments Co. Ltd.	3,625	5.13	3,625	3.33	517	2.30	1,405	4.13	522	2.21	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00
Subtotal (Lands):				45,286	64.06	72,786	66.96	15,294	68.07	15,269	44.90	15,422	65.27	21,800	38.07	-	0.00	-	0.00	-	0.00	4,545	100.00
Roads & Utilities																							
Oxford Rd 8				4,500	6.36	8,250	7.59	1,820	8.10	10,776	31.69	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00	-	0.00
½ Trussler Rd				1,625	2.30	4,125	3.79	1,045	4.65	484	1.42	1,180	4.99	3,266	5.70	1,000	19.76	-	0.00	-	0.00	-	0.00
Subtotal (Roads):				6,125	8.66	12,375	11.38	2,865	12.75	11,260	33.11	1,180	4.99	3,266	5.70	1,000	19.76	-	0.00	-	0.00	-	0.00
Total Assessment Township of Blandford-Blenheim:				51,411	72.72	85,161	78.34	18,159	80.82	26,529	78.01	16,602	70.26	25,066	43.77	1,000	19.76	-	0.00	-	0.00	4,545	100.00
Twp. of North Dumfries				Lands																			
(30-01-020-)																							
Pt N½ 10	38	006-02300	P. & T. Renkema	4,624	6.54	4,624	4.25	659	2.93	1,792	5.27	1,166	4.93	6,533	11.41	542	10.71	3,133	40.00	-	0.00	-	0.00
N½ 11	38	006-05800	Cleave View Inc.	3,958	5.60	3,958	3.64	564	2.51	1,534	4.51	1,070	4.53	5,591	9.76	464	9.17	-	0.00	-	0.00	-	0.00
S½ 11	38	006-05830	Cleave View Inc.	7,332	10.37	7,332	6.75	1,045	4.65	2,842	8.36	2,056	8.70	12,558	21.93	1,659	32.79	3,133	40.00	-	0.00	-	0.00
Subtotal (Lands):				15,914	22.51	15,914	14.64	2,268	10.09	6,168	18.14	4,292	18.16	24,682	43.10	2,665	52.67	6,266	80.00	-	0.00	-	0.00
Roads & Utilities																							
Cedar Creek Road (Road 97)				1,500	2.12	3,250	2.99	964	4.29	581	1.71	1,466	6.20	3,369	5.88	175	3.46	1,127	14.39	-	0.00	-	0.00
½ Trussler Rd				1,875	2.65	4,376	4.03	1,080	4.80	727	2.14	1,271	5.38	4,149	7.25	1,220	24.11	439	5.61	-	0.00	-	0.00
Subtotal (Roads):				3,375	4.77	7,626	7.02	2,044	9.09	1,308	3.85	2,737	11.58	7,518	13.13	1,395	27.57	1,566	20.00	-	0.00	-	0.00
Total Assessment Township of North Dumfries:				19,289	27.28	23,540	21.66	4,312	19.18	7,476	21.99	7,029	29.74	32,200	56.23	4,060	80.24	7,832	100.00	-	0.00	-	0.00
TOTAL ASSESSMENTS:				70,700	100.00	108,701	100.00	22,470	100.00	34,005	100.00	23,631	100.00	57,266	100.00	5,060	100.00	7,832	100.00	4,545	100.00	-	0.00

Notes:

1. Agricultural designation not included as grant eligibility has to be confirmed at the time of maintenance cost levy.
2. \$ amounts above 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 C - ESTIMATED NET ASSESSMENTS
MITCHELL DRAIN 2023
Township of Blandford-Blenheim / Township of North Dumfries**

Con	Lot	Roll No.	Owner	Gross Assessment (\$)	1/3 Grant (\$)	Non-Grantrable Section 24 (\$)	Allowances (\$)	Net Assessment (\$)
<u>Twp. of Blandford-Blenheim</u>								
<u>Lands</u>								
<i>(32-45-020-)</i>								
F	Pt N½ 12	1	060-08101 Follingdale Farms Limited	34,857	11,619	8,000	100	31,138
F	N½ 12	2	060-08200 S. & I. Hurlbut	41,462	13,821		7,100	20,541
F	N½ 12	3	060-08220 G. Doehn	10,967	3,656		2,700	4,611
F	Pt S½ 13	1	060-11200 B. Fried	79,445	26,482		6,400	46,563
F	Pt S½ 13	1	060-11201 Coleman Equipment Inc.	13,198	4,399		2,400	6,399
F	Pt S½ 13	1	060-11300 M. & M. Becker	1,275	-			1,275
F	S½ 13	2	060-11400 CW Highpoint Inc.	6,473	2,158			4,315
F	N½ 13	1	060-12600 W. & E. Albrecht	16,670	5,557			11,113
F	N½ 13	2	060-12700 Gustanda Investments Co. Ltd.	6,069	2,023			4,046
Subtotal (Lands):				210,416	69,714	8,000	18,700	130,002
<u>Roads & Utilities</u>								
	Oxford Rd 8		County of Oxford	120,636	-			120,636
	½ Trussler Rd		County of Oxford (Twp. of B.-B.)	44,772	-			44,772
	Enbridge Gas Inc. (Special Assessment)			14,755	-			14,755
Subtotal (Roads):				180,163	-	-	-	180,163
Total Assessment Township of Blandford-Blenheim:				390,579	69,714	8,000	18,700	310,165
<u>Twp. of North Dumfries</u>								
<u>Lands</u>								
<i>(30-01-020-)</i>								
F	Pt N½ 10	38	006-02300 P. & T. Renkema	18,832	6,277		400	12,155
F	N½ 11	38	006-05800 Cleave View Inc.	12,681	4,227			8,454
F	S½ 11	38	006-05830 Cleave View Inc.	37,001	12,334		500	24,167
Subtotal (Lands):				68,514	22,838	-	900	44,776
<u>Roads & Utilities</u>								
	Cedar Creek Road (Road 97)		Region of Waterloo	25,976	-			25,976
	½ Trussler Rd		Region of Waterloo (Twp. of N.D.)	46,931	-			46,931
Subtotal (Roads):				72,907	-	-	-	72,907
Total Assessment Township of North Dumfries:				141,421	22,838	-	900	117,683
TOTAL ASSESSMENT MITCHELL DRAIN 2023:				532,000	92,552	8,000	19,600	427,848

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.
- Actual assessment is levied to the owner of the parcel at the time the final cost is levied.

**APPENDIX A - Calculation of Assessments
MITCHELL DRAIN 2023
Township of Blandford-Blenheim / Township of North Dumfries**

INTERVAL				Interval 1 0+000 to 0+639				Interval 2 0+639 to 0+892				MAIN DRAIN Interval 3 0+892 to 0+950				Interval 4 0+950 to 1+223				Interval 5 1+223 to 1+793					
COST ESTIMATE																									
Allowances				6,700				2,900				-				2,700				5,700					
Construction				102,900				27,300				86,900				39,670				59,650					
Engineering				25,000				17,500				20,000				12,500				13,000					
Administration				13,120				3,200				12,200				5,400				7,600					
Net HST				2,480				845				2,095				1,015				1,415					
TOTAL COST ESTIMATE				150,200				51,745				121,195				61,285				87,365					
Conc.	Lot	Roll No.	Owner	Total Ha Affected	Total ha Adjusted	Special Benefit (Sec. 24/26)	Ha Adjusted	Outlet	Special Benefit (Sec. 24/26)	Ha Adjusted	Outlet	Special Benefit (Sec. 24/26)	Ha Adjusted	Outlet	Special Benefit (Sec. 24/26)	Ha Adjusted	Outlet	Special Benefit (Sec. 24/26)	Ha Adjusted	Outlet					
Twp. of Blandford-Blenheim																									
<i>(32-45-020-)</i>																									
Lands																									
Pt N½ 12	1	060-08101	Follingdale Farms Limited	14.1	14.1	1,500	2,000	14.1	5,874	6,900	9,000	14.1	838	-	-	-	-	-	-	-					
N½ 12	2	060-08200	S. & I. Hurlbut	18.8	12.1	24,200		12.1	5,041	11,900		5.4	321	-	-	-	-	-	-	-					
N½ 12	3	060-08220	G. Doehn	3.1	1.6	10,300		1.6	667			-	-	-	-	-	-	-	-	-					
Pt S½ 13	1	060-11200	B. Fried	34.8	33.0			33.0	13,748			33.0	1,960	4,000		33.0	5,329	26,300		30.0	1,800				
Pt S½ 13	1	060-11201	Coleman Equipment Inc.	3.7	3.7			3.7	1,541			3.7	220			3.7	597			3.3	198				
Pt S½ 13	1	060-11300	M. & M. Becker	2.0	2.0			2.0	833			2.0	119			2.0	323			-	-				
S½ 13	2	060-11400	CW Highpoint Inc.	8.8	8.4			8.4	3,500			8.4	499	800		8.4	1,356			5.3	318				
N½ 13	1	060-12600	W. & E. Albrecht	25.0	23.9			23.9	9,957			23.9	1,420			23.9	3,859			23.9	1,434				
N½ 13	2	060-12700	Gustanda Investments Co. Ltd.	8.7	8.7			8.7	3,625			8.7	517			8.7	1,405			8.7	522				
Subtotal (Lands):				119.0	107.5	36,000	2,000	107.5	44,786	18,800	9,000	99.2	5,894	4,800	-	79.7	12,869	26,300	-	71.2	4,272	30,300	-	11.3	6,650
Roads & Utilities																									
Oxford Rd 8 County of Oxford				3.6	10.8	15,000		10.8	4,500	5,000		9.6	570	-	94,790	4.8	776			-	-	-	-	-	
½ Trussler Rd County of Oxford (Twp. of B.-B.)				1.3	3.9	10,000		3.9	1,625	3,250		3.9	232			3.0	484	4,000		3.0	180	6,000		3.0	1,766
Enbridge Gas Inc. (Special Assessment)																		14,755							
Subtotal (Roads & Utilities):				4.9	14.7	25,000	-	14.7	6,125	8,250	-	13.5	802	-	94,790	7.8	1,260	4,000	14,755	3.0	180	6,000	-	3.0	1,766
Total Assessment Township of Blandford-Blenheim:				123.9	122.2	61,000	2,000	122.2	50,911	27,050	9,000	112.7	6,696	4,800	94,790	87.5	14,129	30,300	14,755	74.2	4,452	36,300	-	14.3	8,416
Twp. of North Dumfries																									
<i>(30-01-020-)</i>																									
Lands																									
Pt N½ 10	38	006-02300	P. & T. Renkema	11.1	11.1			11.1	4,624			11.1	659			11.1	1,792			11.1	666			11.1	6,533
N½ 11	38	006-05800	Cleave View Inc.	9.5	9.5			9.5	3,958			9.5	564			9.5	1,534			9.5	570			9.5	5,591
S½ 11	38	006-05830	Cleave View Inc.	18.3	17.6			17.6	7,332			17.6	1,045			17.6	2,842			17.6	1,056	4,400		17.6	10,358
Subtotal (Lands):				38.9	38.2	-	-	38.2	15,914	-	-	38.2	2,268	-	-	38.2	6,168	-	-	38.2	2,292	4,400	-	38.2	22,482
Roads & Utilities																									
Cedar Creek Road (Road 97) Region of Waterloo				1.2	3.6	7,000		3.6	1,500	3,000		3.6	214			3.6	581	5,000		3.6	216	5,000		3.6	2,119
½ Trussler Rd Region of Waterloo (Twp. of N.D.)				1.5	4.5	10,000		4.5	1,875	3,250		4.5	267			4.5	727	4,000		4.5	270	6,000		4.5	2,648
Subtotal (Roads & Utilities):				2.7	8.1	17,000	-	8.1	3,375	6,250	-	8.1	481	-	-	8.1	1,308	9,000	-	8.1	486	11,000	-	8.1	4,767
Total Assessment Township of North Dumfries:				41.6	46.3	17,000	-	46.3	19,289	6,250	-	46.3	2,749	-	-	46.3	7,476	9,000	-	46.3	2,778	15,400	-	46.3	27,249
TOTAL ASSESSMENT MITCHELL DRAIN 2023:				165.5	168.5	78,000	2,000	168.5	70,200	33,300	9,000	159.0	9,445	4,800	94,790	133.8	21,605	39,300	14,755	120.5	7,230	51,700	-	60.6	35,665

APPENDIX A - Calculation of Assessments
MITCHELL DRAIN 2023
 Township of Blandford-Blenheim / Township of North Dumfries

MAIN DRAIN Cont'd														BRANCH 1 0+000 to 0+017				Non-Grantrable Section 24	GRAND TOTAL							
INTERVAL				Interval 6 1+793 to 1+814			Interval 7 1+814 to 2+075			MAIN DRAIN TOTAL								Non-Grantrable Section 24								
COST ESTIMATE																										
Allowances																										
Construction				30,300			1,300			19,300									19,600							
Engineering				7,500			4,600			351,320				300					355,020							
Administration				3,800			2,500			98,000				3,700				8,000	110,000							
Net HST				730			600			45,920				4,000					46,520							
TOTAL COST ESTIMATE				42,330			9,135			523,255				8,745				8,000	540,000							
Conc.	Lot	Roll No.	Owner	Total Ha Affected	Total ha Adjusted	Special Benefit (Sec. 24/26)	Ha Adjusted	Outlet	Special Benefit (Sec. 24/26)	Ha Adjusted	Outlet	Total Benefit	Total Special	Total Outlet	Total	Special Benefit (Sec. 24/26)	Ha Adjusted	Outlet	Assess.	Total Benefit	Total Special	Total Outlet	Total			
Twp. of Blandford-Blenheim																										
<i>(32-45-020-)</i>																										
Lands																										
Pt N½ 12	1	060-08101	Follingdale Farms Limited	14.1	14.1	-	-	-	-	-	-	8,400	11,000	6,712	26,112	2,400	3,000	14.1	3,345	8,000	10,800	22,000	10,057	42,857		
N½ 12	2	060-08200	S. & I. Hurlbut	18.8	12.1	-	-	-	-	-	-	36,100	-	5,362	41,462	-	-	-	-	-	36,100	-	5,362	41,462		
N½ 12	3	060-08220	G. Doehn	3.1	1.6	-	-	-	-	-	-	10,300	-	667	10,967	-	-	-	-	-	10,300	-	667	10,967		
Pt S½ 13	1	060-11200	B. Fried	34.8	33.0	-	-	-	-	-	-	51,900	-	27,545	79,445	-	-	-	-	-	51,900	-	27,545	79,445		
Pt S½ 13	1	060-11201	Coleman Equipment Inc.	3.7	3.7	-	-	-	-	-	-	8,700	-	4,498	13,198	-	-	-	-	-	8,700	-	4,498	13,198		
Pt S½ 13	1	060-11300	M. & M. Becker	2.0	2.0	-	-	-	-	-	-	-	-	1,275	1,275	-	-	-	-	-	-	1,275	1,275			
S½ 13	2	060-11400	CW Highpoint Inc.	8.8	8.4	-	-	-	-	-	-	800	-	5,673	6,473	-	-	-	-	-	800	-	5,673	6,473		
N½ 13	1	060-12600	W. & E. Albrecht	25.0	23.9	-	-	-	-	-	-	-	-	16,670	16,670	-	-	-	-	-	-	16,670	16,670			
N½ 13	2	060-12700	Gustanda Investments Co. Ltd.	8.7	8.7	-	-	-	-	-	-	-	-	6,069	6,069	-	-	-	-	-	-	6,069	6,069			
Subtotal (Lands):				119.0	107.5	-	-	-	-	-	-	116,200	11,000	74,471	201,671	2,400	3,000	14.1	3,345	8,000	118,600	22,000	77,816	218,416		
Roads & Utilities																										
Oxford Rd 8				3.6	10.8	-	-	-	-	-	-	20,000	94,790	5,846	120,636	-	-	-	-	-	20,000	94,790	5,846	120,636		
½ Trussler Rd				1.3	3.9	-	17,235	-	-	-	-	23,250	17,235	4,287	44,772	-	-	-	-	-	23,250	17,235	4,287	44,772		
Enbridge Gas Inc. (Special Assessment)				-	-	-	-	-	-	-	-	14,755	-	14,755	-	-	-	-	-	-	-	14,755	-	14,755		
Subtotal (Roads & Utilities):				4.9	14.7	-	17,235	-	-	-	-	43,250	126,780	10,133	180,163	-	-	-	-	-	-	43,250	126,780	10,133	180,163	
Total Assessment Township of Blandford-Blenheim:				123.9	122.2	-	17,235	-	-	-	-	159,450	137,780	84,604.0	381,834	2,400	3,000	14.1	3,345	8,000	161,850	148,780	87,949	398,579		
Twp. of North Dumfries																										
<i>(30-01-020-)</i>																										
Lands																										
Pt N½ 10	38	006-02300	P. & T. Renkema	11.1	11.1	-	11.1	542	700	6.8	3,316	700	-	18,132	18,832	-	-	-	-	-	700	-	18,132	18,832		
N½ 11	38	006-05800	Cleave View Inc.	9.5	9.5	-	9.5	464	-	-	-	-	-	12,681	12,681	-	-	-	-	-	-	-	12,681	12,681		
S½ 11	38	006-05830	Cleave View Inc.	18.3	17.6	5,600	17.6	859	1,900	3.3	1,609	11,900	-	25,101	37,001	-	-	-	-	-	11,900	-	25,101	37,001		
Subtotal (Lands):				38.9	38.2	5,600	38.2	1,865	2,600	-	10.1	4,925	12,600	-	55,914	68,514	-	-	-	-	-	12,600	-	55,914	68,514	
Roads & Utilities																										
Cedar Creek Road (Road 97)				1.2	3.6	-	3.6	175	-	2.4	1,171	20,000	-	5,976	25,976	-	-	-	-	-	20,000	-	5,976	25,976		
½ Trussler Rd				1.5	4.5	-	17,235	4.5	220	0.9	439	23,250	17,235	6,446	46,931	-	-	-	-	-	23,250	17,235	6,446	46,931		
Subtotal (Roads & Utilities):				2.7	8.1	-	17,235	8.1	395	-	3.3	1,610	43,250	17,235	12,422	72,907	-	-	-	-	-	43,250	17,235	12,422	72,907	
Total Assessment Township of North Dumfries:				41.6	46.3	5,600	17,235	46.3	2,260	2,600	-	13.4	6,535	55,850	17,235	68,336.0	141,421	-	-	-	-	55,850	17,235	68,336	141,421	
TOTAL ASSESSMENT MITCHELL DRAIN 2023:				165.5	168.5	5,600	34,470	46.3	2,260	2,600	-	13.4	6,535	215,300	155,015	152,940	523,255	2,400	3,000	14.1	3,345	8,000	217,700	166,015	156,285	540,000

APPENDIX B

Green Infrastructure and the Drainage Act Report



March 5, 2018

GREEN INFRASTRUCTURE & THE DRAINAGE ACT- MITCHELL DRAIN

PROJECT BACKGROUND

In May of 2016, the Township of Blandford-Blenheim appointed K. Smart Associates Limited to prepare a report on the Mitchell Drain pursuant to Sections 4 and 78 of the Drainage Act. Engineering work commenced thereafter, and a traditional municipal drain design and cost estimate was developed.

In June 2017, the Township and OMAFRA began a partnership to promote and implement green infrastructure (GI) as part of municipal drainage projects. The partnership would provide valuable logistical information to provincial staff who were studying the feasibility of a new grant program for GI components included in municipal drain reports.

The Mitchell Drain project was selected for the study due to issues with agricultural soil erosion and the drain's proximity to a large Lake Erie tributary (Nith River). With significant attention on reducing nutrient runoff entering Lake Erie, it was felt that reworking the Engineer's preliminary design to include a wetland restoration or SWM area would decrease sediment transport from the 160ha (395ac) Mitchell Drain watershed.

At the time of this status report, the Mitchell Drain is in the report writing stage, and construction on the project is expected to occur in the late summer or early fall of 2018.

ADDITIONAL WORK UNDERTAKEN

Additional engineering work is involved in the promotion and implementation of GI as part of a Drainage Act project. All eligible engineering services are assessed to the landowners on a municipal drain project, and any additional cost associated with GI implementation will typically result in higher assessments. The additional work undertaken on the Mitchell Drain included meetings, surveying, geotechnical work, hydrological modelling, drafting and correspondence (email and phone).

On this project, four extra meetings were held with potential funding partners (OMAFRA, GRCA and DUC), the landowner and municipal staff. Drain surveying is normally limited to a narrow strip near an existing drain or low topographic run. An extra 0.8ha (2ac) grid survey of the potential wetland/SWM site and surrounding area was performed to provide an accurate surface for hydrological modelling. A geotechnical investigation was also undertaken to determine an accurate soil infiltration rate for the model. Once the iterative modelling process was completed, drawings of the proposed wetland/SWM area were prepared.

HYDROLOGICAL MODELLING

A detailed model of the 0.58ha (1.4ac) wetland/SWM area was created to compare the pre/post development hydrologic condition of the site. The SCS Type 2 -24 hr storm distribution was employed, and the results of this modelling are shown below in Table 1.

The model results indicated that discharge to the existing downstream drainage system could be reduced without causing upstream flooding. This controlled discharge allowed for 900m± of new concrete drainage tile and two new catchbasins to be eliminated from the Engineer's preliminary design. These items had an estimated value of \$40,000±.

Design Storm (SCS Type 2-24 hr)	Pre SWM Discharge (m ³ /s)	Post SWM Discharge (m ³ /s)
2 yr	0.11	0.00
5 yr	0.38	0.02
10 yr	1.10	0.05
25 yr	1.80	0.10
50 yr	2.50	0.13
100 yr	3.20	0.68

Table 1: SWM Modelling Results

ENGINEERING COSTS INCURRED

The additional engineering costs resulting from the GI work on the Mitchell Drain are as follows:

Meetings & correspondence (Landowner and GI Partners)	\$ 2,567.50
Surveying	\$ 520.00
Hydrologic modelling	\$ 4115.00
Drafting (concept drawings)	\$ 1025.00
Soil sampling (excavator operator)	\$ 320.00
Soils Investigation (geotechnical report)	\$ 1,250.00
Sub-Total:	\$ 9,797.50
HST (13%)	\$ 1,273.68
TOTAL:	\$ 11,071.18

Table 2: Additional Engineering Costs

COST ANALYSIS & EXPENDITURES

Although engineering costs increase when promoting and implementing GI, the inclusion of wetland restoration and/or SWM components in municipal drainage projects has the potential to reduce construction costs. On the Mitchell Drain, the wetland/SWM area allowed for a controlled discharge into the 900m± downstream stretch of the existing drain. This eliminated the need to improve/increase the capacity of this section of drain and resulted in the elimination of approx. \$40,000 in concrete tile and catchbasins in the project cost estimate.

However, these savings are somewhat offset by the cost of earthworks that will be involved in the construction/excavation of the wetland/SWM area. The exact cost will not be known until the project is tendered, but it is estimated that this earthwork may cost between \$15,000 and \$20,000. Additionally, landscaping and pollinator habitat plantings (ex. shade trees, aquatic plants, tallgrass prairie) would be a further cost in the development of the site.

The final expenditure associated with GI components in drainage reports is that of allowances. Landowners are to be compensated for lands that are affected (right-of-way, crop damage, taken out of production, access cut off, etc.) by drainage works. Although these allowances reduce the affected landowner's assessment, they increase the report cost and assessments to the upstream landowners. The land value in the Mitchell Drain watershed is high compared to other areas in the province (approx. \$18,000/ac), and \$27,000 in allowances could be given to the landowner of the 1.5ac wetland/SWM site.

March 5, 2018

Although it appears, at this time, that the wetland/SWM area on the Mitchell Drain will increase the drain cost by approx. \$12,000 to \$17,000, the inclusion of GI components in this municipal drain project will result in a net environmental gain for the local and broader watershed.

RECOMMENDATIONS:

The following recommendations are provided to ensure efficiency in promoting and implementing GI projects:

1) Landowner Engagement

Efforts to secure a plot of land for a GI project should be made early in the Drainage Act process. An excellent opportunity to speak with a representative proportion of the watershed community about GI components is the required first on-site meeting. Here, the engineer facilitating the meeting could engage the attendees in a discussion about the benefits of GI and the potential funding and expertise available through partnerships (ex. Ducks Unlimited Canada). If a landowner(s) shows interest in a GI project, subsequent private meetings can be held to pursue that interest.

2) Soil Testing

The soil characteristics of a site are a critical factor in the development of an accurate hydrologic model for a potential GI project. For example, if the intent of a project is to retain water on the landscape for a wetland, soils with a high infiltration rate could be a limiting factor. Once a site has been secured, steps should be taken to perform a soils investigation (bore holes, open pits, etc.) through a qualified geotechnical engineer. The ensuing soils report will provide the data needed to make an informed decision on which type of GI project (retention or infiltration) should be undertaken.

CONCLUSION

The Township of Blandford-Blenheim and K. Smart Associates Limited would like to thank Jenn Richards (OMAFRA) and Dave Richards (MNRF) for their support and guidance on the Mitchell Drain project. It is hopeful that this experience has provided useful information in the development of a grant program for green infrastructure work performed under the Drainage Act, and we look forward to working with them on future endeavours related to the promotion and implementation of green infrastructure projects.

Sincerely,



Ray Roscovich, P.Eng.

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200 GENERAL CONDITIONS**200.1 SCOPE**

The work to be done under this contract consists of supplying all labour, equipment and materials to construct the drainage work as outlined in the Instructions to Tenderers, the Form of Tender and Agreement, the Schedule of Tender Prices, the Drawings, the General Conditions, Special Provisions and the Standard Specifications.

200.2 ORDER OF PRECEDENCE

In case of any inconsistency or conflict between the drawings and specifications, the following order of precedence shall apply: Addenda, Form of Tender and Agreement, Schedule of Tender Prices, Special Provisions, Contract Drawings, Standard Specifications, General Conditions.

200.3 MUNICIPALITY

Municipality refers to a municipal corporation in the Province of Ontario. Where reference to Township, County, Region, Town, City or Owner appears it shall be deemed to be the same as the word Municipality. Where reference to owner appears in the specifications it is usually in reference to the owner of the property on which the drain is being constructed.

200.4 TENDERS

Tenders are to be submitted on a lump sum basis for the complete works or a portion thereof, as instructed by the Municipality. The Schedule of Tender Prices must be completed and submitted with the Form of Tender and Agreement even though the Contract will be a lump sum. As outlined in the Instructions to Tenders a deposit in the form of a certified cheque, bank draft, bonding or irrevocable letter of credit must accompany each tender as a guarantee of good faith. The deposit shall name the Municipality as the payee. All deposits, except that of the Tenderer to whom the work is awarded, will be returned within 10 days of the time the contract is awarded. The certified cheque of the Tenderer awarded the work will be retained as Contract Security and returned with the Completion Certificate for the work. A Performance Bond may also be required to ensure maintenance of the work for a period of one year after the date of the Completion Certificate.

200.5 EXAMINATION OF SITE, PLANS AND SPECIFICATIONS

Prior to the submission of the Tender, the Tenderer must examine the premises and site to compare them with the Drawings and Specifications in order to be satisfied with the existing conditions and the extent of the work to be done. The Tenderer must ensure that the meaning and intent of the drawings, estimated quantities and specifications is clearly understood before submission of the Tender. No allowances shall be made on behalf of the Contractor by reason of any error made in the preparation of the tender submission.

Any estimates of quantities shown or indicated on the drawings or elsewhere in the tender document are provided for the convenience of the Tenderer. The Tenderer should check the estimate of quantities for accuracy. Any use made of the estimated quantities by the Tenderer in calculating the tendered amounts is done at the Tenderers risk.

200.6 COMMENCEMENT AND COMPLETION OF WORK

The work must commence immediately after the Tenderer is notified of the contract award or at a later date, if set out as a condition in the Form of Tender and Agreement. If weather and ground conditions are unsuitable, work may be started at a later date from either of the above two dates if such delay is approved by the Engineer. The Contractor shall provide a minimum of 48 hours advance notice to the Engineer and the Municipality before commencement of any work. The work must proceed in such manner as to ensure its completion at the earliest possible date consistent with first class workmanship and within the time limit set out in the tender/contract document. Failure to commence or complete the work as set out in the tender/contract document may result in a forfeiture of all or part of the Contract Security if the Engineer deems that damages have been sustained to the Municipality or to any landowner because of the non-commencement or non-completion of the contract as awarded and that the failure to meet the specified dates has been the fault of the Contractor.

200.7 NOTICES RE COMMENCEMENT OF WORK

If the Contractor leaves the job site for a period of time after initiation of work, a minimum of 48 hours advance notice shall be given to the Engineer and the Municipality before commencement of any further work. If any work is commenced without the advance notice the Contractor shall be fully responsible for all such work undertaken prior to such notification and shall make good any works or materials judged to be inadequate or constructed in any manner that may have been subject to alteration if made known to the Engineer prior to commencement of construction.

200.8 PERMITS, NOTICES, LAWS AND RULES

The Contractor shall apply and pay for all necessary permits or licenses required for the execution of the work. This shall not include the obtaining of permanent easements or rights or servitude. The Contractor shall give all necessary notices and pay all fees required by the law and comply with all laws, ordinances, rules and regulations relating to the work and to the preservation of the public's health and safety and if the specifications and drawings are at variance therewith, any resulting additional expense incurred by the Contractor shall constitute an addition to the contract price.

200.9 HEALTH AND SAFETY

Contractor must comply with the Occupational Health and Safety Act (OHSA) and the associated Regulations for Construction Projects. Contractor will also follow any site-specific safety and training requirements of the Municipality, agencies, utility companies or other authorities.

Communication about site-specific hazards and safety requirements shall occur at the pre-construction meeting. If no pre-construction meeting is conducted, Contractor will communicate site-specific hazards and safety requirements before beginning work.

Contractor shall immediately report any workplace incidents, near misses, injuries and occupational illnesses to the Engineer.

200.10 LIMITATIONS OF OPERATIONS

Except for such work as may be required by the Engineer to maintain the works in a safe and satisfactory condition, the Contractor shall not carry out operations under the contract on Sundays or Statutory Holidays without permission in writing from the Engineer. The Engineer may direct in writing to the Contractor to cease or limit operations under the contract on any day or days if the operations are of such a nature, or if the work is so located, or if the traffic is of such a volume, that the Engineer deems it necessary or expedient to do so.

200.11 SUPERVISION

The Contractor shall provide constant supervision of the construction work and shall keep a competent foreman in charge at the site.

200.12 CHARACTER AND EMPLOYMENT OF WORKERS

The Contractor shall employ only orderly, competent and skillful workers to do the work and shall give preference to available qualified residents in the area of the contract. Whenever the Engineer informs the Contractor in writing that any workers are, in the opinion of the Engineer, disorderly, incompetent, or breaking the law, such workers shall be discharged from the job site and shall not again be employed on the job site without the written consent of the Engineer.

200.13 SUB-CONTRACTORS

If the Municipality so directs, the Contractor shall not sublet the whole or any part of this contract without the approval of the Engineer.

200.14 PAYMENT

Progress payments in cash equal to about 90% of the value of the work done and materials incorporated in the work will be made to the Contractor monthly. If directed by the Engineer the Contractor may be required to provide a written request for the progress payment amount. An additional 7% will be paid 45 days after the date of the Completion Certificate by the Engineer and 3% of the contract price may be reserved by the Municipality as a maintenance holdback for one year from the date of the Completion Certificate.

The holdbacks noted above may be increased by the Municipality if, in the written opinion of the Engineer, particular conditions of the contract require such greater holdback.

After the completion of the work any part of maintenance holdback may be used to correct defects from faulty construction and/or materials provided that notice shall first be given by the Engineer in writing to the Contractor stating that the Contractor has seven (7) days in which to remedy the defect in construction and/or materials.

200.15 TERMINATION OF CONTRACT BY THE MUNICIPALITY

Termination of the contract by the Municipality may be considered if the Contractor:

1. should be adjudged bankrupt or make a general assignment for the benefit of creditors or if a receiver should be appointed on account of insolvency;
2. should refuse or fail to supply enough properly skilled workmen or proper materials after having received seven (7) days' notice in writing from the Engineer to supply such additional workmen or materials in order to commence or complete the works;
3. should fail to make prompt payment to sub-contractors or for materials or labour;
4. should persistently disregard laws, ordinances, or instructions from the Engineer, or otherwise be guilty of a substantial violation of the provisions of the contract;

then the Municipality, upon Certificate of the Engineer that sufficient cause exists to justify such action, may without prejudice to any other right or remedy, give written notice to the Contractor to terminate the employment of the Contractor and take possession of the premises, and of all materials, tools and appliances thereon, and may finish the work by whatever method the Municipality may deem expedient, but without undue delay or expense. In such case, the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract price will exceed the expense of finishing the work including compensation to the Engineer for additional services and including other damages of every name and nature, such excess shall be paid to the

Contractor. If such expense will exceed such unpaid balance including the Contract Security, the Contractor shall pay the difference to the Municipality. The expense incurred by the Municipality, as herein provided, shall be certified by the Engineer. If the contract is terminated by the Municipality due to the Contractor's failure to properly commence the works, the Contractor shall forfeit the Contract Security and furthermore shall pay to the Municipality an amount to cover the increased costs, if any, associated with a new tender for the contract being terminated.

If any unpaid balance and the Contract Security do not equal the monies owed by the Contractor upon the termination of the contract, the Municipality may also charge such expenses against any money which is or may thereafter be due to the Contractor from the Municipality.

200.16 LIQUIDATED DAMAGES

It is agreed by the parties to the Contract that in case all the work called for under the Contract is not finished or complete within the period of time as set forth in the Tender/Contract Document, damage will be sustained by the Municipality. It is understood by the parties that it will be impracticable and extremely difficult to ascertain and determine the actual damage which the Municipality will sustain in the event of and by reason of such delay. The parties hereto agree that the Contractor will pay to the Municipality a sum as set out in the Form of Tender and Agreement for liquidated damages for each and every calendar day delay, including Saturdays, Sundays and Statutory Holidays, in finishing the work in excess of the number of working days prescribed. It is agreed that the liquidated damages amount is an estimate of the actual damage to the Municipality which will accrue during the period in excess of the prescribed number of working days.

The Municipality may deduct any amount due under this section from any monies that may be due or payable to the Contractor on any account whatsoever. The liquidated damages payable under this section are in addition to and without prejudice to any other remedy, action or other alternative that may be available to the Municipality.

The Contractor shall not be assessed with liquidated damages for any delay caused by acts of nature, or of the Public Enemy, Acts of the Province or of any Foreign State, Fire, Flood, Epidemics, Quarantine Restrictions, Embargoes or any delays of Sub-Contractors due to such causes.

If the time available for the completion of the work is increased or decreased by reason of alterations or changes made under the provisions of the Contract, the number of working days shall be increased or decreased as determined by the Engineer.

If the Form of Tender and Agreement does not show an amount for Liquidated Damages then Liquidated Damages do not apply for this contract.

200.17 CONTRACTOR'S LIABILITY

The Contractor and all workers, agents or any party under the Contractor's control, including Sub-Contractors, shall use due care that no person or property is injured and that no rights are infringed during the construction work outlined in the contract. The Contractor shall be solely responsible for all damages by whomsoever claimable in respect of any injury to persons or to lands, buildings, structures, fences, livestock, trees, crops, roadways, ditches, drains and watercourses, whether natural or artificial, or property of whatever description and in respect of any infringement of any right, privilege or easement wherever occasioned in the carrying on of the work or any part thereof, or by any neglect, misfeasance or non-feasance on the Contractor's part or on the part of any workers, agents or parties under the Contractor's control including Sub-Contractors, and shall bear the full cost thereof. The Contractor shall be fully responsible to make such temporary provisions as may be necessary to ensure the avoidance of any such damage, injury or infringement and to prevent the interruption of or danger or menace to the traffic in any railway or any public or private road entrance or sidewalk and to secure to all persons and corporations the uninterrupted enjoyment of all their rights, in and during the performance of the work. The Contractor shall indemnify and save harmless

the Municipality and the Engineer from and against all claims, demands, losses, costs, damages, actions, suits or other proceedings by whomsoever made, brought or prosecuted in any manner based upon, occasioned by, or attributed to any such damage, injury or infringement.

Wherever any work is of such an extent and nature that it must necessarily be confined to particular areas of a roadway, a working area, or private property, the Contractor shall use reasonable care not to damage or deface the remaining portions of the property, and if any damage is occasioned as a result of the Contractor's operations, it shall be rectified by and at the expense of the Contractor, to the satisfaction of the Engineer. Notwithstanding the indemnity provisions contained in this section, where in the opinion of the Engineer the Contractor has failed to rectify any damage, injury or infringement or has failed to adequately compensate any person for any damage, injury or infringement for which the Contractor is responsible under the contract, the Engineer, following notice in writing to the Contractor of an intention so to do, may withhold payment of any monies due the Contractor under this or any other contract until the Contractor has rectified such damage, injury or infringement or has paid adequate compensation for such damage, injury or infringement, provided however, that the Municipality will not withhold such monies where in the opinion of the Engineer there are reasonable grounds upon which the Contractor denies liability for such damage, injury or infringement and the Contractor has given the claimant a reasonable time in which to establish the validity of the claim, and provided further that the amount withheld under this section shall not exceed the amount of such claims against the Contractor.

Where the Contractor uses privately owned lands for pits or waste disposal areas, the Contractor shall comply with applicable laws and provide the Engineer with a release signed by or on behalf of the owner of each pit or waste disposal area used by the Contractor. If the said release is not obtained, then sufficient monies will be withheld from the Contractor except, however, where the owner's signature is withheld solely on the basis of damage, injury, or infringement it will be dealt with as provided elsewhere in this subsection.

Nothing herein contained shall be construed as in any way restricting or limiting the liability of the Contractor under the laws of the country, province or locality in which the work is being done. Neither the Completion Certificate nor final payment thereunder, nor any provision in the Contract Document shall relieve the Contractor from this liability.

200.18 LIABILITY INSURANCE

The Contractor shall take out and keep in force until the date of acceptance of the entire work by the Engineer, a comprehensive policy of public liability and property damage insurance providing insurance coverage of at least \$3,000,000 for each and every accident, exclusive of interest and cost, against loss or damage resulting from bodily injury to or death of one or more persons and loss of or damage to property and such policy shall where, and as requested by the Municipality, name the Municipality and the Engineer as an additional insured thereunder and shall protect the Municipality against all claims for all damage or injury including death to any person or persons and for damage to any property of the Municipality or any other public or private property resulting from or arising out of any act or omission on part of the Contractor or any of his servants or agents during the execution of the Contract.

200.19 LOSSES DUE TO ACTS OF NATURE, ETC.

All damage, loss, expense and delay incurred or experienced by the Contractor in the prosecution of the work, by reason of unanticipated difficulties, bad weather, strikes, wars, acts of nature, or other mischances, shall be borne by the Contractor and shall not be the subject of a claim for additional compensation.

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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.

STANDARD SPECIFICATIONS**FOR****TILE DRAINS****TABLE OF CONTENTS**

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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 that 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 that 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 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.

STANDARD SPECIFICATIONS

for

JACKING AND BORING

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430 STANDARD SPECIFICATIONS FOR JACKING AND BORING**430.1 DESCRIPTION**

This specification covers the installation of pipes by jacking and boring. The Contractor shall be fully responsible for complying with any further specifications of the authority having jurisdiction over the lands or roads involved with the crossing.

430.2 MATERIALS

Unless specified elsewhere the pipe shall be new smooth wall welded pipe manufactured from steel according to ASTM A252, Grade 2 Steel and have a minimum wall thickness of 6.35mm.

Pipe ends shall be bevel edged on the outside to an angle of 30 degrees for butt weld splicing.

The following information shall be clearly marked on the inside of each section of pipe:

- 1) The name or trademark of the manufacturer.
- 2) The heat number.

430.3 PRE-CONSTRUCTION

The Contractor shall not commence work until required permits have been obtained. The Engineer may apply for required permits prior to Construction.

The Contractor shall give the authority responsible for the lands or roads being crossed at least 72 hours' notice before commencing any work on the crossing.

The authority having jurisdiction over the lands or roads involved with the crossing will supply no labour, equipment or materials for the construction of the crossing unless otherwise stated.

430.4 CONSTRUCTION**430.4.1 Traffic Control**

No construction equipment is to be operated on the shoulders or asphalt of the road without the prior approval of the road authority.

Work within public road allowances shall be done in accordance with the Ontario Traffic Manual Book 7, latest edition. Any required traffic control measures shall be the responsibility of the Contractor and the cost of traffic control is to be included in the tender price for boring and jacking.

430.4.2 Installation

The pipe or casing shall be installed by means of continuous flight augering inside the casing and simultaneous jacking to advance the casing immediately behind the tip of the auger.

The pipe shall be of sufficient length so that no part of any excavation shall be closer than 3m to the edge of pavement, shoulder or ballast of the embankment being crossed. Excavation slopes shall be no less than 1:1.

Upon completion, there shall be a continuous length of welded steel casing across the full width of the right-of-way. Portions of the casing may be installed by open cut where approved by the Engineer.

Pipe when installed shall match the invert elevations and grade specified. Installed pipe not matching the grade and invert elevations specified may be rejected by the Engineer in whole or in part. Any work required to correct an unacceptable variation in grade or invert elevations shall be the responsibility of the Contractor.

430.4.3 Bore Pits

The location of the bore pit shall be as specified in the special provisions and if not specified shall be confirmed with the Engineer prior to commencing construction.

The bore pits shall be excavated so that the top edge of the pit shall not be closer than 3m to the edge of pavement, shoulder or ballast of the embankment being crossed. The bank slope of the pit shall not be steeper than 1:1. Shoring, sheeting, or other trench support if required shall be in accordance with the applicable and most recent Provincial Statutes. No additional payment will be allowed for trench wall support within the bore pit unless approved by the Engineer due to unstable subsoil.

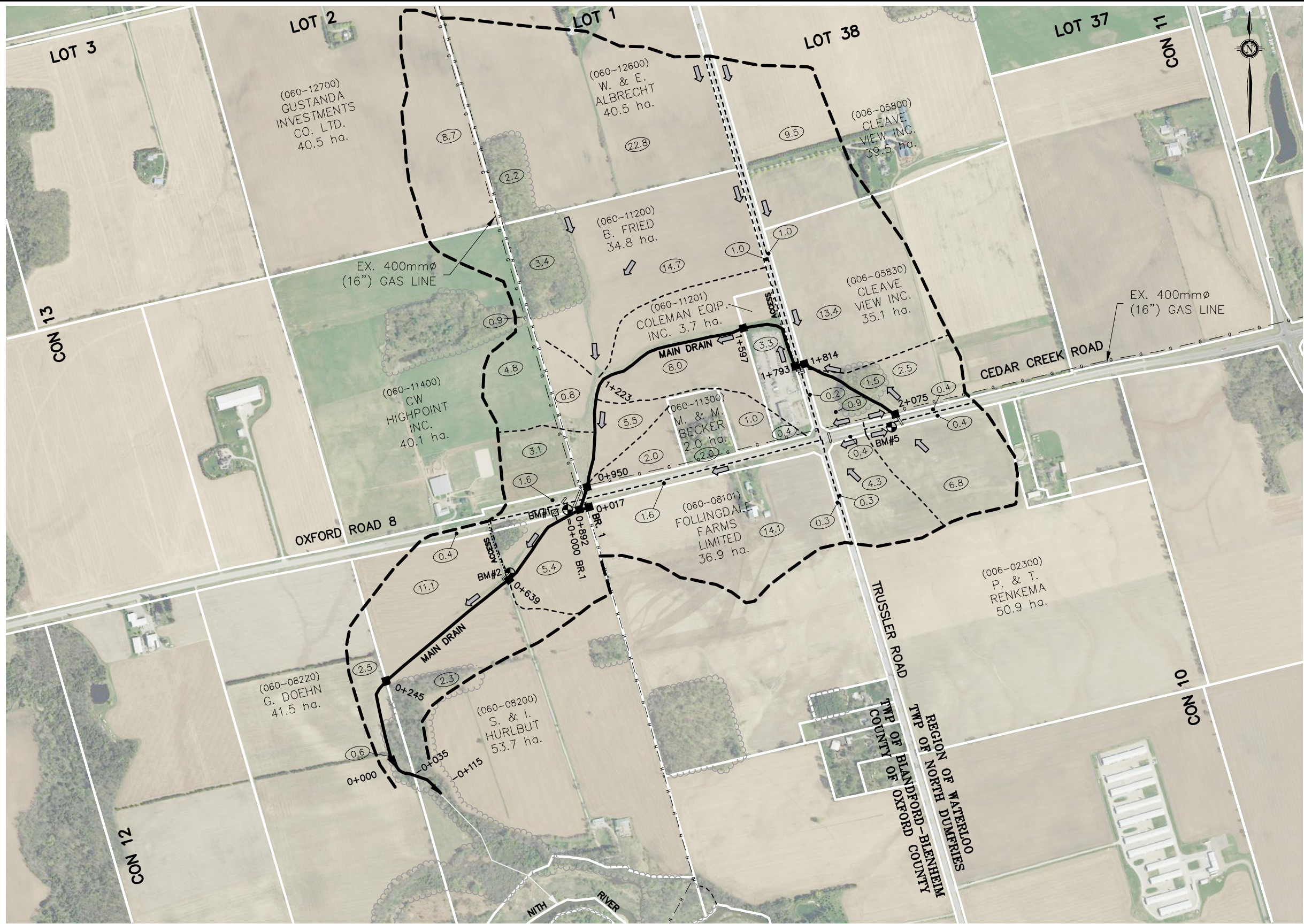
The Contractor is to minimize the duration that bore pits are left open. If possible, casing installation should be scheduled so that pit excavation, placement of pipe and backfilling takes place in one working day. If a bore pit is left unattended, the pit shall be secured by the Contractor to the satisfaction of the Engineer. No additional payment will be made for securing the pit.

Dewatering of the bore pit is the responsibility of the Contractor and no additional payment will be made for dewatering. If unstable subsoil is encountered in the bottom of the pit, the Engineer shall be notified and a foundation of 19mm clear crushed stone (300mm minimum depth) may be approved to achieve pit bottom stability. If stone is approved by the Engineer, extra payment will be made for the material cost of the stone based on weigh tickets.

Any tile, catchbasin, junction box or any other structures, placed in the bore pit should be placed on a foundation of 19mm clear crushed stone (300mm minimum depth). The price for such structures shall include the cost of stone foundation.

430.4.4 Restoration

Prior to bore pit excavation, topsoil shall be separately stripped and saved for replacement on completion of the backfilling operation. If this is not possible or practical, the Contractor shall import and place a minimum of 150mm of good quality topsoil over all backfilled and disturbed areas. The finished work shall be left in a clean and orderly condition flush or slightly higher than the adjacent ground so that after settlement it will conform to the surrounding ground. Excess earth (if any) shall be disposed of as directed by the Engineer and no additional payment will be allotted for such work. Disturbed areas to be seeded after placement of topsoil in accordance with the specification for seeding.



BENCHMARKS

BM#1
CUT CROSS SE CORNER OF CONC. CULVERT SOUTH SIDE OF CITY ROAD 8
ELEV. 306.216

BM#2
CUT CROSS SE CORNER OF TRIANGULAR CONC. HEADWALL AT CONTROL STRUCTURE
ELEV. 302.681

BM#5
SPIKE IN SOUTHERLY POST OF SIGN ("TOWNSHIP OF NORTH DUMFRIES"), 20m WEST OF TOP END OF DRAIN.
ELEV. 325.878

GBM WI-46 (REGION OF WATERLOO)
TABLET SET HORIZONTALLY IN CONCRETE SUPPORT FOR HP WITH STEEL RISERS ON S/SIDE OF POLE, N/SIDE OF DRIVEWAY TO HYDRO STATION (RMW #367). LOCATED ON NW QUADRANT OF QUEEN ST/BETHEL RD INTERSECTION
N 4,800,948.652
E 536,622.384
ELEV. 339.265

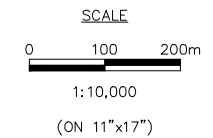
VERTICAL DATUM CGVD 28:78
HORIZONTAL DATUM UTM NAD 83 ZONE 17N

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

PLAN LEGEND	
	MAJOR WATERSHED
	INTERMEDIATE WATERSHED
	EXISTING MITCHELL DRAIN (1978)
	APPROXIMATE HECTARES IN WATERSHED
	HECTARES OWNED
	ASSESSMENT ROLL NUMBER
	PROPOSED WORK OR INCORPORATION
	DITCH OR WATERCOURSE
	ACCESS
	BUSH AREA
	OVERLAND FLOW ARROW

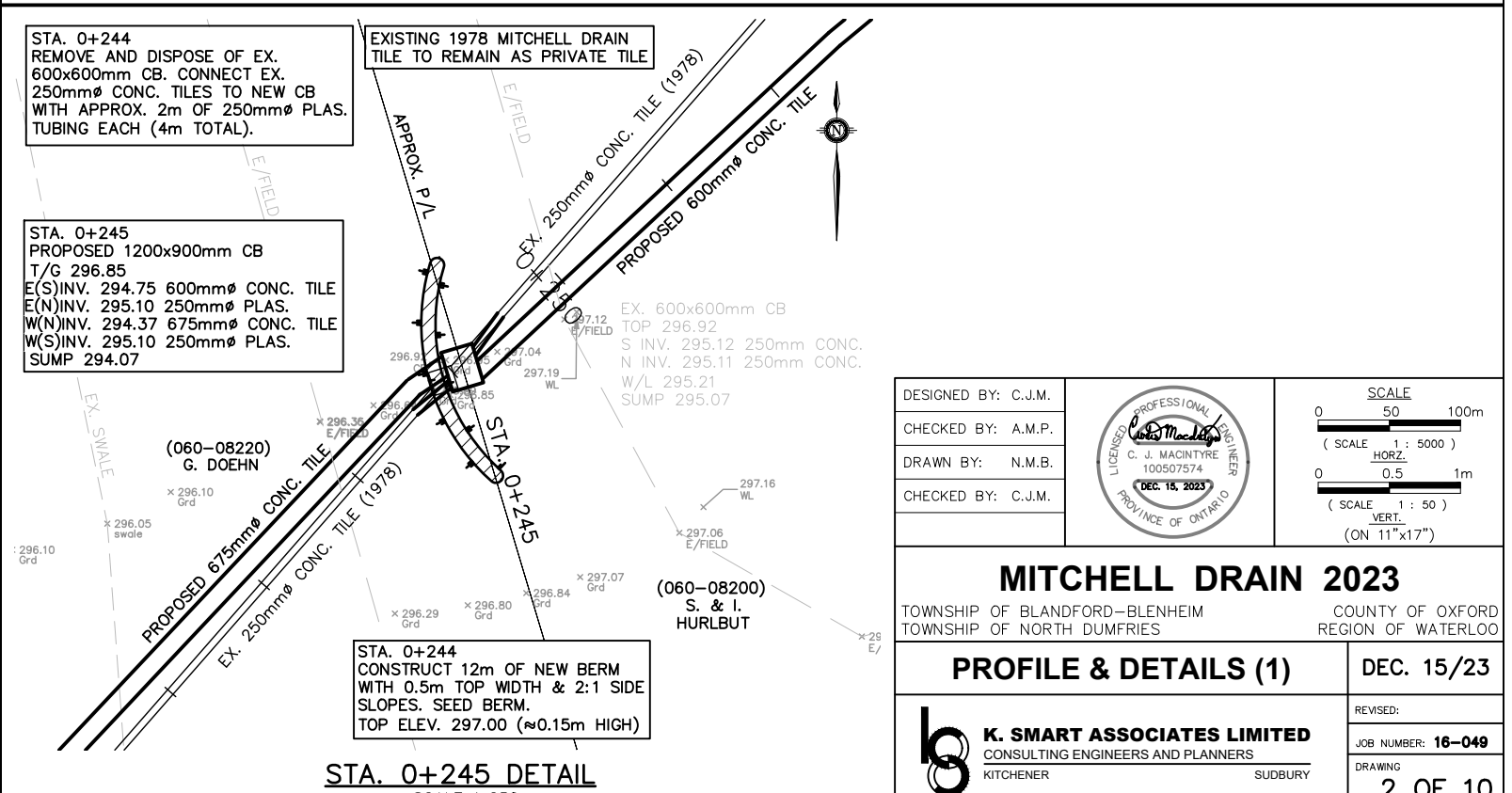
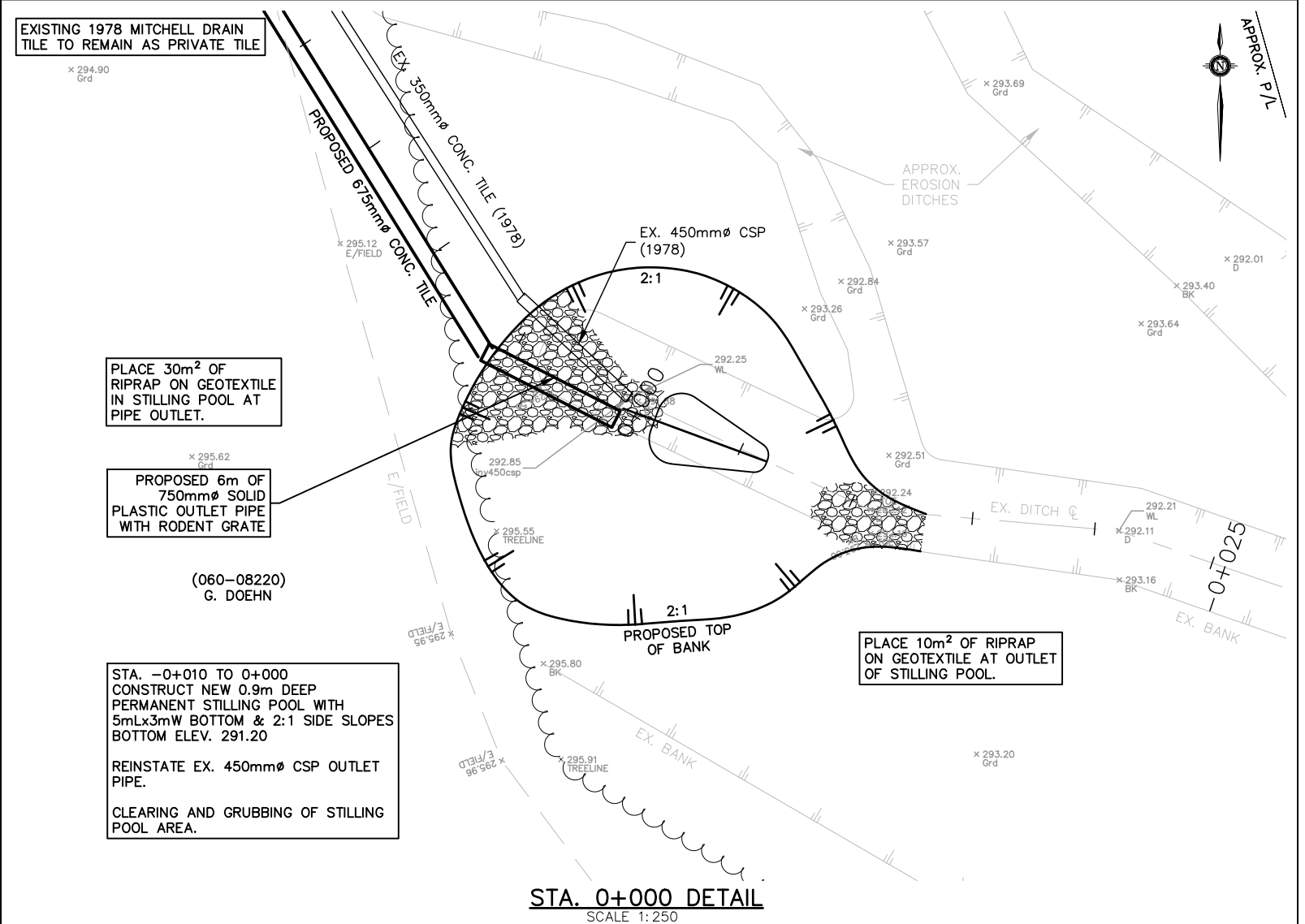
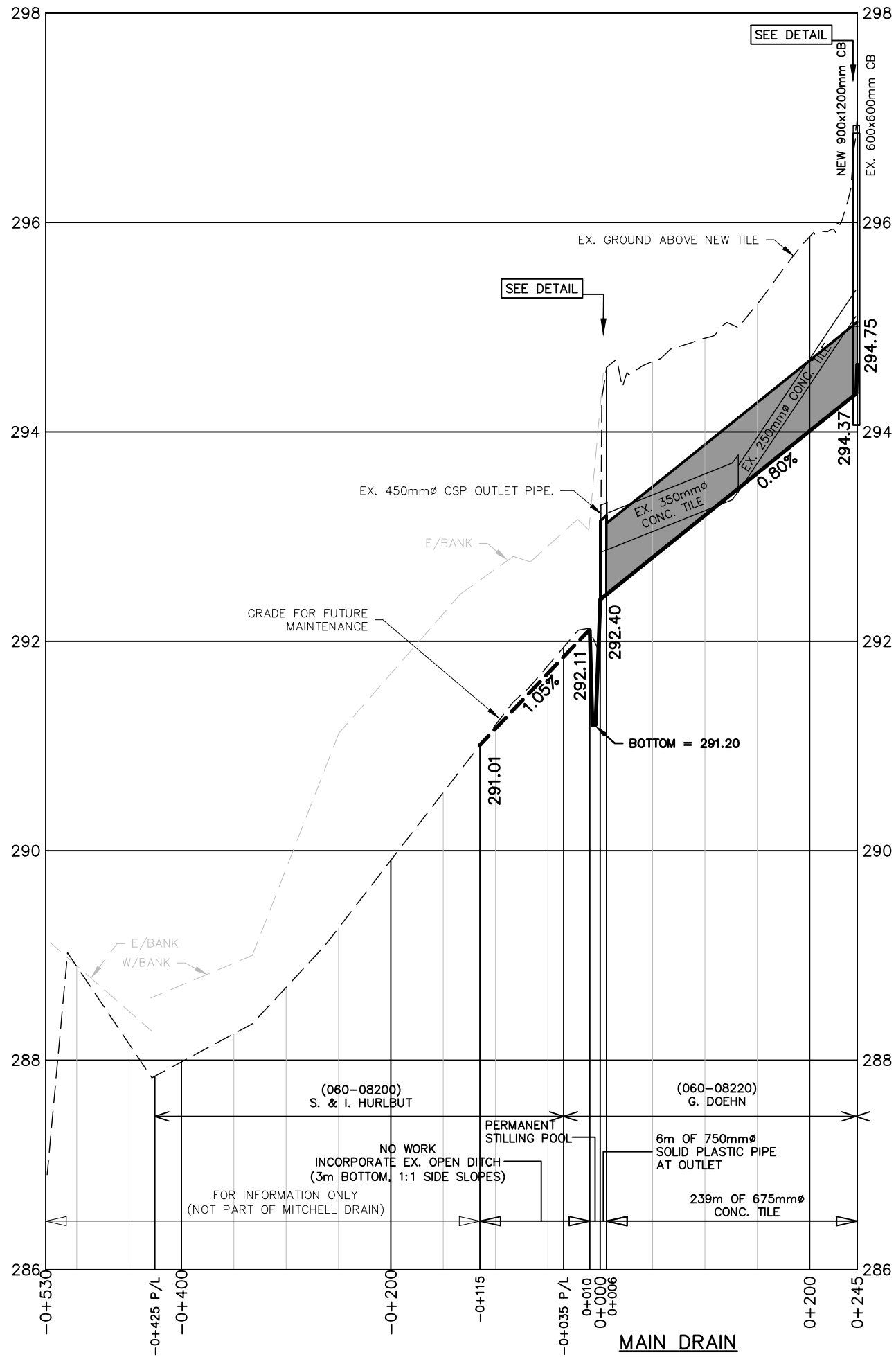
GEOGRAPHIC TOWNSHIP OF BLENHEIM

DESIGNED BY: C.J.M.
CHECKED BY: A.M.P.
DRAWN BY: N.M.B.
CHECKED BY: C.J.M.

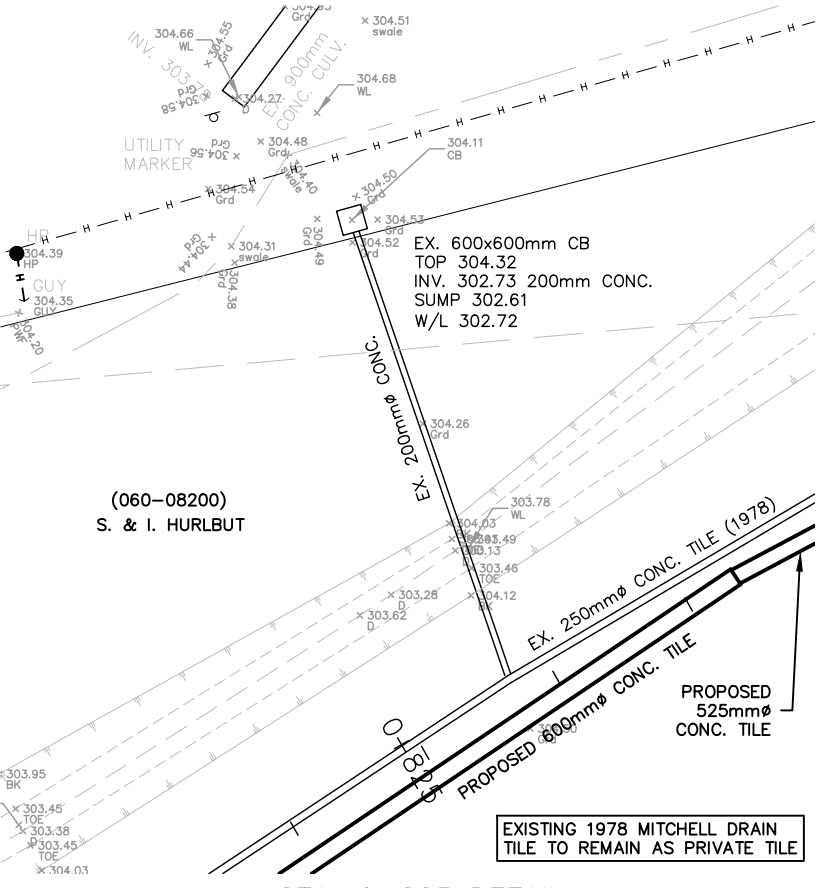
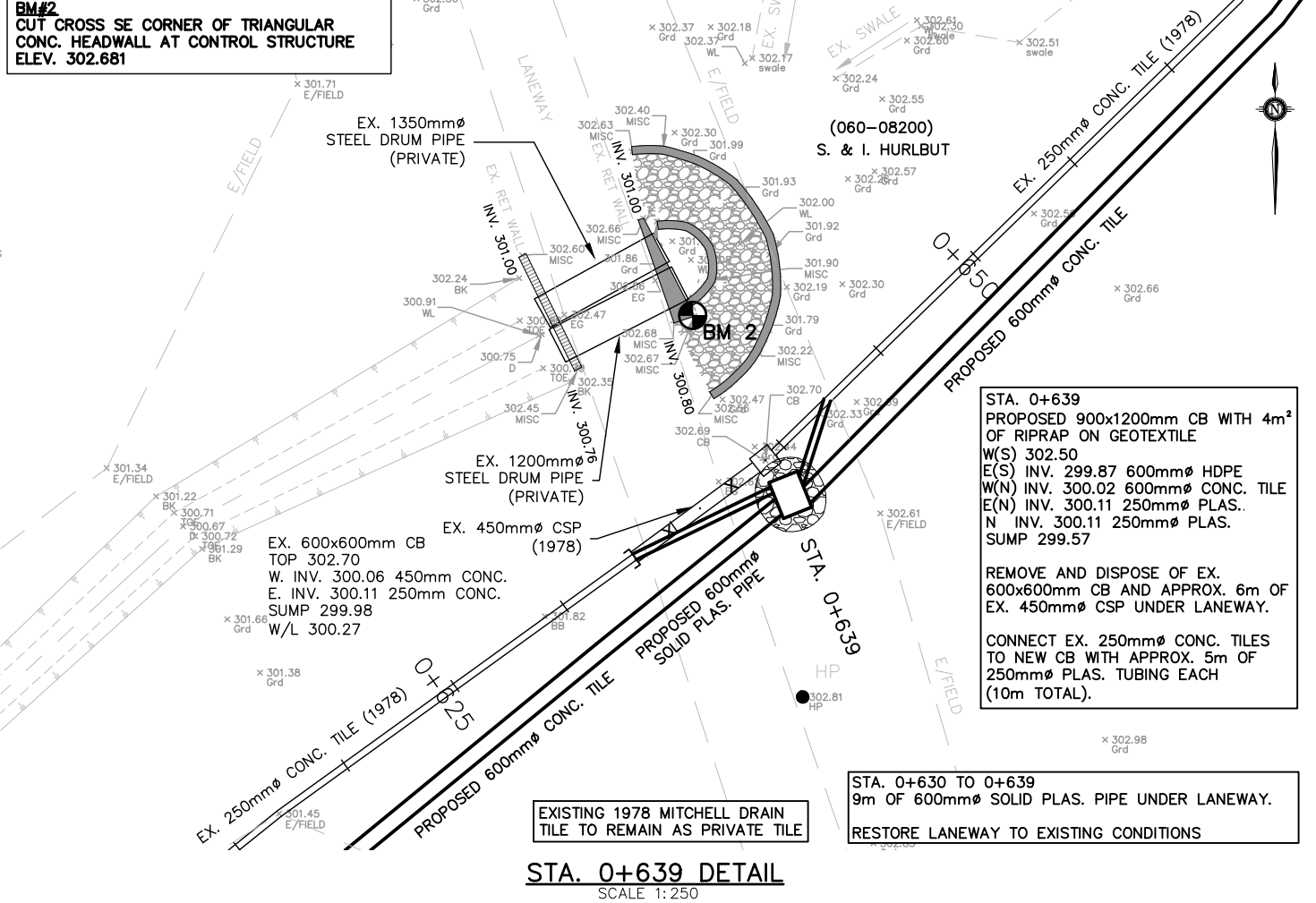
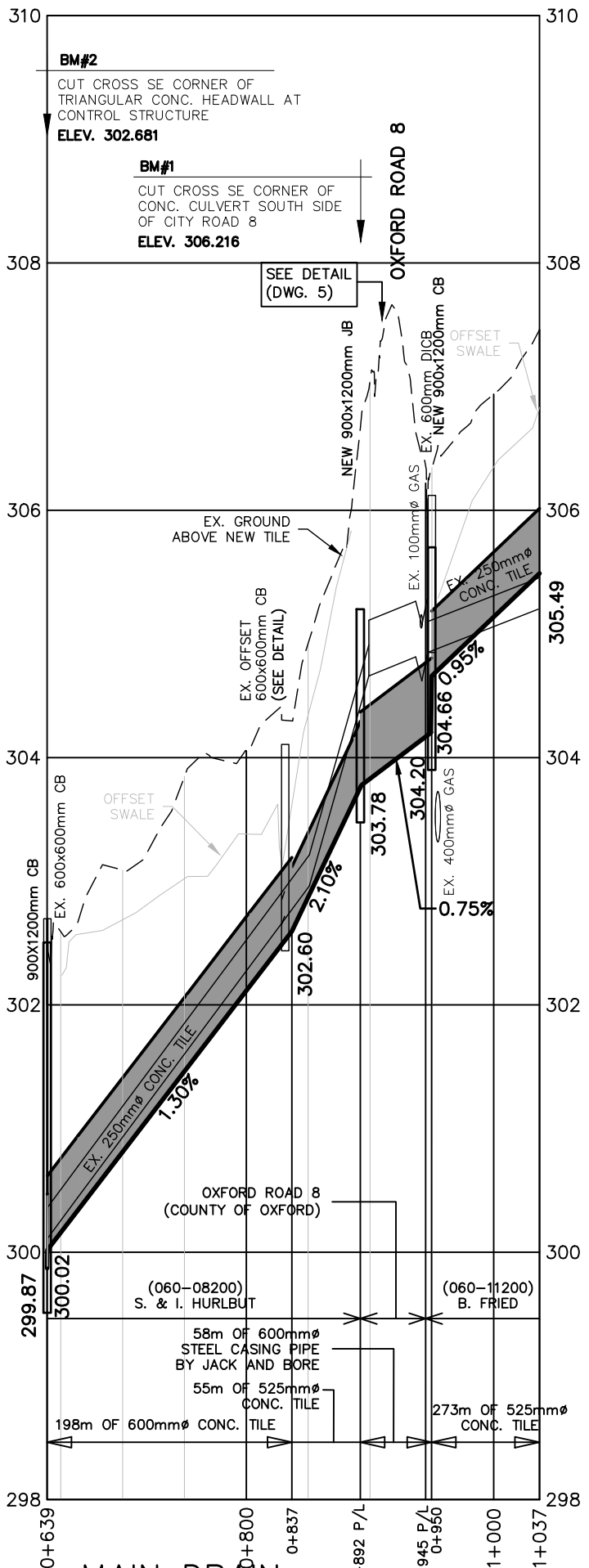
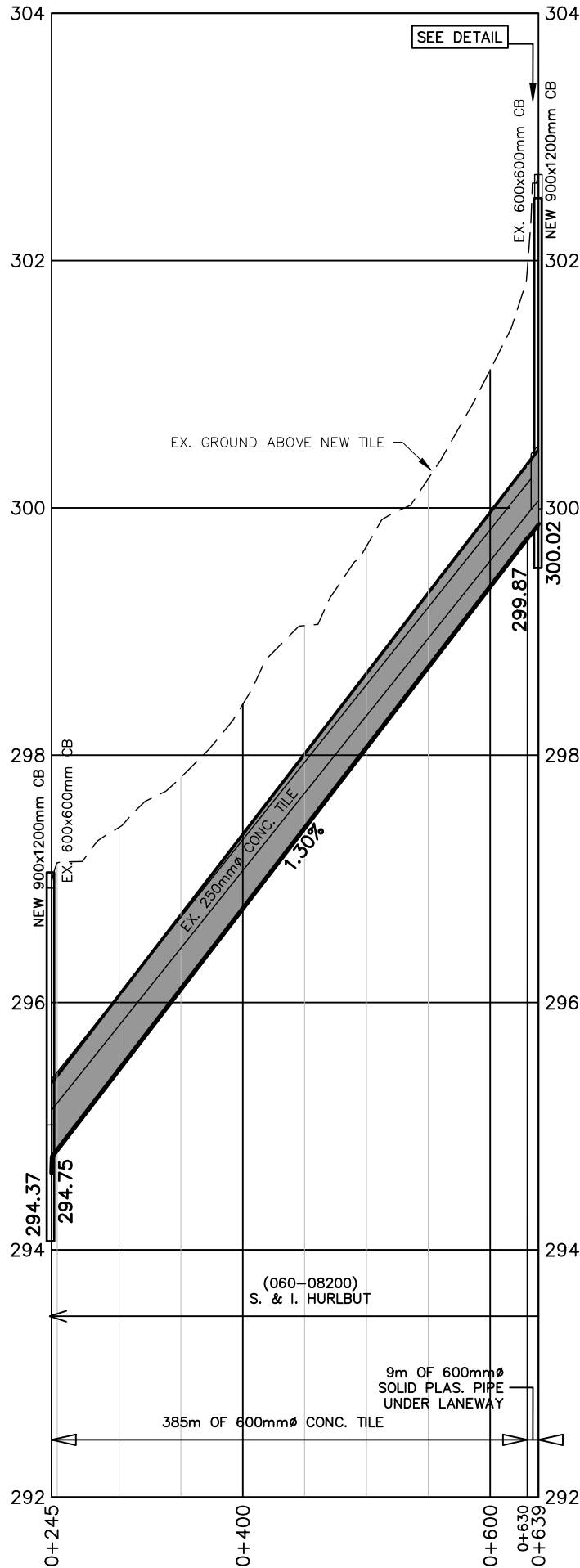


MITCHELL DRAIN 2023
TOWNSHIP OF BLANDFORD-BLENHEIM COUNTY OF OXFORD
TOWNSHIP OF NORTH DUMFRIES REGION OF WATERLOO

WATERSHED PLAN	DEC. 15/23
<p>K. SMART ASSOCIATES LIMITED CONSULTING ENGINEERS AND PLANNERS KITCHENER SUDBURY</p>	REVISED:
	JOB NUMBER: 16-049
	DRAWING 1 OF 10



DESIGNED BY: C.J.M.		SCALE 0 50 100m (SCALE 1:5000) 0 0.5 1m (SCALE 1:50) (ON 11"x17")
CHECKED BY: A.M.P.		MITCHELL DRAIN 2023 TOWNSHIP OF BLANDFORD-BLENHEIM COUNTY OF OXFORD TOWNSHIP OF NORTH DUMFRIES REGION OF WATERLOO
DRAWN BY: N.M.B.		
CHECKED BY: C.J.M.		K. SMART ASSOCIATES LIMITED CONSULTING ENGINEERS AND PLANNERS KITCHENER SUDBURY



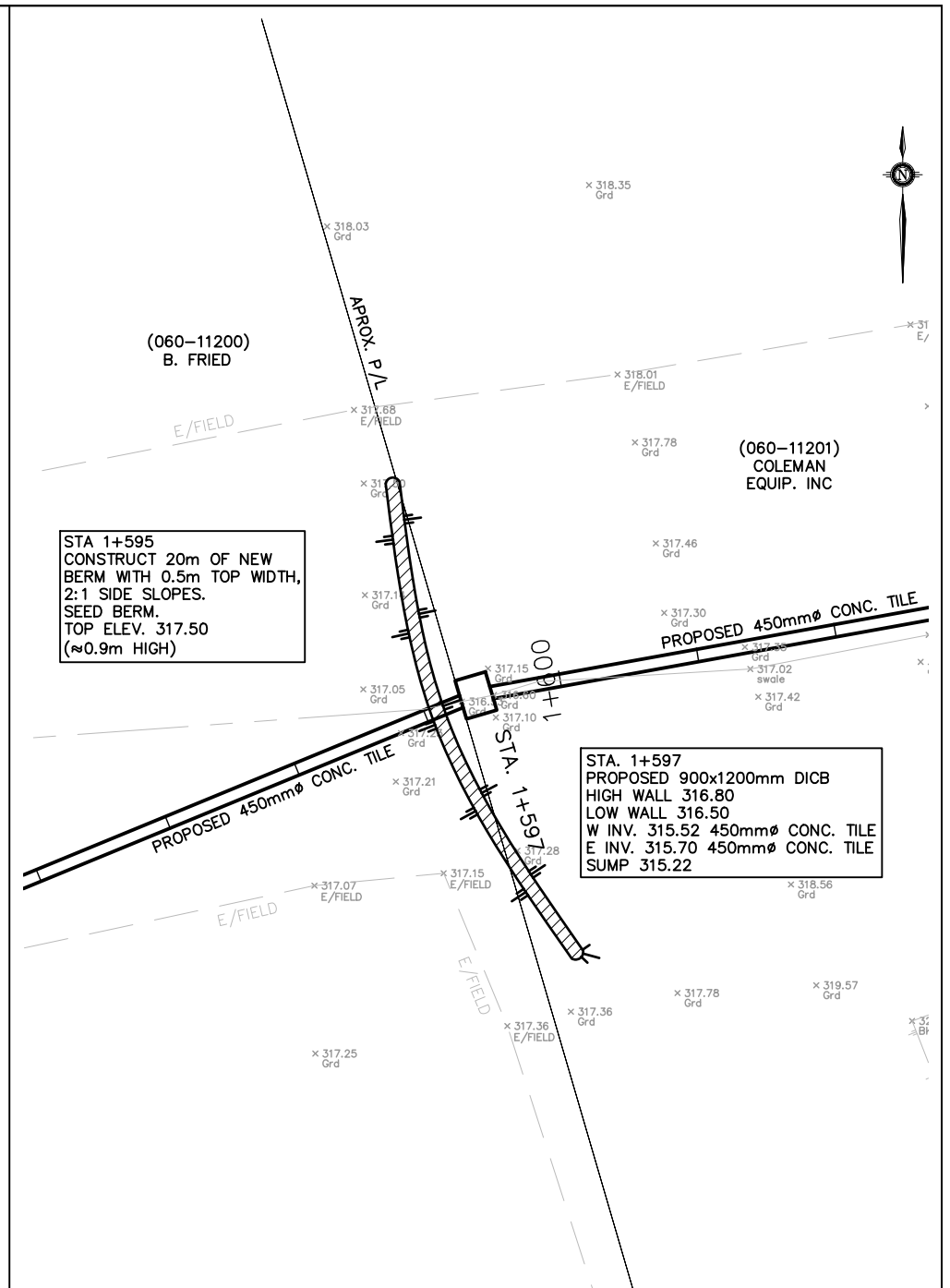
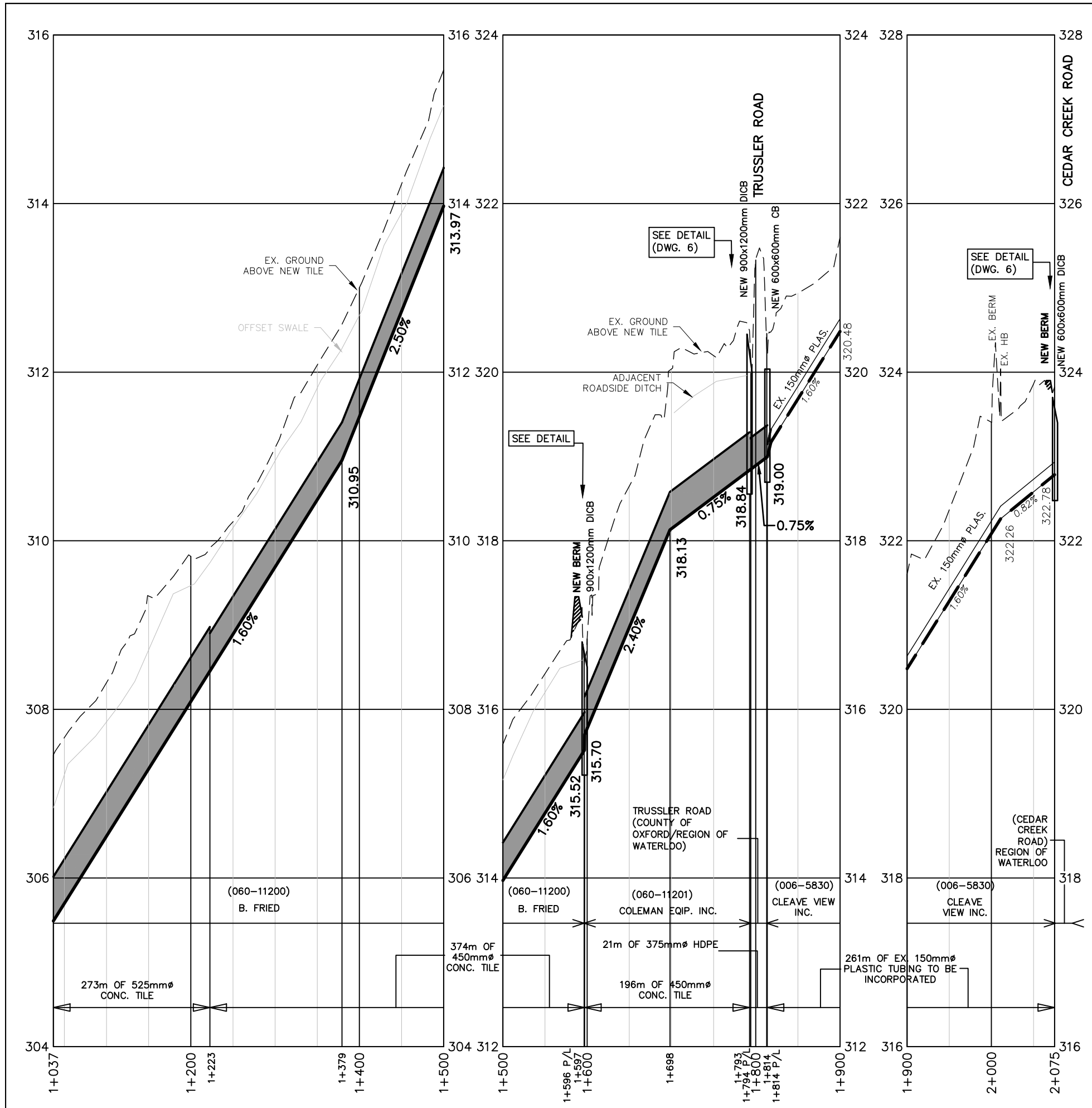
DESIGNED BY: C.J.M.		SCALE
CHECKED BY: A.M.P.		0 50 100m
DRAWN BY: N.M.B.		(SCALE 1 : 5000)
CHECKED BY: C.J.M.		0 0.5 1m
		(SCALE 1 : 50)
		VERT.
		(ON 11"x17")

MITCHELL DRAIN 2023
 TOWNSHIP OF BLANDFORD-BLENHEIM COUNTY OF OXFORD
 TOWNSHIP OF NORTH DUMFRIES REGION OF WATERLOO

PROFILE & DETAILS (2) DEC. 15/23

K. SMART ASSOCIATES LIMITED
 CONSULTING ENGINEERS AND PLANNERS
 KITCHENER SUDBURY

REVISED:
 JOB NUMBER: 16-049
 DRAWING
3 OF 10



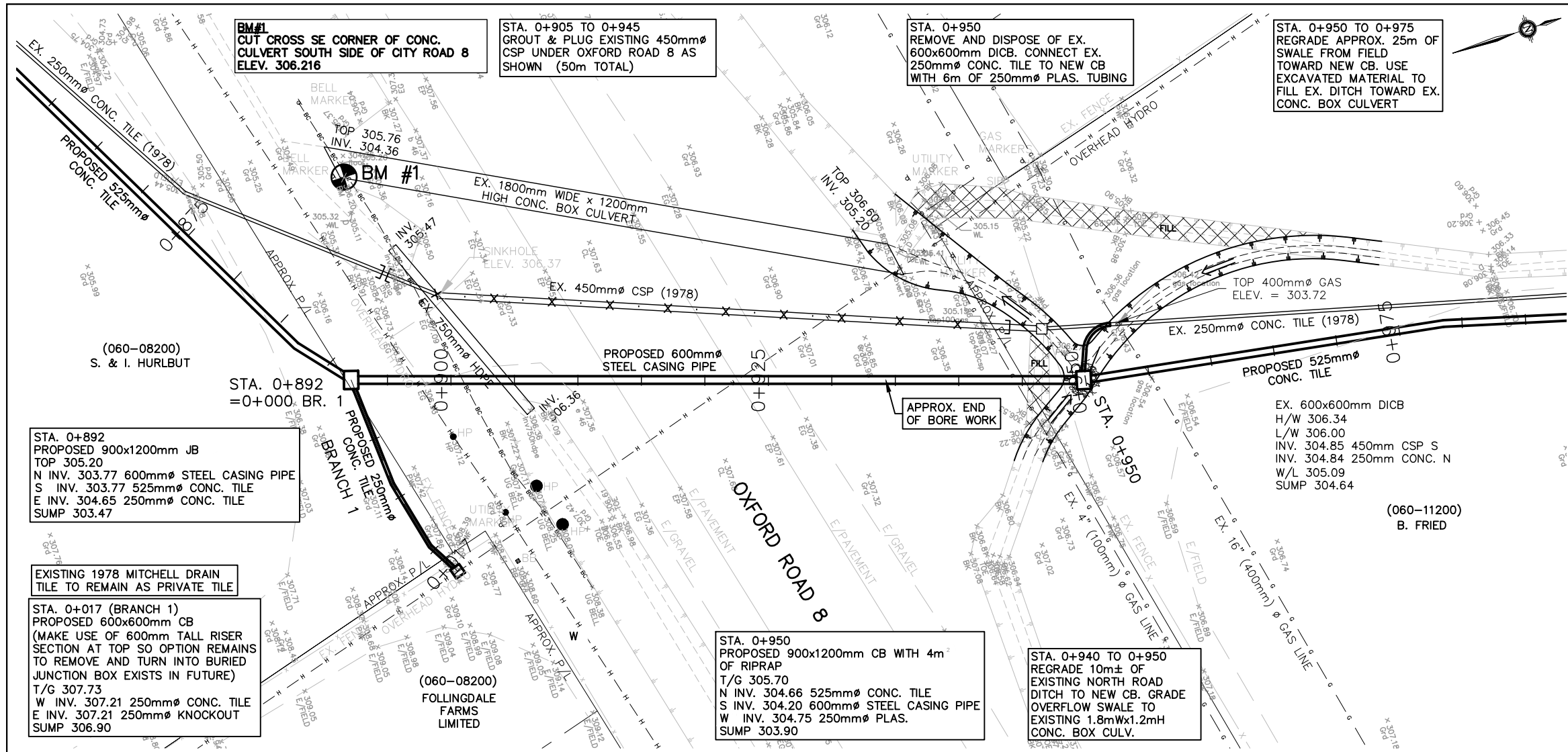
STA. 1+597 DETAIL
SCALE 1:250

DESIGNED BY: C.J.M.		SCALE 0 50 100m
CHECKED BY: A.M.P.		(SCALE 1:5000) HORIZ.
DRAWN BY: N.M.B.		0 0.5 1m
CHECKED BY: C.J.M.		(SCALE 1:50) VERT. (ON 11"x17")

MITCHELL DRAIN 2023

TOWNSHIP OF BLANDFORD-BLENHEIM COUNTY OF OXFORD
TOWNSHIP OF NORTH DUMFRIES REGION OF WATERLOO

PROFILE & DETAILS (3)	DEC. 15/23
K. SMART ASSOCIATES LIMITED CONSULTING ENGINEERS AND PLANNERS KITCHENER SUDBURY	REVISED:
	JOB NUMBER: 16-049
	DRAWING 4 OF 10



STA. 0+892
 PROPOSED 900x1200mm JB
 TOP 305.20
 N INV. 303.77 600mm ϕ STEEL CASING PIPE
 S INV. 303.77 525mm ϕ CONC. TILE
 E INV. 304.65 250mm ϕ CONC. TILE
 SUMP 303.47

EXISTING 1978 MITCHELL DRAIN
 TILE TO REMAIN AS PRIVATE TILE

STA. 0+017 (BRANCH 1)
 PROPOSED 600x600mm CB
 (MAKE USE OF 600mm TALL RISER SECTION AT TOP SO OPTION REMAINS TO REMOVE AND TURN INTO BURIED JUNCTION BOX EXISTS IN FUTURE)
 T/G 307.73
 W INV. 307.21 250mm ϕ CONC. TILE
 E INV. 307.21 250mm ϕ KNOCKOUT
 SUMP 306.90

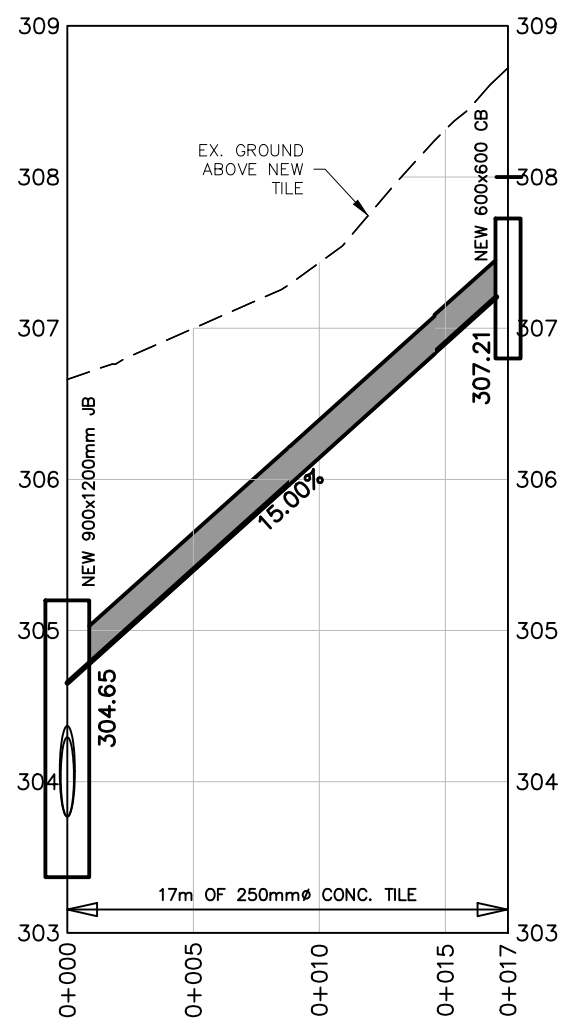
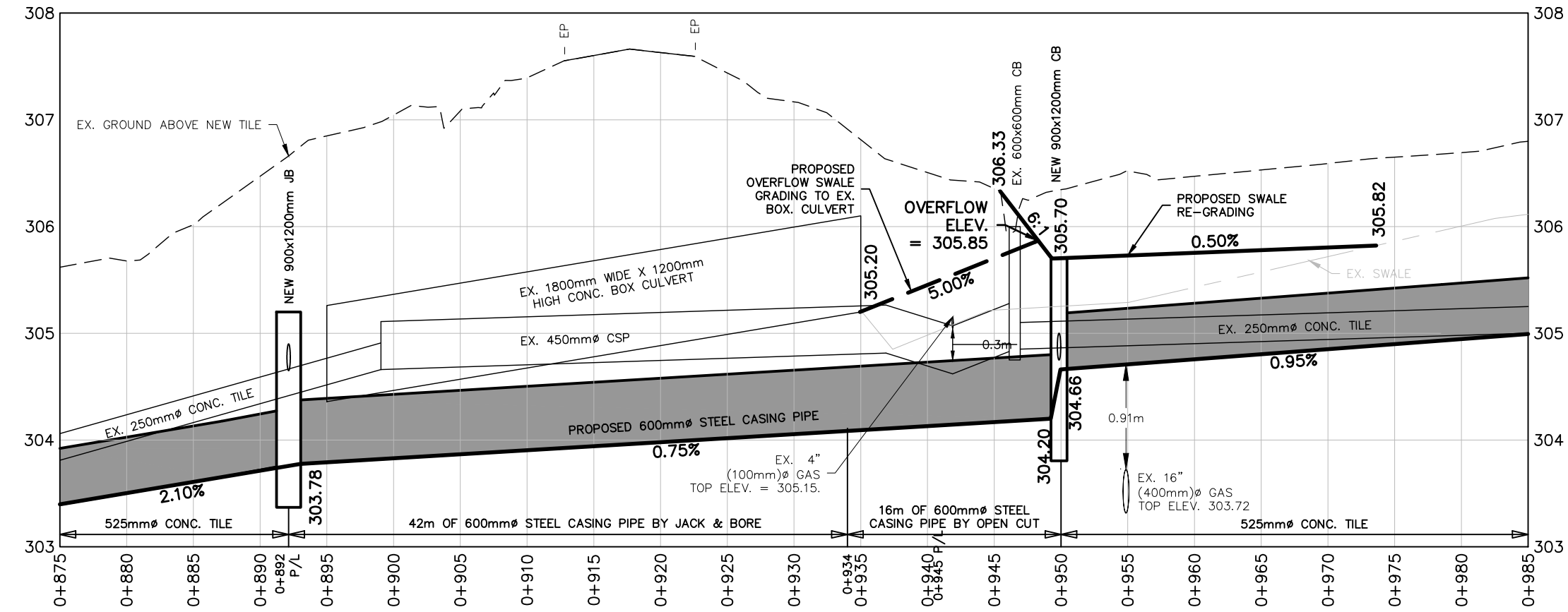
STA. 0+905 TO 0+945
 GROUT & PLUG EXISTING 450mm ϕ CSP UNDER OXFORD ROAD 8 AS SHOWN (50m TOTAL)

STA. 0+950
 REMOVE AND DISPOSE OF EX. 600x600mm DICB. CONNECT EX. 250mm ϕ CONC. TILE TO NEW CB WITH 6m OF 250mm ϕ PLAS. TUBING

STA. 0+950 TO 0+975
 REGRADE APPROX. 25m OF SWALE FROM FIELD TOWARD NEW CB. USE EXCAVATED MATERIAL TO FILL EX. DITCH TOWARD EX. CONC. BOX CULVERT

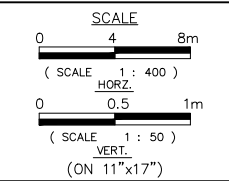
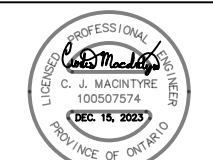
STA. 0+950
 PROPOSED 900x1200mm CB WITH 4m OF RIPRAP
 T/G 305.70
 N INV. 304.66 525mm ϕ CONC. TILE
 S INV. 304.20 600mm ϕ STEEL CASING PIPE
 W INV. 304.75 250mm ϕ PLAS.
 SUMP 303.90

STA. 0+940 TO 0+950
 REGRADE 10m \pm OF EXISTING NORTH ROAD DITCH TO NEW CB. GRADE OVERFLOW SWALE TO EXISTING 1.8mWx1.2mH CONC. BOX CULV.



BRANCH 1
 SCALE 1:5,000 (HORIZ.)
 1:50 (VERT.)

DESIGNED BY: C.J.M.
 CHECKED BY: A.M.P.
 DRAWN BY: N.M.B.
 CHECKED BY: C.J.M.



MITCHELL DRAIN 2023
 TOWNSHIP OF BLANDFORD-BLENHEIM COUNTY OF OXFORD
 TOWNSHIP OF NORTH DUMFRIES REGION OF WATERLOO

PLAN AND PROFILE
OXFORD ROAD 8

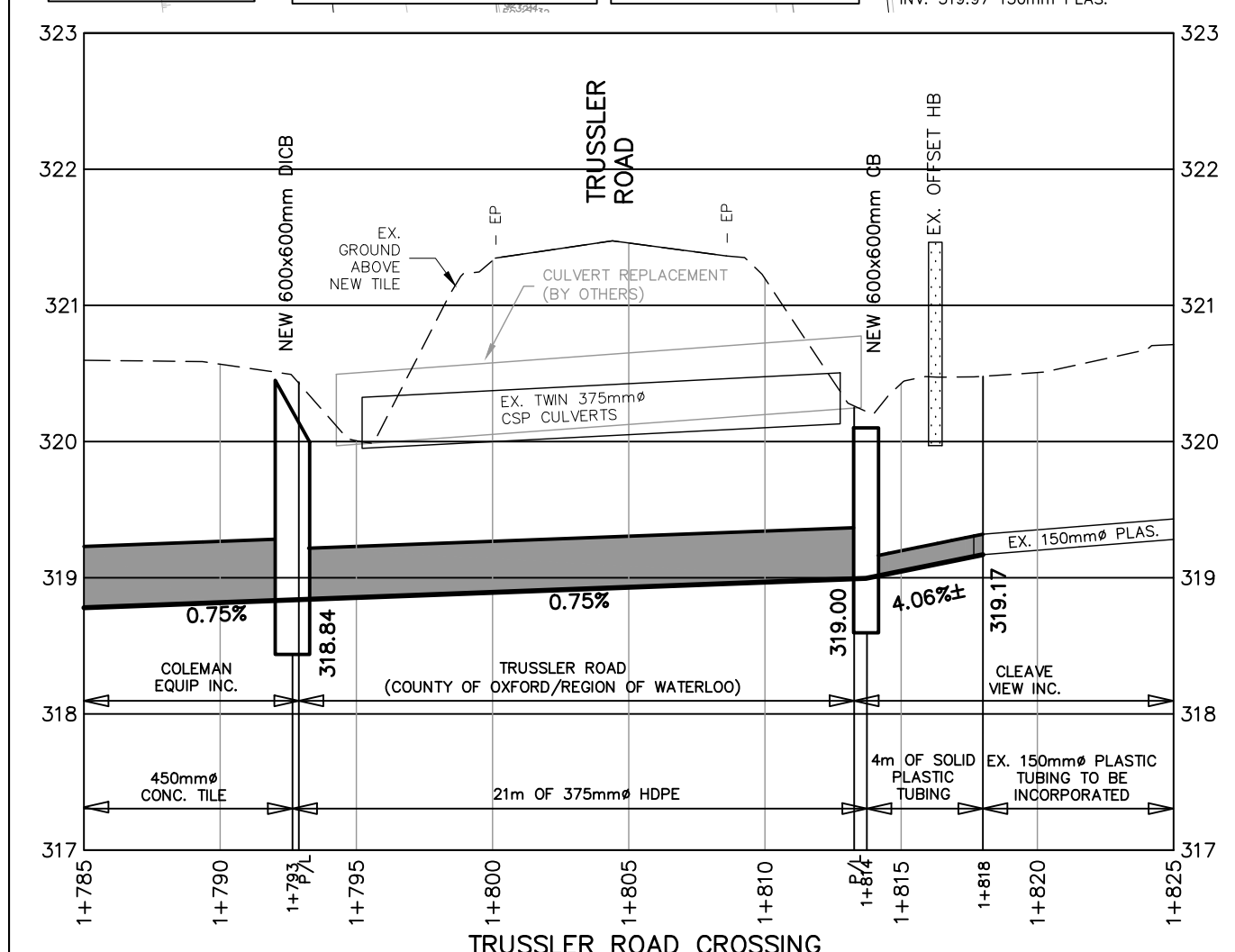
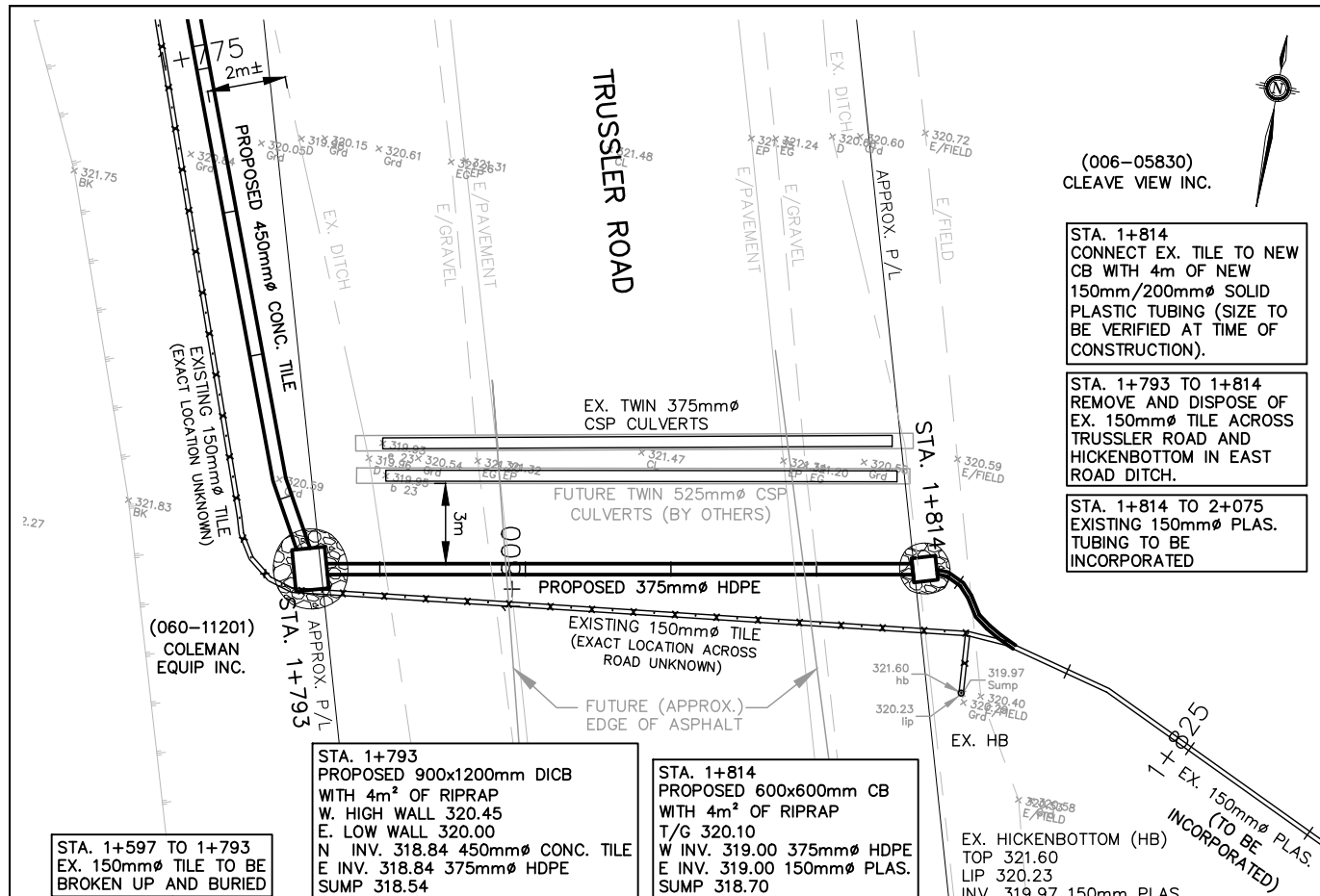
DEC. 15/23

REVISED:

K. SMART ASSOCIATES LIMITED
 CONSULTING ENGINEERS AND PLANNERS
 KITCHENER SUDBURY

JOB NUMBER: **16-049**

DRAWING
5 OF 10



TRUSSLER ROAD CROSSING

(006-05830)
CLEAVE VIEW INC.

STA. 1+814
CONNECT EX. TILE TO NEW
CB WITH 4m OF NEW
150mm/200mm ϕ SOLID
PLASTIC TUBING (SIZE TO
BE VERIFIED AT TIME OF
CONSTRUCTION).

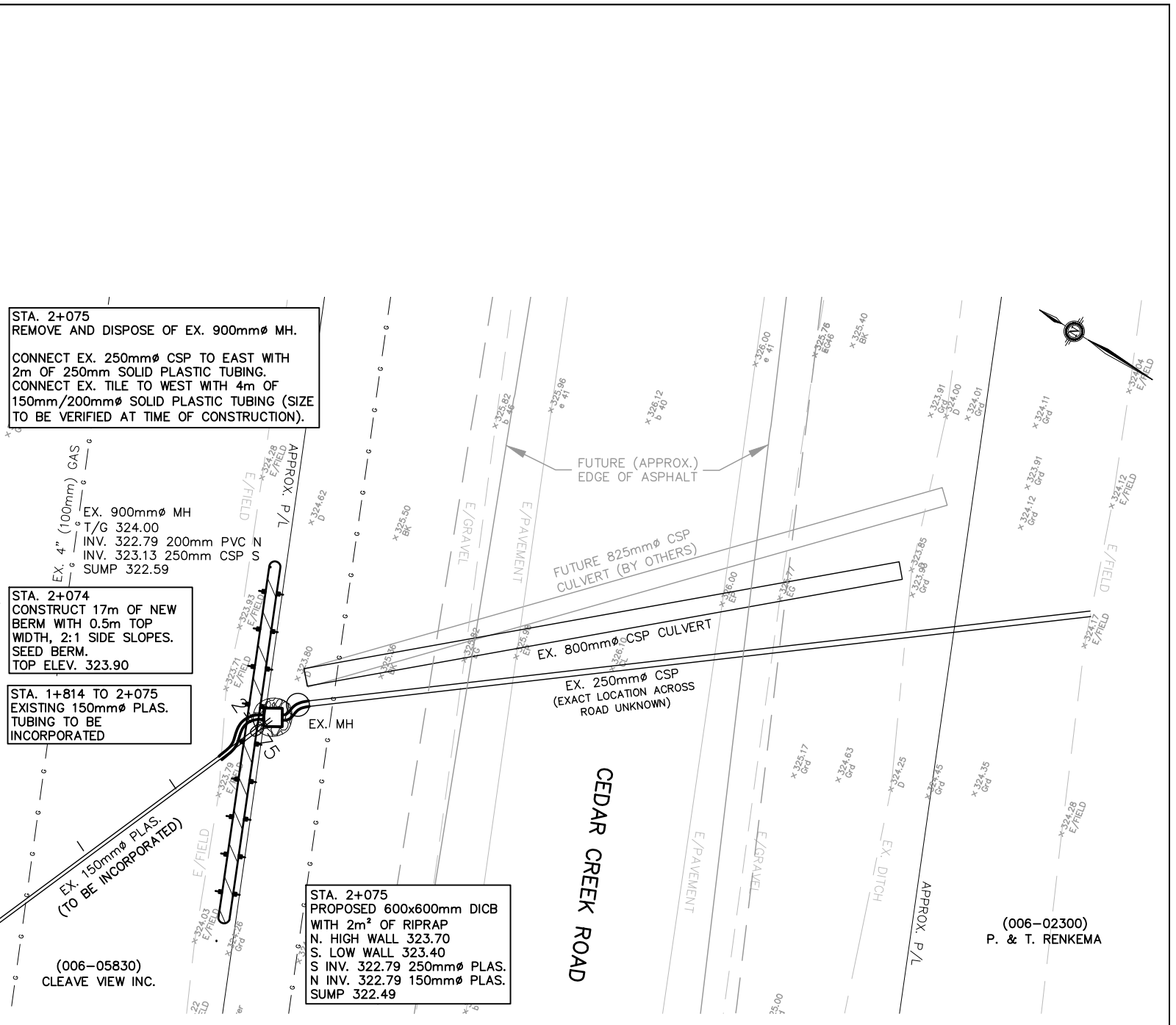
STA. 1+793 TO 1+814
REMOVE AND DISPOSE OF
EX. 150mm ϕ TILE ACROSS
TRUSSLER ROAD AND
HICKENBOTTOM IN EAST
ROAD DITCH.

STA. 1+814 TO 2+075
EXISTING 150mm ϕ PLAS.
TUBING TO BE
INCORPORATED

STA. 1+793
PROPOSED 900x1200mm DIBC
WITH 4m² OF RIPRAP
W. HIGH WALL 320.45
E. LOW WALL 320.00
N INV. 318.84 450mm ϕ CONC. TILE
E INV. 318.84 375mm ϕ HDPE
SUMP 318.54

STA. 1+814
PROPOSED 600x600mm CB
WITH 4m² OF RIPRAP
T/G 320.10
W INV. 319.00 375mm ϕ HDPE
E INV. 319.00 150mm ϕ PLAS.
SUMP 318.70

STA. 1+597 TO 1+793
EX. 150mm ϕ TILE TO BE
BROKEN UP AND BURIED

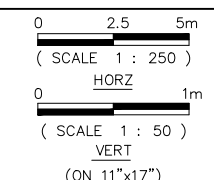


STA. 2+075 DETAIL
SCALE 1:250

NOTES

1. FUTURE ROAD AND CULVERT RECONSTRUCTION WORK ANTICIPATED BY THE REGION OF WATERLOO/COUNTY OF OXFORD. LINEWORK FOR FUTURE EDGE OF ROAD SHOWN ON THIS DRAWING FOR THE PURPOSE OF UNDERSTANDING PROPOSED DRAIN DESIGN WITH FUTURE ROAD LIMITS. LINEWORK DEPICTING FUTURE WORK RECEIVED JUNE 27, 2023.
2. SHOULD PROPOSED TRUSSLER ROAD CROSSING WORK BE COMPLETED BY THE REGION OF WATERLOO PRIOR TO THE PROPOSED 450mm ϕ CONC. TILE BEING CONSTRUCTED DOWNSTREAM, REGION'S CONTRACTOR IS TO LOCATE EX. 150mm ϕ TILE ON WEST SIDE OF ROAD AND TEMPORARILY CONNECT TO PROPOSED DIBC AT STA. 1+793. OTHERWISE CONNECT DIBC TO CONSTRUCTED 450mm ϕ CONC. TILE.
3. DEPTH OF EXISTING 150mm ϕ TILE ON EAST SIDE OF TRUSSLER ROAD TO BE VERIFIED AT TIME OF CONSTRUCTION. DEPTH OF PROPOSED 375mm ϕ HDPE CROSSING AND DOWNSTREAM GRADES MAY BE REVISED BY ENGINEER, IF REQUIRED.

DESIGNED BY: C.J.M.
CHECKED BY: A.M.P.
DRAWN BY: N.M.B.
CHECKED BY: C.J.M.



MITCHELL DRAIN 2023	
TOWNSHIP OF BLANDFORD-BLENHEIM COUNTY OF OXFORD TOWNSHIP OF NORTH DUMFRIES REGION OF WATERLOO	
PLAN AND PROFILE TRUSSLER ROAD AND CEDAR CREEK ROAD	DEC. 15/23
 K. SMART ASSOCIATES LIMITED CONSULTING ENGINEERS AND PLANNERS KITCHENER SUDBURY	REVISED: JOB NUMBER: 16-049 DRAWING 6 OF 10

300) CONSTRUCTION NOTES (SPECIAL PROVISIONS)

300.1) CONSTRUCTION SPECIFICATIONS - SPECIFIC NOTES

i) MAIN DRAIN

G. Doehn (Roll No. 060-08220)

- 0+010 to 0+000 - Construct permanent stilling pool (150m³ of excavation). Clearing and grubbing required for stilling pool area (majority shrubs/bushes, est. 2-3 trees).
 - Place 30m² of new riprap on geotextile around outlet pipes (Sta. 0+000). Place 10m² of new riprap on geotextile around outlet of stilling pool (Sta. -0+010).
 - Seed banks of stilling basin.
- 0+000 to 0+006 - Install 6m of 750mm dia. solid plastic pipe at outlet with rodent gate.
 - Existing 450mm (18") dia. CSP to be re-instated after construction of stilling pool.
- 0+006 to 0+245 - Install 239m of 675mm dia. concrete tile with joint wrap.
 - Existing 350mm (14") / 250mm (10") dia. concrete tile (1978) to remain in place (abandoned of status under the Act).
- 0+244 - Construct 12m of new berm as per detail (0.5m top width, 2:1 side slopes) (see Drawing 2). Seed berm.
- 0+245 - Construct 900 x 1200mm concrete CB including connections, birdcage grate and marker. Also includes remove and disposal of existing 600 x 600mm CB (see Drawing 2).
 - Connect existing 250mm dia. concrete tiles to new CB with approx. 2m of 250mm dia. plastic tubing each.

S. & I. Hurlbut (Roll No. 060-08200)

- 0+245 to 0+639 - Install 394m of 600mm dia. concrete tile with joint wrap. (Final 9m length under laneway to be 9m of 600mm dia. HDPE pipe).
 - Existing 250mm (10") dia. concrete tile (1978) to remain in place (abandoned of status under the Act).
- 0+639 - Construct 900 x 1200mm concrete CB, including connections, birdcage grate, and 4m² of riprap. Also includes removal of existing 600 x 600mm CB (see Drawing 3).
 - Connect existing upstream 250mm dia. concrete tile to new CB with approx. 5m of 250mm dia. plastic tubing each. Remove and dispose of existing 450mm dia. CSP under laneway.
 - See disturbed lawn areas.
- 0+639 to 0+837 - Install 198m of 600mm dia. concrete tile with joint wrap.
 - Existing 250mm (10") dia. concrete tile (1978) to remain in place (abandoned of status under the Act).
- 0+837 to 0+892 - Install 55m of 525mm dia. concrete tile with joint wrap.
 - Existing 250mm (10") dia. concrete tile (1978) to remain in place (abandoned of status under the Act).
- 0+892 - Construct 900 x 1200mm concrete junction box, including connections and concrete lid.

Oxford Road 8 (County of Oxford)

- 0+892 to 0+934 - Install 42m of 600mm dia. steel casing pipe by jack and bore.
 - Due to the location of the 16" Enbridge high pressure natural gas transmission line, it is anticipated that the pit for launching the bore pipe will have to be located on the south side of Oxford Road 8 (launching from the downstream side).
 - Grout approx. 50m of existing 450mm dia. CSP pipe left under Oxford Road 8.
- 0+934 to 0+950 - Install remaining 16m of 600mm dia. steel casing pipe by open cut.

B. Fried (Roll No. 060-11200)

- 0+950 - Construct 900 x 1200mm concrete CB, including connections, birdcage grate, marker, and 4m² of riprap. Also includes removal of existing 600 x 600mm CB (see Drawing 5). Connect existing 250mm dia. tile to new CB with 6m of 250mm dia. plastic tubing.
 - Re-grade existing north road ditch to new CB.
- 0+950 to 0+970 - Regrade approx. 25m of swale from field toward new CB. Use excavated material to fill existing ditch towards existing concrete box culvert.
- 0+955 - Locate, expose via hydrovac excavation, and proceed to construct new Mitchell Drain approx. 0.9m overtop of existing 400mm dia. Enbridge natural gas transmission line (Vital Main) via. open cut.
 - After exposing the line and constructing the new Drain, sand padding must be placed to a level 150mm above the gas pipe in the hydrovac excavation pit.
 - See additional details regarding work around Enbridge Gas facilities below in Section 300.2, 11.1 Enbridge Gas Inc.

- 0+950 to 1+223 - Install 273m of 525mm dia. concrete tile with joint wrap.
 - Existing 250mm (10") dia. concrete tile (1978) to remain in place (abandoned of status under the Act). Existing 150mm dia. tile to be broken up and buried. Approximate end of existing 1978 Drain at STA. 1+037.
- 1+223 to 1+597 - Install 374m of 450mm dia. concrete tile with joint wrap. Existing 150mm dia. Tile to be broken up and buried.
- 1+595 - Construct 20m of new berm as per detail (0.5m top width, 2:1 side slopes) (see Drawing 4). Seed berm.
- 1+597 - Construct 900 x 1200mm concrete DICB, including connections, birdcage grate, and marker.

Coleman Equipment Inc. (Roll No. 060-11201)

- 1+597 to 1+793 - Install 196m of 450mm dia. concrete tile with joint wrap. Existing 150mm dia. tile to be broken up and buried.

Note: Italicized notes below are Mitchell Drain 2023 work items that are anticipated to be constructed by the Region of Waterloo as a part of the Trussler Road & Cedar Creek Road intersection improvement project.

- 1+793 - Construct 900 x 1200mm concrete DICB, including connections, birdcage grate, and 4m² of riprap.

Trussler Road (County of Oxford/ Region of Waterloo)

- 1+793 to 1+814 - Install 21m of 375mm dia. HDPE by open cut.
 - Remove and dispose of existing 150mm dia. tile across Trussler road and hickenbottom in east road ditch.
- 1+814 - Construct 600 x 600mm concrete CB, including connections, birdcage grate, and 2m² of riprap.

Cleave View Inc. (Roll No. 006-05830)

- 1+814 - Connect existing tile to new CB with 4m of new 150/200mm dia. solid plastic tubing (size to be verified at time of construction).
- 1+814 to 2+075 - No work. Existing 261m of 150mm (6") dia. solid plastic tubing to remain and to be incorporated as part of the Drain.
- 2+074 - Construct 17m of new berm as per detail (0.5m top width, 2:1 side slopes) (see Drawing 6). Seed berm.

Cedar Creek Road (Region of Waterloo)

- 2+075 - Construct 600 x 600mm concrete DICB, including connections, birdcage grate, and 2m² of riprap. Also includes remove and disposal of existing 900mm dia. MH.
 - Connect existing 250mm dia. CSP to east with 2m of 250mm solid plastic tubing. Connect existing tile to west with 4m of 150/200mm dia. solid plastic tubing (size to be verified at time of construction)

ii) BRANCH 1

- 0+000 to 0+017 - See Drawing 5.
- S. & I. Hurlbut (Roll No. 060-08200)
- 0+000 to 0+017 - Install 17m of 250mm dia. concrete tile with joint wrap.
- 0+017 - Construct 600 x 600mm concrete CB, including connections, birdcage grate, marker, and 2m² of riprap.

300.2) CONSTRUCTION SPECIFICATIONS – GENERAL NOTES

- 1. Working Area**
 - For work to install new tile drains, average working area width is to be 25m.
 - A 30m radius turn-around area for equipment is to be provided at each end.
 - A 10m x 10m area is required at catchbasin locations.

Refer to Standard Specification for Construction of Drains, Section 400.4 for exceptions.

- 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. The Contractor shall contact each owner prior to commencing construction on each property.

Roll No.	Owner	Phone No.
060-08220	G. Doehn	To Be
060-08200	S. & I. Hurlbut	Provided at
060-11200	B. Fried	Pre-Construction
060-11201	Coleman Equipment Inc.	Meeting
	Enbridge Gas Inc.	519-683-4468
	Twp of Blandford-Blenheim	519-463-5347
Engineer	Curtis MacIntyre, P.Eng. (KSAL)	office and cellphone: 519-748-1199 x252

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 (STA. 0+000 to STA. 0+892)

Cross trenches to be dug along length of Main Drain route at 100 to 200m intervals (minimum) from STA. 0+000 to 0+892 prior to commencing construction so that true alignment of new drain may be established alongside existing drain (1978 tile) so this existing drain may remain in use. 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. For areas where the existing 1978 drain (or 150mm dia. private header) is destroyed 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 (½") 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 (½") 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.
5. If stones however are found after doing the tile locate work and/or at the time of installation, of such size and or at such depths, or if soft or unstable soils are found at invert grade, that make backhoe methods necessary vs tiling machine usage, the contingency rates (either with or without stone bedding) will be applied.

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. Laser grade control is required.

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. Payment for connections is to be as set out in the tender. Refer to Standard Specification of Tile Drains, Section 420.3.7 for further information on tile connections.

9. Outlet Pipe

The outlet pipes specified in this report shall have rodent gates secured to them. The rodent gate shall be free moving and as supplied by Coldstream Concrete Products Ltd. or equal. The outlet pipe shall protrude no more than 1.0 metre from the bank and filter fabric and riprap shall be placed around and below the outlet pipe and into the channel bottom, with such riprap being set to be flush with the bank on either side. The discharge from the outlet pipe shall land on the riprap. Outlet pipes are to be a minimum of 6m in length and are to be desirably HDPE plastic pipe Series 210 with equal or larger diameter than the concrete tile.

10. 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.

11. 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.

Prior to construction, coordination with the engineer will be required to complete the necessary permitting paperwork for Enbridge pipeline crossings.

11.1 Enbridge Gas Inc.

- 1) Enbridge's standard third-party requirements in the vicinity of natural gas facilities must be strictly adhered to.
- 2) A GDS representative is required to be on site to ensure the excavation or third-party activity is being safely completed when:
 - a. Excavation with mechanical equipment may take place within 3.0 m (10 ft) of a vital pipeline.
 - i. Once the pipeline is exposed, mechanical excavation is then permitted up to 1.0m from the pipeline. Within 1.0m (3.3 ft) only hand digging or hydro-excavation is allowed.
- 3) Any resultant damage as a result of these activities will be borne entirely by the third party undertaking the proposed work.
- 4) Storage of spoil or construction materials is not permitted within 3.0 m of the pipeline.
- 5) Vibratory compaction is not permitted within 1.2m of the side or top of the pipeline; handheld compaction equipment may be used within 1.2m the use of compaction equipment will require EGI's written approval.
- 6) Existing cover over the pipeline shall not be reduced; any loss of cover (e.g. due to rutting) shall be promptly restored.

12. 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.

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.

MITCHELL DRAIN 2023 - GEOTECHNICAL INVESTIGATION
TOWNSHIP OF BLANDFORD-BLENHEIM /
TOWNSHIP OF NORTH DUMFRIES

MAP




Test Pit Locations
 927700 Oxford Road 8
 43°19'15.88"N
 80°30'11.45"W

A geotechnical investigation was completed by Chung & Vander Doelen Engineering Inc. in coordination with the Township of Blandford-Blenheim in March 2018, focused on a specific site, in order to determine the suitability of proposing a stormwater management/wetland feature as a part of the proposed Drain.

A report was completed by Robert Vander Doelen, P. Eng. On March 12, 2018. The attached are test pit logs and photos taken at the test pit locations. The full report may be provided to bidders, if requested.


TEST HOLE 1 (~STA. 0+0+892)

Enclosure No.: 1
Sheet 1 of 1

FILE No: G18573 		TEST PIT No. 1 Client: Twp of Blandford-Blenheim Project: Mitchell Drain Pond Location: 927700 Oxford Road 8, Twp of Blandford-Blenheim		EQUIPMENT DATA Machine: Mini-Excavator Method: Mini-Excavator Size: Date: Mar 05 18 TO Mar 05 18											
ELEV./ DEPTH (m)	DESCRIPTION	DEPTH (m)	SYMBOL	SAMPLE ID	TYPE	N-VALUE	SHEAR STRENGTH (kPa)				WATER CONTENT (%)			WELL DATA DEPTH (m)	REMARKS
							FIELD VANE: Peak	Rem. X	LAB TEST: Unc.	P.P.	50	100	150		
Ground Elevation:															
1.20	1200mm TOPSOIL	0.5													
1.40	loose to compact brown GRAVELLY SILT moist	1.0													
1.50	compact brown Fine to Medium SAND trace to some silt	1.5		1	BS										
2.40	damp	2.0													
2.40	End of Test Pit	2.5													Test Pit dry at completion

TEST HOLE 2 (~STA. 0+800)

Enclosure No.: 2
Sheet 1 of 1

FILE No: G18573 		TEST PIT No. 2 Client: Twp of Blandford-Blenheim Project: Mitchell Drain Pond Location: 927700 Oxford Road 8, Twp of Blandford-Blenheim		EQUIPMENT DATA Machine: Mini-Excavator Method: Mini-Excavator Size: Date: Mar 05 18 TO Mar 05 18											
ELEV./ DEPTH (m)	DESCRIPTION	DEPTH (m)	SYMBOL	SAMPLE ID	TYPE	N-VALUE	SHEAR STRENGTH (kPa)				WATER CONTENT (%)			WELL DATA DEPTH (m)	REMARKS
							FIELD VANE: Peak	Rem. X	LAB TEST: Unc.	P.P.	50	100	150		
Ground Elevation:															
0.60	600mm TOPSOIL	0.5													
1.00	loose to compact brown Fine SAND trace to some silt	1.0		1	BS										
1.50	damp	1.5													
2.10	End of Test Pit	2.0		2	BS										Test Pit dry at completion




TEST HOLE 3 (~STA. 0+750)

FILE No: G18573

TEST PIT No. 3

Enclosure No.: 3
Sheet 1 of 1

	Client: Twp of Blandford-Blenheim	EQUIPMENT DATA Machine: Mini-Excavator Method: Mini-Excavator Size: Mini-Excavator Date: Mar 05 18 TO Mar 05 18
	Project: Mitchell Drain Pond	
	Location: 927700 Oxford Road 8, Twp of Blandford-Blenheim	




ELEV./DEPTH (m)	DESCRIPTION	DEPTH (m)	SYMBOL	SAMPLE ID	TYPE	N-VALUE	SHEAR STRENGTH (kPa)				WATER CONTENT (%)			WELL DATA	DEPTH (m)	REMARKS
							FIELD VANE: Peak	Rem.	LAB TEST: Unc.	P.P.	W _p	W _L	W _u			
	Ground Elevation:															
0.40	400mm TOPSOIL															
	compact brown SAND AND SILT trace to some gravel	0.5														
	damp to moist															
1.05	compact brown SILT trace sand	1.5		1	BS											
	damp to moist															
2.00	End of Test Pit	2.0														-2.0 Test Pit dry at completion

TEST HOLE 4 (~STA. 0+639)

FILE No: G18573

TEST PIT No. 4

Enclosure No.: 4
Sheet 1 of 1

	Client: Twp of Blandford-Blenheim	EQUIPMENT DATA Machine: Mini-Excavator Method: Mini-Excavator Size: Mini-Excavator Date: Mar 05 18 TO Mar 05 18
	Project: Mitchell Drain Pond	
	Location: 927700 Oxford Road 8, Twp of Blandford-Blenheim	




ELEV./DEPTH (m)	DESCRIPTION	DEPTH (m)	SYMBOL	SAMPLE ID	TYPE	N-VALUE	SHEAR STRENGTH (kPa)				WATER CONTENT (%)			WELL DATA	DEPTH (m)	REMARKS
							FIELD VANE: Peak	Rem.	LAB TEST: Unc.	P.P.	W _p	W _L	W _u			
	Ground Elevation:															
2.20	2200mm TOPSOIL															
	orangey brown SILT moist to wet	2.5														
	brown Fine to Medium SAND trace silt moist															
2.70	End of Test Pit	2.7														-2.7 Test Pit dry at completion

TEST HOLE 5 (~STA. 0+245)

FILE No: G18573

TEST PIT No. 5

Enclosure No.: 5
Sheet 1 of 1

	Client: Twp of Blandford-Blenheim	EQUIPMENT DATA Machine: Mini-Excavator Method: Mini-Excavator Size: Mini-Excavator Date: Mar 05 18 TO Mar 05 18
	Project: Mitchell Drain Pond	
	Location: 927700 Oxford Road 8, Twp of Blandford-Blenheim	



ELEV./DEPTH (m)	DESCRIPTION	DEPTH (m)	SYMBOL	SAMPLE ID	TYPE	N-VALUE	SHEAR STRENGTH (kPa)				WATER CONTENT (%)			WELL DATA	DEPTH (m)	REMARKS
							FIELD VANE: Peak	Rem.	LAB TEST: Unc.	P.P.	W _p	W _L	W _u			
	Ground Elevation:															
1.35	1350mm TOPSOIL															
	loose brown SILT some sand and clay moist	1.5														
2.00	compact brown SILTY SAND AND GRAVEL	2.0														
	moist															
2.60	End of Test Pit	2.5														-2.5 Test Pit dry at completion





TOWNSHIP OF BLANDFORD-BLENHEIM

Agenda Item

To:	Members of Council	From:	Adam Degier, Drainage Superintendent
Reviewed By:	Josh Brick, CAO	Date:	January 24, 2024
Subject:	Consideration of Report Section 4 for the Baker Drain 2024	Council Meeting Date:	February 7, 2024
Report #:	DS 24-03		

Recommendation:

That Report DS 24-03 be received as information; and,

Further that Council gives consideration to By-Law No. 2417-2024 for the Baker Drain 2024 and give first and second reading (provisional by-laws); and,

Further that the Court of Revision be set for Wednesday March 6, 2024 at 4:00 p.m.; and,

That the Engineer be directed to invite tenders for the Baker Drain 2024 with tender closing Wednesday March 13, 2024 at noon.

Background:

On August 23, 2022 the Township of Blandford-Blenheim received a *Petition for Drainage Works by Owner* signed by Donald & Tanya Dyck Steinmann (N ½ Lot 5, Concession 11) and 1058672 Ontario Inc. (N ½ Lot 4, Concession 11) in the Township of Blandford-Blenheim (Geographic Township of Blandford). Pursuant to Section 8 of the Act, on October 19, 2022, K. Smart Associates Limited was appointed by resolution of Council to prepare a report on the petition received under Section 4 of the Act.

On January 9, 2024 the Report for the Baker Drain 2024 was filed by Curtis McIntyre P.Eng. of K Smart Associates Limited with the Township Clerk.

Analysis/Discussion:

The report has been mailed to the assessed owners and effected agencies in accordance with Section 41 of the Drainage Act. The report will be considered on February 7, 2024 at 4:00 p.m.

in accordance with Section 42 of the Drainage Act. All owner and agencies have been invited and the Engineer will be in attendance to present the reports and answer any questions.

Provided no major concerns are expressed, the By-Law (copy attached to agenda) can be provisionally adopted and Court of Revision date set.

Financial Considerations:

Cost of report is assessed to ratepayer as per the Schedule of Assessment in the drain report.

Township roads are assessed \$2357.00 for Township Road 12.

Attachments:

Draft By-Law # 2417-2024 attached to agenda

Copy of Reports attached to agenda as Baker Drain 2024

Respectfully submitted by:

Adam Degier
Drainage Superintendent



24-01-09 - Baker
Drain 2024 (22-313)

ENGINEERING REPORT

For

BAKER DRAIN 2024

Township of Blandford-Blenheim

(Geographic Township of Blandford)

County of Oxford

Date: January 9, 2024

File No. 22-313



K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS & PLANNERS

85 McIntyre Drive
Kitchener, ON N2R 1H6

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

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SCHEDULE A – SCHEDULE OF ASSESSMENTS FOR CONSTRUCTION

SCHEDULE B – SCHEDULE OF ASSESSMENTS FOR MAINTENANCE

SCHEDULE C – SCHEDULE FOR ACTUAL COST BYLAW

APPENDIX B – CALCULATION OF ASSESSMENTS FOR FUTURE MAINTENANCE

STANDARD SPECIFICATIONS

- Section 200 - General Conditions
- Section 300 - Special Provisions (See Drawings 2 and 3)
- Section 400 - Standard Specifications for Construction of Drains
- Section 420 - Standard Specifications for Tile Drains

DRAWINGS 1 TO 3 (INCLUDES SPECIAL PROVISIONS)

Definitions:

“Act” means The Drainage Act RSO 1990

“CSP” means corrugated steel pipe

“Drain” means Baker Drain 2024

“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 Blandford-Blenheim

“UTRCA” means Upper Thames River Conservation Authority

“OMAFRA” means the Ontario Ministry of Agriculture, Food and Rural Affairs

“Tribunal” or “Drainage Tribunal” means Agriculture, Food and Rural Affairs Appeal Tribunal

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K. SMART ASSOCIATES LIMITED

CONSULTING ENGINEERS & PLANNERS

85 McIntyre Drive
Kitchener, ON N2R 1H6

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

January 9, 2024

File No. 22-313

BAKER DRAIN 2024

TOWNSHIP OF BLANDFORD-BLENHEIM

1 EXECUTIVE SUMMARY

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

On August 23, 2022 the Township of Blandford-Blenheim received a *Petition for Drainage Works by Owner* signed by Donald & Tanya Dyck Steinmann (N ½ Lot 5, Concession 11) and 1058672 Ontario Inc. (N ½ Lot 4, Concession 11) in the Township of Blandford-Blenheim (Geographic Township of Blandford).

To address the petition, this report recommends the following:

Main Drain

- Installation of 802m of new closed concrete tile drain (350mmø to 450mmø)
- One (1) – 900x1200mm concrete catchbasin
- Enlarge/ re-grading of an existing stormwater retention area located at the abandoned railway corridor
- Incorporate two (2) existing catchbasin structures, and 18m of 375mmø CSP pipe under the abandoned railway bed, constructed in 1975

The estimated cost of this project is **\$137,000**.

The watershed served is approximately 63.5 hectares (157 acres).

The following assessment schedules/appendices are included for construction and future maintenance of the drainage works:

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

2 BACKGROUND

On August 23, 2022 the Township of Blandford-Blenheim received a *Petition for Drainage Works by Owner* signed by Donald & Tanya Dyck Steinmann (N ½ Lot 5, Concession 11) and 1058672 Ontario Inc. (N ½ Lot 4, Concession 11) in the Township of Blandford-Blenheim (Geographic Township of Blandford). Pursuant to Section 8 of the Act, on October 19, 2022, K. Smart Associates Limited was appointed by resolution of Council to prepare a report on the petition received under Section 4 of the Act.

3 DRAINAGE HISTORY

The Baker Drain was originally established in accordance with a report by W. G. Ure, O.L.S., dated July 29, 1929. The Baker Drain was further improved under a report by K. A. Smart, P. Eng. dated April 30, 1975. The Main Drain of this report proposed the incorporation of an existing 6"Ø (150mm) crossing of Township Road 12 from the SE ¼ of Lot 4, Concession 12, connected to a new 8"Ø (200mm) concrete tile constructed southerly for 200 feet into Lot 4, Concession 11. At this location the Main Drain would be joined by a new 6"Ø (150mm) concrete tile, referred to as Branch "A", serving the N ½ of Lot 3, Concession 11. At its junction the Main Drain continued as a 10"Ø (250mm) concrete tile to and across the C.N.R. railway. Directly under the rail bed a 15"Ø (375mm) corrugated steel pipe was installed. Downstream of the C.N.R. railway a 14"Ø (350mm) concrete tile was constructed through Lots 4 & 5 to its outlet at Horner Creek.

The 1975 Baker Drain followed a similar alignment to that of the 1929 tile, however it did not commence at the same location north of Township Road 12, and also veered away from the 1929 alignment in a southwesterly direction for the final 400 feet (approx.) at the outlet.

4 INVESTIGATION

4.1 On-Site Meeting

Attendees:

Don Dyck Steinmann (040-01900)	Curtis MacIntyre, P. Eng (K. Smart Associates)
Jacob Ferber (040-01810)	Thomas Jackson (K. Smart Associates)
Greg Haskett (050-03400)	Jim Harmer (Twp. of Blandford-Blenheim)
Dan Crawford (040-01900)	Adam Degier (Twp. of Blandford-Blenheim)

On April 26, 2023 an on-site meeting for the Section 4 appointment was held at the Dyck Steinmann residence. The engineer briefly explained the purpose of the meeting and overview of the existing Baker Drain. Generalized comments from all attendees are listed below:

Don Dyck Steinmann (040-01900)

- Don described the erosion that occurs on his farm, starting at the downstream Horner Creek east to the catch basin on his property line. He has a grassed waterway to help control the erosion, but the water has started to erode around the swale. The farm experiences significant soil erosion in the location of the field where the surface water turns southerly toward Horner Creek (along the alignment of the old 1929 Baker Drain). The farm is worked by Ed and Dan Crawford. Dan was in attendance and further explained the erosion.
- The farm experiences blowouts from either the existing 1929 private drain or from the 1975 Baker Drain.

Jacob Ferber (040-01810)

- Jacob described the farm experiencing a number of tile blowouts, but also couldn't distinguish between the 1929 tile and the 1975 tile. He also recalled perhaps twice in the last 15 years where surface water eroded the topsoil through his field.
- Jacob mentioned that the railway bed acts as a natural berm at the northeast portion of his property, but surface flow through the 1200mmø culvert has blown out the rock berm on the south side.
- The property is a mix of random/systematic tiles, but no maps could be located.
- He agreed with the Engineer's suggestion that the proposed work only need to go to the abandoned railway.

Greg Haskett (050-03400)

- Greg does not have any drainage concerns on his property.

Jim Harmer (Township of Blandford-Blenheim)

- The Township agrees with the Engineer's suggestion that the 1929 drain be destroyed, while the 1975 drain be abandoned and made private.
- Jim suggested that additional water retention be investigated around the north and or south sides of the abandoned railroad corridor.

4.2 Site Examination and Survey

A site inspection was performed after the on-site meeting by the engineer.

Roll No. 040-01900

- Located three tile blowouts in the grass swale - two (2) grouped together approx. 100m west of the property line, and one (1) at the location where the swale turns south. Blowouts were determined to be on the 1929 tile.
- Noticeable surface water cutting around the grass swale. While standing at the catch basin on the property line looking west, the swale appears to be on the north side of the existing 1975 Baker Drain.
- A deep erosion cut was opened in the swale at the location where the overland surface flow turns southerly.
- The bottom of the existing CSP outlet pipe at Horner Creek was observed to have rusted out.

- The rock berm at the east property line was observed to be blown out. The existing catchbasin was blocked by field debris, but tiles were flowing well.

Roll No. 0040-01810

- The rock berm on the south side of the abandoned railway was also observed to have blown out.
- Investigation of this area concluded the potential for improved surface water retention along the abandoned railway corridor.
- The existing catchbasins were observed to be in good working condition.

Roll No. 040-01800

- No noticeable erosion was observed on the upstream side of the railway, and is believed to be in good condition due to the existence of a poured retaining wall/weir along the edge of the field, holding up the field elevation.

4.3 Watershed Description

The perimeter watershed of the Drain has been established based on site investigation, and open source SWOOP Digital Elevation Model (DEM) data from the province. The proposed watershed boundary generally matches the Baker Drain 1975 report. The watershed area is predominantly agricultural lands.

The Baker Drain is neighboured by the Todd Drain to the east and Wilson Drain to the south.

5 MEETINGS AND CONSULTATION

5.1 Information Meeting

Attendees:

Don Dyck Steinmann (040-01900)	Curtis MacIntyre, P. Eng (K. Smart Associates)
Jim Harmer (Twp. of Blandford-Blenheim)	Matt Jones (K. Smart Associates)
Adam Degier (Twp. of Blandford Blenheim)	

On December 12, 2023, an information meeting was held at the Township of Blandford-Blenheim office. Notice for the meeting was sent to all owners in the watershed.

Don Dyck Steinmann indicated he was in agreement with the proposed work.

In a phone call with Jacob Ferber, who was not able to attend the meeting, a review of the sizing calculations for the new drain through his property determined that the recommended size (350mmø) was right at the limit of bumping up to the next tile size. Considering the owner finds that the existing 1975 tile often has difficulty keeping up with the storm flows reaching the property, it was agreed the recommended size through this farm should be increased to a 400mmø.

6 AUTHORITY FOR REPORT

6.1 Section 4

Section 4 of the Drainage Act provides for the construction of new drainage works for an area requiring drainage. As a result of discussion at the on-site meeting and site examination, the area requiring drainage was determined to be the area located above (and in the immediate vicinity) of the existing Baker Drain from approximately 100m upstream of its outlet up to the abandoned railway corridor, experiencing surface erosion and blow outs. The area may be approximated to be 1.1 hectares in size across properties with Roll No. 040-01900 and 040-01810.

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.

7 RECOMMENDED WORK

Major work items are described property by property below. Further detail regarding the construction and maintenance of the Drain can be found in the Special Provisions and Drawings. *Items located near property lines have been duplicated for each adjoining owner and written in italics.*

Main Drain

D. & T. Dyck Steinmann (Roll No. 040-01900)

- 100m of 450mm \varnothing concrete tile (including 6m of 450mm \varnothing solid plastic pipe at outlet)
- Re-grading of eroded surface swale in north to south direction in the field
- 270m of 400mm \varnothing concrete tile
- *New 900x1200mm catchbasin and berm along east property line*

J. Ferber & 1058672 Ontario Inc. (Roll No. 040-01810)

- *New 900x1200mm catchbasin and berm along west property line*
- 421m of 400mm \varnothing concrete tile
- Enlarged/improved stormwater retention area located within abandoned railway corridor
- 5m of 350mm \varnothing concrete tile to connect existing 900x1200mm concrete structure to existing 375mm \varnothing CSP on southside of railway bed, and 6m of 350mm \varnothing concrete tile to connect the 375mm \varnothing CSP to a 600x600mm catchbasin on the north side of the railway bed

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 15 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 existing open ditch of the Horner Creek provides sufficient outlet and will allow the proposed works to function as intended.

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 our watershed examination and landowner discussions, the proposed tile drains on this project have been designed for a 38mm (1.5") drainage coefficient.

8.1 Berming/ Stormwater Retention Area

A new berm and catchbasin has been proposed at the property line between Roll No.'s 040-01900 & 040-01810, as well as an improved/enlarged berming area at the abandoned railway corridor.

In periods when the Baker Drain tile is flowing full, the design elevation of the berm at the railway corridor will retain water downstream of the rail bed, but also potentially cause surface water to back up through the 1200mm \varnothing culvert to make use of storage area upstream of the rail bed. In total, the estimated potential storage volume at this location is 200-250m³. The storage capacity of the berm located further downstream along the property line is considered minimal, however is intended to improve directing surface water into the catchbasin.

8.2 Soil Conditions

The 1996 report titled: "Upgrade of Soil Survey Information for Oxford County" indicates that the soils adjacent to the Drain are well-drained Guelph Loamy Till soils across its entire length.

Based on available information, adverse subsurface conditions are not expected on this project, and 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 Grand River Conservation Authority

The Grand River Conservation Authority did not request an environmental appraisal under Section 6 of the Act. The Conservation Authority was sent a notice to the on-site meeting.

In email correspondence following the on-site meeting, GRCA advised that Horner Creek had been identified by DFO for Northern Sunfish, a species of special concern under the Species at Risk Act. GRCA was interested in knowing more details on how the drain would be connected to Horner Creek.

Draft drawings of the proposed work were sent to the Conservation Authority prior to the information meeting with owners on December 12, 2023. At the Conservation Authority's request, large riprap (gabion stone) has been included at the outlet of the Baker Drain in Horner Creek.

10 CONSTRUCTION CONSIDERATIONS

10.1 Construction Scheduling

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

On this project, it is anticipated that no permits will be required prior to starting construction.

Restricted timing windows for this project, if any, are described in *Section 9 ENVIRONMENTAL CONSIDERATIONS*.

10.2 Design Changes During Construction

In general, design changes requested by landowners, agencies or other authorities after the bylaw is passed cannot be undertaken.

Section 84.1 of the Act and the associated regulation, O. Reg. 500/21, provides criteria and a process for amending this report if design changes are required during construction and approved by the engineer. If design changes are made, this report must be amended after construction with the as-constructed drawings 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 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.

10.3 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 profile for the Drain is shown on Drawing 2. The profiles show the depth and grade for proposed work and future maintenance. Drawing No.'s 2 & 3 contain the Special Provisions and details at specific locations, such as catchbasins, drain outlet, etc.

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, the construction cost, the engineering cost 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 for damages caused by the construction of the Drain. Where separate access routes to the working area are specified in this report, Section 30 allowances also account for access route damage. 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 the following rates, applied to the defined working area:

Table 12.1-1 - Runoff Factors Table

Activity	Rate (\$/Hectare)
Tile Drain Construction	2,135 (\$864/acre)
Tile Drain Construction (including continual construction access)	2,565 (\$1,038/acre)
Construction Access from Road	4,275 (\$1,730/acre)

For the basis of the Section 30 allowance calculations, an average corridor width of 25m is used for the construction of the tile drain. Additionally, access paths are identified for each property on Drawing No. 1, anticipated for use by the contractor to access the working area. This rate is applied at a 6m access width.

12.1.2 Summary of Allowances

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

Table 12.1-2 - Summary of Allowances

Roll Number	Main Drain		Total
	Sec. 30 (Damages) <i>Tile Drain</i>	Sec. 30 (Damages) <i>Access</i>	(\$)
040-01810	2,550	1,250	3,800
040-01900	2,700	400	3,100
TOTAL ALLOWANCES:	5,250	1,650	6,900

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 Estimated Costs Summary 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 petitioners 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 Township 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 Township 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:				\$6,900
CONSTRUCTION COST ESTIMATE				
Item	Stations	Description	Cost	
i) Main Drain				
M1	0+000 to 0+006	Pre-locate existing Baker Drain 1975 tile for route of new Baker Drain 2024. Also pre-locate existing Baker Drain 1929 tile. 1929 tile to be broken up and buried as a part of items M5 & M8.	2,500	
M2	0+004	6m of 450mmø HDPE pipe at outlet, with rodent gate and 10m ² of riprap bank protection (200mm to 400mm in size) on filter fabric.	2,500	
M3	0+006 to 0+100	94m of 450mmø concrete tile with joint wrap	7,500	
M4	0+100	Approx. 100m of re-grading eroded surface swale to the south. Eroded swale approx. 300mm to 450mm deep.	1,500	
M5	0+100 to 0+370	270m of 400mmø concrete tile with joint wrap. Includes breaking up and burying existing 250mmø concrete tile (1929) along approximate same alignment as new drain.	21,100	
M6	0+368	Construct 25m of new berm as per detail.	1,800	
M7	0+370	Construct 900x1200mm CB, including connections, birdcage grate and marker.	3,600	

DESCRIPTION			TOTAL
M8	0+370 to 0+791	421m of 400mmø concrete tile with joint wrap. Includes breaking up and burying existing 250mmø concrete tile (1929).	32,800
M9	0+791	Enlarge/re-grade stormwater retention area by lowering grade within existing area. Use excavated material to extend ends of berm (approx. 40-50m ³ of material grading). See detail on Drawing 3.	2,500
M10	0+791	Sawcut holes in existing 900x1200mm catchbasin structure. Connect proposed 400mm and 350mm dia. concrete tiles. Also connect existing 350mm dia. concrete tile (1975) to existing structure with 6m of 300mm dia. solid plastic tubing.	800
M11	0+791 to 0+820	Replace (remove and dispose) 5m of existing 250mmø concrete tile connected to existing 375mm CSP on downstream side of rail bed, and 6m of existing 250mmø concrete tile on upstream side of rail bed with the same lengths of new 350mmø concrete tile. Sawcut larger holes in both existing structures for new tile. See detail on Drawing 3.	2,000
Sub Total Part i)			78,600
ii) Contingencies			
C1	Increased costs to install 50m 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).		2,500
C2	Increased costs to install 100m 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).		3,000
C3	Contingency allowance for lift-outs of wheel machine to allow for stone removal, including the stone removal and restarting/continuing the wheel machine (based on 2 @ \$250/lift-out).		500
C4	Tile Connections (based on 5 @ \$200/connection).		1,000
C5	Lump sum contingency allowance.		900
Sub Total Part ii)			7,900
Sub Total Parts i) to ii):			86,500
Net HST (1.76%)			1,520
TOTAL CONSTRUCTION COST ESTIMATE:			\$88,020
ENGINEERING COSTS			
	Report Preparation		22,000
	Consideration of Report Meeting		500
	Court of Revision		500
	Construction Phase Services		12,500
	Net HST (1.76%)		625
TOTAL ENGINEERING COSTS:			36,125
SECTION 73 COSTS			
	Interest estimate		5,000
	Unforeseen costs		955
TOTAL SECTION 73 COSTS:			5,955
TOTAL ESTIMATED COST:			\$137,000

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). On this project assessment for Benefit, Outlet Liability and Increased Cost (Special) Assessment are involved.

13.1 Calculation of Assessments

Appendix A in this report shows the method of calculating the assessments for the Drain. Appendix A divides the Drain into intervals. The estimated cost for each interval is then determined. For each interval, the first step in the assessment calculation is to determine the benefit assessment 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 interval cost, 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 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>Total</u>
040-01800	-for improved direct outlet -for improved sub-surface service area	3,000 5,600	8,600
040-01810	-for improved direct outlet -for improved drainage along drain -for improved sub-surface service area	3,000 21,100 11,300	35,400
040-01900	-for improved drainage along drain -for improved sub-surface service area	18,500 4,300	22,800
040-03400	-for improved downstream outlet	750	750
050-03400	-for improved downstream outlet	750	750
TOTAL BENEFIT			68,300

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 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.

Table 13.3-1 - Runoff Factors Table

Land Use	Runoff factor
Agricultural	1
Forest	0.5
Gravel Road	2

13.4 Assessment Schedules

In the 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 the assessment roll information. 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.

13.4.1 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 for Construction.

13.4.2 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. Schedule B \$ amounts are listed for calculating share of future maintenance costs. Schedule B amounts are not payable at this time.

Schedule B is divided into columns to reflect the different drain intervals so maintenance work can be assessed to upstream lands and roads. The percentages shown in Schedule B determine the share of future maintenance to be levied. For example, a \$1,000 tile repair will result in a \$50 assessment to a property with a 5% maintenance assessment.

The Township will confirm eligibility for the grant at the time the maintenance cost is levied.

13.4.3 Schedule C – Schedule for Actual Cost Bylaw

After the construction of the Drain is certified complete by the Engineer, the Township will determine the actual cost of the Drain. Actual assessments will be calculated by prorating the actual cost of the Drain using Schedule C. Schedule C outlines the estimated net assessments after deducting allowances and grant from the total assessments shown in Schedule A. Eligibility for grant will be confirmed 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 grant 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 Township to apply for this grant after the construction of the Drain is certified complete by the Engineer. The Township 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, those ineligible costs have been separately identified in this report.

15 PRIVACY OF LANDS

Although a Drain is situated on the property of various landowners, one landowner may not enter another landowner's property via the Drain. Persons authorized to enter private lands to carry out duties authorized under the Act include Engineers, Contractors, and the appointed Drainage Superintendents (and/or their assistants).

16 MAINTENANCE

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

16.1 The Drain For Future Maintenance

The Baker Drain 2024 for the purpose of future maintenance will include all tile, catchbasins, and berms, as defined and constructed in accordance with the drawings and special provisions of this report. The Drain is also to include the existing 900x1200mm and 600x600mm catchbasin structures located on either side of the abandoned railway, as well as the existing 375mmØ CSP under the railway bed.

In accordance with Section 19 of the Act, the following drains are hereby abandoned of status under the Drainage Act and shall become private drains for the owners to maintain the portions existing on their own lands.

<u>Name of Drain</u>	<u>Branch Name</u>	<u>Stations (1975)</u>
Baker Drain 1975	Main Drain	0+000 to 0+791 (2+65 to 28+64)

The remaining Baker Drain 1975 upstream of this report (Main Drain & Branch A) shall remain a part of the Drain, be maintained by the Township in accordance with the K. A. Smart, P. Eng. report dated April 30, 1975 (grades, tile sizes, and other

specifications), and be assessed as per the “*Schedule B – Schedule of Assessments for Future Maintenance*” in this report.

Though the 1929 Baker Drain tile was abandoned of status under the Act upon the construction of the 1975 tile, the portions of the 1929 tile drain existing as a private drain along the route of the new Baker Drain 2024 will be broken up and buried as a part of this project.

16.2 General

All parties affected by the Drain, are encouraged to periodically inspect the Drain and report any visible/suspected problems to the Township. 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 Township 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.

16.3 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.

17 BYLAW

This report including the drawings and specifications, assessment schedules and appendices, 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
BAKER DRAIN 2024
TOWNSHIP OF BLANDFORD-BLENHEIM**

Con	Lot	Roll Number & Owner	Total ha affected	Benefit (Sec. 22)	Main Drain		Total
					Special (Sec. 26)	Outlet (Sec. 23)	
<i>Twp of Blandford-Blenheim (Roll No. 32-45-010)</i>							
F 11	N PT LOT 4	040-01800 (J. Ferber & 1058672 Ontario Inc.)	11.2	8,600	0	12,004	20,604
F 11	PT LOTS 4 & 5	040-01810 (J. Ferber & 1058672 Ontario Inc.)	23.5	35,400	0	24,651	60,051
F 11	N PT LOT 5	040-01900 (D. & T. Dyck Steinmann)	11.0	22,800	0	11,789	34,589
F 12	PT LOTS 4 & 5	040-03400 (Vehof Farms Inc.)	10.3	750	0	11,039	11,789
F 11	N PT LOT 3	050-03400 (756817 Ontario Ltd.)	5.5	750	0	5,895	6,645
F 12	S PT LOT 3	050-03700 (M. & M. Janus)	0.9	0	0	965	965
Subtotal (Lands):			62.4	68,300	0	66,343	134,643
Township Road 12 (Township of Blandford-Blenheim)			1.1	0	0	2,357	2,357
Subtotal (Roads & Utilities):			1.1	0	0	2,357	2,357
TOTAL ASSESSMENT BAKER DRAIN 2024:			63.5	68,300	0	68,700	137,000

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 Township. For convenience the owner's names as shown by the last revised assessment roll have also been included.

**SCHEDULE B - SCHEDULE OF ASSESSMENTS FOR FUTURE MAINTENANCE
BAKER DRAIN 2024
TOWNSHIP OF BLANDFORD-BLENHEIM**

			MAIN DRAIN								BRANCH "A"	
			Baker Drain 2024				Baker Drain 1975					
			Interval 1		Interval 2		Interval 3		Interval 4			
			0+000 to 0+791		0+791 to 0+820		0+820 to 38+00		38+00 to 40+56		0+00 to 4+37	
Con	Lot	Roll No. & Owner	\$	%	\$	%	\$	%	\$	%	\$	%
Twp of Blandford-Blenheim (Roll No. 32-45-010)												
11	N PT LOT 4	040-01800 (J. Ferber & 1058672 Ontario Inc.)	7,863	13.11	2,303	30.71	3,352	33.52	800	32.00	2,500	50.00
11	PT LOTS 4 & 5	040-01810 (J. Ferber & 1058672 Ontario Inc.)	22,147	36.91	1,312	17.49	0	0.00	0	0.00	0	0.00
11	N PT LOT 5	040-01900 (D. & T. Dyck Steinmann)	16,722	27.87	0	0.00	0	0.00	0	0.00	0	0.00
12	PT LOTS 4 & 5	040-03400 (Vehof Farms Inc.)	7,231	12.05	2,118	28.24	3,623	36.23	1,253	50.12	0	0.00
11	N PT LOT 3	050-03400 (756817 Ontario Ltd.)	3,861	6.44	1,131	15.08	1,935	19.35	0	0.00	2,500	50.00
12	S PT LOT 3	050-03700 (M. & M. Janus)	632	1.05	185	2.47	317	3.17	101	4.04	0	0.00
Total Assessments on Lands:			58,456	97.43	7,049	93.99	9,227	92.27	2,154	86.16	5,000	100.00
Township Road 12 (Township of Blandford-Blenheim)			1,544	2.57	451	6.01	773	7.73	346	13.84	0	0.00
Total Assessments on Roads:			1,544	2.57	451	6.01	773	7.73	346	13.84	0	0.00
TOTAL ASSESSMENTS:			60,000	100.00	7,500	100.00	10,000	100.00	2,500	100.00	5,000	100.00

Notes:

1. Agricultural designation not included as grant eligibility has to be confirmed at the time of maintenance cost levy.
2. \$ amounts above 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 C - SCHEDULE FOR ACTUAL COST BYLAW
BAKER DRAIN 2024
TOWNSHIP OF BLANDFORD-BLENHEIM**

Con	Lot	Owner	Ha. Affected	Estimated Gross	1/3 Grant	Allowances	NET	
<i>Twp of Blandford-Blenheim (Roll No. 32-45-010)</i>								
F	11	N PT LOT 4	040-01800 (J. Ferber & 1058672 Ontario Inc.)	11.2	20,604	6,868	0	13,736
F	11	PT LOTS 4 & 5	040-01810 (J. Ferber & 1058672 Ontario Inc.)	23.5	60,051	20,017	3,100	36,934
F	11	N PT LOT 5	040-01900 (D. & T. Dyck Steinmann)	11.0	34,589	11,530	3,800	19,259
F	12	PT LOTS 4 & 5	040-03400 (Vehof Farms Inc.)	10.3	11,789	3,930	0	7,859
F	11	N PT LOT 3	050-03400 (756817 Ontario Ltd.)	5.5	6,645	2,215	0	4,430
F	12	S PT LOT 3	050-03700 (M. & M. Janus)	0.9	965	322	0	643
Subtotal (Lands):				62.4	134,643	44,882	6,900	82,861
Township Road 12 (Township of Blandford-Blenheim)				1.1	2,357	0	0	2,357
Subtotal (Roads & Utilities):				1.1	2,357	0	0	2,357
TOTAL ASSESSMENT BAKER DRAIN 2024:				63.5	137,000	44,882	6,900	85,218

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.
- Actual assessment is levied to the owner of the parcel at the time the final cost is levied.

APPENDIX B - CALCULATION OF ASSESSMENTS FOR FUTURE MAINTENANCE
BAKER DRAIN 2024
TOWNSHIP OF BLANDFORD-BLENHEIM

ESTIMATED (HYPOTHETICAL) MAINTENANCE COSTS	Main Drain																			Branch "A"				TOTAL							
	Interval 1			Interval 2				Interval 3				Interval 4				Main Drain Total			Branch "A"				TOTAL								
	Station	0+000	to 0+791	Station	0+791	to 0+820	Station	29+58	to 38+00	Station	38+00	to 40+56	Main Drain Total			Station	0+00	to 4+37	TOTAL												
Roll No. (Owner)	Total Ha Affected	Run-off Factor	Total ha Adjusted	60,000				7,500				10,000				2,500				80,000			5,000				85,000				
				Benefit (Sec. 22)	Adj Ha	Outlet (Sec. 23)	%	Benefit (Sec. 22)	Adj Ha	Outlet (Sec. 23)	%	Benefit (Sec. 22)	Adj Ha	Outlet (Sec. 23)	%	Benefit (Sec. 22)	Adj Ha	Outlet (Sec. 23)	%	Total Benefit	Total Outlet	Total	Benefit (Sec. 22)	Adj Ha	Outlet (Sec. 23)	%	Total Benefits	Total Outlets	TOTAL		
Twp of Blandford-Blenheim (Roll No. 32-45-010)																															
040-01800 (J. Ferber & 1058672 Ontario Inc.)	18.1	0.8	14.5	11.2	7,863	13.11		11.2	2,303	30.71		3,000	1.0	352	33.52		800	0.0	0	32.00	3,800	10,518	14,318	2,500	0.0	0	50.00	6,300	10,518	16,818	
040-01810 (J. Ferber & 1058672 Ontario Inc.)	2.1	1.0	2.1	6,000	23.0	16,147	36.91	1,250	0.3	62	17.49		0.0	0	0.00		0.0	0	0.00	7,250	16,209	23,459		0.0	0	0.00	7,250	16,209	23,459		
040-01900 (D. & T. Dyck Steinmann)	30.3	1.0	30.1	9,000	11.0	7,722	27.87		0.0	0	0.00		0.0	0	0.00		0.0	0	0.00	9,000	7,722	16,722		0.0	0	0.00	9,000	7,722	16,722		
040-03400 (Vehof Farms Inc.)	1.1	1.0	1.1		10.3	7,231	12.05		10.3	2,118	28.24		10.3	3,623	36.23		100	10.3	1,153	50.12	100	14,125	14,225		0.0	0	0.00	100	14,125	14,225	
050-03400 (756817 Ontario Ltd.)	19.5	1.0	19.5		5.5	3,861	6.44		5.5	1,131	15.08		5.5	1,935	19.35			0.0	0	0.00	0	6,927	6,927		5.5	2,500	50.00	0	9,427	9,427	
050-03700 (M. & M. Janus)	3.8	1.0	3.8		0.9	632	1.05		0.9	185	2.47		0.9	317	3.17			0.9	101	4.04	0	1,235	1,235		0.0	0	0.00	0	1,235	1,235	
Subtotal (Lands):	74.9		71.1	15,000	61.9	43,456	97.43	1,250	28.2	5,799	93.99	3,000	17.7	6,227	92.27	900	11.2	1,254	86.16	20,150	56,736	76,886	2,500	5.5	2,500	100.00	22,650	59,236	81,886		
Township Road 12 (Township of Blandford-Blenheim)	1.1	2.8	3.1		2.2	1,544	2.57		2.2	451	6.01		2.2	773	7.73		100	2.2	246	13.84	100	3,014	3,114		0.0	0	0.00	100	3,014	3,114	
Subtotal (Roads):	1.1		3.1	0	2.2	1,544	2.57	0	2.2	451	6.01	0	2.2	773	7.73	100	2.2	246	13.84	100	3,014	3,114	0	0.0	0	0.00	100	3,014	3,114		
TOTAL ASSESSMENT BAKER DRAIN:	76.0		74.2	15,000	64.1	45,000	100.00	1,250	30.4	6,250	100.00	3,000	19.9	7,000	100.00	1,000	13.4	1,500	100.00	20,250	59,750	80,000	2,500	5.5	2,500	100.00	22,750	62,250	85,000		

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200 GENERAL CONDITIONS**200.1 SCOPE**

The work to be done under this contract consists of supplying all labour, equipment and materials to construct the drainage work as outlined in the Instructions to Tenderers, the Form of Tender and Agreement, the Schedule of Tender Prices, the Drawings, the General Conditions, Special Provisions and the Standard Specifications.

200.2 ORDER OF PRECEDENCE

In case of any inconsistency or conflict between the drawings and specifications, the following order of precedence shall apply: Addenda, Form of Tender and Agreement, Schedule of Tender Prices, Special Provisions, Contract Drawings, Standard Specifications, General Conditions.

200.3 MUNICIPALITY

Municipality refers to a municipal corporation in the Province of Ontario. Where reference to Township, County, Region, Town, City or Owner appears it shall be deemed to be the same as the word Municipality. Where reference to owner appears in the specifications it is usually in reference to the owner of the property on which the drain is being constructed.

200.4 TENDERS

Tenders are to be submitted on a lump sum basis for the complete works or a portion thereof, as instructed by the Municipality. The Schedule of Tender Prices must be completed and submitted with the Form of Tender and Agreement even though the Contract will be a lump sum. As outlined in the Instructions to Tenders a deposit in the form of a certified cheque, bank draft, bonding or irrevocable letter of credit must accompany each tender as a guarantee of good faith. The deposit shall name the Municipality as the payee. All deposits, except that of the Tenderer to whom the work is awarded, will be returned within 10 days of the time the contract is awarded. The certified cheque of the Tenderer awarded the work will be retained as Contract Security and returned with the Completion Certificate for the work. A Performance Bond may also be required to ensure maintenance of the work for a period of one year after the date of the Completion Certificate.

200.5 EXAMINATION OF SITE, PLANS AND SPECIFICATIONS

Prior to the submission of the Tender, the Tenderer must examine the premises and site to compare them with the Drawings and Specifications in order to be satisfied with the existing conditions and the extent of the work to be done. The Tenderer must ensure that the meaning and intent of the drawings, estimated quantities and specifications is clearly understood before submission of the Tender. No allowances shall be made on behalf of the Contractor by reason of any error made in the preparation of the tender submission.

Any estimates of quantities shown or indicated on the drawings or elsewhere in the tender document are provided for the convenience of the Tenderer. The Tenderer should check the estimate of quantities for accuracy. Any use made of the estimated quantities by the Tenderer in calculating the tendered amounts is done at the Tenderers risk.

200.6 COMMENCEMENT AND COMPLETION OF WORK

The work must commence immediately after the Tenderer is notified of the contract award or at a later date, if set out as a condition in the Form of Tender and Agreement. If weather and ground conditions are unsuitable, work may be started at a later date from either of the above two dates if such delay is approved by the Engineer. The Contractor shall provide a minimum of 48 hours advance notice to the Engineer and the Municipality before commencement of any work. The work must proceed in such manner as to ensure its completion at the earliest possible date consistent with first class workmanship and within the time limit set out in the tender/contract document. Failure to commence or complete the work as set out in the tender/contract document may result in a forfeiture of all or part of the Contract Security if the Engineer deems that damages have been sustained to the Municipality or to any landowner because of the non-commencement or non-completion of the contract as awarded and that the failure to meet the specified dates has been the fault of the Contractor.

200.7 NOTICES RE COMMENCEMENT OF WORK

If the Contractor leaves the job site for a period of time after initiation of work, a minimum of 48 hours advance notice shall be given to the Engineer and the Municipality before commencement of any further work. If any work is commenced without the advance notice the Contractor shall be fully responsible for all such work undertaken prior to such notification and shall make good any works or materials judged to be inadequate or constructed in any manner that may have been subject to alteration if made known to the Engineer prior to commencement of construction.

200.8 PERMITS, NOTICES, LAWS AND RULES

The Contractor shall apply and pay for all necessary permits or licenses required for the execution of the work. This shall not include the obtaining of permanent easements or rights or servitude. The Contractor shall give all necessary notices and pay all fees required by the law and comply with all laws, ordinances, rules and regulations relating to the work and to the preservation of the public's health and safety and if the specifications and drawings are at variance therewith, any resulting additional expense incurred by the Contractor shall constitute an addition to the contract price.

200.9 HEALTH AND SAFETY

Contractor must comply with the Occupational Health and Safety Act (OHSA) and the associated Regulations for Construction Projects. Contractor will also follow any site-specific safety and training requirements of the Municipality, agencies, utility companies or other authorities.

Communication about site-specific hazards and safety requirements shall occur at the pre-construction meeting. If no pre-construction meeting is conducted, Contractor will communicate site-specific hazards and safety requirements before beginning work.

Contractor shall immediately report any workplace incidents, near misses, injuries and occupational illnesses to the Engineer.

200.10 LIMITATIONS OF OPERATIONS

Except for such work as may be required by the Engineer to maintain the works in a safe and satisfactory condition, the Contractor shall not carry out operations under the contract on Sundays or Statutory Holidays without permission in writing from the Engineer. The Engineer may direct in writing to the Contractor to cease or limit operations under the contract on any day or days if the operations are of such a nature, or if the work is so located, or if the traffic is of such a volume, that the Engineer deems it necessary or expedient to do so.

200.11 SUPERVISION

The Contractor shall provide constant supervision of the construction work and shall keep a competent foreman in charge at the site.

200.12 CHARACTER AND EMPLOYMENT OF WORKERS

The Contractor shall employ only orderly, competent and skillful workers to do the work and shall give preference to available qualified residents in the area of the contract. Whenever the Engineer informs the Contractor in writing that any workers are, in the opinion of the Engineer, disorderly, incompetent, or breaking the law, such workers shall be discharged from the job site and shall not again be employed on the job site without the written consent of the Engineer.

200.13 SUB-CONTRACTORS

If the Municipality so directs, the Contractor shall not sublet the whole or any part of this contract without the approval of the Engineer.

200.14 PAYMENT

Progress payments in cash equal to about 90% of the value of the work done and materials incorporated in the work will be made to the Contractor monthly. If directed by the Engineer the Contractor may be required to provide a written request for the progress payment amount. An additional 7% will be paid 45 days after the date of the Completion Certificate by the Engineer and 3% of the contract price may be reserved by the Municipality as a maintenance holdback for one year from the date of the Completion Certificate.

The holdbacks noted above may be increased by the Municipality if, in the written opinion of the Engineer, particular conditions of the contract require such greater holdback.

After the completion of the work any part of maintenance holdback may be used to correct defects from faulty construction and/or materials provided that notice shall first be given by the Engineer in writing to the Contractor stating that the Contractor has seven (7) days in which to remedy the defect in construction and/or materials.

200.15 TERMINATION OF CONTRACT BY THE MUNICIPALITY

Termination of the contract by the Municipality may be considered if the Contractor:

1. should be adjudged bankrupt or make a general assignment for the benefit of creditors or if a receiver should be appointed on account of insolvency;
2. should refuse or fail to supply enough properly skilled workmen or proper materials after having received seven (7) days' notice in writing from the Engineer to supply such additional workmen or materials in order to commence or complete the works;
3. should fail to make prompt payment to sub-contractors or for materials or labour;
4. should persistently disregard laws, ordinances, or instructions from the Engineer, or otherwise be guilty of a substantial violation of the provisions of the contract;

then the Municipality, upon Certificate of the Engineer that sufficient cause exists to justify such action, may without prejudice to any other right or remedy, give written notice to the Contractor to terminate the employment of the Contractor and take possession of the premises, and of all materials, tools and appliances thereon, and may finish the work by whatever method the Municipality may deem expedient, but without undue delay or expense. In such case, the Contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract price will exceed the expense of finishing the work including compensation to the Engineer for additional services and including other damages of every name and nature, such excess shall be paid to the

Contractor. If such expense will exceed such unpaid balance including the Contract Security, the Contractor shall pay the difference to the Municipality. The expense incurred by the Municipality, as herein provided, shall be certified by the Engineer. If the contract is terminated by the Municipality due to the Contractor's failure to properly commence the works, the Contractor shall forfeit the Contract Security and furthermore shall pay to the Municipality an amount to cover the increased costs, if any, associated with a new tender for the contract being terminated.

If any unpaid balance and the Contract Security do not equal the monies owed by the Contractor upon the termination of the contract, the Municipality may also charge such expenses against any money which is or may thereafter be due to the Contractor from the Municipality.

200.16 LIQUIDATED DAMAGES

It is agreed by the parties to the Contract that in case all the work called for under the Contract is not finished or complete within the period of time as set forth in the Tender/Contract Document, damage will be sustained by the Municipality. It is understood by the parties that it will be impracticable and extremely difficult to ascertain and determine the actual damage which the Municipality will sustain in the event of and by reason of such delay. The parties hereto agree that the Contractor will pay to the Municipality a sum as set out in the Form of Tender and Agreement for liquidated damages for each and every calendar day delay, including Saturdays, Sundays and Statutory Holidays, in finishing the work in excess of the number of working days prescribed. It is agreed that the liquidated damages amount is an estimate of the actual damage to the Municipality which will accrue during the period in excess of the prescribed number of working days.

The Municipality may deduct any amount due under this section from any monies that may be due or payable to the Contractor on any account whatsoever. The liquidated damages payable under this section are in addition to and without prejudice to any other remedy, action or other alternative that may be available to the Municipality.

The Contractor shall not be assessed with liquidated damages for any delay caused by acts of nature, or of the Public Enemy, Acts of the Province or of any Foreign State, Fire, Flood, Epidemics, Quarantine Restrictions, Embargoes or any delays of Sub-Contractors due to such causes.

If the time available for the completion of the work is increased or decreased by reason of alterations or changes made under the provisions of the Contract, the number of working days shall be increased or decreased as determined by the Engineer.

If the Form of Tender and Agreement does not show an amount for Liquidated Damages then Liquidated Damages do not apply for this contract.

200.17 CONTRACTOR'S LIABILITY

The Contractor and all workers, agents or any party under the Contractor's control, including Sub-Contractors, shall use due care that no person or property is injured and that no rights are infringed during the construction work outlined in the contract. The Contractor shall be solely responsible for all damages by whomsoever claimable in respect of any injury to persons or to lands, buildings, structures, fences, livestock, trees, crops, roadways, ditches, drains and watercourses, whether natural or artificial, or property of whatever description and in respect of any infringement of any right, privilege or easement wherever occasioned in the carrying on of the work or any part thereof, or by any neglect, misfeasance or non-feasance on the Contractor's part or on the part of any workers, agents or parties under the Contractor's control including Sub-Contractors, and shall bear the full cost thereof. The Contractor shall be fully responsible to make such temporary provisions as may be necessary to ensure the avoidance of any such damage, injury or infringement and to prevent the interruption of or danger or menace to the traffic in any railway or any public or private road entrance or sidewalk and to secure to all persons and corporations the uninterrupted enjoyment of all their rights, in and during the performance of the work. The Contractor shall indemnify and save harmless

the Municipality and the Engineer from and against all claims, demands, losses, costs, damages, actions, suits or other proceedings by whomsoever made, brought or prosecuted in any manner based upon, occasioned by, or attributed to any such damage, injury or infringement.

Wherever any work is of such an extent and nature that it must necessarily be confined to particular areas of a roadway, a working area, or private property, the Contractor shall use reasonable care not to damage or deface the remaining portions of the property, and if any damage is occasioned as a result of the Contractor's operations, it shall be rectified by and at the expense of the Contractor, to the satisfaction of the Engineer. Notwithstanding the indemnity provisions contained in this section, where in the opinion of the Engineer the Contractor has failed to rectify any damage, injury or infringement or has failed to adequately compensate any person for any damage, injury or infringement for which the Contractor is responsible under the contract, the Engineer, following notice in writing to the Contractor of an intention so to do, may withhold payment of any monies due the Contractor under this or any other contract until the Contractor has rectified such damage, injury or infringement or has paid adequate compensation for such damage, injury or infringement, provided however, that the Municipality will not withhold such monies where in the opinion of the Engineer there are reasonable grounds upon which the Contractor denies liability for such damage, injury or infringement and the Contractor has given the claimant a reasonable time in which to establish the validity of the claim, and provided further that the amount withheld under this section shall not exceed the amount of such claims against the Contractor.

Where the Contractor uses privately owned lands for pits or waste disposal areas, the Contractor shall comply with applicable laws and provide the Engineer with a release signed by or on behalf of the owner of each pit or waste disposal area used by the Contractor. If the said release is not obtained, then sufficient monies will be withheld from the Contractor except, however, where the owner's signature is withheld solely on the basis of damage, injury, or infringement it will be dealt with as provided elsewhere in this subsection.

Nothing herein contained shall be construed as in any way restricting or limiting the liability of the Contractor under the laws of the country, province or locality in which the work is being done. Neither the Completion Certificate nor final payment thereunder, nor any provision in the Contract Document shall relieve the Contractor from this liability.

200.18 LIABILITY INSURANCE

The Contractor shall take out and keep in force until the date of acceptance of the entire work by the Engineer, a comprehensive policy of public liability and property damage insurance providing insurance coverage of at least \$3,000,000 for each and every accident, exclusive of interest and cost, against loss or damage resulting from bodily injury to or death of one or more persons and loss of or damage to property and such policy shall where, and as requested by the Municipality, name the Municipality and the Engineer as an additional insured thereunder and shall protect the Municipality against all claims for all damage or injury including death to any person or persons and for damage to any property of the Municipality or any other public or private property resulting from or arising out of any act or omission on part of the Contractor or any of his servants or agents during the execution of the Contract.

200.19 LOSSES DUE TO ACTS OF NATURE, ETC.

All damage, loss, expense and delay incurred or experienced by the Contractor in the prosecution of the work, by reason of unanticipated difficulties, bad weather, strikes, wars, acts of nature, or other mischances, shall be borne by the Contractor and shall not be the subject of a claim for additional compensation.

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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.

STANDARD SPECIFICATIONS**FOR****TILE DRAINS****TABLE OF CONTENTS**

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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 that 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 that 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 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.



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.

NOTES:
 -ALL ROLL NUMBERS IN BEGIN WITH 32-45-010
 ie. 040-01810 IN FULL IS 32-45-010-040-01810

BENCHMARKS

BM#1 TOP HEAD OF SPIKE SE FACE CORNER FENCE POST APPROX. 75m NORTH OF OUTLET ELEV. 307.309	BM#3 CUT CROSS ON HEADWALL N SIDE OLD RAIL BED WHERE SURFACE WATER ENTERS ELEV. 315.984
BM#2 CUT CORNER N END OF HIGH WALL OF 600X600mm DICB ON L/F ELEV. 312.464	BM#4 SPIKE IN W FACE H.P. SOUTH SIDE TWP ROAD 12 20m± EASTING OF CROSSING ELEV. 321.717

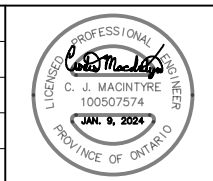
PLAN LEGEND

- WATERSHED
- - - SUBWATERSHED
- PROPOSED WORK OR INCORPORATION
- EXISTING DRAIN
- ~ DITCH OR WATERCOURSE
- ... ACCESS
- 6.0 APPROXIMATE HECTARES IN WATERSHED
- 5.2 ha. HECTARES OWNED
- (050-07400) ASSESSMENT ROLL NUMBER
- BUSH

GEOGRAPHIC TOWNSHIP OF BLANDFORD

NO.	DESCRIPTION	DATE
1	ISSUED FOR APPROVALS	DEC. 12, 2023
2	ISSUED FOR REPORT	JAN. 9, 2024
3	ISSUED FOR TENDER	
4	ISSUED FOR CONSTRUCTION	
5	AS BUILT	

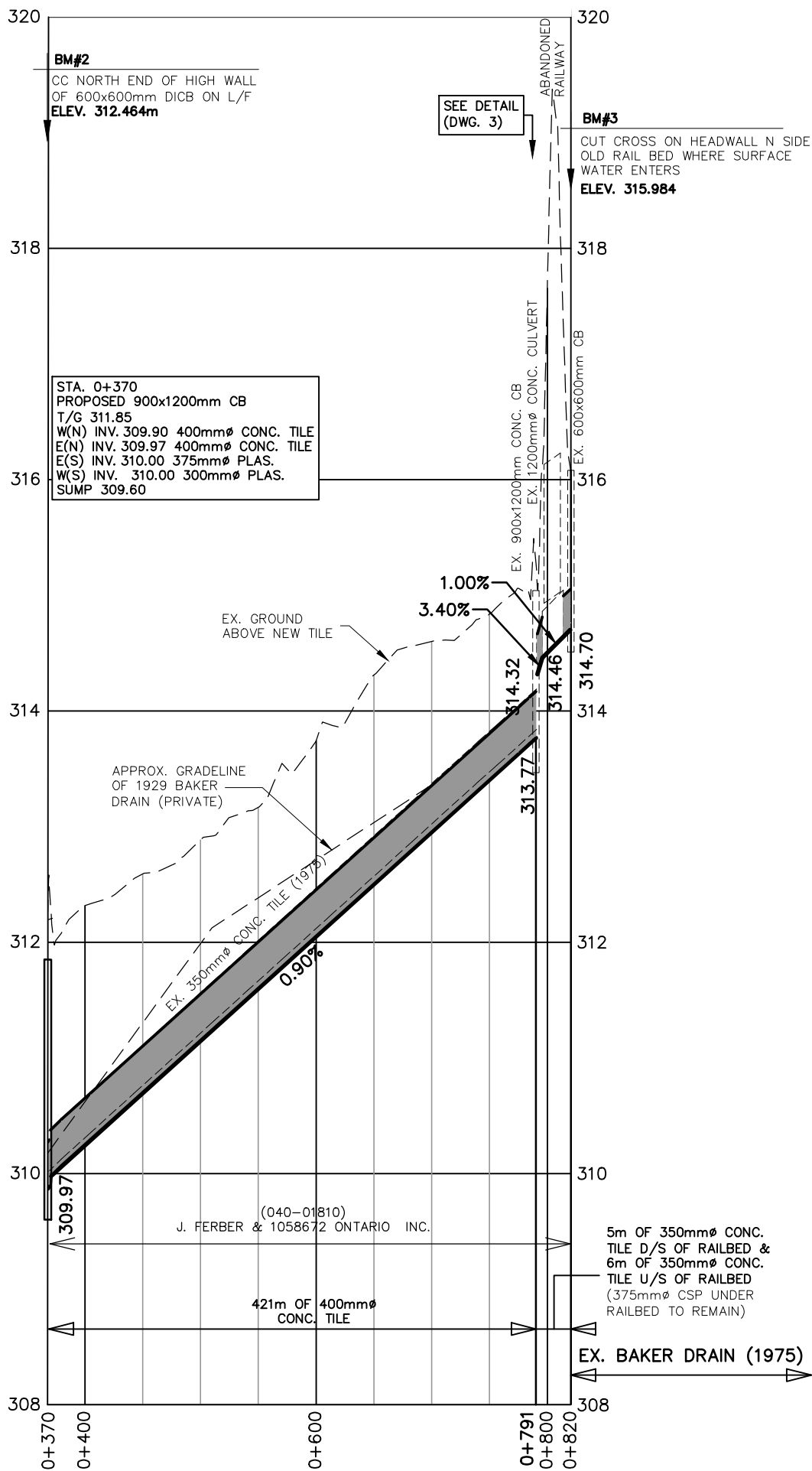
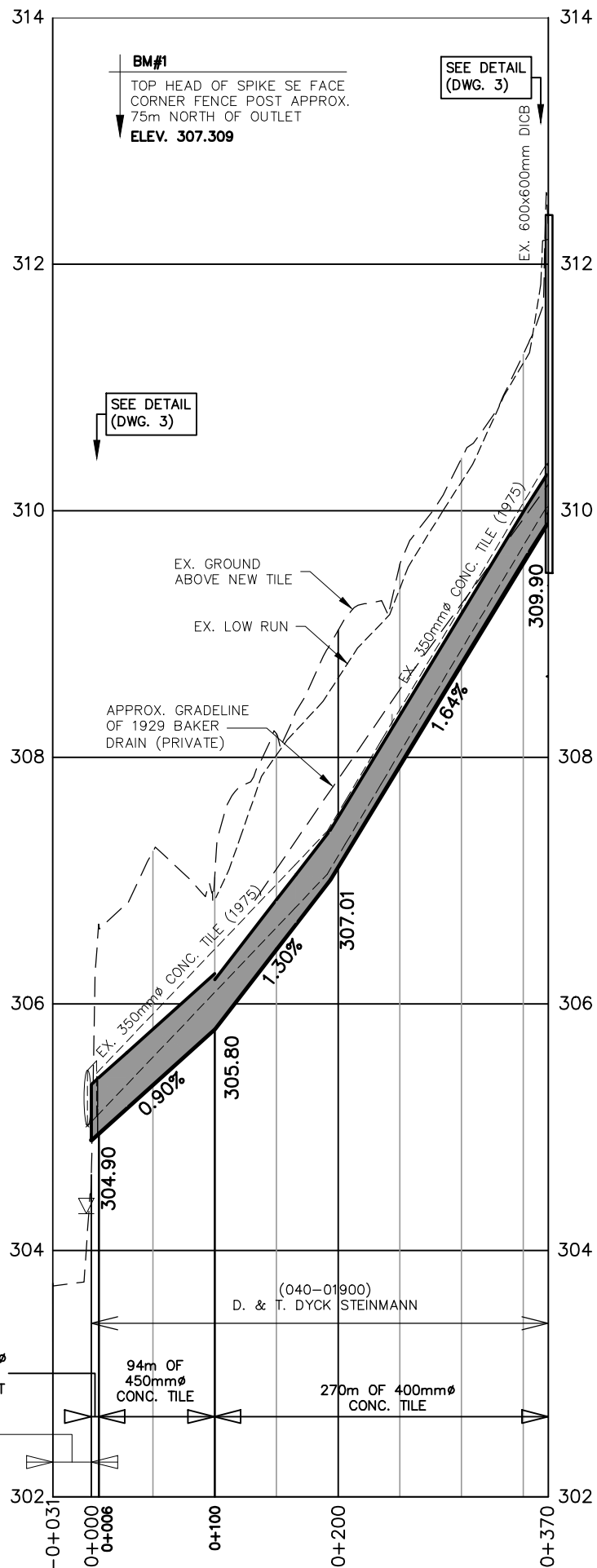
DESIGNED BY: C.J.M.
 CHECKED BY: C.J.M.
 DRAWN BY: V.E.S.
 CHECKED BY: C.J.M.



SCALE
 0 100 200m
 1 : 10,000
 (ON 11"x17")

BAKER DRAIN 2024
 COUNTY OF OXFORD TOWNSHIP OF BLANDFORD-BLENHEIM

WATERSHED PLAN	JAN. 9, 2024
K. SMART ASSOCIATES LIMITED CONSULTING ENGINEERS AND PLANNERS KITCHENER SUDBURY	REVISED: JOB NUMBER: 22-313 DRAWING 1 OF 3



300) SPECIAL PROVISIONS

300.1) CONSTRUCTION SPECIFICATIONS- GENERAL NOTES

- 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 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.
- 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 A TOTAL WIDTH OF 25m.
AFTER THE DRAIN IS CONSTRUCTED, THE WORKING AREA FOR THE PURPOSE OF FUTURE MAINTENANCE SHALL BE AS SPECIFIED IN S.S. 400.4 OF THIS REPORT.
- ACCESS**
ACCESS TO THE WORKING AREA SHALL BE FROM ROAD ALLOWANCES AND AS DESIGNATED ON THE DRAWINGS AND/OR SPECIFIC NOTES. SEE "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF DRAINS 400.5 & 400.6".
- INSTALLATION OF CONCRETE TILE**
ON STRAIGHT RUNS, ENSURE TILE JOINTS ARE PARALLEL, TILE WRAP IS FLAT AND COVERS JOINT EVENLY WITH OVERLAP. 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. ALL INTERCEPTED LATERAL TILE ARE TO BE FLAGGED AT THE CONNECTION SO THE ENGINEER CAN GPS.

300.2) CONSTRUCTION SPECIFICATIONS - SPECIFIC NOTES

D. & T. DYCK STEINMANN (040-01900)

0+000 TO 0+006 -SEE NOTES ON DWG. 3

0+006 TO 0+100 -94m OF 450mm CONCRETE TILE WITH JOINT WRAP ON NORTH SIDE OF EXISTING 1975 BAKER DRAIN TILE.

0+100 TO 0+370 -270m OF 400mm CONCRETE TILE WITH JOINT WRAP ON NORTH SIDE OF EXISTING 1975 BAKER DRAIN TILE. BASED ON BLOWOUTS IN FIELD, NEW TILE IS ALSO LIKELY TO BE INSTALLED ON NORTH SIDE OF 1929 TILE.
-BREAK UP AND BURY EXISTING 250mm CONC. TILE (1929).

J. FERBER & 1058672 ONTARIO INC. (040-01810)

0+370 -SEE NOTES ON DWG. 3

0+370 TO 0+791 -421m OF 400mm CONCRETE TILE WITH JOINT WRAP ON NORTH SIDE OF EXISTING 1975 BAKER DRAIN TILE. LOCATION OF 1929 TILE THROUGH FERBER FARM UNKNOWN. INSTALLATION OF 1929 TILE ON NORTH OR SOUTH SIDE OF EXISTING 1929 TILE TO BE DETERMINED BASED ON PRE-LOCATES.
-BREAK UP AND BURY EXISTING 250mm CONC. TILE (1929).

0+791 TO 0+820 -SEE NOTES ON DWG. 3

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4	ISSUED FOR CONSTRUCTION	
5	AS BUILT	

DESIGNED BY: C.J.M.
CHECKED BY: C.J.M.
DRAWN BY: M.C.J.
CHECKED BY: C.J.M.

0 50 100m
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HORZ.

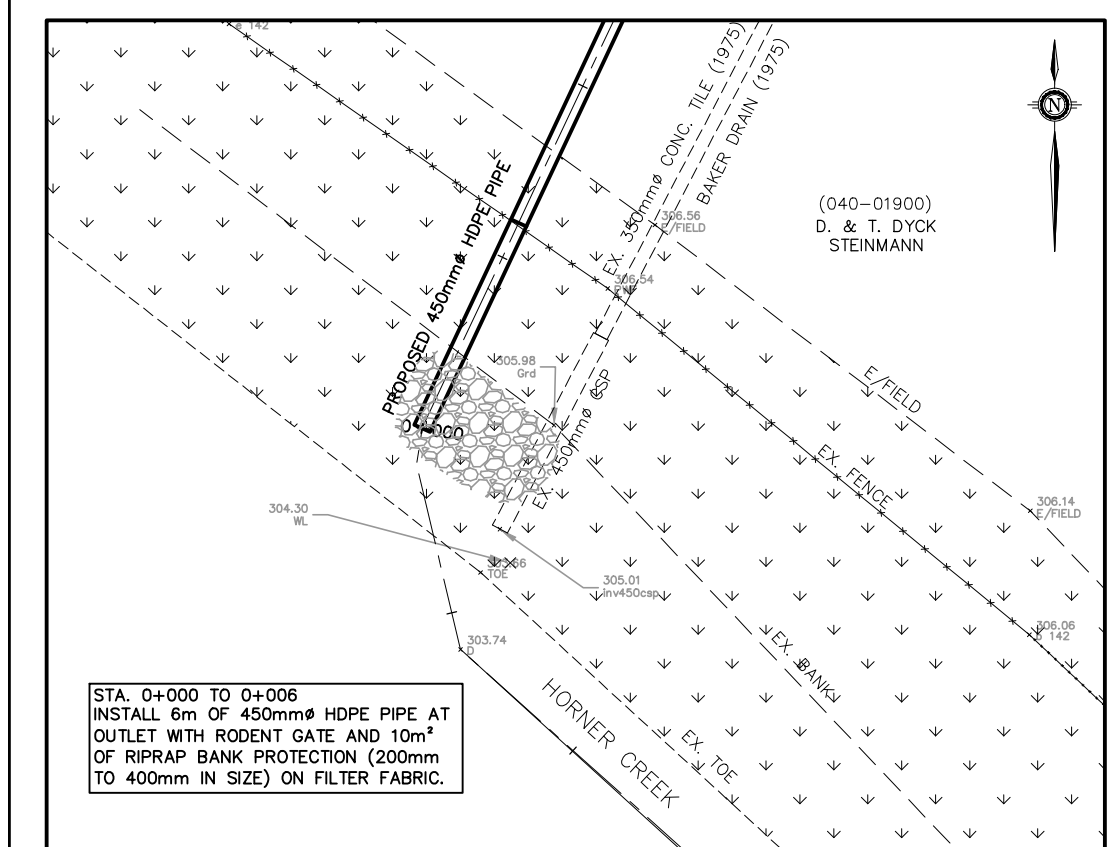
0 0.5 1m
SCALE 1 : 50
VERT.
(ON 11"x17")

BAKER DRAIN 2024
COUNTY OF OXFORD TOWNSHIP OF BLANDFORD-BLENHEIM

PROFILE JAN. 9, 2024

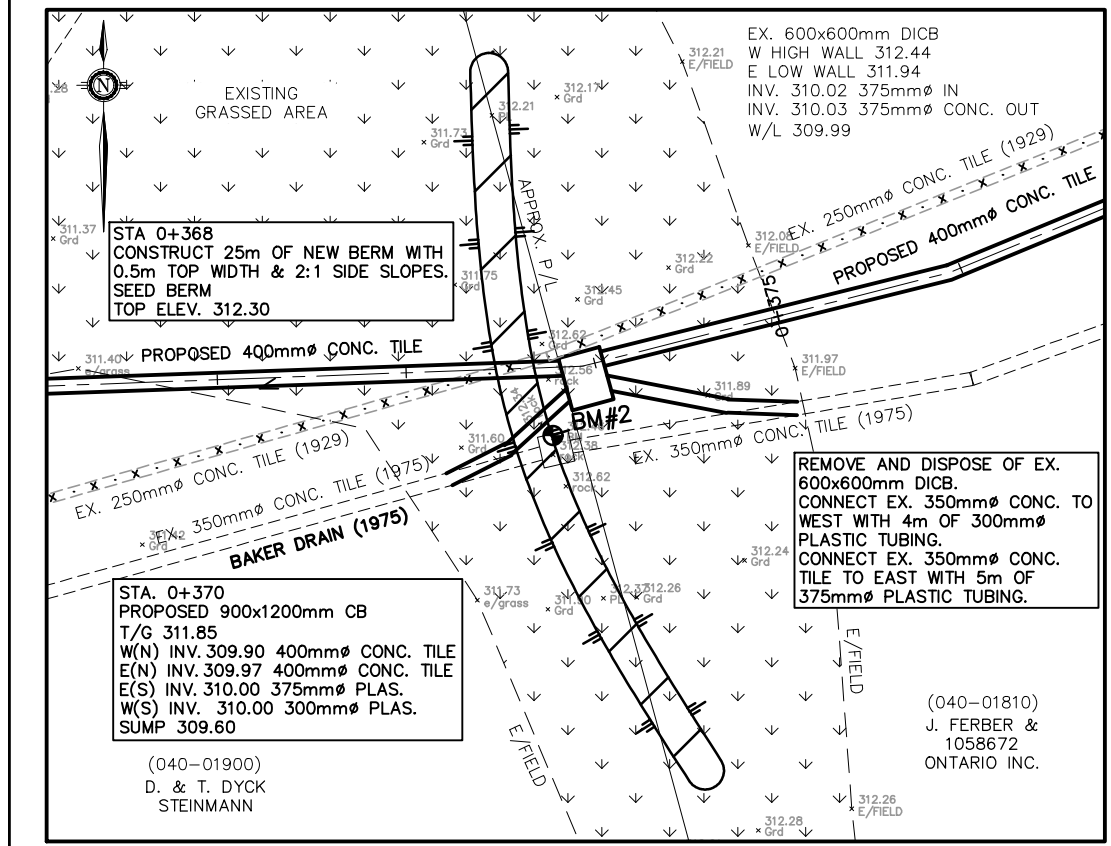
REVISED:
JOB NUMBER: **22-313**
DRAWING
2 OF 3

K. SMART ASSOCIATES LIMITED
CONSULTING ENGINEERS AND PLANNERS
KITCHENER SUDBURY



STA. 0+000 TO 0+006
INSTALL 6m OF 450mm ϕ HDPE PIPE AT
OUTLET WITH RODENT GATE AND 10m²
OF RIPRAP BANK PROTECTION (200mm
TO 400mm IN SIZE) ON FILTER FABRIC.

DETAIL: OUTLET

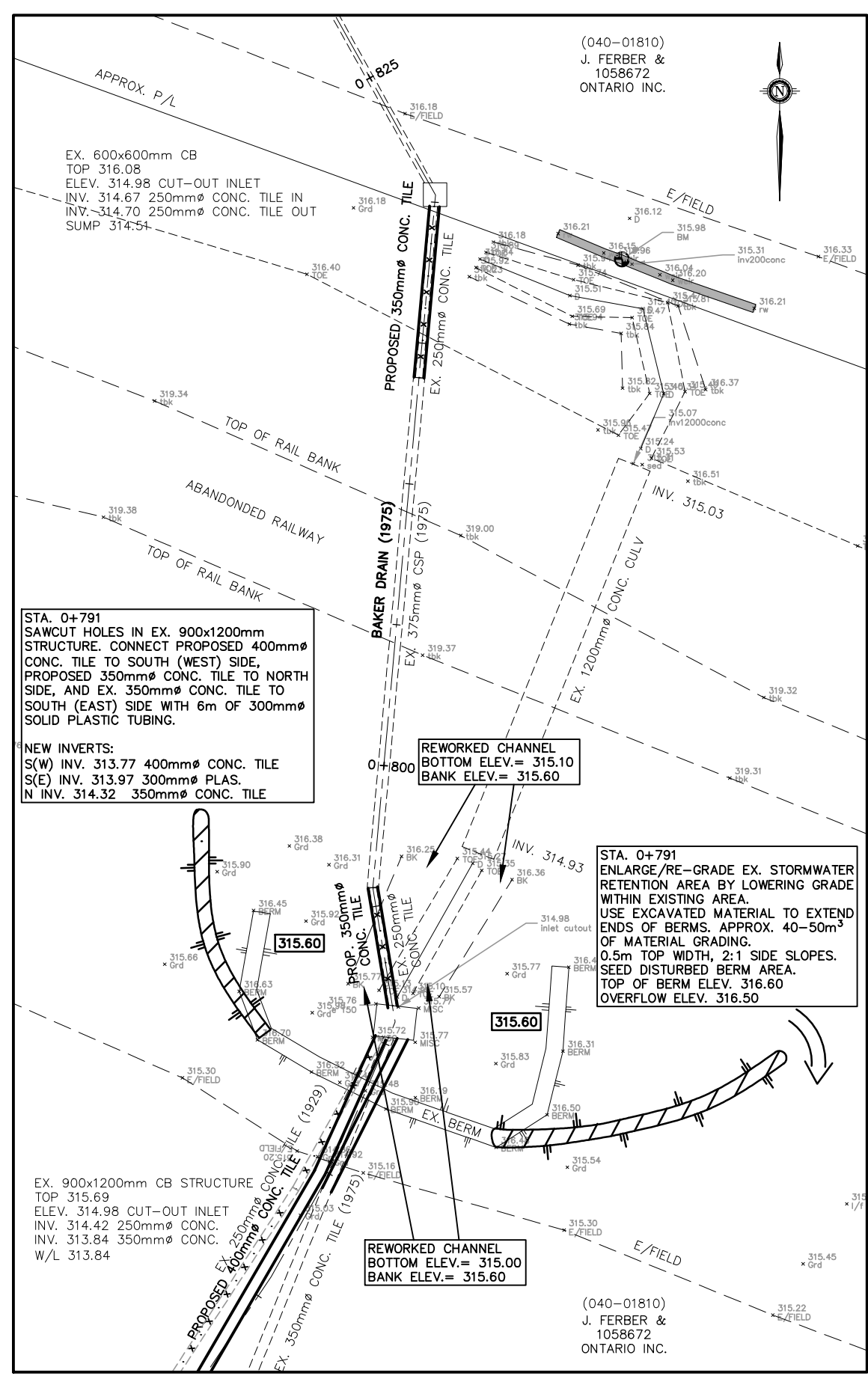


STA 0+368
CONSTRUCT 25m OF NEW BERM WITH
0.5m TOP WIDTH & 2:1 SIDE SLOPES.
SEED BERM
TOP ELEV. 312.30

STA. 0+370
PROPOSED 900x1200mm CB
T/G 311.85
W(N) INV. 309.90 400mm ϕ CONC. TILE
E(N) INV. 309.97 400mm ϕ CONC. TILE
E(S) INV. 310.00 375mm ϕ PLAS.
W(S) INV. 310.00 300mm ϕ PLAS.
SUMP 309.60

REMOVE AND DISPOSE OF EX.
600x600mm DICB.
CONNECT EX. 350mm ϕ CONC. TO
WEST WITH 4m OF 300mm ϕ
PLASTIC TUBING.
CONNECT EX. 350mm ϕ CONC.
TILE TO EAST WITH 5m OF
375mm ϕ PLASTIC TUBING.

DETAIL: STA. 0+370



STA. 0+791
SAWCUT HOLES IN EX. 900x1200mm
STRUCTURE. CONNECT PROPOSED 400mm ϕ
CONC. TILE TO SOUTH (WEST) SIDE,
PROPOSED 350mm ϕ CONC. TILE TO NORTH
SIDE, AND EX. 350mm ϕ CONC. TILE TO
SOUTH (EAST) SIDE WITH 6m OF 300mm ϕ
SOLID PLASTIC TUBING.

NEW INVERTS:
S(W) INV. 313.77 400mm ϕ CONC. TILE
S(E) INV. 313.97 300mm ϕ PLAS.
N INV. 314.32 350mm ϕ CONC. TILE

REWORKED CHANNEL
BOTTOM ELEV.= 315.10
BANK ELEV.= 315.60

STA. 0+791
ENLARGE/RE-GRADE EX. STORMWATER
RETENTION AREA BY LOWERING GRADE
WITHIN EXISTING AREA.
USE EXCAVATED MATERIAL TO EXTEND
ENDS OF BERMS. APPROX. 40-50m³
OF MATERIAL GRADING.
0.5m TOP WIDTH, 2:1 SIDE SLOPES.
SEED DISTURBED BERM AREA.
TOP OF BERM ELEV. 316.60
OVERFLOW ELEV. 316.50

EX. 900x1200mm CB STRUCTURE
TOP 315.69
ELEV. 314.98 CUT-OUT INLET
INV. 314.42 250mm ϕ CONC.
INV. 313.84 350mm ϕ CONC.
W/L 313.84

REWORKED CHANNEL
BOTTOM ELEV.= 315.00
BANK ELEV.= 315.60

DETAIL: STA. 0+791

300) SPECIAL PROVISIONS

300.1) CONSTRUCTION SPECIFICATIONS- GENERAL NOTES
1. 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 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.

2. 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 A TOTAL WIDTH OF 25m.
AFTER THE DRAIN IS CONSTRUCTED, THE WORKING AREA FOR THE PURPOSE OF FUTURE MAINTENANCE SHALL BE AS SPECIFIED IN S.S. 400.4 OF THIS REPORT.

3. ACCESS
ACCESS TO THE WORKING AREA SHALL BE FROM ROAD ALLOWANCES AND AS DESIGNATED ON THE DRAWINGS AND/OR SPECIFIC NOTES. SEE "STANDARD SPECIFICATIONS FOR CONSTRUCTION OF DRAINS 400.5 & 400.6".

4. INSTALLATION OF CONCRETE TILE
ON STRAIGHT RUNS, ENSURE TILE JOINTS ARE PARALLEL, TILE WRAP IS FLAT AND COVERS JOINT EVENLY WITH OVERLAP. 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. ALL INTERCEPTED LATERAL TILE ARE TO BE FLAGGED AT THE CONNECTION SO THE ENGINEER CAN GPS.

300.2) CONSTRUCTION SPECIFICATIONS - SPECIFIC NOTES
D. & T. DYCK STEINMANN (040-01900)
0+000 TO 0+006 -6m OF 450mm ϕ HDPE PIPE AT OUTLET WITH RODENT GATE AND 10m² OF RIPRAP BANK PROTECTION (200mm TO 400mm IN SIZE) ON FILTER FABRIC.

0+368 -CONSTRUCT 25m OF NEW BERM AS PER DETAIL. USE SUITABLE MATERIAL LOCATED OUTSIDE EDGE OF FIELD, DIRECTLY UPSTREAM OF PROPOSED BERM.

J. FERBER & 1058672 ONTARIO INC. (040-01810)
0+370 -REMOVE AND DISPOSAL OF EX. 600x600mm CB
-CONSTRUCT 900x1200mm CONCRETE CATCHBASIN, INCLUDING CONNECTIONS, BIRD-CAGE GRATE AND MARKER. CONNECTIONS INCLUDE APPROX. 4m OF 300mm ϕ PLASTIC TUBING TO DOWNSTREAM 350mm ϕ CONC. TILE (1975), AND 5m OF 375mm ϕ PLASTIC TUBING TO UPSTREAM 350mm ϕ CONC. TILE (1975).
-RE-USE EXISTING STONE PILE AT THIS AREA TO SURROUND CATCHBASIN.

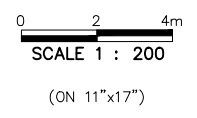
0+791 (CATCHBASIN)
-SEE NOTE ON DRAWING FOR INSTRUCTIONS TO SAWCUT NEW HOLES IN EXISTING STRUCTURE TO CONNECT NEW 400mm ϕ and 350mm ϕ CONC. TILES, AND EXISTING 350mm ϕ CONC. TILE (1975).

0+791 (STORMWATER RETENTION AREA)
-UNCROPPED AREA BETWEEN EXISTING CATCHBASIN AND OUTLET OF 1200mm ϕ CONCRETE CULVERT TO BE RE-WORKED INTO A STORMWATER RETENTION AREA.
-CHANNEL BETWEEN CULVERT AND CATCHBASIN TO BE RE-WORKED AS PER ELEVATIONS ON DETAIL TO DIRECT SURFACE WATER DIRECTLY TO CATCHBASIN IN LOW FLOW CONDITIONS.
-SECOND STAGE OF RETENTION AREA TO REQUIRE EXCAVATION OF EXISTING GROUND TO AN ELEVATION OF 315.60.
-EXCAVATED MATERIAL TO BE USED TO EXTEND/RE-WORK EXISTING EARTH BERM AS PER DETAIL.

0+791 TO 0+820 -REMOVE AND DISPOSE OF 5m OF EXISTING 250mm ϕ CONC. TILE BETWEEN EXISTING 900x1200mm CATCHBASIN AND 375mm ϕ CSP DOWNSTREAM OF RAIL BED, AS WELL AS 6m OF EXISTING 250mm ϕ CONC. TILE BETWEEN 375mm ϕ CSP AND EXISTING 600x600mm CATCHBASIN UPSTREAM OF RAIL BED.
-INSTALL SAME LENGTHS OF NEW 350mm ϕ CONC. TILE, CONNECTED TO EXISTING CSP AND CATCHBASINS. SAWCUT LARGER HOLES IN CATCHBASINS FOR NEW TILES.

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5	AS BUILT	

DESIGNED BY: C.J.M.
CHECKED BY: C.J.M.
DRAWN BY: M.C.J.
CHECKED BY: C.J.M.



BAKER DRAIN 2024
COUNTY OF OXFORD TOWNSHIP OF BLANDFORD-BLENHEIM

DETAIL JAN. 9, 2024

REVISED:
JOB NUMBER: 22-313
DRAWING: 3 OF 3



TOWNSHIP OF BLANDFORD-BLENHEIM

Agenda Item

To:	Members of Council	From:	Adam Degier Drainage Superintendent
Reviewed By:	Josh Brick, CAO	Date:	February 1, 2024
Subject:	Monthly Report	Council Meeting Date:	February 7, 2024
Report #:	DS-24-04		

Recommendation:

That Report DS-24-04 be received as information.

Background:

Monthly activities of the Drainage Department to January 31, 2024.

Analysis/Discussion

- Working on drain maintenance and various site meeting to review work required with ratepayers.
- Commenting on planning applications
- 6 locates for ON 1 Call in January 2024 including 0 emergency locates.
- Baker Drain: Engineer has filed report dated January 9, 2024 this report will be considered by council on February 7, 2024.

Background: Council accepted petition on September 7th 2022 for repair and improvements. Curtis MacIntyre of K Smart & Associates was appointed on October 19, 2022 project.

- Mitchell Drain: Engineer has filled report dated December 15, 2023 this report will be considered by council on February 7, 2024.

Background: Petitions from the County and Region for drainage works at Trussler Road and Oxford Road 8 were accepted by the Council. Engineer Kenn Smart was appointed on September 4, 2019. A meeting with Folling and Hurlbut discussed the project's next steps. The road petition had a site meeting on January 29, 2020. A site review with Curtis MacIntyre took place, leading to a future meeting with Ratepayers in the summer of 2023. A comprehensive file review was conducted. Another petition

was received on October 18, prompting the Council to appoint an Engineer on December 6, 2023.

- Hotson Drain: Work began the week of November 20, 2023 work is 90% complete.

Background: Drainage petition received by Council June 15 2022. Engineer appointed August 3, 2022. Report filed August 8, 2023, by Curtis MacIntyre P. Eng. Report was accepted on September 6, 2023, COR on October 4 2023. Third reading of By-law October 18.

- Princeton Drainage System 2022: Ongoing

Background: Report dated July 29/22 filed with the Township on August 8, 2022. Consideration of report was September 7th, 2022. Court of revision on October 5, 2022 council meeting, By-law 2313-2022 passed October 19, 2022. Construction of Romano SWMP is 99% complete. Construction of the Greenhouse Pond to begin in the coming weeks. Phase 1 was completed in October 2023. CN boring completed October 2023. Working on tender for next Phase.

- Other drain projects:
 - a. Drumbo SWMP Section 78 – Site meeting was January 18
 - b. Hubbard Zinn Drain – Engineer Appointed
 - c. Hughes Drain – Engineer Appointed
 - d. Holt Drain (Brant County) – Engineer Appointed
 - e. Hanchiruk Drain – On Hold
- Ongoing work for CLI-ECA (Consolidated Linear Infrastructure – Environmental Compliance Approval) Manual, Municipal Service Standards, and GIS map updates for various agencies
- Attended 2 council meetings
- Attended DSAO/LICO Conference 2024

Respectfully submitted by:

Adam Degier - Drainage Superintendent



TOWNSHIP OF BLANDFORD-BLENHEIM

Agenda Item

To:	Members of Council	From:	Adam Degier Drainage Superintendent
Reviewed By:	Josh Brick, CAO	Date:	February 1, 2024
Subject:	Petition for Drainage Appointment of Engineer - Cressridge	Council Meeting Date:	February 7, 2024
Report #:	DS-24-05		

Recommendation:

That Report DS-24-05 be received as Information; and,

Whereas the Grand River Conservation Authority have not registered any comments to the petition for drainage work for the Part of Lot 17, Concession 13 (Blenheim), to incorporate the drains that were installed by Greg Voisin Investment Corporation for Cress-Ridge Development as included in Plan 41M10323 parts 1,2,3;

Be it resolved that Council appoints K Smart & Associates Ltd., 85 McIntyre Dr. Kitchener, Ont. N2R 1H6, to prepare a new drainage report as per the petition accordance with Section 4 of the Drainage Act.

Background:

The Township has received a signed petition by Greg Voisin Investment Corporation for Part Lot 17 Con.13 Blenheim to incorporate the existing storm drainage system installed that was installed as part of the subdivision for Plan 41M10323.

The GRCA have been notified of council intention to proceed with the petition accepted at the December 20 2023 council meeting.

Also, Council has not received any request for cost benefit statements or environmental appraisal as per Section 6 and 7 of the Drainage Act

Analysis/Discussion:

Therefore, in accordance with Section 8 of the Drainage Act Council may appoint an Engineer to prepare a report in accordance with Section 4 of the Act

Financial Considerations:

The cost of a municipal drain is assessed to the landowners in the area requiring drainage

Attachments:

Copy of petition and area to be impacted by petition

Respectfully submitted by:

Adam Degier



cress-ridgedevelop
mentplattsville.pdf



petitioncress-ridge
developmentplattsvi



CRESS-RIDGE DEVELOPMENT Plattsville

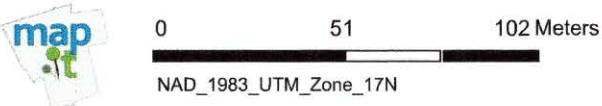
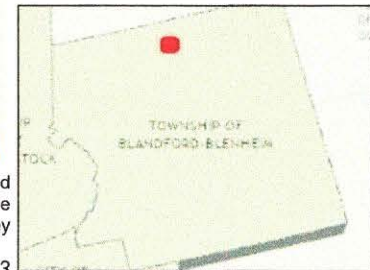


Legend

- Parcel Lines
- Property Boundary
- Assessment Boundary
- Unit
- Road
- Municipal Boundary

SUBJECT AREA

Notes



This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. This is not a plan of survey

December 14, 2023

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

To: The Council of the Corporation of the Township of BLANDFORD BLENHEIM

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

THIS REQUEST IS TO INCORPORATE THE DRAINS THAT WHERE INSTALL AS PART OF THE CRESS-RIDGE DEVELOPMENT at Pt. Lot 17 Con 13 (Blenheim) also Parts 1,2,3 Plan 41R10323

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

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

Purpose of the Petition (To be completed by one of the petitioners. Please type/print)

Contact Person (Last Name) Zimmer	(First Name) John	Telephone Number 416 819-9466 ext.
---	-----------------------------	--

Address	
Road/Street Number	Road/Street Name

Location of Project			
Lot pt 17	Concession 13	Municipality Twp. Blandford Blenheim	Former Municipality (if applicable) Blenheim

What work do you require? (Check all appropriate boxes)

- Construction of new open channel
- Construction of new tile drain
- Deepening or widening of existing watercourse (not currently a municipal drain)
- Enclosure of existing watercourse (not currently a municipal drain)
- Other (provide description ▼)

incorporation of existing storm drainage system at Cress-Ridge Development

Name of watercourse (if known)
Nith River

Estimated length of project

General description of soils in the area
clay and silts

What is the purpose of the proposed work? (Check appropriate box)

- Tile drainage only
- Surface water drainage only
- Both

Petition filed this _____ day of _____, 20__

Name of Clerk (Last, first name)	Signature
----------------------------------	-----------

- Your municipal property tax bill will provide the property description and parcel roll number.
- In rural areas, the property description should be in the form of (part) lot and concession and civic address.
- In urban areas, the property description should be in the form of street address and lot and plan number if available.
- If you have more than two properties, please take copy(ies) of this page and continue to list them all.

Number	Property Description Pt. Lot 17 Con 13 Blenheim including Plan 41R10323 parts 1,2,3
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Ward or Geographic Township Blenheim	Parcel Roll Number 3245-020-080-271-02
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I hereby petition for drainage for the land described and acknowledge my financial obligations.

Ownership

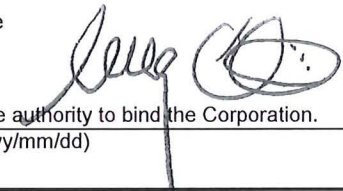
Sole Ownership

Owner Name (Last, First Name) (Type/Print)	Signature	Date (yyyy/mm/dd)
--	-----------	-------------------

Partnership (Each partner in the ownership of the property must sign the petition form)

Owner Name (Last, First Name) (Type/Print)	Signature	Date (yyyy/mm/dd)

Corporation (The individual with authority to bind the corporation must sign the petition)

Name of Signing Officer (Last, First Name) (Type/Print)	Signature
Name of Corporation Greg Voisin Investment Corporation	 I have the authority to bind the Corporation.
Position Title	

Number	Property Description
---------------	-----------------------------

Ward or Geographic Township	Parcel Roll Number
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Ownership

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Owner Name (Last, First Name) (Type/Print)	Signature	Date (yyyy/mm/dd)
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Position Title	

<input type="checkbox"/> Check here if additional sheets are attached	Clerk initial
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Petitioners become financially responsible as soon as they sign a petition.

- Once the petition is accepted by council, an engineer is appointed to respond to the petition. *Drainage Act*, R.S.O. 1990, c. D. 17 subs. 8(1).
- After the meeting to consider the preliminary report, if the petition does not comply with section 4, the project is terminated and the original petitioners are responsible in equal shares for the costs. *Drainage Act*, R.S.O. 1990, c. D. 17 subs. 10(4).
- After the meeting to consider the final report, if the petition does not comply with section 4, the project is terminated and the original petitioners are responsible for the costs in shares proportional to their assessment in the engineer's report. *Drainage Act*, R.S.O. 1990, c. D. 17 s. 43.
- If the project proceeds to completion, a share of the cost of the project will be assessed to the involved properties in relation to the assessment schedule in the engineer's report, as amended on appeal. *Drainage Act*, R.S.O. 1990, c. D. 17 s. 61.

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

To: The Council of the Corporation of the Township of BLANDFORD BLENHEIM

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

THIS REQUEST IS TO INCORPORATE THE DRAINS THAT WHERE INSTALL AS PART OF THE CRESS-RIDGE DEVELOPMENT at Pt. Lot 17 Con 13 (Blenheim) also Parts 1,2,3 Plan 41R10323

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

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Purpose of the Petition (To be completed by one of the petitioners. Please type/print)

Contact Person (Last Name) Zimmer	(First Name) John	Telephone Number 416 819-9466 ext.
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Address	
Road/Street Number	Road/Street Name

Location of Project			
Lot pt 17	Concession 13	Municipality Twp. Blandford Blenheim	Former Municipality (if applicable) Blenheim

What work do you require? (Check all appropriate boxes)

- Construction of new open channel
- Construction of new tile drain
- Deepening or widening of existing watercourse (not currently a municipal drain)
- Enclosure of existing watercourse (not currently a municipal drain)
- Other (provide description ▼)

incorporation of existing storm drainage system at Cress-Ridge Development

Name of watercourse (if known)
Nith River

Estimated length of project

General description of soils in the area
clay and silts

What is the purpose of the proposed work? (Check appropriate box)

- Tile drainage only
- Surface water drainage only
- Both

Petition filed this _____ day of _____, 20__

Name of Clerk (Last, first name)	Signature
----------------------------------	-----------

- Your municipal property tax bill will provide the property description and parcel roll number.
- In rural areas, the property description should be in the form of (part) lot and concession and civic address.
- In urban areas, the property description should be in the form of street address and lot and plan number if available.
- If you have more than two properties, please take copy(ies) of this page and continue to list them all.

Number	Property Description Pt. Lot 17 Con 13 Blenheim including Plan 41R10323 parts 1,2,3
Ward or Geographic Township Blenheim	Parcel Roll Number 3245-020-080-271-02

I hereby petition for drainage for the land described and acknowledge my financial obligations.

Ownership

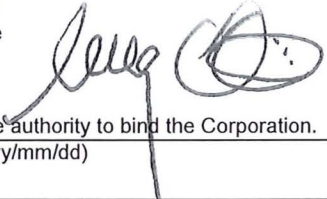
Sole Ownership

Owner Name (Last, First Name) (Type/Print)	Signature	Date (yyyy/mm/dd)
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Partnership (Each partner in the ownership of the property must sign the petition form)

Owner Name (Last, First Name) (Type/Print)	Signature	Date (yyyy/mm/dd)

Corporation (The individual with authority to bind the corporation must sign the petition)

Name of Signing Officer (Last, First Name) (Type/Print)	Signature
Name of Corporation Greg Voisin Investment Corporation	 I have the authority to bind the Corporation.
Position Title	

Number	Property Description
Ward or Geographic Township	Parcel Roll Number

I hereby petition for drainage for the land described and acknowledge my financial obligations.

Ownership

Sole Ownership

Owner Name (Last, First Name) (Type/Print)	Signature	Date (yyyy/mm/dd)
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Corporation (The individual with authority to bind the corporation must sign the petition)

Name of Signing Officer (Last, First Name) (Type/Print)	Signature
Name of Corporation	I have the authority to bind the Corporation.
Position Title	

<input type="checkbox"/> Check here if additional sheets are attached	Clerk initial
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Petitioners become financially responsible as soon as they sign a petition.

- Once the petition is accepted by council, an engineer is appointed to respond to the petition. *Drainage Act*, R.S.O. 1990, c. D. 17 subs. 8(1).
- After the meeting to consider the preliminary report, if the petition does not comply with section 4, the project is terminated and the original petitioners are responsible in equal shares for the costs. *Drainage Act*, R.S.O. 1990, c. D. 17 subs. 10(4).
- After the meeting to consider the final report, if the petition does not comply with section 4, the project is terminated and the original petitioners are responsible for the costs in shares proportional to their assessment in the engineer's report. *Drainage Act*, R.S.O. 1990, c. D. 17 s. 43.
- If the project proceeds to completion, a share of the cost of the project will be assessed to the involved properties in relation to the assessment schedule in the engineer's report, as amended on appeal. *Drainage Act*, R.S.O. 1990, c. D. 17 s. 61.

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



TOWNSHIP OF BLANDFORD-BLENHEIM

Agenda Item

To:	Members of Council	From:	Adam Degier Drainage Superintendent
Reviewed By:	Josh Brick, CAO	Date:	February 1, 2024
Subject:	Petition for Drainage Appointment of Engineer – Carson Reid	Council Meeting Date:	February 7, 2024
Report #:	DS-24-06		

Recommendation:

That Report DS-24-06 be received as Information; and,

Whereas the Grand River Conservation Authority have not registered any comments to the petition for drainage work for the Part of Lot 24, Concession 10 (Blenheim) to incorporate the drains that were installed by Carson Reid Homes (Cambridge) Ltd as included in Plan 41M388, Carson Reid Homes (Cambridge) Ltd. where the storm sewers, catch basins and laterals provide to service the lots and 2 streets to be incorporated as a municipal Drain;

Be it resolved that Council appoints K Smart & Associates Ltd., 85 McIntyre Dr. Kitchener, Ont. N2R 1H6, to prepare a new drainage report as per the petition in accordance with Section 4 of the Drainage Act.

Background:

Have received a signed petition for drainage in the area of Part of Lot 24, Concession 10 (Blenheim) to incorporate the drains as included in Plan 41M388

Carson Reid Homes (Cambridge) Ltd. where the storm sewers, catch basins and laterals provide to service the lots and 2 streets to be incorporated as a municipal Drain.

The GRCA have been notified of council's intention to proceed with the petition accepted at the December 20, 2023 council meeting.

Also, Council has not received any request for cost benefit statements or environmental appraisal as per Section 6 and 7 of the Drainage Act.

Analysis/Discussion:

Therefore in accordance with Section 8 of the Drainage Act Council may appoint an Engineer to prepare a report in accordance with Section 4 of the Act

Financial Considerations:

The cost of a municipal drain is assessed to the landowners in the area requiring drainage

Attachments:

Copy of petition and area to be impacted by petition

Respectfully submitted by:

Adam Degier



petitioncarsonreidb
right.pdf

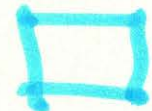


carsonreid bright
subjectarea.pdf



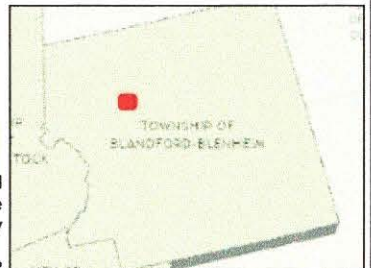
CARSON REID HOMES (CAMBRIDGE) LTD



 SUBJECT AREA

Legend

Notes



0 51 102 Meters

NAD_1983_UTM_Zone_17N



This map is a user generated static output from an Internet mapping site and is for reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. This is not a plan of survey

December 14, 2023

Form 1

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

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

To: The Council of the Corporation of the Township of Blandford-Blenheim

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

This request is to incorporate the drains the were installed as part of the Carson Reid Homes (Cambridge Ltd.) at Pt. Lot 24 Con 10 (Blenheim) as included in plan 41M388

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

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

Purpose of the Petition (To be completed by one of the petitioners. Please type/print)

Contact Person (Last Name) <u>REID</u>	(First Name) <u>CARSON</u>	Telephone Number <u>519 822 3882 ext. 24</u>
---	-------------------------------	---

Address	
Road/Street Number	Road/Street Name

Location of Project			
Lot	Concession	Municipality	Former Municipality (if applicable)

What work do you require? (Check all appropriate boxes)

- Construction of new open channel
- Construction of new tile drain
- Deepening or widening of existing watercourse (not currently a municipal drain)
- Endosure of existing watercourse (not currently a municipal drain)
- Other (provide description ▼)

Incorporate existing storm drainage system at Carson Reid Homes (Cambridge Ltd.) subdivision

Name of watercourse (if known)
Nith River

Estimated length of project

General description of soils in the area
Sandy Loam

What is the purpose of the proposed work? (Check appropriate box)

- Tile drainage only
- Surface water drainage only
- Both

Petition filed this _____ day of _____, 20__

Name of Clerk (Last, first name)	Signature
----------------------------------	-----------

- Your municipal property tax bill will provide the property description and parcel roll number.
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Number	Property Description
Ward or Geographic Township	Parcel Roll Number

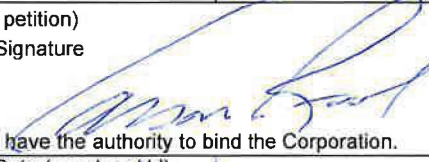
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Ownership

Sole Ownership
 Owner Name (Last, First Name) (Type/Print) Signature Date (yyyy/mm/dd)

Partnership (Each partner in the ownership of the property must sign the petition form)
 Owner Name (Last, First Name) (Type/Print) Signature Date (yyyy/mm/dd)

Corporation (The individual with authority to bind the corporation must sign the petition)

Name of Signing Officer (Last, First Name) (Type/Print) <i>Reid, Carson</i>	Signature 
Name of Corporation Carson Reid Homes (Cambridge Ltd.)	I have the authority to bind the Corporation.
Position Title <i>PRESIDENT</i>	Date (yyyy/mm/dd) <i>2023/12/02</i>

Number	Property Description
Ward or Geographic Township	Parcel Roll Number

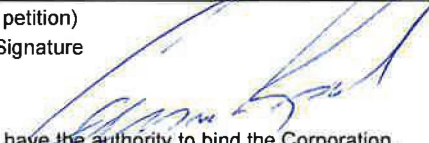
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 Owner Name (Last, First Name) (Type/Print) Signature Date (yyyy/mm/dd)

Corporation (The individual with authority to bind the corporation must sign the petition)

Name of Signing Officer (Last, First Name) (Type/Print) <i>Reid, Carson</i>	Signature 
Name of Corporation <i>Carson Reid Homes (Cambridge) Ltd</i>	I have the authority to bind the Corporation.
Position Title <i>PRESIDENT</i>	Date (yyyy/mm/dd) <i>2023/12/02</i>

Check here if additional sheets are attached Clerk initial

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TOWNSHIP OF BLANDFORD-BLENHEIM

Agenda Item

To:	Members of Council	From:	Jim Borton Director of Public Works
Reviewed By:	Josh Brick, CAO	Date:	January 31, 2024
Subject:	Monthly Report	Council Meeting Date:	February 7, 2024
Report #:	PW-24-02		

Recommendation:

That Report PW-24-02 be received as information.

Capital

- Gobles CN Bridge – On hold till spring 2024. (March/April start)
- Princeton Pond Expansion project – The new Romano Pond is now complete. There is still a lot of fill that needs to be moved, this will be done by Township forces.
- Princeton Drain Phase 3 – The tender documents will go live one bids and tenders on February 7th, the tender will close on February 28th and the results will be shared with council in a report on March 6th.
- The Township will be joining Oxford County and other area municipalities for a combined Surface Treatment tender. The Township has supplied Oxford County with the numbers and locations for the Tender. The tender is expected to be published in February Once the tender closes, staff will bring back a report for council showing the results.
- Bridge 24 EA – The draft Stage 1 – 2 Archaeological Assessment Report for Blandford-Blenheim Bridge 24 over the Nith River has been sent out for review. The Draft CHER / HIA Report and the Scoped Environmental Impact Study should be available sometime in early 2024. These reports will be sent out to the GRCA, Indigenous groups and local residence for comments. Once the comment time has passed and all groups are satisfied the final design can be completed and tender documents can be started.

County Shared Service/Road Association/Training

- Shared Services meeting – The service sharing committee met in EZT. We discussed upcoming joint tenders, training possibilities for our joint spring training and the Greater Sudbury Supreme Court decision.
- Road Association – The OCRSA will meet again in March for the first meeting of 2024.

- AORS – The BOD will meet next virtually on March 8. The Oxford group has been working closely with the AORS team on preparations for the 2025 Trade Show.

Other

- Winter showed up in January, the area saw a mix of heavy snow falls, freezing rain, wet snow and rain fall. Staff worked very hard to keep the roads open and safe for all users. The Townships gravel roads have suffered the most from the unseasonable weather. The end of December we saw a lot of rain, the roads then froze, we had wet snow, more freezing, a thaw which saw any frost that did occur in the road come out and more rain. This type of weather leads to bad pot holes and soft spots in the gravel. Township staff is getting out with the graders whenever possible. This time of year, we see very small windows on when we can grade, if the ground freezes over night it can take most of the morning to thaw out enough to allow the road to be graded, we must also keep an eye on the weather, any moisture on a freshly graded road has the potential to make a road worse than if we leave it with pot holes. It can be a juggling act most days.
- Reviewing EA documents for Bridge 24
- Attended a seminar on the Excess Soil regulations.
- Took part in a webinar panel for R. v. Greater Sudbury Supreme Court decision.
- Working with MESH and the Drainage Superintendent to add asset management programs to our road patrol and winter patrol program.
- Working with the Drainage Superintendent on finding suitable dump sites for the excess soil from the Princeton Drain project.
- Working with KSmart and Drainage Superintendent on the next phases of the Princeton project.
- Staff is continuing to meet with land owners at outdoor sites to discuss ditch or road issues.

Attachments Service Sharing minutes for January

Respectfully submitted by:



Jim Borton CRS-I
Director of Public Works

Service Rationalization

MEETING MINUTES

DATE: January 11, 2024

LOCATION: EZT

PRESENT: Jim Borton, Shawn Vanacker, Doug Wituik, Tom Lightfoot, Ken Farkas, Steve Oliver, Adam Prouse, Daniel Locke (Alex)

REGRETS: Richard Sparham

COMMITTEE CHAIRMAN: Tom Lightfoot

SECRETARY: Tom Lightfoot

ITEM	ACTION	ASSIGNED TO
1. Meeting called to order	10:05 AM	
2. Minutes of Last Meeting:	Reviewed- Moved by Steve. Seconded by Dan	
3. Correspondence/ Speaker	None	
4. Old Business	None	
5. New Business	<p>Tom- Inspector Hymers, Opp is scheduled to attend the next meeting in Zorra to discuss the reduced load period and road issues.</p> <p>Reduced load period discussion, Zorra has permission from Council to start half load early of its required. Oxford County is updating their bylaw and road map of reduced load roads. Shawn will send out the new map.</p> <p>Steve- Sudbury decision discussion, AORS is hosting a webinar on January 23 to review the case.</p> <ul style="list-style-type: none"> - Inside emergency contact list, send updated information to Steve, he will send out a form. <p>Discussion was held on Contractors working in the ROW.</p>	
6. Round Table	<p>Ken- Homeless issues discussion</p> <p>Adam- anyone looking to buy traffic counters?</p> <p>Shawn- County will be looking to put out the crack sealing tender soon if anyone is interested.</p> <p>Oxford County will continue to do line painting for the Townships.</p> <p>Jim- Tradeshow discussion- Formal meeting will be held virtually on Friday the 12th of January.</p> <p>OGRA registration is open.</p> <p>Current pricing- John Deere Tractor/Boom mower \$344,000</p> <ul style="list-style-type: none"> - Trackless unit, plow, blower, and salter \$226,000 <p>Salt tender is on the last year, Woodstock will put out a new tender.</p> <p>Dust suppressant is on the last year, SWOX will put out the new tender.</p> <p>Self-Insurance discussion.</p>	
7. Health & Safety	<p>Backhoe training, Shawn is looking into group pricing.</p> <p>Book 7 training possible spring training or cvor training covering HOS, pre-trip and load securement. Dan will investigate pricing.</p>	
8. Next Meeting	Feb 8, 2024 - 10:00 am Zorra	

9. Adjourned	11:59 AM after tour of New Municipal office.	
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Service Sharing Meeting Dates 2024

- January 11 EZT
- February 8 Zorra
- March 13 Oxford County
- April 11 Blandford Blenheim
- May 9 Norwich
- June 13 SWOX
- September 12 Tillsonburg
- October 10 Woodstock
- November 14 Ingersoll
- December 11 Zorra



TOWNSHIP OF BLANDFORD-BLENHEIM

Agenda Item

To:	Members of Council	From:	Jim Borton Director of Public Works
Reviewed By:	Josh Brick, CAO	Date:	February 1, 2024
Subject:	Township Road 12 Paving (RR Sand and Gravel)	Council Meeting Date:	February 7, 2024
Report #:	PW-24-03		

Recommendation:

That Report PW-24-03 be received for information; and,

That the Township grants permission to RR Sand and Gravel for the purpose of paving Township Road 12 from Oxford Road 22 to the East boundary of their property (Approximately 831 meters)

Background:

Township staff was contacted by Greg Ramseyer the operator of RR Sand & Gravel in regards to the possibility that the Township would allow him to pave a piece of Township Road 12 from Oxford Road 22 to the east limits of the property, approximately 831 meters in length. Staff went and met with Mr. Ramseyer at the site to review the road conditions and the possibility of the paving project.

Analysis/Discussion:

During the site visit, staff checked the depth of the base, if there was going to be any culverts that would require replacement and the alignment of the road for any safety concerns. Staff determined that some minor base work (addition of some gravel) would be required to be conducted before the road could be paved. There are no culverts in the suggested area for paving. Staff did note a site line deficiency for the proposed driveway for the new garage and dwelling where it will enter the roadway. Mr. Ramseyer was made aware of what would be required to correct the site line and that added gravel was needed for the base before any paving could take place. Mr. Ramseyer has offered the gravel supply to the Township so that the paving can take place.

Upon reviewing the site, the willingness of Mr. Ramseyer to ensure the road is adequate for the paving, staff is of the opinion that the paving of the section of Township Road 12 from Oxford Road 22 to the east property line of RR Sand and Gravel should be permitted. This improvement to the road will not only benefit RR Sand and Gravel but also the road users and the residence that live along Township Road 12. The paving of this section of road will reduce

the frequency that this section will require grading, it will also help to better control the dust created by vehicles entering and leaving the gravel pit.

The Township has in the past received offers of donations to help contribute to hard surfacing or road improvement. This request staff believes is different in that RR Sand and Gravel are looking to improve the section of road at their full cost. The Township will be involved in the placing of the gravel to ensure that the road structure is adequate for its intended use. The Township will also be doing inspections when the asphalt is laid to ensure it meets the current Township and OPSS standards. In conversation with Mr. Ramseyer, if allowed, the paving will be completed in 2 lifts. The base lift of 75mm will be placed in 2024 and then a top lift of 50mm will be placed in 2025. This is common practice and meets all standards.



Financial Considerations:

Staff time and equipment during construction
New signage for pavement ending and starting \$100

Attachments: Map

Respectfully submitted by:

Jim Borton, C.R.S.I
Director of Public Works



TOWNSHIP OF BLANDFORD-BLENHEIM

To:	Members of Council	From: Trevor Baer, Director of Community Services
Reviewed By:	Josh Brick, CAO	Date: Jan 31 2023
Subject:	Monthly Report – January	Council Meeting Date: Feb 7 2024
Report #:	CS-24-02	

Recommendation:

That Report CS-24-02 be received as information.

Background:

The following will provide Council with an update regarding the activities of the Community Services Department, for the month of January.

Analysis/Discussion

Administration

All full-time staff attended ammonia awareness course that was held at the Tavistock Arena.

Staff have removed all Christmas wreaths in the communities for the season.

Ox on the run (an Oxford County program) held a crafts night in the Drumbo Township office, on Jan 29, they had 15 people attend this program. Ox on the run staff were happy with the turn out with this event. Township staff are coordinating with this group, to get more programming like this to the Township.

Oxford Early On will be hosting a messy play time at the Plattsville Arena hall each Tuesday in February.

Arena

Staff have had meetings with the Wild lacrosse team about the upcoming season, they will be hosting their start up tournament on April 13 at the arena this year, while also having some regular season games, and practices.

Staff have approached some other groups to attract some other business at the arena during the off season, still waiting to hear back from these groups. One group was roller skating group, as well as a ball hockey group.

Both Plattsville Schools have been skating during the month of January at the Plattsville Arena.

Parks

None of parks will be hosting outdoor rinks this year. Each Fire department felt warmer temperatures may lead to inconsistent ice quality, making it difficult to create a suitable and safe skating environment.

Thanks

Trevor Baer



TOWNSHIP OF BLANDFORD-BLENHEIM

Agenda Item

To:	Members of Council	From:	Denise Krug, Director of Finance
Reviewed By:	Josh Brick, CAO	Date:	February 1, 2024
Subject:	2024 Council Grant & Subsidy Requests	Council Meeting Date:	February 7, 2024
Report #:	TR-24-02		

Recommendation:

That Report TR-24-02 be received as information; and,

That Council direct staff to allocate Grant & Subsidy Funds as recommended.

Background:

The Council Grants & Subsidy Program Policy was approved August 5, 2015 and sets out the requirements for qualification. The scope states that “Only groups and/or organizations based and operating in the Township of Blandford-Blenheim are to be considered for any financial assistance.” The policy also states that the purpose is “to provide support to facilitate and ensure effective citizen involvement in community events relevant to improving the well-being of citizens and contributing to the quality of life in the Community” The purpose is to “provide leisure related activities through a community development approach to improve the quality of life within the Municipality, and to promote the identity and enhance the image of the Municipality.”

The chart below is a summary of all organizations that have submitted a 2024 Council Grant & Subsidy Application. The total of all 2024 grant & subsidy requests is \$7,000.

On February 10, 2016, the following resolution was passed by Council:

“That Council establish a budget cap of up to \$10,000 as the total annual maximum amount available through the Municipal Grants and Subsidy Program; and,

That the annual allocation to each organization receiving funding through the Municipal Grants and Subsidy Program be limited to a maximum of up to \$1,000 per organization.”

The Applications were provided to Council separately to respect the organizations’ privacy.

Analysis/Discussion:

Organization Name	Purpose of 2024 Funding Request	Staff Recommended Grant/Subsidy
Drumbo Agricultural Society	Assistance with Entertainment at Drumbo Fair	\$1,000
Drumbo & District Heritage Society	On-line access to archive collection	\$1,000
Plattsville & District Heritage Society	Memorial Gates at Plattsville Park	\$1,000
Plattsville & District Lions	Use of hall at Plattsville Arena	\$1,000
Princeton Firework Committee	Fireworks for Victoria Day weekend	\$1,000
Princeton & District Museum/Library Association	Fundraising for new furnace & AC units	\$1,000
Plattsville Evangelical Missionary Church (received Feb 8/23)	Plattsville Day Camp	\$1,000

Total 2024 Staff Recommended Qualifying Grants \$7,000.00

Staff is recommending that Council approve \$7,000 in grants and subsidies as per the chart above.

Attachments:

None.

Respectfully submitted by:

Denise Krug
 Director of Finance/Treasurer



TOWNSHIP OF BLANDFORD-BLENHEIM

Agenda Item

To:	Members of Council	From:	Josh Brick, CAO Denise Krug, Director of Finance/ Treasurer
Reviewed By:		Date:	February 1, 2024
Subject:	Municipal Budget Update	Council Meeting Date:	February 7, 2024
Report #:	CAO-24-08		

Recommendation:

That Report CAO-24-08 be received as information; and,

That Council endorses the draft budget amendment as presented; and further,

That Council directs the Director of Finance/ Treasurer to prepare the final Budget By-Law with noted amendments.

Background:

On January 17th, 2024, Council received the draft 2024 Budget for information. Council discussed proposed 2024 operating and capital budgets and directed staff to make the following amendments:

PW Capital - Tire/Garbage storage area	-\$50,000
Contribution to election reserve	-\$10,462
Contribution to insurance reserve	-\$5,000
Drainage - Catchbasin maintenance	-\$8,000
Fire - Confined Space Training	-\$10,000
Council Training/Conferences	-\$5,000
Comm Serv - Student	\$13,380

Analysis/Discussion:

While making adjustments based on the above Council direction, staff sought additional budget efficiencies based on discussion that took place at the January 17th meeting and are recommending that the FTE Community Services staff member recruitment be delayed, with a start date of June 1st instead of April 1st. Rationale for this recommendation has to do with general operations of the department, with the transitional season (early spring) making it more difficult to effectively onboard new staff members. This adjustment represents a one-time budget efficiency of \$11,070.

With this final adjustment, the updated budget represents a residential tax increase of 6.97%.

Conclusion

Pending Council endorsement of the proposed budget amendments, staff will prepare the final budget By-Law for future Council consideration and approval.

Respectfully submitted by:

Josh Brick
Chief Administrative Officer

Denise Krug
Director of Finance/ Treasurer

**Township of Blandford-Blenheim
2024 Budget - Draft**

Department	Item	Amount	Comment
	Tax Levy - Draft	\$7,179,450	balance from draft presented at Jan 19th Council meeting

Proposed Reductions/Additions

PW Capital - Tire/Garbage storage area	-\$50,000
Contribution to election reserve	-\$10,462
Contribution to insurance reserve	-\$5,000
Drainage - Catchbasin maintenance	-\$8,000
Fire - Confined Space Training	-\$10,000
Council Training/Conferences	-\$5,000
Comm Serv - Student	\$13,380
Comm Serv - New FTE to start June 1	-\$11,070

2024 Tax Levy - Draft \$7,093,298

	Increase over 2023 Tax Levy	\$456,799	\$6,636,499
	% Increase over 2023	6.88%	
	<i>2023 Residential Tax Rate</i>	<i>0.00443271</i>	
	<i>*2024 Residential Tax Rate</i>	<i>0.00505668</i>	
	% Tax Rate Increase / (Decrease) - based on current tax ratios	6.97%	
	2023 Average Residential Assessment	\$323,500.00	
	**Average Residential Assessment Increase	0.00%	
	*Municipal Tax Effect on Average Residential Property	\$106.61	
	*Average Residential Tax Increase	6.97%	

** assumes same tax ratios as 2023 - set at County*

*** Province cancelled new assessments due to COVID*

20.3.4.3.1.1 For the purposes of this subsection, a *dwelling unit* within a building *accessory* to an aggregate operation shall be defined as a *dwelling unit* that is a self-contained unit within an *accessory building* that is *accessory* to an aggregate operation and is located on the same lot as said operation. For the purpose of determining if the operation and the dwelling unit are on the same lot, Section 2.4 of the Zoning By-law shall not apply.

20.3.4.3.1.2 LOT AREA

Minimum **6 ha** (15 ac)

20.3.4.3.1.3 GROSS FLOOR AREA:

Maximum **184.5 m²** (1,986 ft²)

20.3.4.3.1.4 LOCATION OF NEW DWELLINGS

New *dwelling*s, including temporary *dwelling*s, shall be required to satisfy the minimum distance separation requirements as determined through the application of the *Minimum Distance Separation Formula I (MDS I)*, or not further reduce an *existing* insufficient *setback*.

20.3.4.4.1 SPECIAL PROVISIONS FOR A SINGLE DETACHED DWELLING

20.3.4.4.1.1 LOT AREA

Minimum **6 ha** (15 ac)

20.3.4.4.1.2 FRONT YARD DEPTH

Minimum **15 m** (49.2 ft)

20.3.4.4.1.3 REAR YARD DEPTH

Minimum **7.5 m** (24.6 ft)

20.3.4.4.1.4 INTERIOR SIDE YARD WIDTH

Minimum **7.5 m** (24.6 ft)

20.3.4.4.1.5 HEIGHT

Maximum **11 m** (36 ft)

20.3.4.4.1.6 LOCATION OF NEW *DWELLINGS*

New *dwellings*, including temporary *dwellings*, shall be required to satisfy the minimum distance separation requirements as determined through the application of the *Minimum Distance Separation Formula I (MDS I)*, or not further reduce an *existing* insufficient *setback*.

20.3.4.5 That all the provisions of the 'ME' Zone in Section 20.2 to this Zoning By-law, as amended, shall apply, and further that all the other provisions of this Zoning By-Law, as amended, that are consistent with the provisions herein contained shall continue to apply *mutatis mutandis*."

3. This By-law comes into force in accordance with Sections 34(21) and (30) of the Planning Act, R.S.O. 1990, as amended.

READ a first and second time this 7th day of February, 2024.

READ a third time and finally passed this 7th day of February, 2024.

Mark Peterson – Mayor

(SEAL)

Sarah Matheson, Clerk

ZN 1-23-14

TOWNSHIP OF BLANDFORD-BLENHEIM

BY-LAW NUMBER 2415-2024

EXPLANATORY NOTE

The purpose of By-Law Number 2415-2024 is to rezone a portion of the lands from 'Aggregate Industrial Zone (ME)' to 'Special Aggregate Industrial Zone (ME-4)' to permit a residential unit within a building accessory to an aggregate operation. Special provisions are included to allow for a reduced interior side yard width and to set a maximum gross floor area of 184.5 m² (1,986 ft²). A single detached dwelling has also been added as a permitted use with special provisions.

The subject lands are described as Part Lots 23-24, Concession 12, in the former Township of Blenheim, now in the Township of Blandford-Blenheim. The lands are located on the north side of Township Road 12, between Oxford Road 22 and Oxford Road 8, and are municipally known as 906417 Township Road 12.

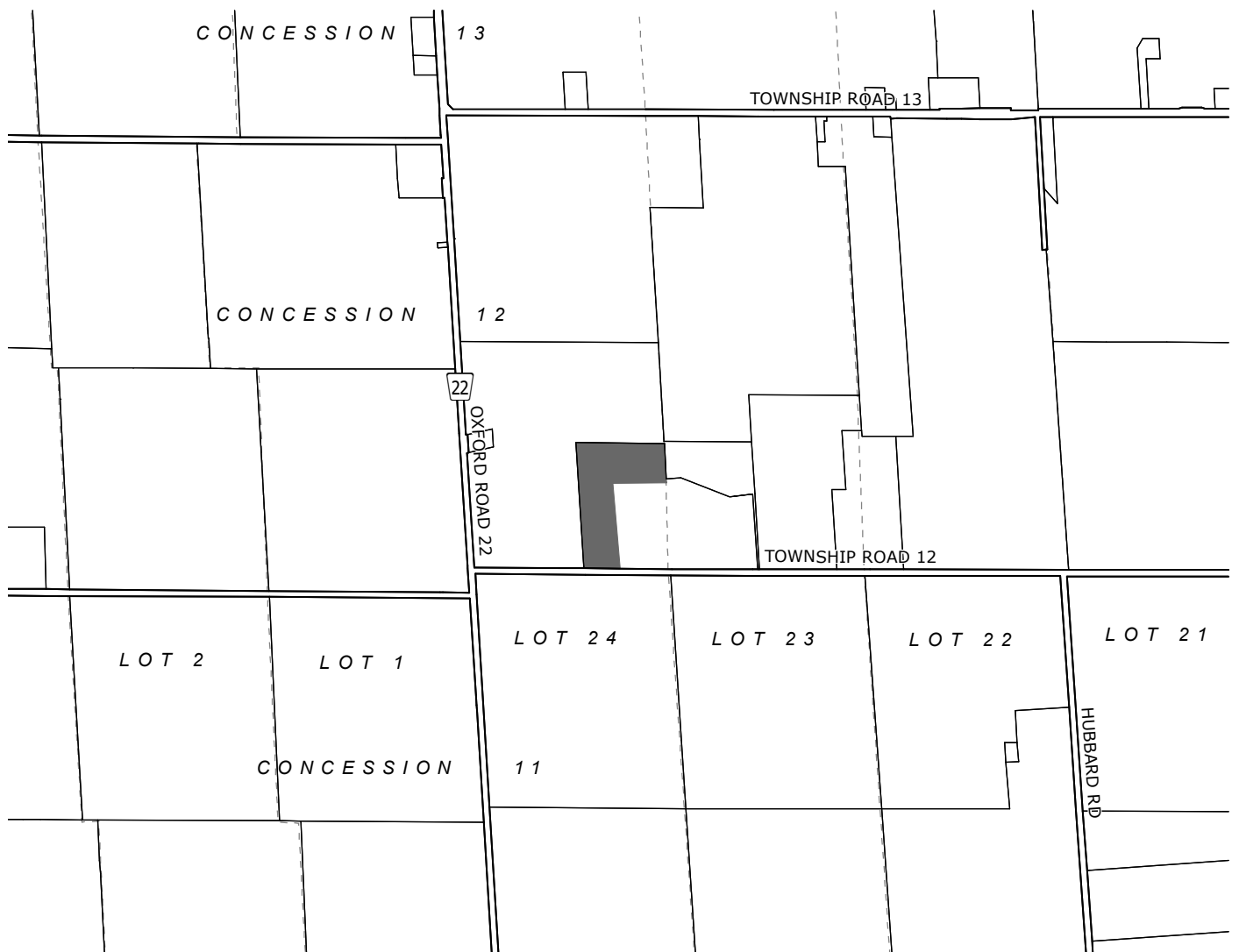
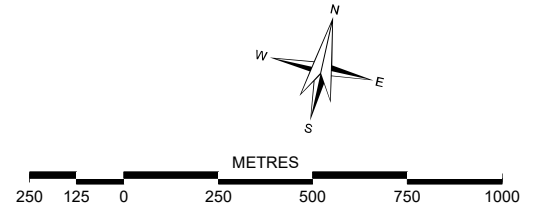
The Township of Blandford-Blenheim, after conducting the public hearing necessary to consider the application, adopted amending By-law Number 2414-2024. The public hearing was held on November 15, 2023 and Council received one letter of support for the proposal from a member of the public.

Any person wishing further information regarding Zoning By-Law Number 2415-2024 may contact the undersigned.

Sarah Matheson, Clerk
Township of Blandford-Blenheim
47 Wilmot Street South
Drumbo, Ontario
N0J 1G0

Telephone: 519-463-5374

KEY MAP

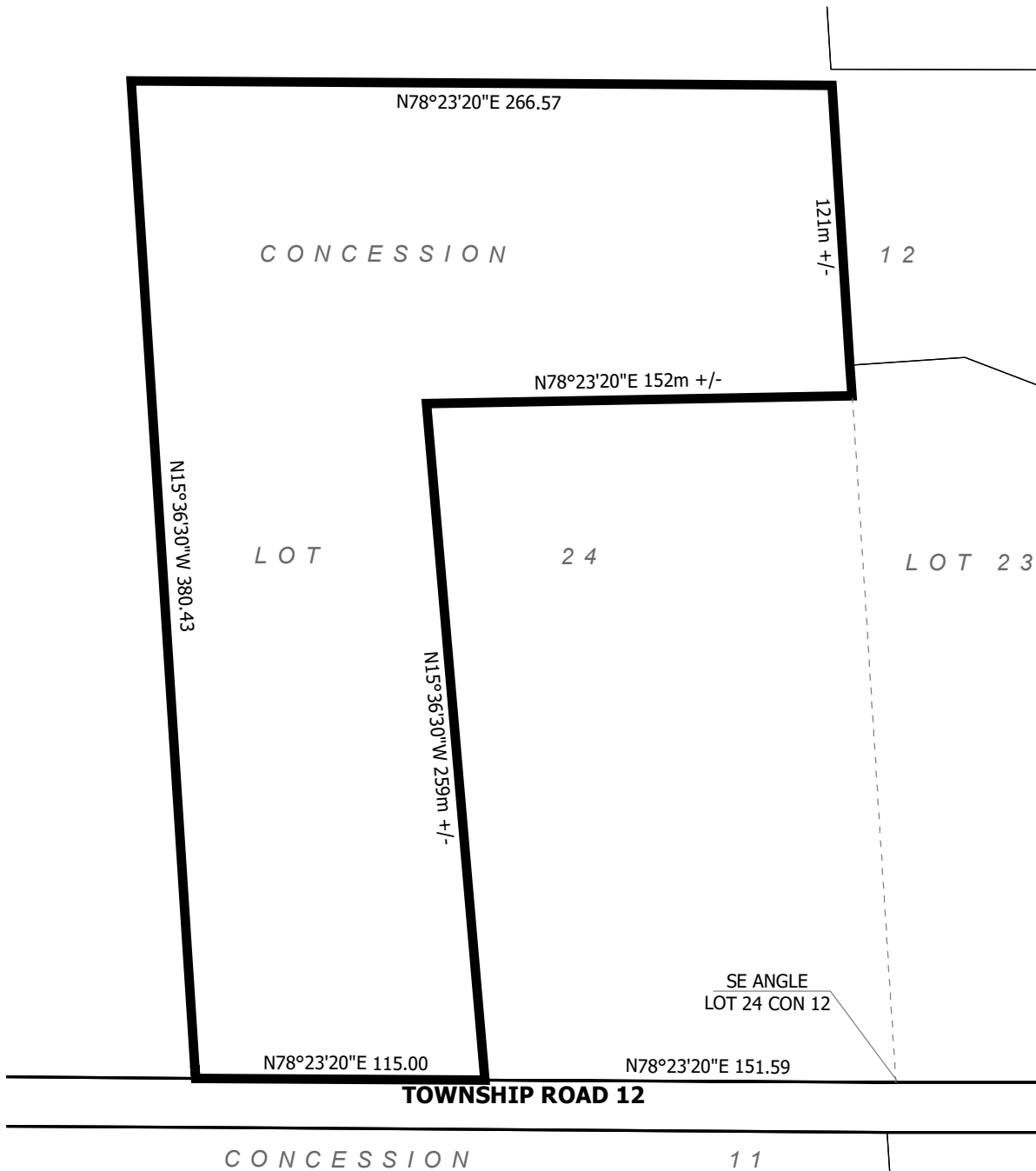
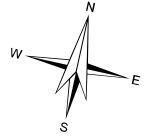


 LANDS TO WHICH BYLAW 2415-2024 APPLIES

SCHEDULE "A"

TO BY-LAW No. 2415-2024

PART LOT 24, CONCESSION 12 (BLENHEIM)
PART OF PART 1, REFERENCE PLAN 41R-871
TOWNSHIP OF BLANDFORD-BLENHEIM



 AREA OF ZONE CHANGE TO ME-4

NOTE: ALL DIMENSIONS IN METRES



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THIS IS SCHEDULE "A"

TO BY-LAW No. 2415-2024, PASSED

THE _____ DAY OF _____, 2024

MAYOR

CAO/CLERK

THE CORPORATION OF THE
TOWNSHIP OF BLANDFORD-BLENHEIM
BY-LAW NUMBER 2416-2024

Mitchell Drain 2023

A By-law to provide for drainage works in the Township of Blandford-Blenheim in the Restructured County of Oxford.

WHEREAS the Council of the Township of Blandford-Blenheim in the County of Oxford appointed Curtis McIntyre, P. Eng., of K. Smart Associates Limited, of Kitchener, Ontario, and the Section 4 and 8 report is attached hereto and forms part of this By-law.

AND WHEREAS the estimated total cost of this report consisting of the engineering, construction costs and administration is \$427,848.00.

THEREFORE the Council of The Corporation of the Township of Blandford-Blenheim pursuant to the Drainage Act, R.S.O. 1990, and amendments thereto, enacts as follows:

1. The report dated December 15, 2023 and attached hereto, is hereby adopted and the Drainage Works as therein indicated and set forth is hereby authorized, and shall be completed in accordance therewith.
2. The Corporation may borrow on the credit of the Corporation the amount of **\$427,848.00** being the necessary amount for construction of the Drainage Works.
3. The Corporation may arrange for the issue of debentures on its behalf 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

such debentures shall be made payable within Five (5) years from the date of the debenture and shall bear interest at a rate to be established at the date of the sale of such debentures.

The County of Oxford shall handle the sale of such debentures, with interest at the prevailing rates at the time of debenture sale. The Municipality of the Township of Blandford-Blenheim shall make annual payments without coupons payable to the County of Oxford.

4. A special equal annual rate sufficient to redeem the principal and interest on the debentures shall be levied upon the lands and roads as set forth in the Schedule to be collected in the same manner and at the same time as other taxes are collected in each year for Five (5) years, the year following the due date of the final invoice that calculates the actual costs of the Drainage Works in accordance with the Schedule contained in this By-law.

5. This by-law comes into force on the passing thereof and may be cited as **Mitchell Drain 2023.**

Read a First and Second Time this 7th day of February, 2024.

Sarah Matheson, Clerk

Mark Peterson, Mayor

Read a Third Time and Finally Passed this _____ of _____, 2024.

Sarah Matheson, Clerk

Mark Peterson, Mayor

THE CORPORATION OF THE
TOWNSHIP OF BLANDFORD-BLENHEIM
BY-LAW NUMBER 2417-2024

Baker Drain 2024

A By-law to provide for drainage works in the Township of Blandford-Blenheim in the Restructured County of Oxford.

WHEREAS the Council of the Township of Blandford-Blenheim in the County of Oxford appointed Curtis McIntyre, P. Eng., of K. Smart Associates Limited, of Kitchener, Ontario, and the Section 4 and 8 report is attached hereto and forms part of this By-law.

AND WHEREAS the estimated total cost of this report consisting of the engineering, construction costs and administration is \$137,000.00.

THEREFORE the Council of The Corporation of the Township of Blandford-Blenheim pursuant to the Drainage Act, R.S.O. 1990, and amendments thereto, enacts as follows:

1. The report dated January 9, 2024 and attached hereto, is hereby adopted and the Drainage Works as therein indicated and set forth is hereby authorized, and shall be completed in accordance therewith.
2. The Corporation may borrow on the credit of the Corporation the amount of **\$137,000.00** being the necessary amount for construction of the Drainage Works.
3. The Corporation may arrange for the issue of debentures on its behalf 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

such debentures shall be made payable within Five (5) years from the date of the debenture and shall bear interest at a rate to be established at the date of the sale of such debentures.

The County of Oxford shall handle the sale of such debentures, with interest at the prevailing rates at the time of debenture sale. The Municipality of the Township of Blandford-Blenheim shall make annual payments without coupons payable to the County of Oxford.

4. A special equal annual rate sufficient to redeem the principal and interest on the debentures shall be levied upon the lands and roads as set forth in the Schedule to be collected in the same manner and at the same time as other taxes are collected in each year for Five (5) years, the year following the due date of the final invoice that calculates the actual costs of the Drainage Works in accordance with the Schedule contained in this By-law.

5. This by-law comes into force on the passing thereof and may be cited as **Baker Drain 2024.**

Read a First and Second Time this 7th day of February, 2024.

Sarah Matheson, Clerk

Mark Peterson, Mayor

Read a Third Time and Finally Passed this ____ of _____, 2024.

Sarah Matheson, Clerk

Mark Peterson, Mayor

THE CORPORATION OF THE
TOWNSHIP OF BLANDFORD-BLENHEIM
BY-LAW NUMBER 2418-2024

Being a By-law to confirm the proceedings of Council.

WHEREAS by Section 5 of the *Municipal Act* 2001, S.O. 2001, c.25, the powers of a municipal corporation are to be exercised by its Council.

AND WHEREAS by Section 11 of the *Municipal Act* 2001, S.O. 2001, c.25, the powers of every Council are to be exercised by by-law;

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

NOW THEREFORE the Council of the Corporation of the Township of Blandford-Blenheim hereby enacts as follows:

1. That the actions of the Council of the Corporation of the Township of Blandford-Blenheim in respect of each recommendation contained in the reports of the Committees and each motion and resolution passed and other action taken by the Council of the Corporation of the Township of Blandford-Blenheim, at this meeting held on February 7th, 2024 is hereby adopted and confirmed as if all such proceedings were expressly embodied in this by-law.
2. That the Mayor and proper officials of the Corporation of the Township of Blandford-Blenheim are hereby authorized and directed to do all things necessary to give effect to the actions of the Council referred to in the proceeding section hereof.
3. That the Mayor and the CAO / Clerk be authorized and directed to execute all documents in that behalf and to affix thereto the seal of the Corporation of the Township of Blandford-Blenheim.

By-law read a first and second time this 7th day of February, 2024.

By-law read a third time and finally passed this 24th day of February, 2024

MAYOR
MARK PETERSON

CLERK
SARAH MATHESON