

Report PW 2024-10 **PUBLIC WORKS**

Council Date: March 13, 2024

REPORT TO COUNTY COUNCIL

2023 Annual Transportation System Performance

To: **Warden and Members of County Council**

From: **Director of Public Works**

RECOMMENDATION

1. That County Council receive Report PW 2024-10 entitled "2023 Annual Transportation System Performance" as information.

REPORT HIGHLIGHTS

- This report provides an overview of the performance of Oxford County's regional transportation system, along with the activities undertaken in 2023 related to the planning. design, construction, operations and maintenance for the same.
- A summary of annual transportation system capital investments (forecast ~ \$27 M) and an overview of key maintenance activities that were completed on the transportation infrastructure assets is also noted. The ongoing adherence to preventative maintenance standards and road pavement and bridge condition reviews ensure that all County roadways are maintained in a good state of repair for residents, businesses and visitors.
- Oxford County continues to ensure the safe and efficient operation of its regional road network through proactive programs such as pedestrian crossing studies, Community Safety Zone (CSZ) evaluations, illumination studies, traffic calming, speed management and road safety reviews.
- Consistent with the County's direction of innovative and green technology, various green infrastructure and technology practices were completed in 2023 to further offset fossil fuel consumption and reduce greenhouse gas emissions (i.e. roundabout intersection improvements, Cold-in-Place asphalt recycling during road resurfacing, transportation demand management, traffic signal optimization, LED illumination, solar powered beacons, etc.).



IMPLEMENTATION POINTS

Following Council receipt, this report will be posted on the County's website for public access.

An annual performance report of the County's storm water system is required to be submitted to the Ministry of Environment, Conservation, and Parks (MECP) by April 30 each year as a regulatory requirement of the new Consolidated Linear Infrastructure Environmental Compliance Approval (CLI_ECA) that was issued to the County on February 3, 2023. A copy of this report must also be posted on the County's website by June 1 of each reporting year.

The first annual storm water system performance report will cover the period from January 1, 2023 to December 1, 2023 and will be submitted to the MECP and posted on the County's website in accordance with regulatory requirements.

Financial Impact

There are no financial impacts that will result from the recommendation contained in this report.

Communications

The 2023 Transportation Annual Report will be available for public viewing on the County's website on March 13, 2024, at https://www.oxfordcounty.ca/en/your-government/reports-and-publications.aspx#Public-Works-Annual-Reports.

This Council report will also be circulated to Area Municipalities, Woodstock Police and Ontario Provincial Police.

In addition, the County will further communicate 2023 performance highlights of key Public Works systems, including Transportation, to the public through an annual social media campaign during National Public Works Week (May 19 – 25, 2024).

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:



vitality

Goal 1.2 – Sustainable infrastructure and development Goal 1.3 - Community health. safety and well-being Goal 1.4 – Connected people and places



Enhancing environmental sustainability

Goal 2.1 – Climate change mitigation and adaptation



Fostering progressive government

Goal 3.1 - Continuous improvement and resultsdriven solutions Goal 3.2 – Collaborate with our partners and communities

See: Oxford County 2023-2026 Strategic Plan

DISCUSSION

Background

Under the Municipal Act. 2001, the County of Oxford holds non-exclusive municipal authority over "Highways, including parking and traffic on highways" where both upper and lower-tier municipalities have the power to pass by-laws under this sphere. Accordingly, the Municipal Act also affords the County with the ability to delegate its powers and duties pertaining to the same through agreements with Area Municipalities on behalf of the County.

In the current state service delivery model, Oxford County (road authority) owns all of the transportation network assets within its regional (arterial) road right-of-ways. Oxford County also operates and maintains all of these same system assets, with the exception of regional roads and bridge assets that are located within the urban limits of Woodstock, Ingersoll and Tillsonburg. In these cases, Woodstock, Ingersoll and Tillsonburg operate and maintain the arterial transportation network (roads and bridges) on behalf of Oxford County, under urban road maintenance service contract agreements.

Additionally, Oxford shares operational and maintenance responsibilities of its boundary road with other out-of-County municipalities through various service contract agreements.

The County road network is shown on Attachment 1.

Transportation System Operations and Maintenance Levels of Service

To ensure that monitoring and maintenance of the County's Regional Road Network is undertaken in accordance with established Provincial Level of Service standards, Oxford County adopted the road classification system used by the Ministry of Municipal Affairs and Housing in O.Reg. 239/02 - Minimum Maintenance Standards for Municipal Highways (MMSMH), under the Municipal Act. 2001.

The MMSMH establishes six road classifications. All County Regional roads are major arterial roads with Class 2 through Class 5 classifications which carry relatively high volumes of traffic. To comply with Ontario Regulation 239/02, road classifications are reviewed annually to ensure they are current. The review is based on average annual daily traffic volumes and speed limits. Using these two values, road classifications are set to meet the Provincial standards. As a result of road classification adjustments, maintenance requirements may be amended accordingly.

In 2003, (Report PW 2003-148) County Council adopted the Winter Road Maintenance Level of Service (LOS) in accordance with MMSMH and hours of service for winter maintenance from 5:00am to 11:00pm.

Traffic control devices (signage, traffic signals, pavement markings) are installed and maintained in accordance with the Ontario Traffic Manual (OTM) and Manual of Uniform Traffic Control Devices (MUTCD) to ensure consistent application and regulatory compliance in accordance with the Ontario Highway Traffic Act (HTA).

County Transportation System Overview

The Transportation division within Oxford County's Public Works Department is responsible for management of the County's transportation network and associated assets including annual operations and maintenance, transportation planning and traffic and corridor management in order to provide a safe and efficient multi-modal transportation system for the movement of people and goods into and through the County.

The function and hierarchy of the County transportation network as defined in the Oxford County Official Plan (OP) is to serve moderate to high volumes of inter-municipal and long-distance traffic movements between Provincial highways and local roads. The strategic approach established in the OP is intended to minimize conflict between non-local and local traffic, identify necessary improvements over time, provide a safe pedestrian environment, and integrate transportation facilities provided by Area and adjacent Municipalities.

The functionality of the County's transportation network is maintained through corridor management policies to limit direct access to abutting properties where possible, control the number of access points to Residential and Industrial, Commercial, and Institutional (IC&I) development, and restriction of on-street parking as necessary.

The County's entrance By-law 5222-2010 and accompanying guidelines (Attachment 2) was adopted by County Council in 2010 and regulates the number, location, spacing and function of County road access points from abutting properties and developments.

The County is responsible for the operation and maintenance of \sim \$1.15 B of transportation network infrastructure assets as follows:

- 1,335 lane km of roads (includes 43 lane km acquired during 2021 Road Rationalization)
- 163 bridges/culverts (> 3m span)
- 128 retaining walls
- 175 km of storm sewer
- 1,200 km of ditches/swales

• 39 signalized traffic light intersections

- 2 roundabouts
- 13 pedestrian crossings (PXOs)
- 5,562 regulatory/warning signs
- 21 km of active transportation infrastructure (bike lines, multi-use paths, trails)
- 22 grade level railway crossings*

Comments

2023 Annual Transportation System Summary

Highlights of the activities undertaken in 2023 related to the planning, design, construction, operations and maintenance of Oxford County's regional transportation system include, but are not limited to:

- Completion of 40 km of road reconstruction and/or road asphalt resurfacing, including 20 km of Cold-in-Place asphalt recycling
- 2 bridge/culvert (>3m span) replacements/rehabilitations completed
- 510 m of guard rails installed (replaced and/or new)
- Completion of 14 traffic calming, speed management and road safety reviews and associated implementation of 18 Speed Feedback Signs, 20 Community Safety Zones (CSZs), one new School Safety Zone and one controlled Intersection Pedestrian Signal (IPS)
- 3 traffic signal optimizations completed and 15 studies completed (i.e. Class EA Studies, Intersection Control / Pedestrian / Feasibility Studies, etc.)
- Winter control response (2022/2023 winter season) to 54 storm weather events
- Development and implementation of a new stormwater Environmental Certificate of Approval process for Consolidated Linear Infrastructure (which imposes a consistent set of conditions intended to improve environmental protection in relation to the stormwater collection system)
- 779 annual motor vehicle collisions reported, with 4 fatal collisions
- 232 Municipal 511 Road Issue Notifications Automated Notification
- Seasonal load restrictions maintained over 28% of road network

Traffic and Road Safety Management

Initiatives to promote traffic calming, speed management and road safety have been undertaken in recent years to provide a safe, sustainable, and multi-modal transportation network that supports all road users and are further summarized below.

^{*} Ownership of grade level crossings is by the Rail Authority who are generally responsible for the condition of the crossing surface and warning devices. Road authorities are responsible for approaches, warning signs, and sightlines.

Active Transportation

Ongoing initiatives to support active transportation (AT) include incorporation of cycling infrastructure and improvements to pedestrian facilities that meet current AODA standards as part of scheduled capital improvements and asset management. In 2023, these initiatives resulted in the following AT improvements:

- Cycling infrastructure on Oxford Road 59 (Wilson Street) in Woodstock;
- Wider asphalt platform on OR 2 and OR 20 resurfacing projects;
- Audible pedestrian signals and sidewalk enhancements (ramps, tactile plates) at signalized intersections in Tavistock and Norwich;
- Installation of pedestrian bridge and accessible ramp on the Trans Canada Trail in Tillsonburg, and;
- Sidewalk and crosswalk enhancements on OR 20 through Brownsville.

Rail Crossing Review

In Canada, railway companies and road authorities share jurisdiction of railway grade crossings. Within Oxford County, there are several grade crossings spanning the Canadian National (CN) and Canadian Pacific (CP) and short rail line (Ontario Southland Rail, GioRail) corridors. In 2014, Transport Canada updated regulations relating to at-grade railway crossings. The update involved extensive consultation with railway companies and road authorities to ensure the concerns of all interested groups were incorporated. The safety review promotes uniformity at grade crossings within Canada to all public and private grade crossings on federally regulated railways and aims to bring them all under one common standard.

In response to updated Transport Canada regulations, a comprehensive review of at-grade crossings was undertaken by Oxford County in 2020 to identify potential safety deficiencies and recommend remedial improvements to ensure the County's 22 grade level road/rail crossings comply with the applicable standards. From this review, a number of feasible improvements were proposed and completed as show in Attachment 3. In addition to the completed remedial measures, the review also developed a monitoring program to ensure compliance in the future.

Community Safety Zone (CSZ) Implementation

In 2023, a total of 20 locations throughout Oxford were approved by County Council for CSZ implementation (refer to Report PW 2023-05) following a comprehensive evaluation that was completed in 2022 in accordance with the County's CSZ criteria and warrant process adopted by County Council in 2021 (Report PW 2021-31).

Designated CSZs will also be eligible for Automated Speed Enforcement (ASE) applications should a potential future County-wide ASE program be adopted as a measure to further promote road safety for all users and potentially reduce the number of collisions and fatalities on the County regional road network.

County-wide Approach to Speed Management and Traffic Calming

In 2023, speeding and intersection safety concerns across various segments of the County's transportation system were newly assessed through the review of traffic speed, volume, vehicle class, turning movements, sight line assessments, pedestrian volumes, and collision data at the following locations:

- East Zorra-Tavistock Intersection of Oxford Road 59 and Oxford Road 33
- East Zorra-Tavistock Punkeydoodles Corners (Oxford Road 5, Oxford Road 24)
- Tillsonburg Oxford Road 20 (North Street East) from Broadway to Tillson Avenue
- Woodstock Oxford Road 15 (Parkinson Road) from Beard's Lane to Oxford Road 4
- Woodstock Oxford Road 35 (Devonshire Avenue) from Vansittart Avenue to Huron Street
- Woodstock Oxford Road 17 from 14th Line to Oxford Road 4
- Ingersoll Intersection of Oxford Road 7 (Thames Street North) and North Town Line
- Curries Oxford Road 40 from Oxford Road 59 and 1 km west
- Springford Oxford Road 13 and Oxford Road 19 within the village limits
- Foldens Oxford Road 6 from and Oxford Road 12 within the village limits
- Sweaburg Oxford Road 12 within the village limits
- Culloden Oxford Road 10 within the village limits
- Verschoyle Oxford Road 10 within the village limits
- Dereham Centre Oxford Road 27 within the village limits

Similarly, a number of post monitoring speed reviews were completed in 2023 (where traffic calming measures were previously implemented) at the following locations:

- Drumbo Oxford Road 3 from and Oxford Road 29 within the village limits
- Plattsville Oxford Road 8 from Duoro Street to Hofstetter Road
- Bright Oxford Road 8 and Oxford Road 22 within the village limits
- Harrington Oxford Road 28 within the village limits.

Staff utilized traffic management principles and engineering best practice methodologies to develop and implement various site specific evidence based recommendations (refer to Reports PW 2023-06, PW 2023-17, PW 2023-28, PW 2023-44 and PW 2023-45) intended to improve speed management, traffic calming and road safety measures at the above noted locations including, but not limited to, one or more of the following:

- Installation of electronic speed feedback signs;
- Controlled PXOs;
- All-way stop condition(s);
- Regulatory and warning signs;
- Changes to posted speed limits;
- Speed zone adjustments to align with built up areas and TAC guidelines;
- Overhead flashing lights;
- Oversized stop signs with flashing beacons;
- Rumble strips;
- Extensions of street lighting to limits of urban boundary;
- Pavement markings (sharks teeth, transverse bars, edge lines);

- Flexible centre line delineators;
- Gateway features (community signs, lighting, future plantings); and
- CSZ designations.

Frequency and Severity of Collisions

A review of the collision data shows that the total number of collision across the County's road network has remained relatively consistent with an average of 760 total collision occurrences over the past five years (refer to Figure 1) despite increased traffic volumes and community growth. The total number of combined injury and fatal collisions has reduced over the same period, with an average of 109 injury/fatal collisions per year. Most notably, the number of fatal collisions on the County road network has averaged 6 per year, ranging from 4 to 8 fatalities over the last five years (5.5% of the total injury/fatal collisions).



Figure 1 – 2019-2023 Collision Occurrences on County Road Network

The distribution of collision occurrences throughout the County between 2019 and 2023 is shown on Attachment 4 with the highest number of collisions occurring in the three urban municipalities (Woodstock, Ingersoll, and Tillsonburg). An excerpt from the 2024 Transportation Master Plan is included as Attachment 5 and shows the top ten rural and urban collision locations from 2018 to 2022 and the improvements that have been either completed or currently in progress.

Collision occurrences are typically higher at intersections were the risk of conflicts is greater as a result of turning movements, speed differential (rear-end collisions), and driver non compliance (failure to yield, failure to stop, etc). The top ten urban collision locations are at County intersections within the City if Woodstock and can be attributed to generally higher traffic volumes at these locations. In rural areas, 70% of the collisions occurred within North Oxford.

Transportation System Asset Management

The overall asset condition of the County regional transportation system is monitored regularly through the Road Needs Study and biennial Bridge and Culvert inspections. Other inspection programs are initiated from time to time and include retaining walls, guide rails and grade level crossings.

These programs provide an inventory of assets, quantitative condition and performance measures, performance prediction as well as engineering and economic analysis tools to provide costs for future transportation system improvement needs such as resurfacing, rehabilitation, replacement and reconstruction.

2022 Asset Management Plan Update

Oxford continues to prioritize the long term sustainability of its transportation system. The County's Asset Management Plan provides the current asset condition and lifecycle needs of the County's transportation system.

This information continues to be used as a primary source for identified future capital requirements and to determine appropriate reserve contributions to sustainably finance such capital works. The summary of these findings were detailed in the County's 2022 Asset Management Plan (Report CS 2022-20).

A quick summary of the overall condition of transportation infrastructure and related assets is detailed in Figures 2 and 3.

Bridges and Major Culvert Assets:

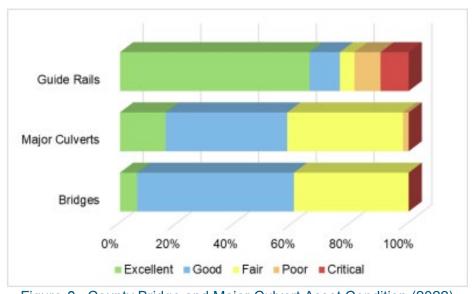


Figure 2 - County Bridge and Major Culvert Asset Condition (2022)

The asset condition monitoring of Oxford County's bridges and major culverts is done through biennial Ontario Structural Inspection Manual (OSIM) inspections as per Provincial legislation O.Reg. 104/97 'Standard For Bridges'. This legislation requires that inspections be undertaken

on all structures that have a span greater than three meters in accordance with the OSIM, every two years under the direction of a Professional Engineer.

Public Works retains an engineering consulting firm to update and keep an inventory of the County bridges and culverts through a close-up visual inspection and appraisal of each structure. An OSIM inspection report is completed for each structure including material and performance ratings, functional data and recommendations for engineering investigations, rehabilitations, repairs and/or replacements. The overall inventory and report summarizes the results of the inspections, weight limit assessment, structure priorities, recommendations and estimated cost for rehabilitation or replacement of each asset by its time of need. The recommendations ensure that preservation, upgrading, and timely replacement of bridge and culvert assets are performed through cost-effective management and programming.

The condition of bridges and major culverts is assessed using the MTO methodology Bridge Condition Index (BCI) and is used to prioritize capital improvements.

Roadway Assets:

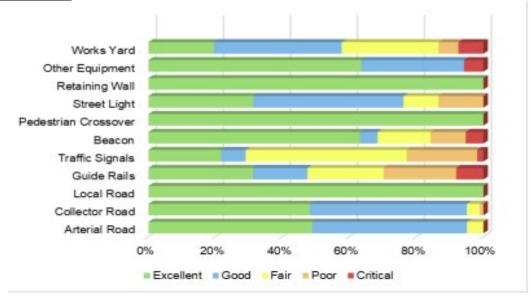


Figure 3 - County Road Network Asset Condition (2022) *

* Note: The hierarchy of the transportation network as identified in the OP identifies the County road network as arterial or regional roads providing connection to Provincial and local roads; however, for the purposes of asset management, County roads are further categorized as arterial (Class 1 and 2), collector (Class 3 and 4) and local roads (Class 5 and 6) in accordance with the road classification matrix included in the MMSMH regulation.

A Road Needs Study is performed every five years through a visual examination to inventory and appraise improvement needs within each road section. The study provides an overall rating of the road system by section, including factors such as surface type, surface width, capacity, structural adequacy, drainage and geometry. The Study reports on the deficiencies, needs and conditions captured through the Road System Inventory, Road Appraisal Sheets and Railway Level Crossing Inventory. The Study also identifies recommended timing and estimated cost of the proposed construction and/or rehabilitation improvements.

These recommendations guide the scheduling of improvements to ensure that preservation, upgrading, and timely replacement of roadway assets are undertaken through cost effective management and programming in conjunction with the annual capital works in progress.

Similarly to bridges and major culverts, the road network is assessed using the MTO Pavement Condition Index (PCI) methodology to rank the current condition of the road segment and identify maintenance and rehabilitation requirements.

2023 Transportation System Infrastructure Capital Investments

As per the revised 2023 Forecast in the 2024 Business Plan and Budget, the County invested approximately \$27 million in tax supported transportation infrastructure which included, but is not limited to, several notable capital projects as follows:

- Oxford Road 29 horizontal and vertical realignment at Blenheim Rd (\$2,000,000)
- Oxford Road 59 (Wilson St) reconstruction (\$2,400,000)
- County-wide road resurfacing (\$5,000,000)
- County-wide rural storm replacement (3,400,000)
- Bridge Rehab Oxford Road 12 (Mill St) (\$1,250,000)
- Bridge Rehab Oxford Road 45 (17th Line) (\$1,400,000)
- Pedestrian Bridge Trans Canada Trail (\$2,600,000)
- Traffic Signal Replacements (\$1,400,000)
- Princeton Drain (\$1,000,000)

2023 Maintenance of Transportation System Infrastructure

In addition to the transportation system capital investments noted above, several planned operational preventative maintenance activities are carried out annually to help optimize the useful service life and efficiency of transportation infrastructure assets. The 2023 Roads Operational Expense was approximately \$23 million and included a number of key annual maintenance activities performed on the transportation network as noted in Table 1.

Table 1: Transportation System Infrastructure Maintenance (2023)

Preventative Maintenance Activity	Quantity		
Road Salt Application - tonnes of salt (2022/2023 Winter)	9,840 tonnes		
Road Sand Application - tonnes of sand (2022/2023 Winter)	6,200 tonnes		
Road Side Maintenance / Shouldering	13,800 tonnes		
- tonnes of gravel placed			
Ditch Clean Outs - Length of ditches cleaned out	12,000 metres		
Asphalt Patching / Pothole Repair – tonnes of hot mix	1,500 tonnes		
placed			
Line Painting (metres)	1,666,700 metres		
Sign Inspections / Reflectivity	6,297 signs		
Bridge Washing (area) 8,740 square metre			
Snow Fence Installation/Removal - metres	17,540 metres		
# of Regulatory Signs Replaced	454		

CONCLUSIONS

The 2023 Annual Transportation System Performance Report demonstrates Public Works' continued oversight of the County's transportation systems in order to effectively serve Oxford residents and businesses, and promote safe, efficient and sustainable movement of people and goods into, out of and throughout Oxford County.

The County continues to institute industry best management standards to annually monitor the levels of service and financial performance of its transportation infrastructure and to ensure transportation infrastructure assets are maintained in optimal condition through effective preventative maintenance and optimized infrastructure decision-making.

Through on-going investment into capital expansion, state-of-good repair works, and operational improvement measures, the performance of the system will continue to meet or exceed current levels of service.

SIGNATURES	
Report author:	
Original signed by	
Frank Gross, C. Tech Manager of Transportation and Waste Managemen	t 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	•

ATTACHMENTS

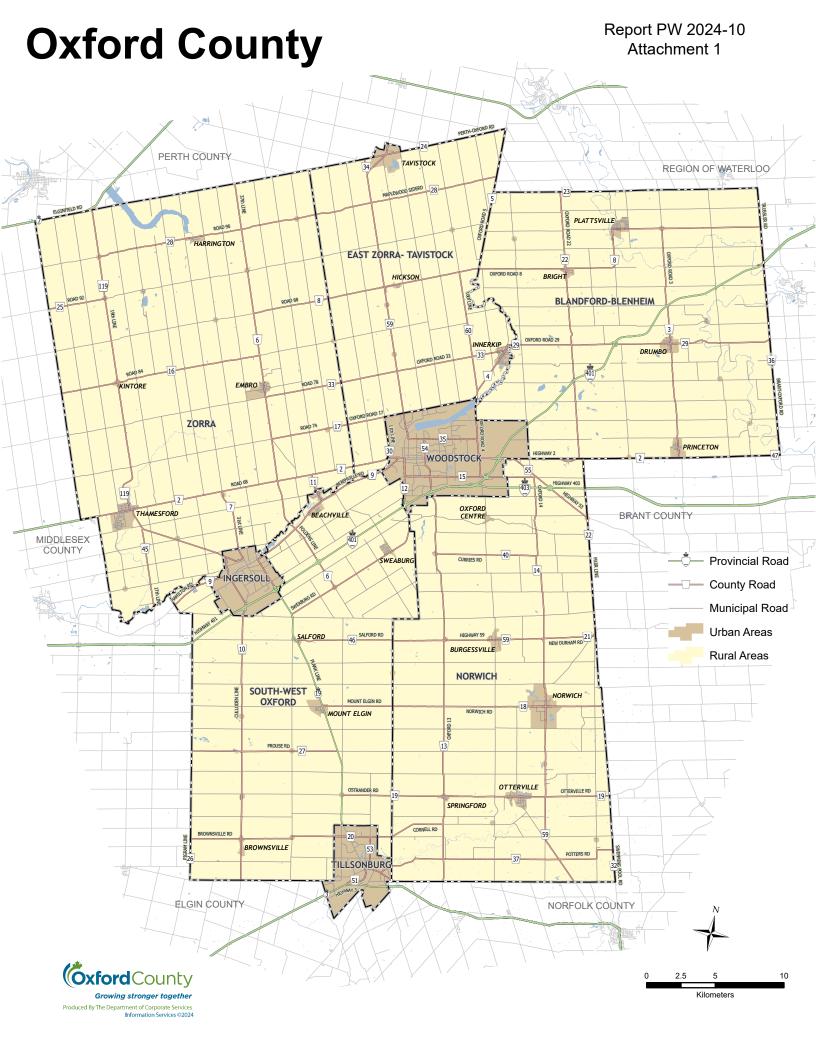
Attachment 1 – Map of County Road Network

Attachment 2 – County's entrance By-law 5222-2010 and Guidelines

Attachment 3 – Remedial Actions for Grade Level Crossings

Attachment 4 – Heat Map of Collisions in the County

Attachment 5 – Top 10 Rural and Urban Collision Locations



Report PW 2024-10 Attachment 2

COUNTY OF OXFORD

BY-LAW NO. 5222-2010

BEING a By-law to Regulate the Approval, Construction and Maintenance of Entrances Providing Access to and Egress from Roads within the County Road System in the County of Oxford.

WHEREAS, it is in the public interest to ensure the safe and orderly access to the County Road System consistent with the safety, functional and operational requirements of public roads and the accessibility needs of the adjacent land uses;

AND WHEREAS, the *Municipal Act 2001* provides that Council may pass by-laws for such purposes;

AND WHEREAS, the Municipal Act 2001 also provides that the County of Oxford

- · has jurisdiction over all roads in the County Road System,
- may pass by-laws restricting, or removing, the right of access to the County Road System, and
- has the power to delegate its powers and duties with respect to the matters addressed in this By-law.

AND WHEREAS, the County of Oxford Official Plan establishes the *County's* transportation policies and provides for the use of access by-laws to regulate the number, location, spacing and function of driveways providing access to and egress from abutting properties;

AND WHEREAS, the County recognizes the need to establish differing levels of access control to recognize the range of characteristics of roads under the County jurisdiction while ensuring minimum traffic safety design and construction standards are maintained throughout the County Road System for the protection of the travelling public;

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

1. Definitions

For the purposes of this by-law:

"County" means the County of Oxford;

"County Road System" means the system of County roads established under County of Oxford By-law 4167-2001 as amended, and including duly approved changes to the County Road System by future amendments to that By-law as depicted in Schedule C-4 of the County of Oxford Official Plan;

"County Road" means a common and public Highway, and includes any street, avenue, parkway, driveway, square, place, bridge, laneway, viaduct, trestle or other structure forming part of the Highway, or any other type of thoroughfare or road allowance under the jurisdiction of the County of Oxford as a part of the County Road System, any part of which is intended for or used by the general public for the passage of vehicles and includes the area between the lateral property lines thereof and, except as otherwise provided, includes a portion of a Highway. It has the same meaning as "Highway" as defined in the Municipal Act 2001 or the Highway Traffic Act 1990 or both;

"Director" means the director of Public Works, County of Oxford or a designate authorized by the director to issue entrance permits pursuant to this by-law;

"Entrance" means physical vehicular or pedestrian access of any kind from a private property to a County Road and includes, without limit, the types of entrances identified and defined in section 1 of The Guidelines for Entrances to the County Road System - Tiered Access Control Standards;

"Entrance Permit" means a permit, as issued by the Director, County of Oxford, to establish an Entrance to a County Road from a property abutting a County Road;

"local municipality" means one of the lower tier municipalities comprising the County of Oxford; being the City of Woodstock, the Town of Ingersoll, the Town of Tillsonburg, the Township of Blandford-Blenheim, the Township of East Zorra-Tavistock, the Township of Norwich, the Township of South-West Oxford or the Township of Zorra;

"municipal law enforcement officer" means a duly authorized person appointed by the County of Oxford for the purpose of enforcing the provisions of municipal by-laws;

"roadway" means the part of the County Road that is improved, designed or ordinarily used for vehicular traffic but does not include the shoulder and where a County Road includes two or more separate roadways, the term "roadway" refers to any one roadway separately and not to all of the roadways collectively;

2. No Access to County Roads without Permit

No person shall create, construct or otherwise establish an *Entrance* to a *County Road* without first obtaining an *Entrance Permit*.

3. No Alteration to Entrance without Permit

No person shall in any way alter the design, construction, location or use (e.g. any change requiring an Official Plan or Zone Change under the Planning Act) of an existing *Entrance* without obtaining an *Entrance Permit*. Approval of changes of use only will be dealt with through the Planning Act process.

4. Construction, Alteration in Accordance with Permit

No person shall construct an *Entrance* or carry out alterations to an existing *Entrance* except under the terms and conditions of an approved *Entrance Permit* issued in accordance with this By-law, and the criteria and standards set out in The Guidelines for Entrances to the County Road System - Tiered Access Control Standards.

5. Maintenance of Entrances

All Entrances shall be maintained in accordance with the criteria and standards set out in The Guidelines for Entrances to the County Road System - Tiered Access Control Standards and the terms and conditions of the approved Entrance Permit.

6. Costs

- a) The owner or the applicant shall be responsible for all costs associated with the construction, alteration or maintenance of any *Entrance* providing access to or egress from their property to a *County Road*.
- b) Notwithstanding S. 6a), where an existing first or only *Entrance* contains a culvert, the provisions of S.6 c) to The Guidelines for Entrances to the County Road System Tiered Access Control Standards shall apply.

7. Delegation of Council Authority

- a) The Council for the County of Oxford delegates the authority for all decisions pertaining to the implementation of this By-law to the *Director*.
- b) The *Director* shall have the exclusive authority to approve with or without terms and conditions, remove, and take any and all steps necessary to ensure the safe operation and the proper design, construction, alteration and maintenance of *Entrances* onto *County Roads*, in accordance with this by-law and the approved *Entrance Permit* and/or the criteria and standards set out in The Guidelines for Entrances to the County Road System Tiered Access Control Standards.
- c) In the event of a dispute between the *Director* and an owner or applicant which cannot be resolved to their mutual satisfaction, the aforesaid owner or applicant may bring the application to the Council for the County of Oxford.
- d) Where the *Director* is satisfied that contravention(s) of one or more provisions of this By-law, or any terms or conditions of any *Entrance Permit* issued under this By-Law, has occurred, the *Director* is authorized to apply the enforcement and penalty provisions of section 9 of this By-law.

8. Exemption: Planning Act Approval

- a) Where a proposed new entrance or entrances are shown on an application for plan of subdivision, plan of vacant land condominium, consent or site plan approval which is submitted for approval pursuant to the requirements of the *Planning Act*, R.S.O.1990, c.P.13, as amended, and where such entrance or entrances are approved as part of the foregoing application process, and where such application is approved pursuant to the requirements of the Act, such new entrance or entrances shall, subject to subsections b) and c) below, be exempt from the requirements of section 2, 3 and section 4 of this Bylaw.
- b) Notwithstanding, a) above, entrances which form part of applications for site plan approval pursuant to section 41 of the *Planning Act* are only exempt from the requirements of section 2,3 and 4 of this By-law if
 - the entrance has already been presented in an application, and approved, in the context of consent or draft plan of subdivision/draft plan of vacant land condominium approval process under the *Planning Act*; or
 - the entrance/access issue has been addressed to the County's satisfaction in the site plan drawings and/or conditions of site plan approval as approved by the municipality pursuant to section 41 of the *Planning Act*. Where the County is not satisfied with such an entrance/access, the matter shall be referred to County Council for decision.
- c) Notwithstanding,a) above, a further approval must be sought pursuant to section 4 of this By-law prior to any alteration to any entrance or entrances approved as part of an application under the *Planning Act*.

9. Enforcement and Penalty Provisions

a) The provisions of this by-law shall be enforced pursuant to the provisions set out in the *Provincial Offences Act*. The provisions of this by-law shall be enforced by a police officer or by the County of Oxford.

- b) Any person who creates, constructs, alters or otherwise establishes an *Entrance* onto a *County Road* without first obtaining an *Entrance Permit*, other than a person who is exempt from the requirement to obtain an Entrance Permit by operation of section 8 of this By-law, or who contravenes any terms and conditions of any *Entrance Permit* or the provisions of this By-law or its Schedule, is guilty of an offence and upon conviction shall be subject to a fine, exclusive of costs and all such fines shall be recoverable under the provisions of the Provincial Offences Act.
- c) If any person creates, constructs, alters or otherwise establishes an *Entrance* onto a *County Road* without first obtaining an *Entrance Permit*, or who contravenes any terms and conditions of an *Entrance Permit* or otherwise fails to comply with this By-law including The Guidelines for Entrances to the County Road System Tiered Access Control Standards, the *Director* may:
 - i) Issue one or more work orders pursuant to Section 445 of the Municipal Act, 2001 requiring that person to correct such contravention or contraventions; and
 - ii) In the event of failure to comply with the work order within the timeframe specified in the order, take any remedial action and related cost recovery actions to complete the work required under the order at that person's expense pursuant to section 446 of the *Municipal Act*, 2001.

10. The Guidelines for Entrances to the County Road System - Tiered Access Control Standards- Criteria and Standards for Entrances to County Roads

- a) The Guidelines for Entrances to the County Road System Tiered Access Control Standards, as amended from time to time, establishes, either directly or by reference to other documents, criteria and standards applicable to the decisions on *Entrances* to *County Roads* under this By-law.
- b) The location, design, number and width of *entrances* onto *County Roads* and the maintenance thereof, shall be regulated in accordance with the criteria and standards contained in The Guidelines for Entrances to the County Road System Tiered Access Control Standards.
- c) the application requirements and fees for *Entrance Permits* and *Entrance* installation and inspection shall be in accordance with the criteria and standards contained in The Guidelines for Entrances to the County Road System Tiered Access Control Standards.

11. Amendments to By-law, The Guidelines for Entrances to the County Road System - Tiered Access Control Standards

This By-law and The Guidelines for Entrances to the County Road System - Tiered Access Control Standards shall be reviewed from time to time and amended, as required, by the Council of the County of Oxford.

12. Validity

If any section, clause or provision of this By-law, and anything contained in The Guidelines for Entrances to the County Road System - Tiered Access Control Standards, is for any reason declared by a court of competent jurisdiction to be invalid, the same shall not affect the validity of the By-law as a whole or any part thereof other than the section, clause or provision declared invalid; and it is hereby declared that the remainder of the by-law shall be valid and shall remain in force and effect until repealed.

READ a first and second time this 24th day of November, 2010.

READ a third time and finally passed this 24th day of November, 2010.

AUL J. HOLBROUGH, WARD

BRENDA J. TABOR,

I hereby certify this to be a true copy of County of Oxford By-law No. 5222-2010

<u>1/26/10</u>

Brenda J. Fabor, Clerk

GUIDELINES FOR ENTRANCES TO THE COUNTY ROAD SYSTEM – TIERED ACCESS CONTROL STANDARDS ("GUIDELINE")

1. Purpose

- a) The purpose of this Guideline is to set out the criteria and standards for implementing a tiered approach to the approval, construction, alteration and maintenance of *Entrances* providing access to roads within the *County Road System*, in accordance with By-law 5222-2010 (The By-law) as amended.
- b) The Guideline, and the standards and criteria set out herein, take into account the differing nature of the roads within the County Road System. While sharing the common characteristic of being arterial roads, County Roads have differing safety and other requirements depending on whether or not they are rural or urban, within or outside *Settlements*, and therefore subject to corresponding higher or lower speed limits. While no guideline can specifically address all possible circumstances, the Guideline is designed to provide clear direction to applicants and approval authorities applicable to a range of circumstances. The Guideline also serves to establish certain necessary minimum standards required in order to maintain overall traffic safety and mitigate/reduce the significant liabilities that attach to the County as decision maker with jurisdiction over the safe operations of the County Road System.
- c) The primary purpose of *Entrances* to *County Roads* is to provide safe and orderly access consistent with the functional and operational requirements of *County Roads* and the accessibility needs of the adjacent land uses. Decisions on each application for a proposed *Entrance* will be made with due consideration to the nature of the conditions and circumstances in the vicinity of the proposed entrance. Factors to be considered include location (including whether the Entrance is to be located within a *Settlement* area or a rural area), the speed limit on the particular section of road, the geometry of the road and the adjoining geography; existing built development in the immediate surroundings; and the number and density of existing *Entrances*.
- d) There is a direct correlation between the number of entrances on a road and the number of collisions on that road. Each additional entrance potentially increases the risk of collision and reduces the safety of the motoring public. In implementing the By-law, it is the County's objective to evaluate all proposed new *Entrances* in accordance with criteria and standards pertaining to location, design, maintenance, number and width with a view to minimizing risk to the public.
- e) Pursuant to Sections 2, 3, 4 and 8 of the By-law, new *Entrances* and alterations to existing *Entrances* shall conform to and be completed in accordance with the following criteria and standards.

2. Definitions

In addition to the definitions contained in the By-law, the following definitions shall apply to this quideline:

- "Agent" means a person or business or corporation acting on behalf of and with the permission of the Owner.
- "Applicant" means the person, business, corporation or Municipality applying for the Entrance Permit. An Applicant may be the Owner or an Agent of the Owner.
- "Commercial/Industrial/Institutional/Multi-residential Entrance" means an entrance which provides access to a business, institutional facility or multi-residential use permitted in the zoning By-law.
- "Common Entrance" has the same meaning as "Mutual Entrance"
- "Culvert" means an open-ended underground pipe, conveying surface storm water across a County Road ("Highway Culvert") or across an entrance ("Entrance Culvert").
- "Sight Triangle" means the triangular space formed by the street lines and a line drawn from a point on one street line to a point drawn on the other street line, each such point being nine (9) metres, measured along the street line from the point of intersection of the street lines.
- "Emergency Entrance" means an Entrance which provides access to subdivision developments for emergency vehicles only, in the event that the main entrance to the development is not passable.

- "Farm Entrance" means an Entrance which provides access to farm buildings and agricultural lands including any residence(s) located on the same property.
- "Field Entrance" means an Entrance which provides access to agricultural fields.
- "Mutual Entrance" means an Entrance which serves more than one lot or more than one use on a single lot such as a farm business, campground or commercial use with an accessory residence.
- "OPSD" means the Ontario Provincial Standard Drawing from the Ontario Provincial Standards for Roads and Public Works, http://www.ragsa.mto.gov.on.ca/techpubs/ops.nsf/OPSHomepage
- "OPSS" means the Ontario Provincial Standard Specification from the Ontario Provincial Standards for Roads and Public Works, http://www.raqsa.mto.gov.on.ca/techpubs/ops.nsf/OPSHomepage
- "Owner" means any persons, business, corporations or Municipality(s) that owns or has an interest in the property that is the subject of the *Entrance* Permit Application.
- "Public Entrance" means an Entrance which provides access onto a County Road from a registered subdivision by means of a public road or street
- "Residential Entrance" means an Entrance which provides access to a residential dwelling containing no more than two units.
- "Rural Cross-section" means a road cross section comprising the Roadway bounded by shoulders and ditches on either side. A Rural Cross-section, while normally found outside Settlements, may also be found within Settlements.
- "Settlement" means the area where development is concentrated and a variety of land uses may be present. Settlements only include designated Rural Clusters, Villages, Serviced Villages and Large Urban Centres as defined in the County of Oxford Official Plan.
- "TAC Guide" means the Transportation Association of Canada's Geometric Design Guide for Canadian Roads, as amended.
- "Temporary Entrance" means an Entrance which provides access to properties for a limited period not to exceed six months for the purpose of construction, repairs or improvement on that property or to facilitate a staged development.
- "Urban Cross-section" means a road cross-section comprising the Roadway bounded by curbs or curb and gutter on either side. . An Urban Cross-section, while normally found within Settlements, may also be found outside Settlements.

3. Permit Required

Pursuant to Section 2 of the By-law, and except as exempted by section 8 of the by-law, *Entrance Permits* are required for:

- i) Construction of a new Entrance (paved or unpaved),
- ii) Changing the design of an existing Entrance,
- iii) Changing the location of an existing Entrance,
- iv) Changing the use of an existing Entrance (e.g. from residential to commercial) and/or,
- v) Construction of a *Temporary Entrance* or the use of any part of the *County Road* right-of-way as a means of temporary access.

4. Location of Entrances

- a) New entrances shall be located so as to provide, in the opinion of the *Director*.
 - i) No undue interference with the safe movement of vehicular traffic, pedestrians, or other users of the *County Road*; and
 - ii) Safe and convenient vision, grade, and alignment conditions for all traffic using the proposed *Entrance* to the *County Road*.
- b) New entrances will <u>not</u> be permitted where one or more of the following criteria are met:
 - i) Where access can reasonably be gained via a City, Town, Village, or Township right-of-way, with consideration given to the traffic volumes and the roadway geometrics;
 - ii) Along a lane that is identified for the purpose of an exclusive vehicular turning movement;
 - iii) Within the Sight Triangle at any intersection;
 - iv) Within 20 metres centre to centre of another same-side entrance in areas outside of Settlements with rural cross-sections;
 - v) Where the new *Entrance* would oppose the non-through leg of a "T" intersection, except where the new entrance is a *Public Entrance* or a *Commercial, Industrial, Institutional, Apartment or Multi-residential Entrance*;
 - vi) In areas within a *Settlement*, at locations with an *Urban Cross-section* where the proposed *Entrance* cannot be spaced away from adjacent *Entrances* at a sufficient distance to provide a minimum length of 2 metres of raised curb between adjacent *Entrances*, with the exception of mutual driveways straddling a property line, or in the case of *Entrances* at locations with a *Rural Cross-section*, at a sufficient distance to provide a minimum of 2 metres clear space between the ends of adjacent *Entrance* Culverts;
 - vii) In close proximity to intersections where the following minimum distance from the nearest edge of pavement, taken from the *TAC Guide*, Figure 3.2.8.2 "Suggested Minimum Corner Clearances to Accesses or Public Lanes at Major Intersections", is not met:

Speed Limit	Minimum Distance
50 km/hr	85 metres
60 km/hr	110 metres
70 km/hr	140 metres
80 km/hr	170 metres

viii) Where the following minimum sight distance requirements, taken from the TAC Guide, Figure 2.3.3.4 "Sight Distance for Turning Movements from Stop", are not met:

Speed Limit	Minimum Sight Distance
50 km/hr	160 metres
60 km/hr	200 metres
70 km/hr	250 metres
80 km/hr	300 metres

ix) Adjacent to a bridge or other structure, where the following minimum sight distance requirements, taken from the TAC Guide, Table 2.3.3.5, "Sight Distance for Left Turns at Unsignalized Interchange Ramp Terminals" are not met:

Speed Limit	Minimum Sight Distance
50 km/hr	115 metres
60 km/hr	135 metres
70 km/hr	150 metres
80 km/hr	170 metres

c) In areas where the speed limit is less than 80 km/hr *and* the sight distances in sub-paragraphs vii), viii) or ix) above cannot physically be achieved *and* the restriction of the location of an *Entrance* relative to the bridge or other structure can be relaxed or waived without negatively affecting the safety of the *County Road* at that location, the *Director* may permit an *Entrance*.

5. DESIGN STANDARDS

- a) Entrance Grade and Back Slope (For All Entrances)
 - i) The finished surface of the *Entrance* must drop away from the edge of the highway-driving surface to the end of the shoulder rounding at a rate equal to the slope of the shoulder. *Entrances* shall be constructed as shown in the applicable *OPSD*.
 - ii) Each *Entrance* to a County Road must be designed, constructed, and maintained in a manner that will prevent surface water from the entranceway or from the adjoining property being discharged via the entrance onto the traveled portion of the *County Road*.
 - iii) The design of all *Entrances* must be submitted to, and approved, by the *Director* and an Entrance Permit issued prior to work commencing on the entrance within the limits of the road allowance of a *County Road* or any works related to said entrance.
 - iv) Filling in of ditches in front of properties is prohibited, with the exception of works carried out as part of a drainage works under the Drainage Act.

b) Field Entrance

The property *Owner* shall provide to the Director a drawing showing the proposed *Entrance* including dimensions. The *Entrance* shall be surfaced with at least 150 mm (6") pit run gravel (Granular "B") and 50 mm (2") of crushed gravel (Granular "A") and the *Culvert* must be of sufficient length to provide the required slope up from the ditch invert to an *Entrance* width as specified in Section 6 of this Guideline. The minimum cover of granular material on the *Culvert* is to be 450 mm (18").

c) Farm or Residential Entrance

In the case of proposed Farm or Residential Residences, the property *Owner* shall provide to the Director a drawing showing the proposed *Entrance*, including dimensions and grading plan. The *Entrance* shall be surfaced with a minimum of 150 mm (6") of crushed gravel (Granular "A") and 150 mm (6") of pit run gravel (Granular "B"). A Farm or Residential Entrance shall not be hard surfaced except in areas with urban cross-sections including curb and gutter. All existing hard surfaced *Entrances* within the *County Road* are the sole responsibility and risk of the property *Owner* and will not be maintained by the *County*. The *Culvert* must be of sufficient length to provide the required slope up from the ditch invert to an *Entrance* width as specified in Section 7 of this Guideline. The minimum cover of granular material on the *Culvert* is to be 450 mm (18").

d) Commercial/Industrial/Institutional/Multi-residential Entrance

Commercial/Industrial/Institutional/Multi-residential *Entrances* associated with the following *Planning Act* applications will be considered by the County for approval as part of the County Public Works commenting process under the *Planning Act* for these applications:

- · plans of subdivision,
- plans of vacant land condominium,
- consents or
- site plan approvals

Based on acceptable geometry and location shown in the application documentation, a provisional approval will be given subject to submission of engineering drawings prior to construction. It is anticipated that the required drawings will be site plan, subdivision drawings, etc. for the project in question. The following drawings and other requirements are to be submitted to the *Director* by or on behalf of the Owner/Applicant for that final approval:

 technical drawings prepared by a qualified professional showing the proposed *Entrance*, including dimensions, grading plan typical sections including type and thickness of granular base, projected traffic flows and all other *Entrances* within 300 metres of the proposed *Entrance*;

- ii. confirmation that the entrance shall be surfaced with a minimum of two lifts, not less than 50mm (2") each, of hot mix asphalt;
- iii. where a *Culvert* is required, its length will be determined by the *Entrance* design which will be site specific, having regard for number and type of vehicles expected to utilize the *Entrance*:
- iv. the Entrance width shall be as specified in Section 7 of this Guideline;
- v. the minimum cover of asphalt and granular material on the *Culvert* is to be 450 mm (18"); and
- vi. the specific design of the sub-grade and granular base is to be designed by the property Owner or his Agent for the intended type and volume of traffic and subject to the Director's approval.

e) Temporary Entrance

- i) A *Temporary Entrance* shall be designed and constructed in a manner that is appropriate for the intended use, subject to the approval of the *Director*.
- ii) Where any part of the *County Road* right-of-way is used for a *Temporary Entrance*, the right-of-way shall be restored to its original condition by the *Owner* to whom the Entrance Permit is issued before the expiry date of the permit. A deposit of \$2000.00 shall be forwarded to the *County* to be held as a security deposit until the restoration is completed to the satisfaction of the *Director*.
- iii) *Temporary Entrance* permits shall specify: the expiry date, the extent and nature of the works to be done on the property and the *Owner's* responsibility to clean up all mud and debris from the road in a timely fashion, all to the satisfaction of the *Director*. If a time extension is required for a Temporary Entrance Permit, the *Owner* must apply for a new permit prior to the expiration of the existing permit.

f) Public Entrance

Public Entrances associated with the Planning Act applications for plan of subdivision, plans of vacant land condominium, consents or site plan approvals will be considered by the County for approval as part of the County Public Works commenting process under the Planning Act for these applications. The roadway beyond the County Road right of way must meet the standards of the Municipality which will assume that road. The subdivision Owner shall provide to the Director technical drawings prepared by a qualified professional showing the proposed Entrance, including dimensions, grading plan typical sections including type and thickness of granular base and projected traffic flows. All other Entrances within the bounds of the drawing shall be shown on the drawing. All other Entrances within 300 metres of the proposed Entrance shall be shown on a drawing or sketch submitted with the application package.

g) Emergency Entrance

The property *Owner* shall provide to the Director technical drawings prepared by a qualified professional showing the proposed *Entrance*, including dimensions, grading plan, typical sections including type and thickness of granular base and projected traffic flows. The drawings shall also clearly indicate the measures to be incorporated in the *Emergency Entrance* to prevent (adequately discourage) non-emergency use such as by private residents or delivery vehicles. All other *Entrances* within the bounds of the drawing shall be shown on the drawing. All other *Entrances* within 300 metres of the proposed *Entrance* shall be shown on a drawing or sketch submitted with the application package.

h) Curb and Gutter

- i) Where a curb and gutter exists at the location of the proposed *Entrance*, the *Applicant* shall be required to construct a drop curb at the *Entrance* location. The existing curb shall be cut or removed and replaced using materials and construction methods as per the applicable OPSSs and OPSDs.
- ii) The area between the curb and sidewalk is to be hard surfaced with a minimum of two lifts, not less than 50mm (2") each, of hot mix asphalt, 150 mm (6") of concrete or suitable interlock pavers, in accordance with the County's requirements. If there is no sidewalk, the entrance is to be hard surfaced a minimum distance of two metres behind the curb.

i) Culverts

- i) All *Culverts* shall be constructed to the proper grade ensuring that free and unimpeded flow of surface water is maintained to the satisfaction of the *Director*.
- ii) *Culverts* required for new or re-designed entrances must be of sufficient diameter to maintain the free flow of water in ditch and be installed to the satisfaction of the *Director* in order to avoid future maintenance problems.
- iii) The minimum *Culvert* diameter for *Residential* and *Commercial Entrances* is 450 mm (18"). For *Public Entrances*, the minimum size is 600 mm (24"). Exceptions to these standards for *Culverts* shall be at the discretion of the *Director*.
- iv) When the roadside ditch is part of a municipal drain, the diameter of the *Culvert* is subject to municipal standards. The *County* must contact the municipal drainage superintendent for advice on the requirements relating to the municipal drain such as the appropriate diameter of *Culvert*.
- v) Where the upstream *Culvert* is a greater diameter than the minimum standard, the *Culvert* for the proposed entrance must be at least the same diameter in order to avoid "bottlenecks", unless it is determined that the upstream culvert is oversized for the expected flows.
- vi) The length of an *Entrance Culvert* shall be equal to the width of the entrance plus the width of the slopes on both sides of the entrance, as measured at the bottom of the ditch. A minimum of 0.6 metres (2') of the *Culvert* shall be left clear of surface cover at both ends.
- vii) The *Culvert* shall be placed in the centre of the *County Road* ditch and be embedded in a minimum of 100 mm (4") of granular material dependant upon sub-grade material. The *Culvert* invert is to be placed at the existing ditch invert on the ditch alignment.
- viii) OPSD Standards (800 series) shall be used to determine the specifications of the *Culvert* (type, material, gage, etc.) and the bedding requirements.
- ix) A Culvert shall be constructed of new material only, as approved by the director.

i) Curbs and/or Headwalls

- i) The construction of curbs and headwalls is prohibited within the County road allowance. No curb or headwall can extend above the surface of the roadway shoulder within the limits of the shoulder and its rounding.
- ii) All existing curbs and headwalls within the *County Road* are the sole responsibility and risk of the property *Owner* and may be removed, if necessary, at the discretion of the Director and at the property *Owner's* expense.

6. MAINTENANCE OF ENTRANCES

- a) Property *Owners* with an *Entrance* to a County Road are solely responsible for the maintenance of the *Entrance* according to the applicable standards specified in this Guideline, as well as any necessary dust control and the removal of snow and ice to keep the *Entrance* in a safe condition for vehicular traffic.
- b) The *County* shall not be liable for any damage due to shoulder grading, snowplowing or other maintenance activities undertaken by the *County* or by a contractor employed as an agent of the *County* done to paving stones, surface treatment, asphalt pavement or concrete pavement on *County Roads*.

c) A *Culvert* installed under the terms of the *Entrance* Permit shall become the property of the *County* upon acceptance of the work by the *Director*. All subsequent replacement, maintenance, repairs or alterations to the *Culvert* and drainage through it shall be carried out by the *County*. The *County* shall bear the costs of such maintenance work for the first or only *Entrance* to a property except for widening or other alteration as may be approved through an *Owner's* request for a change. The costs for all maintenance to any second and subsequent *Entrances* are the sole responsibility of the property *Owner* and, if necessary, shall be recovered from that property *Owner* by the County as permitted under section 446 of the *Municipal Act*, 2001.

7. NUMBER AND WIDTH OF ENTRANCES

- a) Notwithstanding the provisions of any *Area Municipal* Zoning By-laws, the *County* shall specify the width and number of *Entrances* to *County Roads*. The widths specified in Section 7.b) below are the driving surface of the entrance measured at the location of the culvert or the curb cut unless specified otherwise.
- b) The *County* shall limit the number of *Entrances* per property to the minimum number required for access while maintaining the greatest possible level of safety for the motoring public. The number of *Entrances* permitted shall be as follows:
 - i) Residential Entrance one per property where residential uses are permitted except in the case of *Mutual Entrances* where one *Entrance* will serve multiple properties. Outside of *Settlements*, the maximum width is six (6) metres (20'), in *Settlements* the maximum width is four (4) metres (13') for a single driveway or six (6) metres (20') for a double driveway or *Mutual Entrance*.
 - ii) Farm Entrance one Farm Entrance per farm property with additional Field Entrances where natural obstructions within the field physically prevent access across the field or, where the property frontage exceeds 400 metres, an additional Field Entrance may be permitted for each additional 400 metres of frontage at the discretion of the Director. The normal entrance width is twelve (12) metres (39'). Wider entrances shall be permitted subject to the particular use or specific industry requirements (example the Dairy Farmers of Ontario) as approved by the County.
 - iii) Commercial/Industrial/Institutional /Multi-residential Entrance one per property where C/I/I/MR uses are permitted. Site plan deficiencies will not generally be accepted as a reason for a second Entrance, nor will additional Entrances be permitted to preclude the installation of warranted traffic signals. A second entrance may be approved by the Director in the case of special circumstances. For high traffic volume sites, a peer reviewed Traffic Impact Study may be required, at the discretion of the Director, for the approval of multiple entrances. The width is to be nine (9) metres (30') at the property line with five (5) metre (16.5') radii.
 - iv) Temporary Entrances the number and dimensions will be based on the proposed use.
 - v) For site plans of Area Municipality or County Emergency Services (Police, EMS, Fire) facilities, the *Director* will consider the specific needs of the facility when considering access provisions such as number and width of entrances.
- c) Special Circumstances notwithstanding Section 7.b), Where there is a valid need for an exception to these criteria and standards based on topography or other special circumstance, such an exception may be granted at the discretion of the Director.

8. MUTUAL ENTRANCES

Mutual Entrances will be required where deemed necessary by the *Director* during the development process when direct access to a *County Road* is sought for contiguous lots outside of *Settlements*. Mutual Entrances shall be subject to the criteria and standards of this Guideline for the purpose the Entrance is intended to serve. The provision of access to the lots via a Mutual Entrance rather than through individual entrances shall be registered on title for all of the affected lots. Mutual entrances may also be required inside Settlements based on lot geometry, distance from intersections, topography issues, etc. at the discretion of the *Director*, through comments during the development process.

9. ENTRANCE PERMIT APPLICATION PROCESS:

- a) As indicated in Section 8 of the By-law, and section 5 of these Guidelines, where a proposed new entrance, or entrances, is requested as part of an application for plan of subdivision, plan of vacant land condominium, consent or site plan approval, the approval decision for the *Entrance or Entrances* will be made as part of the County Public Works commenting process associated with the particular application.
- b) Applications for new *Entrances*, or reclassifications of or alterations to existing *Entrances* which are not part of any of the planning approval identified in 9 a) above, shall be submitted by the property *Owner* or an *Agent* on forms supplied by the Public Works Department. Approval of all *Entrance* Permits shall be subject to conditions, technical, financial or otherwise, prior to, or as part of the installation of the *Entrance*.
- c) Proposed Entrance location(s) shall be clearly illustrated on a drawing as required in Section 5 of this Guideline, which is to accompany the application. The drawing for a *Field, Farm or Residential Entrance* may be a hand-drawn sketch, but it must provide enough information to enable staff to locate it in the field (i.e.) dimensions to buildings and/or landmarks such as fences hedgerows, tree lines, etc.
- d) The following criteria will be considered in determining whether or not to grant approval to all applications for new *Entrances* or alterations to existing *Entrances*:
 - i) Protection of the public through the orderly control of traffic movements onto and from *County Roads*, including possible requirements for left and/or right turn lanes.
 - ii) Maintenance of the traffic carrying capacity of the County Roads System.
 - iii) Protection of the public investment in County Roads System.
 - iv) Minimization of County expenditures on the maintenance of Entrances.
 - v) Minimization of risk of future maintenance problems and reconstruction costs.
 - vi) Existence of sufficient legal access onto County Roads via easement, right-of-way or mutual entrance through adjacent property.
- e) An *Entrance* Permit will be issued upon satisfaction of the *Director* that all necessary arrangements, agreements and financial securities and fees are provided to the *County*.
- f) Should the ownership of the property change after the date of the application, the new *Owner* shall become the *Applicant*.

10. INSTALLATION OF THE ENTRANCE

- a) The *Entrance* shall be installed at the *Applicant's* expense, to the relevant OPSS and OPSD and in accordance with this Guideline. In the case of Commercial, Industrial, Institutional or Multiresidential developments, where a licensed contractor has been retained to construct site services, installation of the *Entrance* by the contractor will normally be permitted, subject to prior approval of the *Director*. In all other cases, the *Entrance* shall be installed by the *County*, at the *Applicant's* expense.
- b) Approval for an *Entrance* as part of an application for plan of subdivision, plan of vacant land condominium, consent or site plan approval remains valid for the duration of the validity of the instrument wherein the approval was granted.
- c) Work on an installation under the authority of an *Entrance* Permit must be completed within six (6) months of the date of issue of the *Entrance* Permit. Failure to complete the required work within six (6) months of *Entrance* Permit issuance may result in the cancellation of the *Entrance* Permit by written notice.
- d) All works related to or forming a part of an *Entrance* shall be carried out in accordance with the approved plans, specifications and conditions, and are subject to the approval of the Director.

e) Where installation by the *Applicant's* contractor is approved by the *Director*, the *Applicant* shall be responsible for the construction, marking, and maintenance of the detours required, and for maintaining safety measures for the protection of the public during the construction of any works in respect of the *Entrance*.

11. INSPECTION OF THE ENTRANCE

- a) Where a contractor installs the *Entrance* with the approval of the *Director*, the installation of the *Entrance* will be inspected by the *Director* upon completion. It shall be the *Applicant's* responsibility to contact the County Public Works Department for an inspection of the *Entrance* installation, once it has been completed.
- b) Should any adjustments to the constructed or altered *Entrance* be required by the *Director*, said adjustments shall be completed within ten (10) days of written notification by the *Director* of the adjustments that are required.

12. ENTRANCE PERMIT FEE

- a) When approval for an *Entrance* is sought as part of an application for plan of subdivision, plan of vacant land condominium, consent or site plan approval, no fee additional to that of the application is payable.
- b) The fees charged for *Entrance* Permits shall be in accordance with County Fee By-law No. 4821-2007 as amended from time to time and any successors to it that may be enacted.

Report PW 2024-10 Attachment 3

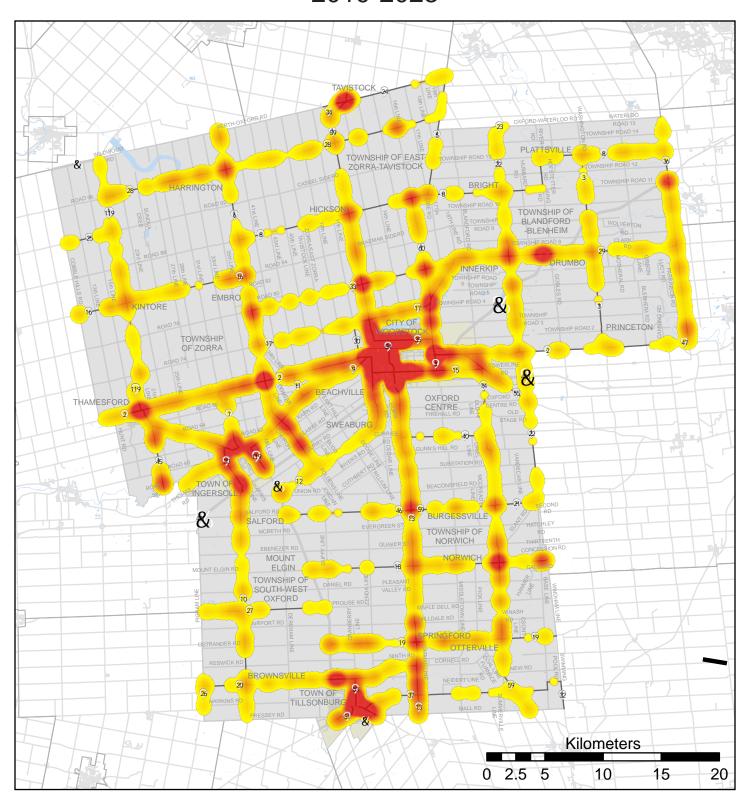
REMEDIAL ACTIONS FOR GRADE LEVEL CROSSINGS

Crossing ID	County Road	Remedial Measures	Cost	Status
806956 Oxford Road 29		Improve the roadway surface conditions on the eastbound approach	Low (\$500)	Complete
		Install 30 km/h 'Speed Advisory Tab' signs below the existing Railway Crossing Ahead signs and remove the 'BUMP AHEAD' signs	Low (\$500)	Complete
	Ensure the trees that have the potential to obstruct visibility on the southwest corner are trimmed on a regular basis		Low (\$500)	Complete
RX815776 Oxford Road 22		Install 30 km/h 'Speed Advisory Tab' signs below the existing Railway Crossing Ahead signs and remove the 'BUMP' and 'BUMP AHEAD' signs	Low (\$500)	Complete
375067	Oxford Road 6	Install 40 km/h 'Speed Advisory Tab' signs below the existing Railway Crossing Ahead signs and remove the 'BUMP' and 'BUMP AHEAD' signs	Low (\$500)	Complete
		Prohibit on-street parking on the southeast corner of the crossing between Railway Street and the railway corridor	Low (\$500)	Outstanding
895087	Oxford Road 3	Install 20 km/h 'Speed Advisory Tab' signs below the existing Railway Crossing Ahead signs and remove the 'BUMP' and 'BUMP AHEAD' signs	Low (\$500)	Complete
815006	Oxford Road 22	Install 30 km/h Advisory Speed Tab signs on the same post as the RAILWAY CROSSING AHEAD signs	Low (\$500)	Complete

59247	Oxford Road 59	Remove commercial signs to provide clear visibility of the crossing warning system throughout the northbound stopping sight distance	vide clear visibility of the cossing warning system (\$500 to oughout the northbound \$5,000)	
434838	Oxford Road 11	Install a Prepare to Stop at Railway Crossing sign on the northbound approach	The approximate cost for the installation of a Prepare to Stop at Railway Crossing with flashing beacons is \$60,000.	Additional review completed, determined sign was not warranted
9293	Oxford Road 9	Install 30 km/h 'Speed Advisory Tab' signs below the existing Railway Crossing Ahead signs, remove the 'BUMP' signs and the custom signs indicating 'PLEASE REDUCE SPEED'	Low (\$500)	Outstanding
37057	Oxford Road 37	Trim the vegetation obstructing the warning system installed on the westbound approach	Low (\$500)	Complete
264210	Oxford Road 27	Relocate the STOP AHEAD sign obstructing the view within the stopping sight distance past the crossing	Low (\$500)	Complete
434801	Oxford Road 11	Prohibit on-street parking on the southeast corner of the crossing between Beachville Road and the railway corridor	Low (\$500)	Further review completed, determined there were no other parking options, hence parking is not prohibited

		Install 30 km/h 'Speed Advisory Tab' signs below the Railway Crossing Ahead signs	Low (\$500)	Complete
374622	Oxford Road 6	Install 30 km/h 'Speed Advisory Tab' signs below the existing Railway Crossing Ahead signs	Low (\$500)	Complete

Oxford County Road Network Collision Heatmap 2019-2023



Road Network

- ---- Provincial Road
- County Road
- Municipal Road

Collision Frequency









TABLE 20: SUMMARY OF TEN MOST FREQUENT URBAN COLLISION LOCATIONS (2018-2022)

Rank	Location	Municipality	Number of Collisions	Injuries / Fatalities	Completed / Ongoing Improvements
1	OR59 and Julianna	Woodstock	44	4/0	Upgrades Completed in 2021
2	OR59 and Dundas	Woodstock	42	6/0	Ongoing Reconstruction
3	OR59 and OR15	Woodstock	40	0/0	
4	OR59 and Peel	Woodstock	38	10 / 0	Ongoing Reconstruction
5	OR35 and Springbank	Woodstock	33	5/0	
6	OR59 and Hounsfield/Main	Woodstock	33	7/0	Ongoing Reconstruction
7	OR4 and OR2	Woodstock	26	7/0	
8	OR2 and OR12	Woodstock	22	6/0	
9	OR54 and OR35	Woodstock	21	4/0	Reconstructed in 2021
10	OR15 and OR12	Woodstock	21	2/0	

TABLE 21: SUMMARY OF TEN MOST FREQUENT RURAL COLLISION LOCATIONS (2018-2022)

Rank	Location	Municipality	Number of Collisions	Injuries / Fatalities	Completed / Ongoing Improvements
1	OR2 and OR6 (Existing Roundabout)	Zorra	25	5/0	
2	OR59 and OR33	East-Zorra Tavistock	19	5 / 1	Upgrades Completed in 2023
3	OR59, OR13 and OR46	Norwich	16	5/0	
4	OR6 and OR33	Zorra	13	6/0	Illumination added in 2021
5	OR59 and OR8	East-Zorra Tavistock	13	5/0	All Way Stop implemented in 2021
6	OR9 and OR6	South-West Oxford	11	3/0	
7	OR28 and OR6	Zorra	11	3 / 1	Upgrades planned for 2024
8	OR60 and OR33	East-Zorra Tavistock	11	4/0	
9	OR6 and Karn Road	South-West Oxford	11	5/2	Illumination added in 2021
10	OR8 and OR60	East-Zorra Tavistock	10	2/0	