
Report of the Commissioner of Public Works Traffic and Pedestrian Signal Policy Update

1. Recommendations

1. Council approve the proposed Traffic and Pedestrian Signal Policy update as outlined in Appendix A for use on Regional roads.
2. Council delegate authority to the Commissioner of Public Works to approve signal installations in accordance with the Traffic and Pedestrian Signal Policy.
3. The Regional Clerk circulate this report to the local municipalities.

2. Purpose

This report recommends a revised Traffic and Pedestrian Signal Policy (Policy), in response to Council's direction to approve traffic and pedestrian signal installations that do not diminish safety and are paid by the requestor.

Key Points:

- [September 2022](#), staff informed Council a Policy update would be considered to approve installation at the cost of the requestor
- A requestor of a traffic and pedestrian signal is defined as a business, developer, local municipality, individual resident, resident groups, Ministry of Transportation of Ontario and all levels of government, including agencies. A requestor is solely responsible for all costs for installation of a traffic or pedestrian signal and a one-time 10-year operating and maintenance fee
- [January 2023](#), staff informed Council that a Policy update would be provided following completion of Ministry of Transportation Ontario's review of Ontario Traffic Manual Book 12 – Traffic Signals

- Staff recommend updating the Policy to include an assessment tool to evaluate signal installations paid by the requestor
- Council delegate authority to the Commissioner of Public Works to approve signal installations that do not diminish safety and are paid by the requestor

3. Background

June 2015, Council adopted the current Traffic and Pedestrian Signal Policy that allows staff to install signals where criteria is met

On [June 25, 2015](#), Council adopted the current Traffic and Pedestrian Signal Policy. The Policy is consistent with Ministry of Transportation Ontario (MTO) traffic signal criteria and directly references Ontario Traffic Manual Book 12 – Traffic Signals (OTM Book 12). This publication provides a consistent approach across the province in implementing traffic and pedestrian signals (signals). The current Policy allows staff to install signals where criteria are met.

September 2022, staff informed Council a Policy update would be considered to advance installation at the cost of the requestor

On [September 29, 2022](#), staff informed Council an update to the Policy would be presented to Council in 2023 for consideration. This update includes an assessment tool to address requests to advance signal installations where costs for construction and maintenance would be paid by the requestor. This will help improve efficiency of program delivery and public safety.

January 2023, staff informed Council a Policy update would be provided following MTO's review of Ontario Traffic Manual Book 12 – Traffic Signals

On [January 12, 2023](#), Council was informed MTO had retained a consultant to review OTM Book 12, which may result in an update to provincial traffic and pedestrian signal criteria. This review was completed in mid-2023 and staff committed to provide an update to Council on the Policy following completion of MTO's review.

4. Analysis

Ministry of Transportation Ontario's update to Book 12 – Traffic Signals focuses on collision history and projected growth

MTO retained an engineering consultant to assist in their review of OTM Book 12. This review recommended updating safety performance criteria and projected volume thresholds for future demand. These recommendations will be considered in the update to OTM Book 12. These changes do not materially change the Region's ability to advance signals that benefit road users prior to full build out of communities.

Staff recommend updating the Policy to include an assessment tool to advance signal installations that do not pose hazards or operational concerns at the cost of the requestor

The same engineering consultant that reviewed OTM Book 12 for MTO was retained by the Region to develop a decision-making tool to be used in considering advancing signal installations not currently meeting provincial criteria to be installed at the cost of the requestor. This assessment tool helps manage risk and consists of a weighted score for road user safety, latent demand, lane use and operational concerns. Details are listed in the draft Policy (Appendix A). Requests with a total benefit score of 40 or higher which do not pose hazards or operational concerns shall be considered for installation of traffic and pedestrian signals.

Staff will continue to install traffic signals at public intersections that meet OTM Book 12 criteria at the Region's expense.

Council delegate authority to the Commissioner to advance qualifying signal installations paid by the requestor

Staff receive three to five requests annually to install signals paid by the requestor. To improve efficiency of program delivery, delegated authority is requested for the Commissioner of Public Works to advance signal installations that have a total benefit score of 40 or higher, which do not pose hazards or operational concerns and are paid by the requestor. This will allow staff to effectively respond and ensure signals are installed in a timely manner and respond to road user needs as communities grow. The proposed Policy has been updated to include the delegated authority recommended herein. A draft of the proposed policy is provided in Appendix A.

5. Financial Considerations

The Region is responsible for construction and maintenance costs for signal installations at public intersections that satisfy OTM Book 12. Signals associated with development applications satisfying OTM Book 12 will be subject to the Development Charges Bylaw.

The requestor is responsible for traffic and pedestrian signals costs at private entrances and public intersections that do not satisfy OTM Book 12 however satisfy the assessment tool. The requestor is responsible for all construction costs based on the Region's standards and a one-time fee, valued at the net present value of 10 years of the Region's traffic signal operating and maintenance costs. Costs are non-refundable.

6. Local Impact

The Region and its local municipal partners are aligned in a shared interest in implementing signals that do not diminish safety on the Regional road network. Implementing this new process will help drive efficiencies with local municipalities on requests not meeting Provincial criteria. Local municipal staff have been consulted on the proposed Policy changes and Region staff have addressed their comments.

7. Conclusion

Staff recommend updating the Region's Traffic and Pedestrian Signal Policy to include an assessment tool to advance signal installations that do not diminish safety at the cost of the requestor. The proposed policy provides a consistent framework to best manage risk in assessing requests for signals not meeting OTM Book 12. Requests with a total benefit score of 40 or higher which do not pose hazards or operational concerns shall be considered for installation of traffic and pedestrian signals.

It is recommended that Council delegate authority to the Commissioner of Public Works to approve signal installations that do not diminish safety and are paid by the requestor.

For more information on this report, please contact Joseph Petrunaro, Director, Roads, Traffic and Fleet, at 1-877-464-9675 ext. 75220. Accessible formats or communication supports are available upon request.

Recommended by:



Laura McDowell, P. Eng.

General Manager, Operations and Services

Approved for Submission:



Erin Mahoney

Chief Administrative Officer

September 19, 2023

15310489

Appendix A – Draft Traffic and Pedestrian Signal Policy (15491879)

Traffic and Pedestrian Signal Policy

Approved By: Council

Approved On: TBD

Policy Statement

This policy provides guidelines and criteria to assist staff in decision making for requested installation of traffic and pedestrian signals within the Regional network.

Application

The Traffic and Pedestrian Signal Policy will be used by staff in determining acceptable locations for requested installation of traffic and pedestrian signals on Regional roads.

Purpose

This policy provides criteria and an assessment tool which allows for a consistent method of determining acceptable locations for requested installation of traffic and pedestrian signals on Regional roads.

Definitions

Traffic Signals: Electronic signaling devices positioned at road intersections to alternate right-of-way for all road users.

Pedestrian Signals: Electronic signaling devices positioned at road intersections and pedestrian crossings to specifically control pedestrian movements versus competing traffic flows.

Safety: Implies the minimum hazard to vehicles, pedestrians and other road users.

Local Municipality: Municipalities located within the Regional Municipality of York, namely Town of Aurora, Town of East Gwillimbury, Town of Georgina, Township of King, City of Markham, Town of Newmarket, City of Richmond Hill, City of Vaughan and Town of Whitchurch-Stouffville.

Requestor: A requestor of a traffic and pedestrian signal is defined as a business, developer, local municipality, individual resident, resident groups, Ministry of Transportation of Ontario and all levels of government, including agencies. A requestor is solely responsible for all costs related to installation of a traffic or pedestrian signal.

Description

This policy contains criteria in determining the need for installation of new traffic and pedestrian signals on Regional roads. Regional staff are to apply the following criteria to assess the need for requested installation of new traffic and pedestrian signals on Regional roads.

Ontario Traffic Manual Book 12 (OTM Book 12), including any future updates

Ministry of Transportation Ontario's traffic signal criteria, as per Ontario Traffic Manual Book 12, is widely used by Ontario municipalities. OTM Book 12 outlines criteria expressed in the form of numerical requirements that include traffic/pedestrian volumes, conditions and characteristics of an intersection and peak traffic hours to determine the technical need for the installation of new signals.

Assessment Tool

In addition to safety measures outlined in OTM Book 12, this tool (Table 1) uses a set of additional factors and variables that can be applied for advancing traffic signal installations that help improve safety at the cost of the requestor.

The tool considers forecasted future road use/demand, improvements to community traffic flow, enhanced use of community amenities. Each variable has a low, medium and high score. Requests with a total weighted benefit (40 or higher) which do not pose hazards or operational concerns (less than 40) shall be considered for installation of traffic and pedestrian signals.

Table 1
Assessment Tool Factors and Variables

Factors	Variables	Benefit and Risk
Road users' safety consideration	Operating speed and crossing distance	High 20, Medium 10, Low 0
	Sight distance	High 20, Medium 10, Low 0
	Nearby amenity with high volume of pedestrians	High 20, Medium 10, Low 0
	Presence of transit stops and ridership volume and frequency	High 20, Medium 10, Low 0
Road users latent/future demand	Presence of pedestrians and cyclists at uncontrolled crossings	High 20, Medium 10, Low 0
	Pedestrian and cycling infrastructure	High 10, Medium 5, Low 0
Land use considerations	Traffic diversion	High 10, Medium 5, Low 0
	Planned and existing development/growth	High 20, Medium 10, Low 0
	Forecasted demand in Transportation Mobility Plan indicates the intersection would satisfy the Policy under the full built-out horizon, and traffic analysis anticipates traffic signal will significantly improve intersection capacity and level of services	High 20, Medium 10, Low 0
Emergency route management	Presence of existing/planned emergency detour route (EDR) or an emergency evacuation route (EER)	High 10, Medium 5, Low 0
Total Weighted Benefit		40 and higher to advance signal

Funding for Public Intersections

Operational concerns and risk	Geometric/operational concern that cannot be mitigated by design and would result in negative impact on safety or operational efficiency if traffic signal is installed	High 40, Medium 20, Low 0
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Total Weighted Risk Less than 40 to advance signal

The Region is responsible for construction and maintenance costs for signal installations at public intersections that satisfy OTM Book 12. Signals associated with development applications satisfying OTM Book 12 will be subject to the Development Charges Bylaw.

In cases where public intersections do not satisfy OTM Book 12 and the requestor (as defined in this Policy) is seeking installation, the intersection must satisfy the assessment tool and the requestor is responsible for all construction costs based on the Region’s standards and a one-time fee, valued at the net present value of 10 years of the Region’s traffic signal operating and maintenance costs. Costs are non-refundable.

Funding for Private Entrances

Funding of capital costs of traffic and pedestrian signals for private entrances remain at the expense of the property owner. Property owners are also required to pay a one-time fee, valued at the net present value of 10 years of the Region’s traffic signal operating and maintenance costs at the time of application. Costs are non-refundable.

Responsibilities

York Region

The Region shall apply the updated Policy to assess the need for installation of traffic and pedestrian signals on Regional roads, which include the assessment tool that allow staff to quantify decision-making based on sound engineering judgement to advance pedestrian and traffic signals.

Reference

Legislative and other authorities

- [Clause 3, Report 11 - Traffic and Pedestrian Signal Policy - Adopted June 25, 2015](#)
- [Ontario Traffic Manual - Book 12 Traffic Signals](#)

Contact

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ext. 75220

Approval

Council Date: <input type="text"/>	Committee Date: <input type="text"/>
Council Minute Item: <input type="text"/>	Committee Minute Item: <input type="text"/>

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