

## **Traffic Control Signal Review - Lawrence Avenue East and Meadowvale Road**

**Date:** January 15, 2020

**To:** Scarborough Community Council

**From:** Acting Director, Traffic Management, Transportation Services

**Wards:** Ward 25 – Scarborough-Rouge Park

### **SUMMARY**

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As the Toronto Transit Commission (TTC) operates transit service on Lawrence Avenue East, City Council approval of this report is required.

This report recommends that City Council authorize the installation of traffic control signals at the intersection of Lawrence Avenue East and Meadowvale Road. Currently, as Lawrence Avenue East is designated as a through highway, this intersection has a stop control facing the southbound approach on Meadowvale Road at Lawrence Avenue East.

Although, the technical warrants for the installation of Traffic Control Signals are not met, installation of Traffic Control Signals is recommended due to other relevant factors/operating conditions.

### **RECOMMENDATIONS**

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The Acting Director, Traffic Management, Transportation Services recommends that:

1. City Council authorize the installation of traffic control signals at the intersection of Lawrence Avenue East and Meadowvale Road.

### **FINANCIAL IMPACT**

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The estimated cost of installing traffic control signals at Lawrence Avenue East and Meadowvale Road is approximately \$200,000. This installation will be considered in 2021, subject to availability of funding and competing priorities.

## DECISION HISTORY

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This report addresses a new initiative.

## COMMENTS

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In response to a request from Councillor Jennifer McKelvie, Transportation Services staff reviewed the feasibility of installing traffic control signals on Lawrence Avenue East at Meadowvale Road.

### Existing Conditions

The following characteristics describe Lawrence Avenue East at Meadowvale Road:

- This intersection is located east of Morningside Avenue, west of Port Union Road, and south of Highway 2A.
- Lawrence Avenue East is a seven-lane minor arterial road with a regulatory speed limit of 60 km/h. It is noted that a reduction of the speed limit to 50 km/h has been approved under Vision Zero (Item SC11.8), but has not yet been enacted or signed in the field.
- Meadowvale Road is a four-lane collector road with a regulatory speed limit of 40 km/h.
- Currently, southbound traffic on Meadowvale Road is required to stop at Lawrence Avenue East.
- Adjacent traffic control signals are located on Lawrence Avenue East approximately 825 metres to the west at Bennett Drive and on Lawrence Avenue East approximately 820 metres to the east at Centennial Road. The distance between the existing signalized crossings is approximately 1.7 kilometres.
- High operating vehicle speeds were observed on Lawrence Avenue East near Meadowvale Road.
- Sidewalks are located on all sides of the intersection.
- Toronto Transit Commission (TTC) operates bus service on Lawrence Avenue East.
- The land use in the surrounding area consists mainly of single family residential dwellings.

- Wanita Park is located on the northeast corner of the intersection. An elementary school is located on the east side of Meadowvale Road, north of the park.

## Analysis

### *Traffic Control Signal Justification Study*

Using traffic volumes recorded during the peak eight hours on Wednesday, November 6, 2019, the following results were obtained:

Traffic Control Signal Warrant	Compliance Level
Minimum Vehicular Volume	38%
Delay To Cross Traffic	39%
Collision Hazard	0%

This study has been evaluated using the updated warrant calculations as adopted by City Council on July 16, 17 and 18, 2019 in the Vision Zero 2.0 Road Safety Plan report (Item IE6.8). The results of our study indicated that the technical warrants for the installation of a traffic control signal are not met.

In order to meet the warrant for Traffic Control Signals, one of the “Minimum Vehicular Volume” or “Delay to Cross Traffic” or “Collision Hazard” warrants must be 100% satisfied, or both the “Minimum Vehicular Volume” and “Delay to Cross Traffic” warrants must be at least 80% satisfied. Our review of the Collision Hazard is based on the previous three-year (2016 – 2018) collision history available.

In addition to the numerical justification for traffic control signals, other factors relevant to the traffic control signal warrant were also considered. The assessment included consideration of road width, operating speeds, adjacent land uses, presence of transit stops, sight lines, and distance between existing signalized crossings.

Although the numerical requirements of the traffic control signal warrant are not met, based on an assessment of relevant factors and by applying engineering judgement, Transportation Services staff recommend the installation of a traffic control signal at the intersection of Lawrence Avenue East and Meadowvale Road.

Staff will also be reviewing faded pavement markings on Meadowvale Road north of Lawrence Avenue East for reinstallation.

A review of the Toronto Police Service collision records revealed that there have been no preventable collisions reported at this intersection during the three-year period ending December 31, 2018.

## **CONTACT**

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## **SIGNATURE**

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Roger Browne, M.A.Sc., P.Eng.  
Acting Director  
Traffic Management  
Transportation Services

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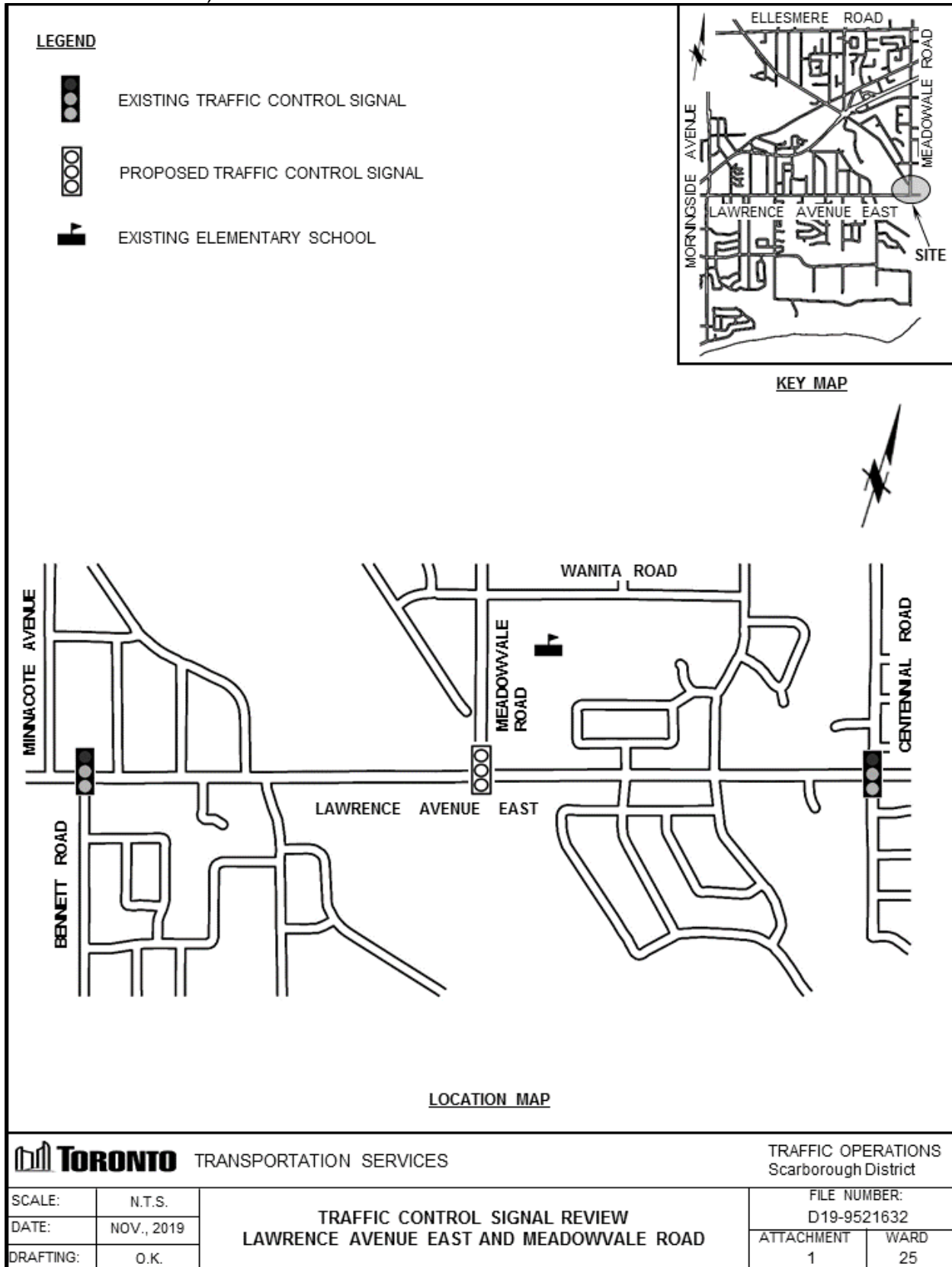
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## **ATTACHMENTS**

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1. Attachment 1 - Location Plan (Traffic Control Signal Review Lawrence Avenue East and Meadowvale Road).

Attachment 1 - Location Plan (Traffic Control Signal Review Lawrence Avenue East and Meadowvale Road)



<b>TORONTO</b> TRANSPORTATION SERVICES		TRAFFIC OPERATIONS Scarborough District	
SCALE:	N.T.S.	<b>TRAFFIC CONTROL SIGNAL REVIEW</b> <b>LAWRENCE AVENUE EAST AND MEADOWVALE ROAD</b>	
DATE:	NOV., 2019		
DRAFTING:	O.K.	FILE NUMBER: D19-9521632	
		ATTACHMENT 1	WARD 25