



Administrative Report

Office of the Director of Infrastructure Services

To: Warden McNamara and Members of Essex County Council

From: Jane Mustac, P. Eng.
Director of Infrastructure Services/County Engineer

Date: Wednesday, September 15, 2021

Subject: Intersection Review – Highway 77 and County Road 46

Report #: 2021-0915-ISD-R023-JM

Purpose

To provide County Council with recommendations pertaining to the request for intersection improvements of County Road (CR) 46 and Highway 77 in Lakeshore, Ontario

Background

In 2020, the County received a resolution of support to signalize the intersection of Highway 77 and County Road 46 from the Municipality of Lakeshore, which is included as Appendix B.

The following key characteristics describe the location:

- CR 46 is a 2-lane undivided EB/WB Regional Arterial road and is used as Emergency Detour Routes (EDR) for Hwy 401 when it is required. The speed limit in the vicinity of the intersection is posted as 50km/h. The cross-section includes a paved surface of approximately 7.0m (3.5m per direction) and gravel shoulders of approximately 2.5m per direction. The Average Daily Traffic (ADT) on CR 46 near that intersection is estimated 2480 veh/day with 9.75% Heavy Vehicles (2020 data).

- Highway 77 is a 2-lane undivided NB/SB King's Highway and provincially owned and maintained. Hwy 77 connects Hwy 401 in Tilbury area to Hwy 3 in Leamington area and serves approximately 4500 veh/day. The posted speed limit varies from 80km/h in rural environment to 50km/h in the built-up areas.
- This skewed intersection is a 4-leg intersection located in a low-density built-up area in Comber Village. Speed on all approaches posted as 50km/h. Existing traffic control devices at the intersection include two-way stop control on Hwy 77. Flashing Red Beacons integrate the existing oversize stop signs at the Hwy 77 NB/SB approaches.
- CR 46 operates with uninterrupted traffic flow. There are overhanging yellow flashing beacons on CR 46 at Hwy 77. There is adequate illumination at the intersection. Sightlines are satisfactory and there are no obstructions to block drivers' view.

This location falls within the permit control area of the Ministry of Transportation (MTO). The County shared the concerns raised by the Municipality and requested their review of the intersection. Continued collaboration with the County, the Municipality of Lakeshore, the adjacent landowners and the MTO occurred over the last 6-8 months.

Discussion

The MTO led several meetings with County and Municipal representatives to review the intersection. MTO staff conducted site visits, collected engineering data and analyzed the findings in late 2020 and into 2021. Based on their assessment, minimum signal justifications were not met and the intersection of CR 46 and Highway 77 is not warranted for traffic signals.

MTO completed a review to determine if other measures can be implemented. They determined it is appropriate to install STOP signs on all approaches to an intersection when the vehicular volume of the roadways is relatively equal and have similar traffic volume demand / distribution and operating characteristics. The Ministry of Transportation recommends that the traffic control at this intersection of Highway 77 (Main Street) and Essex County Road 46 (Middle Road) in Comber be revised to an All-way Stop Control.

The letter from the MTO is attached as Appendix C. The installation of an All-Way Stop control appropriate and improvements are identified in the figure included as Appendix D.

Continuous monitoring of the intersection and close cooperation of MTO and the County is recommended to evaluate the effectiveness of the All-Way Stop Control at this location. Additional modifications and/or removal may be required and considered with updated collision history and traffic data.

Infrastructure Services is coordinating with the Communication Department to develop a communication plan with key messages advising the Public of the recommended improvements at the intersection utilizing electronic message boards, websites and other forms of outreach and education as deemed appropriate.

Financial Implications

The costs required for the installation of the All Way stop control is provided through the Ministry of Transportation.

Recommendation

That Essex County Council endorse the adoption of By-Law 2021-30, to amend Schedule "D" (Through Highways) of By-Law 26-2002, which regulates traffic and parking on Essex County Highways.

Respectfully Submitted

Jane Mustac

Jane Mustac, P.Eng, Director of Infrastructure Services/County Engineer

Concurred With,

Mike Galloway

Mike Galloway, Chief Administrative Officer

Appendix Number	Title
A	Location Map
B	Municipality of Lakeshore Correspondence
C	MTO Recommendation – All-way Stop Control
D	Proposed Intersection Improvements