

Municipality of Chatham-Kent
Infrastructure and Engineering Services
Engineering and Transportation Division

To: Mayor and Members of Council
From: Mark Ceppi, Engineering Technologist
Date: December 17, 2019
Subject: Stevenson Road and Goodreau Line Intersection Traffic Control Modifications

Recommendations

It is recommended that:

1. A northbound stop sign be added to the intersection of Stevenson Road and Goodreau Line in the Community of Romney.
2. The Municipality of Chatham-Kent Traffic and Parking By-law 245-2004 be amended accordingly with:
 - a) Addition of stop sign described in Recommendation 1.
 - b) Through highway housekeeping items along Goodreau Line.
 - c) Through highway housekeeping items along Simpson Line.
 - d) Stop sign housekeeping items at the intersections of Goodreau Line and King & Whittle Road, and Goodreau Line and Campbell Road.

Background

Several area residents have voiced concerns about a potential collision hazard at the intersection of Stevenson Road and Goodreau Line in the Community of Romney. Therefore, Chatham-Kent Engineering and Transportation Division staff have completed a review of the intersection.

Comments

The intersection of Stevenson Road and Goodreau Line is located in the hamlet of Stevenson. Both roadways are part of Chatham-Kent Route #5, which extends from the Community of Tilbury to Talbot Trail at Lake Erie. All road sections that form Chatham-Kent Route #5 are designed as rural collector roadways. Donais Line also forms the north approach of the intersection.

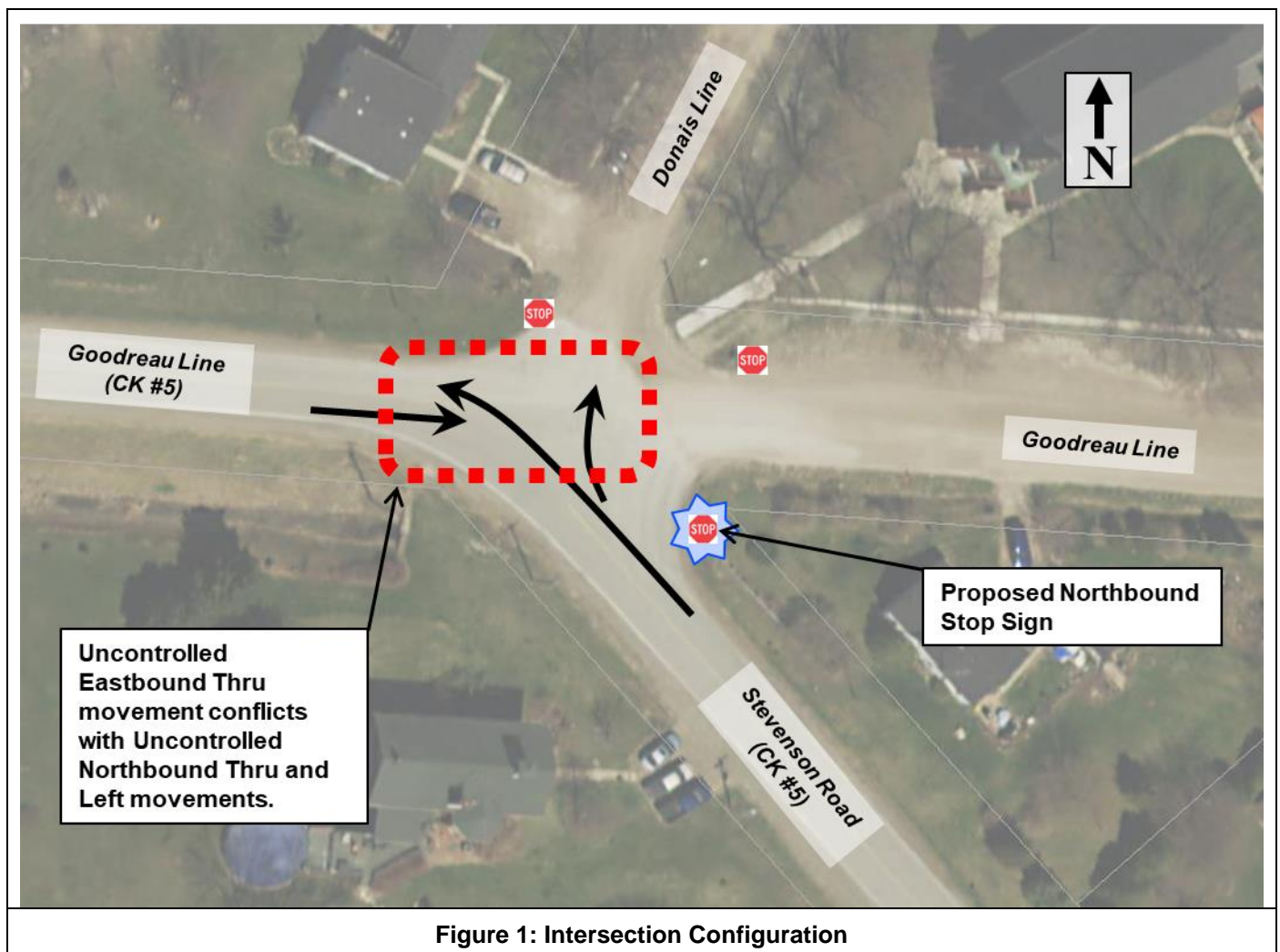
Traffic volumes through the intersection are relatively low. Traffic counts taken in June 2019 resulted in average annual daily traffic volumes of 210 vehicles on Goodeau Line to the west and 149 vehicles on Stevenson Road to the south. Heavy trucks comprise 11% and 21% of these respective vehicle volumes. However, traffic volumes have likely

increased through the intersection due to the long term closure of Talbot Trail west of Stevenson Road in July 2019.

In the five years between 2014 to 2018, there has been one single motor vehicle collision reported at the intersection. This collision involved an animal.

The intersection is currently controlled by a southbound (Donais Line) and westbound stop sign. There is no street light illumination installed at the intersection. The posted speed limit on each roadway is 80 km/h.

As shown in Figure 1, the intersection currently allows for free flow vehicle movement in the northbound and eastbound directions with the intent of providing free movement of Chatham-Kent Route #5 traffic. However, this creates two potential collision conflict points between the eastbound thru movement and a northbound left turn and thru movements. The installation of a northbound stop sign removes these conflict points.



Discussion

Although the intersection has not experienced collisions caused by the free flow conflict condition, this is likely due to the low volume of traffic through the intersection. Also,

motorists have reported experiences where collisions were narrowly avoided.

The proposed northbound stop sign will provide good westerly sightlines for a stopped motorist. However, sightlines to the east are poor due to the angle of the two roadways and shrubs, trees, etc. in the boulevard and private property. Therefore, leaving the current westbound stop sign in place is recommended.

A “Ball Bank” test confirmed the advisory curve speed of the northbound left turn movement is only 20 km/h. Therefore, the addition of a northbound stop sign condition will not be much more restrictive than the current condition.

Sign Modifications

In addition to the proposed northbound stop sign, other warning signs will need to be modified to match the proposed traffic control configuration at the intersection. The northbound “Left Curve/Intersection” warning sign will be change to a “Stop Ahead” sign, and the eastbound “Right Curve/Intersection” warning sign changed to a standard “Intersection” sign. Route marker signs will also be added providing guidance for motorists traveling on Chatham-Kent Route #5.

A stop bar pavement marking will also be installed to enhance the northbound stop sign.

By-law Amendments

The traffic control changes proposed for the intersection of Stevenson Road and Goodreau Line will require amendments to the Traffic and Parking By-law #245-2004 Through Highway and Stop Sign schedules. In addition, the following housekeeping items were identified while reviewing the by-law schedules:

- Delete duplicate entries of Through Highway designations for Goodreau Line and Simpson Line.
- Correcting Through Highway designations to account for stop signs installed on Goodreau Line at Coatsworth Road and at King & Whittle Road.
- Correcting the Through Highway designation on Simpson Line to extend from Stevenson Road to Port Road.
- Adding the northbound stop sign installed on Campbell Road at Goodreau Line.
- Adding the eastbound stop sign installed on Goodreau Line at King & Whittle Road.

A by-law amendment based on the recommendations of this report is included in the Council agenda for reading.

Areas of Strategic Focus and Critical Success Factors

The recommendations in this report support the following areas of strategic focus:

- Economic Prosperity:
Chatham-Kent is an innovative and thriving community with a diversified economy
- A Healthy and Safe Community:

Chatham-Kent is a healthy and safe community with sustainable population growth

- People and Culture:
Chatham-Kent is recognized as a culturally vibrant, dynamic, and creative community
- Environmental Sustainability:
Chatham-Kent is a community that is environmentally sustainable and promotes stewardship of our natural resources

The recommendations in this report support the following critical success factors:

- Financial Sustainability:
The Corporation of the Municipality of Chatham-Kent is financially sustainable
- Open, Transparent and Effective Governance:
The Corporation of the Municipality of Chatham-Kent is open, transparent and effectively governed with efficient and bold, visionary leadership
- Has the potential to support all areas of strategic focus & critical success factors
- Neutral issues (does not support negatively or positively)

Consultation

No others were consulted.

Financial Implications

The estimated sign installation cost of \$1,500 will be funded through the sign maintenance operational budget. The estimated pavement marking installation cost of \$100 will be funded through the pavement marking operational budget.

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Reviewed by:

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Attachments: Appendix A: By-law Amendment

(P:\RTC\Infrastructure and Engineering\I & ES\2019\4197 – Stevenson and Goodreau
Traffic Control)

Appendix A

By-law Number _____

Of The Corporation
of the Municipality of Chatham-Kent

A By-law to amend By-law Number 245-2004 of the Municipality of Chatham-Kent.

(Through Highway Designations and Stop Signs on Goodreau Line, Stevenson Road and Simpson Line)

Finally Passed the ____ day of _____, 2020.

Whereas the Corporation of the Municipality of Chatham-Kent did enact By-Law 245-2004 for the purpose of regulating traffic on highways in the Municipality of Chatham-Kent.

And Whereas the Corporation of The Municipality of Chatham-Kent now deems it expedient to amend certain provisions of said By-law 245-2004.

Be it Therefore Enacted by the Municipal Council of the Municipality of Chatham-Kent as follows:

1. Schedule "P" (Through Highways) of By-law 245-2004 be and the same is hereby amended by deleting therefrom;

COLUMN 1	COLUMN 2	COLUMN 3
<u>HIGHWAY</u>	<u>FROM</u>	<u>TO</u>
COMMUNITY OF ROMNEY		
a) Goodreau Line	Wheatley Road	Simpson Line
b) Simpson Line	Goodreau Line	Port Road
c) Simpson Line	Goodreau Line	Stevenson Road

COMMUNITY OF TILBURY EAST

d) Goodreau Line	Wheatley Road	Simpson Line
e) Simpson Line	Goodreau Line	Port Road

2. Schedule "P" (Through Highways) of By-law 245-2004 be and the same is hereby amended by adding thereto and inserting therein;

Appendix A

COLUMN 1	COLUMN 2	COLUMN 3
<u>HIGHWAY</u>	<u>FROM</u>	<u>TO</u>

COMMUNITY OF ROMNEY

- | | | |
|------------------|---------------------|---------------------|
| a) Goodreau Line | Wheatley Road | Coatsworth Road |
| b) Goodreau Line | Coatsworth Road | King & Whittle Road |
| c) Goodreau Line | King & Whittle Road | Stevenson Road |
| d) Goodreau Line | Stevenson Road | Simpson Line |
| e) Simpson Line | Stevenson Road | Port Road |

3. Schedule "Q" (Stop Signs) of By-law 245-2004 be and the same is hereby amended by adding thereto and inserting therein;

COLUMN 1	COLUMN 2
<u>INTERSECTION</u>	<u>FACING TRAFFIC</u>

COMMUNITY OF ROMNEY

- | | |
|---|---|
| a) Campbell Road and Goodreau Line | Northbound on Campbell Road |
| b) Goodreau Line and King & Whittle Road | Eastbound on Goodreau Line |
| c) Goodreau Line and Stevenson Road / Donais Line | Northbound on Stevenson Road, Southbound on Donais Line, and Westbound on Goodreau Line |

4. By-law 245-2004 of the Corporation of the Municipality of Chatham-Kent as heretofore amended from time to time are hereby ratified and confirmed in all respects save and except as amended hereby.

This By-law shall come into full force and effect upon the final passing thereof.

Read a First, Second and Third Time this ____ day of _____, 2020

Mayor – Darrin Canniff

Clerk - Judy Smith