

COMMITTEE OF THE WHOLE - DECEMBER 11, 2006

SIGNALIZED INTERSECTIONS – CREDITSTONE ROAD

Recommendation

The Commissioner of Engineering and Public Works recommends:

That traffic control signals not be installed at the four subject intersections on Creditstone Road at:

1. MacIntosh Boulevard
2. Pippin Road
3. Edilcan Drive
4. Locke Street

Economic Impact

Not Applicable.

Purpose

To review the feasibility of implementing traffic control signals at four intersections on Creditstone Road, in response to direction from Council.

Background - Analysis and Options

At its meeting on September 25, 2006 Council directed:

- “1. That staff investigate the need for and feasibility of a signalized intersection at Creditstone Road and MacIntosh Boulevard;
2. That staff investigate the need for and feasibility of a signalized intersection at Creditstone Road and Pippin Road;
3. That staff investigate the need for and feasibility of a signalized intersection at Creditstone Road and Edilcan Drive;
4. That staff investigate the need for and feasibility of a signalized intersection at Creditstone Road and Locke Street; and
5. That staff report to a future Committee of the Whole meeting in December 2006 with their findings.”

Creditstone Road is an urbanized industrial roadway with pavement widths ranging from 11.5 to 14.0 metres between Highway 7 and Locke. The speed limit on Creditstone Road is a statutory 50 km/h. The other intersecting roadways are all designed to our industrial roadway standard with a statutory speed limit of 50 km/h. The area is shown on Attachment No. 1.

Turning movement counts were conducted on Tuesday, November 14, 2006 at the four subject intersections during peak travel periods. The traffic counts were conducted from 7:00 am to 9:00 am, 11:00 am to 2:00 pm and 3:00 pm to 6:00 pm. On the day of the traffic studies the weather was clear and the roads were dry. The collected traffic volumes compared to the Provincial Warrant for Traffic Signal Installation are as shown below.

Creditstone Road and MacIntosh Boulevard

- Warrant 1 – Minimum Vehicular Volumes Warranted 25%
- Warrant 2 – Delay to Cross Traffic Warranted 25%
- Warrant 3 – Accident Experience Warranted 0%

Creditstone Road and Pippin Road

- Warrant 1 – Minimum Vehicular Volumes Warranted 54%
- Warrant 2 – Delay to Cross Traffic Warranted 62%
- Warrant 3 – Accident Experience Warranted 6%

Creditstone Road and Edilcan Drive

- Warrant 1 – Minimum Vehicular Volumes Warranted 44%
- Warrant 2 – Delay to Cross Traffic Warranted 55%
- Warrant 3 – Accident Experience Warranted 0%

Creditstone Road and Locke Street

- Warrant 1 – Minimum Vehicular Volumes Warranted 40%
- Warrant 2 – Delay to Cross Traffic Warranted 56%
- Warrant 3 – Accident Experience Warranted 0%

For a traffic signal control to be warranted, one or more of the 3 warrants must be satisfied 100% or more. The results of the turning movement counts do not meet the requirements of the Provincial Warrant for Traffic Signal Installation. The above results reflect the highest eight peak traffic hours at the intersections.

There is also Warrant 4 – Combination Warrant which may be used if no individual warrants are satisfied 100%, in which two warrants satisfying 80% or more could warrant the installation of a traffic signal. At all four intersections, Warrant 4 does not meet requirements.

Relationship to Vaughan Vision 2007

This traffic study is consistent with Vaughan Vision 2007 as to ensure enhanced safety standards are incorporated in community designs (1.1.2).

This report is consistent with the priorities previously set by Council.

Conclusion

Based on staff's review, it is recommended that traffic signals controls not be installed at any of the four subject intersections on Creditstone Road.

Attachments

1. Location Map

Report prepared by:

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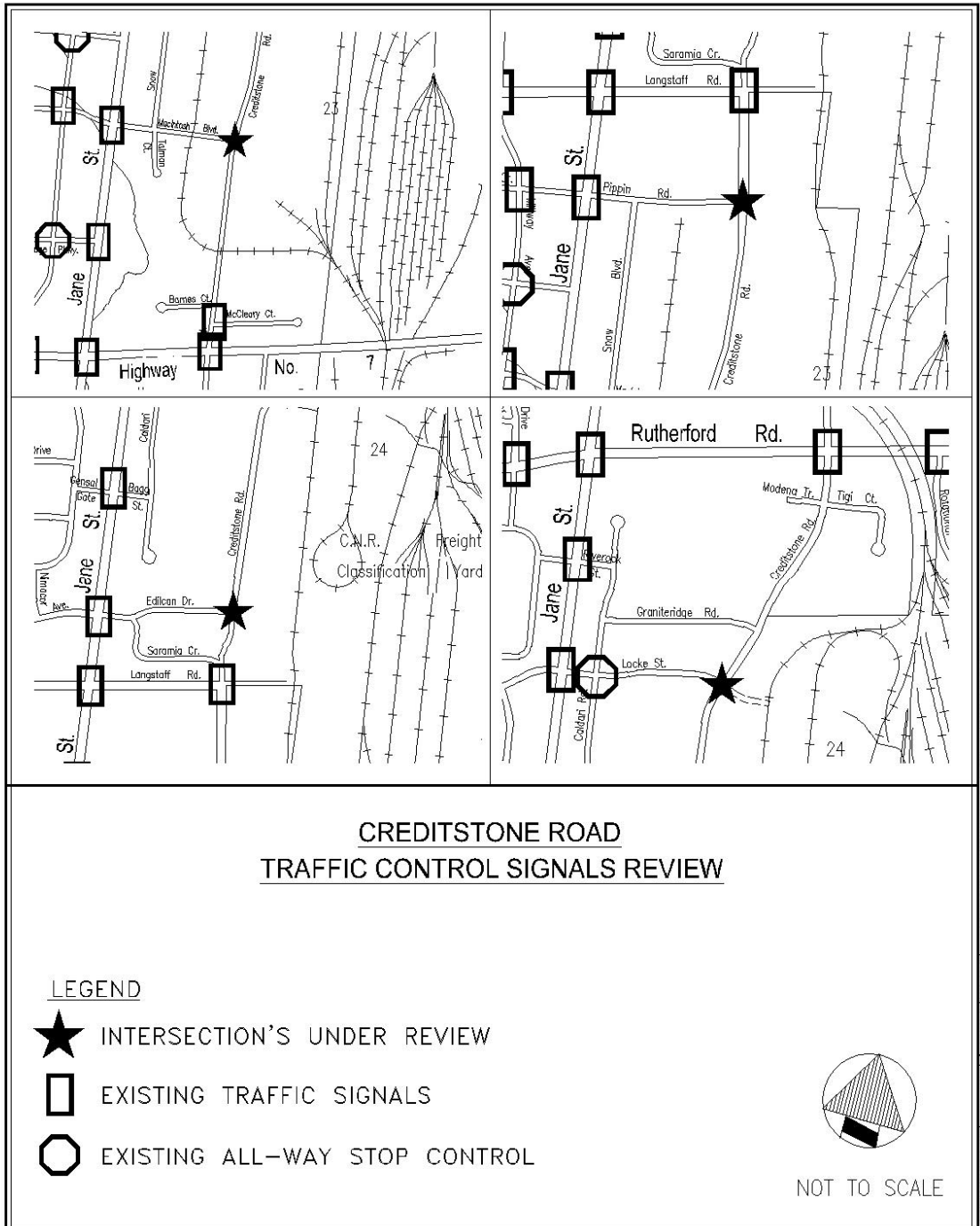
Respectfully submitted,

Bill Robinson, P. Eng.
Commissioner of Engineering and Public Works

Gary Carroll, P. Eng.
Director of Engineering Services

MR:mc

ATTACHMENT No. 1



Drawing name: R:\ENGINEERING\TRANSPO\Mark_R\Creditstone Road Proposed Traffic Control Signals.dwg