

BUDGET COMMITTEE - DECEMBER 10, 2008

ZENWAY BOULEVARD AND VAUGHAN VALLEY BOULEVARD PROPOSED TRAFFIC SIGNAL CONTROL

Recommendation

The Commissioner of Engineering and Public Works in consultation with the Director of Reserves and Investments recommends:

That the installation of a traffic signal at the intersection of Zenway Boulevard and Vaughan Valley Boulevard at an estimated cost of \$130,000 be considered along with the proposed 2009 Capital Budget.

Economic Impact

The cost to install the traffic signal control would be an initial impact on the 2009 Capital Budget. There will be on-going costs associated with the maintenance of the traffic signals that will be incorporated in future Operating Budgets.

Communications Plan

If the project is approved for installation in 2009, Engineering Services staff will advise interested parties and area businesses of the planned signal installation and the timing of the work.

Purpose

To review the feasibility of implementing a traffic signal at the intersection of Zenway Boulevard and Vaughan Valley Boulevard.

Background - Analysis and Options

Engineering Services Department staff reviewed the traffic activity at the intersection of Zenway Boulevard and Vaughan Valley Boulevard both in response to an inquiry and to review traffic operations at the intersection following the opening of the arterial road connection from Zenway Boulevard to Highway 427. Zenway Boulevard is a collector roadway with a 26.0 metre right-of-way and a 14.0 metre pavement width. Vaughan Valley Boulevard is an industrial roadway with a 23.0 metre right-of-way and a pavement width of 11.5 metres. This is an existing all-way stop control intersection and the existing speed limit on both roadways is a statutory 50 km/h. The area is shown in Attachment No.1.

A turning movement count was conducted on Thursday, November 27, 2008 at the subject intersection during peak travel periods. The traffic count was 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 study the weather was cloudy and the roads were dry. The collected traffic volumes compared to the Provincial Warrant for Traffic Signal Installation are as shown below.

Zenway Boulevard and Vaughan Valley Boulevard

- | | |
|---|---------------|
| • Warrant 1 – Minimum Vehicular Volumes | Warranted 94% |
| • Warrant 2 – Delay to Cross Traffic | Warranted 90% |
| • Warrant 3 – Accident Experience | Warranted 13% |

The above results reflect the highest eight peak traffic hours at the intersection.

For a traffic signal control to be warranted on the basis of individual warrants, one or more of the 3 warrants must be satisfied 100% or more.

There is a Warrant 4 – Combination Warrant which may be used if no individual warrants are satisfied 100%, in which two warrants being satisfied 80% or more could warrant the installation of a traffic signal. Based on the study results, this intersection does meet the Warrant 4 requirements of the Provincial Warrant, as Warrant 1 and Warrant 2 are indicated over the minimum 80% requirement.

It is noted that the construction of the arterial road connection of Zenway Boulevard to Highway 427 and the reconstruction of Zenway and Fogal Road to Highway 50 has recently been completed and the roadways opened. Traffic is building in this area and will continue to increase with development. Traffic conditions at the Zenway/Vaughan Valley intersection are expected to more fully satisfy the individual warrants with time.

The approximate cost for the installation of traffic signals is \$130,000, with funding from City Wide Development Charges - Engineering.

Relationship to Vaughan Vision 2020/Strategic Plan

Enhance and Ensure Community Safety, Health & Wellness – to advocate for, protect and enhance community safety, health and wellness through education, design and enforcement.

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

Regional Implications

Not Applicable.

Conclusion

Based on staff's review, it is recommended that the installation of a traffic signal at the intersection of Zenway Boulevard and Vaughan Valley Boulevard be considered along with the proposed 2009 Capital Budget. Should Council approve the installation the design and installation of the signal would be undertaken in the 2009 construction season.

Attachments

1. Location Map

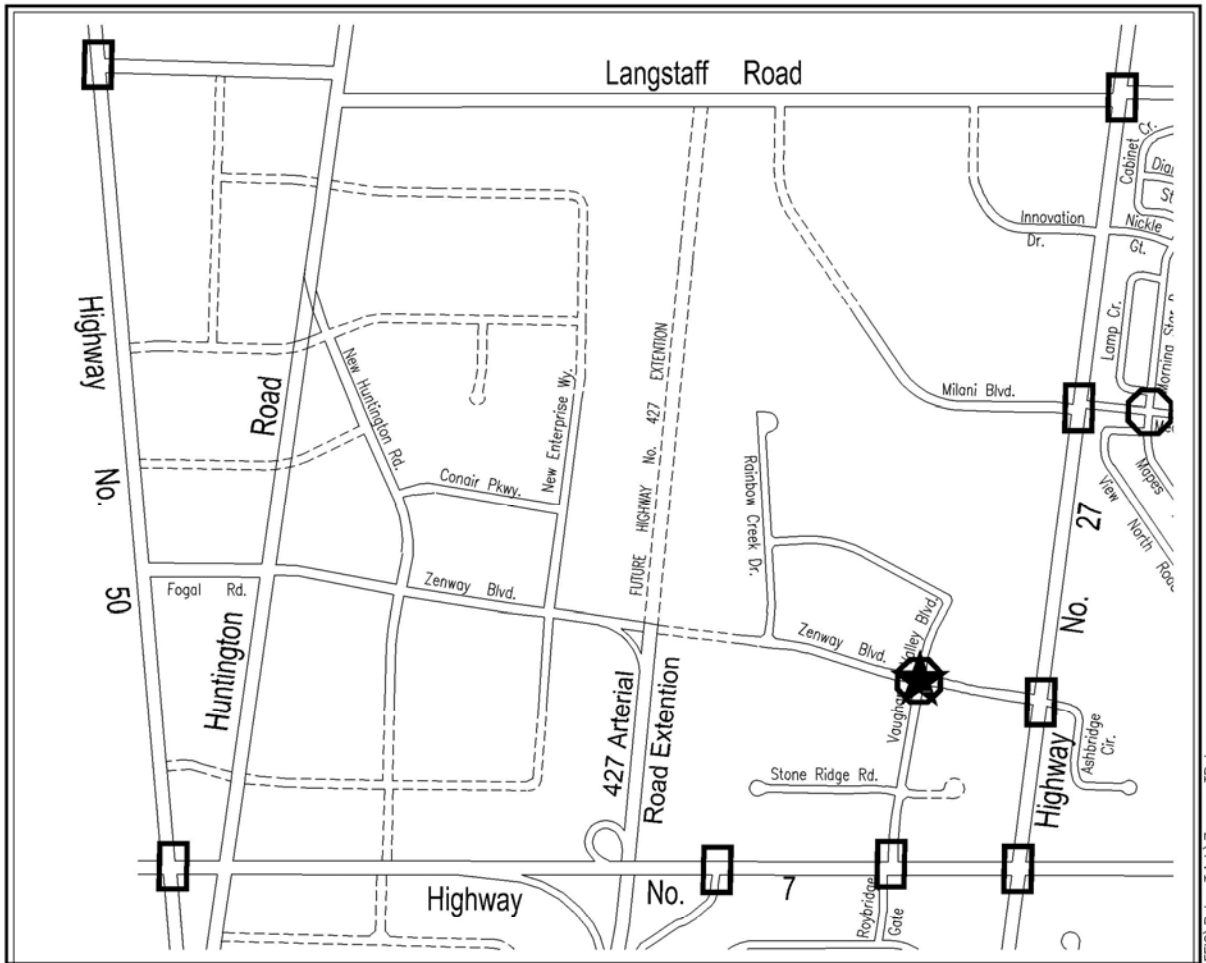
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Respectfully submitted,

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

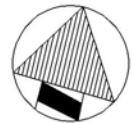
ATTACHMENT No. 1



ZENWAY BOULEVARD and VAUGHAN VALLEY BOULEVARD TRAFFIC SIGNAL REVIEW

LEGEND

- ★ INTERSECTION UNDER REVIEW
- ◻ EXISTING TRAFFIC SIGNALS
- ◯ EXISTING ALL-WAY STOP CONTROL



NOT TO SCALE