

COMMITTEE OF THE WHOLE – FEBRUARY 21, 2005

TRAFFIC INFILTRATION FOR VELMAR DRIVE AND VILLAGE GREEN DRIVE

Recommendation

The Commissioner of Engineering and Public Works recommends:

1. That this report on staff's findings regarding an assessment of traffic operations on Velmar Drive and Village Green Drive be received;
2. That no further action be required until after a comprehensive traffic study has been conducted by Engineering staff and a report summarizing the findings provided to Council for consideration; and
3. That a copy of this report be forwarded to Regional Municipality of York Transportation and Works Department and York Regional Police Services.

Purpose

To report on the findings of the traffic studies for both Velmar Drive and Village Green Drive as per Council direction.

Background

At its meeting on November 22, 2004, Council approved:

“That the recommendation contained in the following report of Councillor DiVona, dated November 15, 2004, be approved;

That the left turn advance signal at Weston Road and Astona Boulevard be reviewed; and

That the York Regional Police be requested to increase surveillance in the area.”

The recommendation of Councillor DiVona:

“That the City of Vaughan Engineering Department conduct a review of traffic infiltration onto Velmar Drive and Village Green along Rutherford Road and report on options and opportunities to implement traffic prohibitions or any other measure considered beneficial.”

Velmar Drive and Village Green Drive are feeder residential streets with a 23.0 metre right-of-way with two travel lanes. The existing posted speed limit on both roadways is 40 km/h. Refer to Attachment No. 1.

Velmar Drive

There are existing all-way stop controls on Velmar Drive at: Village Green Drive/Orr Avenue, Cartwright Blvd, Blackburn Boulevard, Santa Barbara Place, Kingsnorth Boulevard, Flushing Drive (south intersection) and at Astona Boulevard.

There are existing speed humps located on Velmar Drive at: Between #45/#51, between #153/#161, between #243/#249, between Radley Street and Santa Barbara Place, between #440/#446, between #548/#554 and a raised crosswalk on the north approach of the Velmar Drive

and Village Green Drive/Orr Avenue intersection.

On all approaches of the intersection of Velmar Drive and Village Green Drive/Orr Avenue there are raised centre medians.

Vaughan Fire and Rescue Services has advised that Velmar Drive is designated as a primary fire response route.

Village Green Drive

There are existing all-way stop controls on Village Green Drive at: Polo Crescent (east intersection) and at Woolacott Road.

There are no speed humps located on Village Green Avenue.

Vaughan Fire and Rescue Services has advised that Village Green Drive is designated as a primary fire response route

Traffic Studies

Staff collected speed and volume data on Velmar Drive south of Flushing Avenue from June 21, 2004 to June 23, 2004. The collected speed and volume data covered a 24-hour time period and is summarized below.

TIME	LOCATION	DIRECTION	AVERAGE SPEED	24 HOUR VOLUME
24 hour	South of Flushing Avenue	Northbound	43	1197
24 hour	South of Flushing Avenue	Southbound	44	1102

The average speeds on Velmar Drive range from 38 to 44 km/h. The total 24-hour traffic volume for the roadway is 2,299 vehicles. Typically, a roadway such as Velmar Drive can accommodate 24-hour traffic volumes not exceeding 8,000 vehicles.

Staff collected volume data on Velmar Drive south of Village Green Drive from November 29, 2004 to December 1, 2004. The collected volume data covered a 24-hour time period and is summarized below.

TIME	LOCATION	DIRECTION	24 HOUR VOLUME
24 hour	South of Village Green Drive	Northbound	1988
24 hour	South of Village Green Drive	Southbound	1772

The total 24-hour traffic volume for the roadway is, 3,760 vehicles. Typically, a roadway such as Velmar Drive can accommodate 24-hour traffic volumes not exceeding 8,000 vehicles.

Staff collected speed and volume data on Village Green Drive from November 29, 2004 to December 1, 2004. The collected speed and volume data covered a 24-hour time period and is summarized below.

TIME	LOCATION	DIRECTION	AVERAGE SPEED	24 HOUR VOLUME
24 hour	West of Novaview Crescent	Eastbound	41	1137
24 hour	South of Novaview Crescent	Westbound	41	1363

The average speed on Village Green Drive is 41 km/h for both directions. The total 24-hour traffic volume for the roadway is 2,500 vehicles. Typically, a roadway such as Village Green Drive can accommodate 24-hour traffic volumes not exceeding 8,000 vehicles.

Staff conducted an infiltration study for Village Green Drive between Rutherford Road/Velmar Drive and Weston Road/Astona Boulevard intersections during the AM and PM peak periods on September 21, 2004 in order to determine the amount of "cut through traffic". The following table summarizes the results of this investigation.

Infiltration Pattern	AM Peak Period 7:00-9:00		PM Peak Period 3:30-6:00	
	Inbound Volume	% of Entering Traffic	Inbound Volume	% of Entering Traffic
Rutherford Road to Weston Road	375	174, 46%		
Weston Road to Rutherford Road			741	230, 31%

Traffic infiltration is normally defined as "vehicular traffic passing through an area when the vehicle operator does not have a destination in the area". Generally, the threshold value above which through traffic is defined as infiltration is 30%. From the table above, the cut through traffic greatly exceeds the threshold.

Collision History

Staff reviewed the collision history for Velmar Drive and Village Green Drive for the period from January 1, 2001 to December 31, 2004. The following collisions occurred and are summarized below.

Date	Location/Intersection	Description
August 2001	Velmar Dr/Village Green Dr/Orr Ave	Eastbound vehicle made a left turn in front of northbound through vehicle
July 2003	Velmar Dr/Santa Barbara Pl	Northbound vehicle lost control through the intersection
March 2003	Velmar Dr 200 metres south of Rutherford Rd	Southbound vehicle 1 slowed for speed hump and southbound vehicle 2 did not slow hitting vehicle 1
December 2003	Velmar Drive near Topper Ct	Northbound vehicle lost control approaching Village Green Dr
February 2004	Village Green Dr near #203	Eastbound vehicle 1 hit westbound vehicle 2 making a turn into the driveway

Staff has requested York Region Transportation to review the existing northbound left turn advance phase at the Weston Road and Astona Boulevard intersection. A letter has been sent from staff to York Regional Police requesting frequent surveillance of the Weston Downs community.

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 and the necessary resources have been allocated and approved.

Conclusion

This report details staff's findings to date regarding an assessment of the traffic operations on Velmar Drive and Village Green Drive.

Given earlier Council direction based on the Santa Barbara Place Review report at the January 17, 2005 Committee of the Whole Meeting, staff will conduct a comprehensive traffic infiltration study for the entire Weston Downs community and report back on the findings to a future Committee of the Whole meeting of May 2, 2005.

Attachments

1. Location Map

Report prepared by

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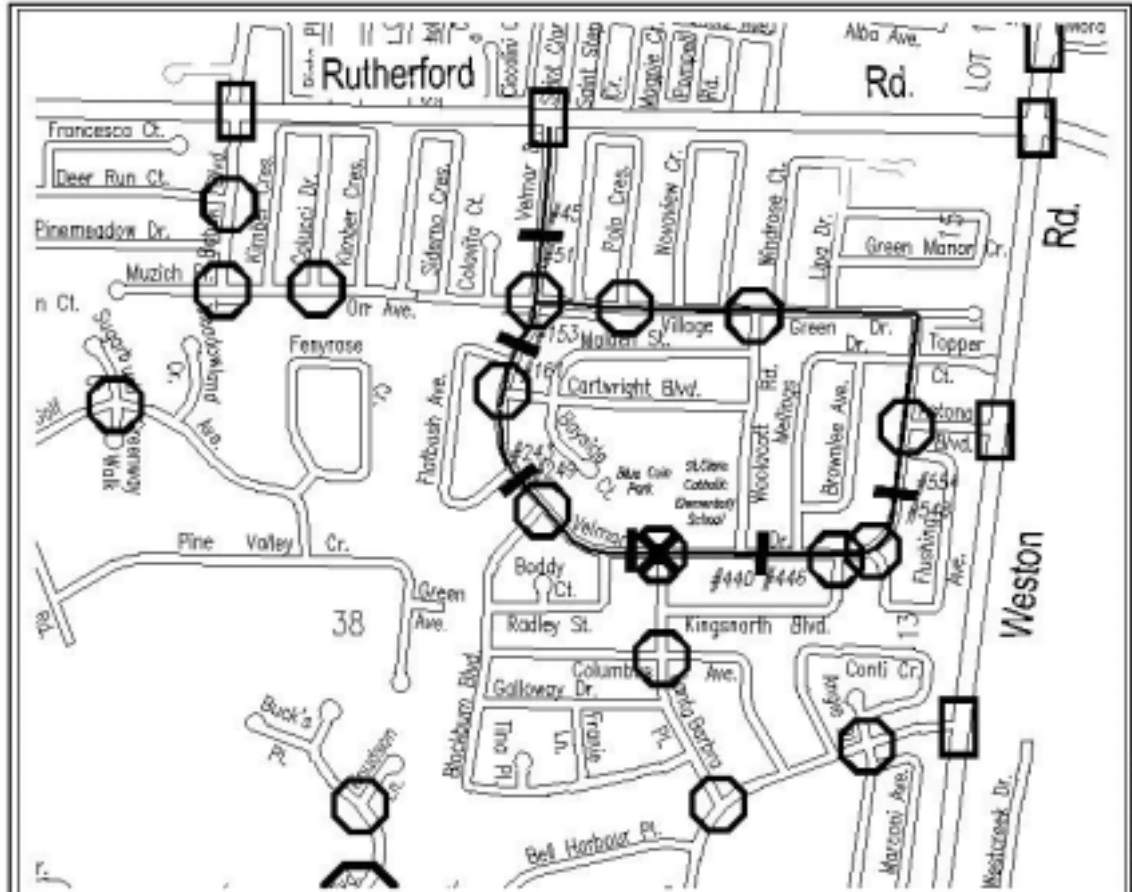
Respectfully submitted,

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

Gary Carroll, P. Eng.,
Director of Engineering Services

:MD

ATTACHMENT No. 1



VELMAR DRIVE AND VILLAGE GREEN DRIVE TRAFFIC INFILTRATION

LEGEND

- ROADWAYS UNDER REVIEW
- ◻ EXISTING TRAFFIC SIGNALS
- ◯ EXISTING ALLWAY STOP CONTROL
- ✕ EXISTING SUPERVISED SCHOOLCROSSING
- EXISTING SPEED HUMPS



NOT TO SCALE