

## **COMMITTEE OF THE WHOLE – DECEMBER 11, 2006**

### **WARD 4 SCHOOLS** **GLEN SHIELDS AVENUE PEDESTRIAN SIGNALS**

#### **Recommendation**

The Commissioner of Engineering and Public Works recommends:

That this report be received for information.

#### **Economic Impact**

There would be no impact to the 2007 School Crossing Guard Budget as the intent is to relocate two of the existing guards on Glen Shields Avenue. The estimated \$104,000 cost to install two Pedestrian Signals, pavement markings and signage has been referred to the Draft 2007 Capital Budget. The on-going costs to maintain the signals, pavement markings, signs, and School Crossing Guard would have an impact to future Operating Budgets.

#### **Purpose**

To review the feasibility of installing a Pedestrian Signal on Glen Shields Avenue in the vicinity of Glen Shields Elementary School and Our Lady of the Rosary Catholic School and on New Westminster Drive in the vicinity of St. Elizabeth High School.

#### **Background - Analysis and Options**

At its meeting on September 25, 2006 Council directed:

- “1. That staff investigate the need for and feasibility of a pedestrian signal along Glen Shields Avenue in the vicinity of Glen Shields Public School and Our Lady of the Rosary Catholic Elementary School;**
- 2. That staff investigate the need for and feasibility of a pedestrian signal or crosswalk along New Westminster Drive in the vicinity of St. Elizabeth Catholic High School; and**
- 3. That staff report to a future Committee of the Whole meeting in December 2006 with their findings.”**

#### **Glen Shields Avenue**

Glen Shields Avenue is a two lane, feeder roadway with a 24.0 metre right-of-way and an existing posted speed limit of 40 km/h. Our Lady of the Rosary Catholic School is located on Glen Shields Avenue in the vicinity of Bay Hill Drive. Glen Shields Public School is also located on Glen Shields Avenue in the vicinity of Spyglass Hill Road. The two schools are separated by approximately 170 metres of residential frontage. There are existing all-way stop controls located within the school areas as follows:

- Glen Shields Avenue and Bayhill Drive.
- Glen Shields Avenue and Spyglass Hill Road (south intersection).
- Glen Shields Avenue and Cog Hill Drive.

There are also existing school crossing guards at each of the above-mentioned all-way stop controls. The area is shown in Attachment No.1.

Engineering staff conducted a pedestrian study on Glen Shields Avenue on Tuesday, November 14, 2006, from 8:30 am. to 9:20 a.m., and from 2:50 p.m. to 4:00 p.m. to review the feasibility of installing a Pedestrian Signal on Glen Shields Avenue. The times selected correspond with the start and dismissal times of both schools. The weather on this day was cloudy with no rain. The study area was separated into two zones.

- Zone 1 – Glen Shields Avenue between Laurel Valley Court and Prairie Dunes Place.
- Zone 2 – Glen Shields Avenue between Prairie Dunes Place and Bob O’Link Avenue.

Please note that the existing school crosswalk at the intersection of Glen Shields Avenue and Cog Hill Drive was not included in this study. The results have been summarized below:

Time Period	Pedestrians Crossing Zone 1	Pedestrians Crossing Zone 2	Total Pedestrians Crossing Glen Shields Avenue
8:30 - 9:20 am	114 Children 71 Adults	80 Children 80 Adults	194 Children 151 Adults
2:50 - 4:00 pm	177 Children 113 Adults	78 Children 107 Adults	255 Children 220 Adults

In total, there were 475 and 345 pedestrians crossing Glen Shields Avenue during the p.m. and a.m. study times, respectively. (The adult classification included parents and high school students).

The majority of the children did cross Glen Shields Avenue at the school crossing guard locations. There were a small number of pedestrians crossing Glen Shields Avenue between Bay Hill Drive and Spyglass Hill Road in front of the residential homes between the two schools.

There are a significant number of pedestrians crossing Glen Shields Avenue within the two school areas, unfortunately one Pedestrian Signal would not be sufficient due to the distance between the two schools (approximately 170 metres), the areas where pedestrians choose to cross Glen Shields Avenue, and the roadway geometrics (curve). Therefore, two Pedestrian Signals are being proposed.

The intersection of Glen Shields Avenue and Bay Hill Drive would be the most appropriate location for a Pedestrian Signal as it would be located in front of Our Lady of the Rosary Catholic School. Also, there is an existing school crossing guard at this location, it is utilized by pedestrians and there is a walkway connecting to the playground of Glen Shields Public School. However, staff cannot install a traffic control device at the same location with an existing all-way stop control. In order to construct a Pedestrian Signal at this location the removal of the existing all-way stop control would be required.

Therefore, it is recommended that the Pedestrian Signal be proposed on the south approach of the intersection of Glen Shields Avenue and Quaker Ridge Drive. The existing school crossing guard at the intersection of Glen Shields Avenue and Bay Hill Drive be relocated to the proposed Pedestrian Signal. This location is approximately 120 metres north from Bay Hill Drive and still in the vicinity of Our Lady of the Rosary Catholic School.

It is also recommended that a Pedestrian Signal be proposed on the east approach to the intersection of Glen Shields Avenue and Bob O’Link Avenue. The existing school crossing guard

at the intersection of Glen Shields Avenue and Spyglass Hill Road be relocated to the proposed Pedestrian Signal.

The relocation of the two school crossing guards from their present locations to the Pedestrian Signals will provide a safer and more organized crossing for the children, and would be outside of the heavily congested areas in front of the schools.

Two Pedestrian Signals will provide drivers greater identification and warning of pedestrians crossing Glen Shields Avenue during the arrival/dismissal, morning and afternoon periods on a daily basis at each school. Each Pedestrian Signal has a construction cost of approximately \$52,000. Also, due to the distance between the two schools and the curvature in the roadway, two Pedestrian Signals are recommended.

#### New Westminster Drive

New Westminster Drive is a four lane, collector roadway with a 31.0 metre right-of-way and an existing posted speed limit of 40 km/h.

Engineering staff conducted a pedestrian study on Thursday, May 25, 2006, to determine the number of students crossing New Westminster Drive at St. Elizabeth High School. The time periods conducted were 7:45 a.m. to 8:45 a.m., and from 2:15 pm to 3:15 pm and the results are summarized below. Also summarized below are results from a previous study conducted for student crossing activity on September 23, 2004.

Time Period	May 25, 2006	September 23, 2004
7:45 am to 8:45 am	25	18
2:15 pm to 3:15 pm	47	51
Total Crossing Activity	74	69

Our recent study conducted in May 2006 shows a similar number of students crossing New Westminster Drive as in the previous 2004 study. The installation of a Pedestrian Traffic Signal is not recommended based on the recorded number of pedestrians and close proximity to an available signalized intersection at Clark Avenue and New Westminster Drive. Based on this review, a Pedestrian Signal is not recommended on New Westminster Drive.

#### Relationship to Vaughan Vision 2007

This traffic study is consistent with Vaughan Vision 2007 as to identify and implement innovative traffic management alternatives to improve general traffic safety (1.1.3).

#### Conclusion

Based on this review, it is concluded that pedestrian signals would be beneficial at the intersection of Glen Shields Avenue with Quaker Ridge Road (south approach) and at the intersection of Glen Shields Avenue and Bob O'Link Avenue (east approach). Funding in the amount of \$104,000 for pedestrian signals at both locations has been included in the Draft 2007 Capital Budget, for consideration by Budget Committee. A pedestrian signal should not be installed on New Westminster Drive in the vicinity of St. Elizabeth High School.

Should Council ultimately approve the installation of the aforementioned two pedestrian signals, the existing school crossing guards at the intersection of Glen Shields Avenue and Bay Hill Drive and at Glen Shields Avenue and Spyglass Road should be relocated to each of the new pedestrian signals.

**Attachments**

1. Location Map.

**Report prepared by:**

Tim Apostolopoulos, Traffic Analyst, Ext. 3120  
Mike Dokman, Supervisor, Traffic Engineering, Ext. 3118

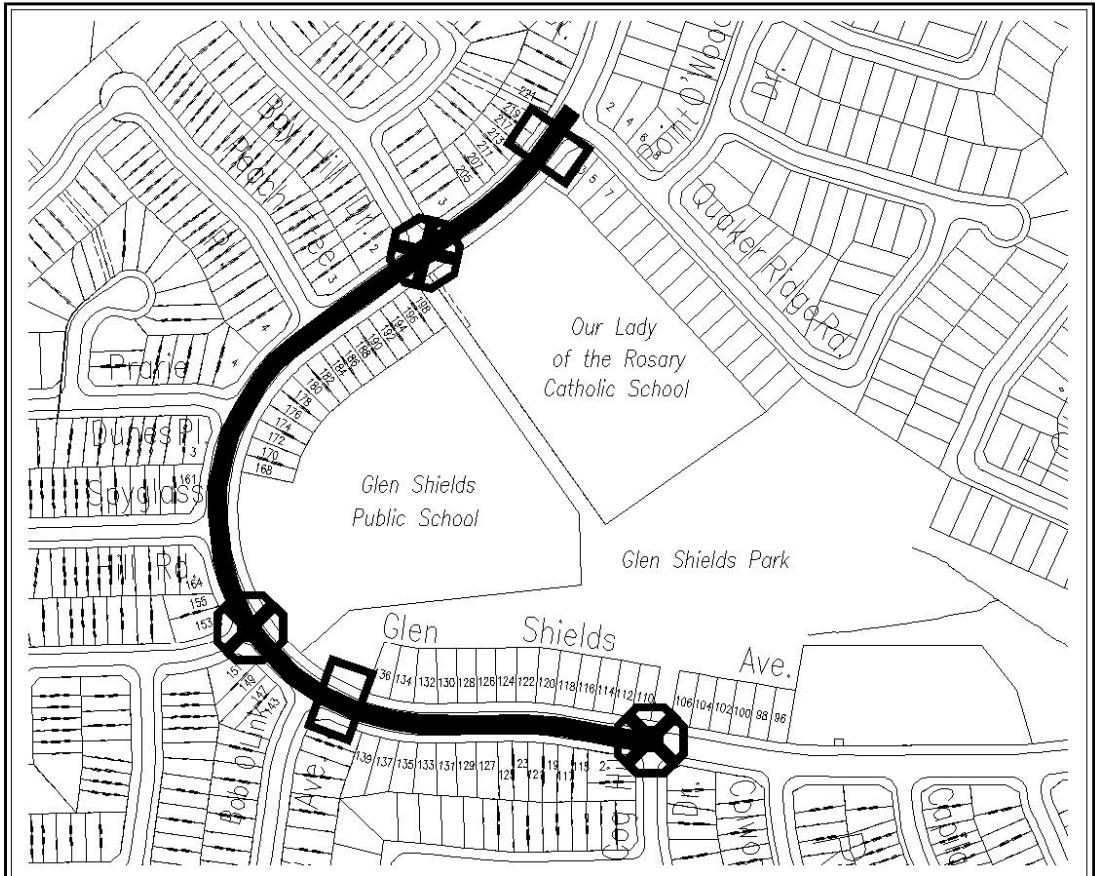
Respectfully submitted,

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

Gary Carroll, P. Eng.  
Director of Engineering Services





TA:mc

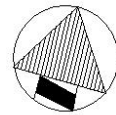
# ATTACHMENT No. 1



## GLEN SHIELDS AVENUE AREA UNDER REVIEW

### LEGEND

-  AREA UNDER REVIEW
-  PROPOSED INTERSECTION PEDESTRIAN SIGNALS
-  EXISTING ALL-WAY STOP CONTROL
-  EXISTING SUPERVISED SCHOOL CROSSING



NOT TO SCALE