

TRAFFIC SAFETY COMMITTEE

*HIS WORSHIP, THE MAYOR
AND COUNCILLORS*

SUBJECT: GAGLARDI WAY SAFETY IMPROVEMENTS

RECOMMENDATION:

1. THAT Council receive this report for information.

REPORT

The Traffic Safety Committee, at its meeting held on 2011 September 06, received and adopted the *attached* report to provide information regarding the results of the speed reader board on Gaglardi Way.

Respectfully submitted,

Councillor S. Dhaliwal
Chair

Councillor C. Jordan
Vice Chair

Councillor P. McDonell
Member

Copied to:	City Manager Deputy City Managers Director Engineering RCMP – OIC Burnaby Detachment
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TO: CHAIR AND MEMBERS
TRAFFIC SAFETY COMMITTEE

DATE: 2011 August 31

FROM: DIRECTOR ENGINEERING

FILE: 38000 20
Ref: Traffic Safety

SUBJECT: GAGLARDI WAY SAFETY IMPROVEMENTS

PURPOSE: To provide information regarding the results of the speed reader board on Gaglardi Way

RECOMMENDATION:

1. **THAT** The Committee receive and forward this report to Council for information.

REPORT**BACKGROUND**

In 2010, Council approved the installation of a speed reader board and vehicle pull-outs along Gaglardi Way between Burnaby Mountain Parkway and Broadway because of ongoing speeding concerns and the relatively high crash rate. Subsequently in early 2011, a vehicle pull-out was installed on the west side of the road adjacent to the southbound travel lanes to provide the RCMP a safe location to monitor and pull over speeding motorists. The speed reader board was installed just north of this vehicle pull-out to remind speeding motorists to slow down through its electronic displays and to continuously monitor traffic speeds. The RCMP was consulted prior to initiating this project and supported the placement of the enforcement pull-out and the speed reader board.

The solar powered speed reader board was fully activated on 2011 April 18 (see Figure 1). A connection to overhead wires will be completed in the future to provide a backup power source and to enable remote monitoring and communication with the speed reader board. The speed reader board is currently programmed to have a blank display for all vehicles travelling less than the speed limit of 60 km/h. For vehicles travelling between 60–80 km/h, the board would display the vehicle's speed. For vehicles travelling in excess of 80 km/h, the board would display a flashing "60 km/h – SLOW DOWN" message. The speed reader board can be reprogrammed to provide a variety of other different messages or actions as desired. This flexibility would help to keep the speed reader board's message fresh for motorists that use the route frequently.



Figure 1 – Photo of the speed reader board and vehicle pull-out area (looking east on Gaglardi)

DISCUSSION

To assess the effectiveness of the speed reader board on vehicle speeds, two baseline studies were completed. In Spring 2010, traffic count was conducted which recorded a daily volume of 8,300 northbound and 9,000 southbound. In 2011 prior to fully activating the speed reader board, the board was used to record the 85th percentile vehicle speed (the speed at which 85 percent of all vehicles were travelling at or below) but without any visible displays to motorists. At that time, the 85th percentile vehicle speed was determined to be between 90-96 km/h. The results also showed that most motorists reduced their speed by at least a few km/h as they approached the speed reader board despite the lack of any visual displays.

After the speed reader board was fully activated in 2011 April, the 85th percentile vehicle speed was determined to be in the range of 72-86 km/h. Although this is still above the speed limit of 60 km/h, it does show that the presence of the speed reader board reduced the 85th percentile speed by an average of about 14 km/h.

The speed detection zone covers a distance of approximately 300m and the board is able to track the speed of the vehicle entering and exiting the detection zone. Figure 2 shows a comparison of vehicle exiting speeds before and after activation of the speed reader board. After activation of the speed reader board, average exiting speeds across all days of the week is approximately 80 km/h. Prior to activation, the average exiting speed was higher, in the range of 91 km/h. A similar result was found for entering speeds, in that the speed reader board consistently reduced the speed of approaching vehicles across all days of the week, especially on weekends.

Figure 2

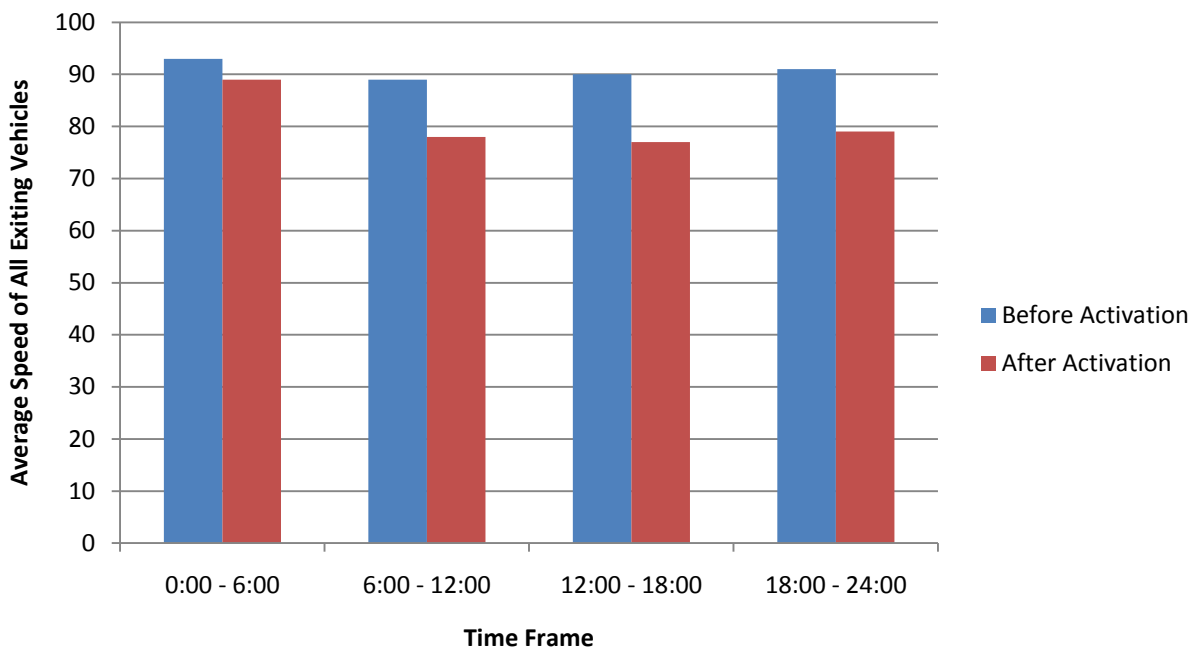


Figure 2 – Average Exiting Speed by Time of Day

It should be noted that since the full activation of the speed reader board, the RCMP have also monitored and enforced the speed limits along Gaglardi utilizing the vehicle pull out area. Therefore the data presented above reflects the combined results of police enforcement and the speed reader board. Thus far, the reduction of speeds observed has been sustained since the installation of the speed reader board. This is unlike some previous studies that showed vehicle speeds were only temporarily reduced for about one week with the use of speed reader boards alone. The data collected with the speed reader board will be shared with the RCMP to assist them in strategically deploying resources for speed enforcement. It is hoped that a sustained reduction in vehicles speed will result in a measurable decrease in the collision rate along Gaglardi and increased public safety.

To: Traffic Safety Committee
From: DIRECTOR ENGINEERING
Re: Gaglardi Way Safety Improvements
2011 August 31 Page 4

Based on the positive results of the initiative along Gaglardi Way, the acquisition of an additional speed reader board will be pursued in the future with funding assistance from ICBC. In consultation and coordination with the RCMP, high crash locations where vehicle speeds are a contributing factor will be targeted as a priority for the additional speed reader board. A more mobile application may be considered if circumstances warrant.

CONCLUSION

An analysis of the data collected before and after the activation of the speed reader board on Gaglardi Way, in conjunction with police speed enforcement, has resulted in a measurable decrease in vehicle speeds to date. Ongoing data collection and analysis will be undertaken to fully maximize the safety benefits of the speed reader board. Subject to Council approval, a second speed reader board will be considered and included in a future Capital program with funding assistance from ICBC.

This report is provided for the information of Committee and Council.

Lambert Chu, P.Eng.
DIRECTOR ENGINEERING

MPR/LSC/br

Copied: City Manager
Deputy City Manager
RCMP – OIC Burnaby Detachment Chief Supt. Dave Critchley