



City of Richmond

Report to Committee

To: Public Works and Transportation Committee
From: Victor Wei, P. Eng.
Director, Transportation
Date: March 27, 2017
File: 01-0150-20-
THIG1/2017-Vol 01
Re: Installation of Dynamic Message Sign on Southbound Knight Street

Staff Recommendation

That the staff report titled "Installation of Dynamic Message Sign on Southbound Knight Street" dated March 27, 2017, from the Director, Transportation, to support regional transportation management in the Metro Vancouver area, be received for information.

Victor Wei, P. Eng.
Director, Transportation
(604-276-4131)

Att. 1

REPORT CONCURRENCE		
ROUTED TO:	CONCURRENCE	CONCURRENCE OF GENERAL MANAGER
Engineering	<input checked="" type="checkbox"/>	
Real Estate Services	<input checked="" type="checkbox"/>	
REVIEWED BY STAFF REPORT / AGENDA REVIEW SUBCOMMITTEE	INITIALS: 	APPROVED BY CAO

Staff Report

Origin

At the March 18, 2015 meeting of the Public Works and Transportation Committee, members received a staff report for information regarding the installation of a dynamic message sign by the Ministry of Transportation & Infrastructure (the Ministry) to provide northbound road users on Knight Street with up-to-date travel information. Installation of this sign is currently proceeding.

Continuing the expansion of Intelligent Transportation Systems (ITS) that benefit Richmond's road users by allowing for more effective monitoring and management of traffic incidents, as well as the provision of real-time information to the public, this report describes the forthcoming installation of a complementary dynamic message sign by the Ministry to provide southbound road users on Knight Street with current travel information.

Analysis

Dynamic Message Signs

The Ministry has installed a number of dynamic message signs (DMS) along provincial highways in Metro Vancouver that provide travellers with real-time information on road conditions such as travel times and wait times at Canada-US border crossings. Figure 1 is an example of a DMS sign on southbound Highway 99 mounted north of the Cambie Road overpass.



Figure 1: DMS on Southbound Highway 99

Alex Fraser Bridge Capacity Improvement Project

On January 19, 2017, the Ministry announced the Alex Fraser Bridge Capacity Improvement Project that will add a seventh counter-flow lane to the bridge by slightly narrowing the six existing lanes and removing the shoulders. A moveable barrier will allow four lanes of traffic northbound during the morning peak period and four lanes southbound for the afternoon peak period where it will remain for the rest of the day. The project also includes adding 13 dynamic message signs placed at key decision points on highways throughout the Lower Mainland (see Attachment 1). The signs will provide commuters with real-time information about crossing delays for four Fraser River crossings (i.e., Massey Tunnel, Alex Fraser Bridge, Queensborough Bridge, and Port Mann Bridge) to allow drivers to make timely decisions about which route to travel. Completion is anticipated in Spring 2018.

Proposed DMS on Southbound Knight Street

Of the 13 new dynamic message signs to be located throughout Metro Vancouver, one is proposed in Richmond, along southbound Knight Street near Bridgeport Road. The proposed location of the sign is within the City right-of-way of southbound Knight Street approximately

200 m south of the Bridgeport Road overpass (see Figures 2 and 3). Preliminary work is underway and 50 per cent of the design drawings are targeted to be completed by the end of April 2017.



Figure 2: Aerial View of Proposed DMS on Southbound Knight Street 200 m south of Bridgeport Road



Figure 3: Proposed DMS Concept on Southbound Knight Street 200 m south of Bridgeport Road

The new sign will expand the breadth of information on current travel conditions available to residents, commuters and visitors of Richmond. The DMS will display weather, traffic congestion, safety, and road condition messages for the general public, as well as Amber Alerts when required. Staff would also have the opportunity to input information such as unscheduled traffic incidents. The shared information will help both the City and the Ministry to better manage any traffic issues that may impact roadways under the jurisdiction of both agencies.

Financial Impact

None. The Ministry is funding the installation and maintenance costs associated with the dynamic message sign. Staff time to facilitate its installation is expected to be absorbed within regular resources.

Conclusion

The installation of a dynamic message sign on southbound Knight Street will further enhance the ability of both the Ministry of Transportation & Infrastructure and the City to more effectively manage traffic operations and improve the safety and reliability of transportation routes that, in turn, will enhance the flow of people, goods and services within and beyond Richmond.



Joan Caravan
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Robert Gilchrist
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Att. 1: Proposed Locations of 13 New Dynamic Message Signs as part of the Alex Fraser Bridge Capacity Improvement Project

**Proposed Locations of 13 New Dynamic Message Signs
as part of the Alex Fraser Bridge Capacity Improvement Project**

